



REPORT

Jonas Arnberg, HUI Fredrik Junkka, HUI

2011 Report

THE NON-DUTY PAID MARKET FOR CIGARETTES IN SWEDEN





Preface - HUI Report 2011

Sweden is continuously being exposed to a highly lucrative trade in illicit cigarettes, herein referred to as non-domestic duty paid (NDDP). Cigarettes in the NDDP market generally falls into four categories: counterfeit (imitations of registered trademarks), contraband (smuggled goods, sold in a country where they have not been subject to local excise taxation), "illicit whites" (cigarettes sold below the level of minimum taxation for legitimate products also known as "cheap whites"), and tourist imports (cigarettes bought by Swedish and foreign tourists during stays abroad and legally brought into Sweden). The ongoing trade with illicit tobacco is without a doubt a serious problem and, because of this, the Swedish Tobacco Manufacturers' Association has for the fourth consecutive year commissioned the Swedish Retail Institute (Handelns Utredningsinstitut – HUI) to quantify the NDDP problem in Sweden. In 2011, a tobacco company outside the Tobacco manufacturer's association also supported the study.

The Swedish Retail Institute's report indicates that the size of the NDDP sector continues to be significant. It accounts for almost 12 percent of the Swedish cigarette market, which translates into an estimated 1.25 billion SEK in lost excise taxes.

Although the size of the dark market has decreased since last year's survey the decrease is mostly in Duty Free cigarettes and smuggling of cigarettes from Eastern Europe¹. The phenomenon known as "illicit whites" appears to increase compared to the previous year. The financial impact in lost tax revenues is still very large. The organized trade in illegal NDDP cigarettes poses a threat to society since it indicates that international criminal networks are very active on Swedish territory.

From a societal standpoint the problems relating to illicit tobacco can be connected to a broad spectrum of illegal activities, related to organized crime. The profits generated by the NDDP sector help finance criminal expansion and other illegal activities. From a global experience we can see that once cigarette

¹ Poland and former CIS



smuggling routes are established they can be used to smuggle narcotics, weapons and to facilitate human trafficking.

According to Synovate **70 percent of Swedes want the Government to allocate more resources to stop cigarette smuggling,** and 68 percent want better supervision of stores to stop the sale of illicit cigarettes, with only 9 percent not favouring such measures. The Swedish people clearly want the government to do more to fight this serious problem.

The Swedish Tobacco Manufacturers' Association advocates a number of concrete proposals that would reduce the smuggling of tobacco products. Please contact the Swedish Tobacco Manufacturers' Association's CEO, Martina Elfgren Lilja (martina.elfgrenlilja@svenskhandel.se, +46 10 47 18 532), for further information.





EXECUTIVE SUMMARY

A large part of the cigarettes consumed in Sweden are not taxed in Sweden. We refer to these cigarettes as non-domestic duty paid (NDDP) since they are not bought through legal channels in Sweden and thus do not create any tax revenues for the Swedish economy. Handelns Utredningsinstitut (HUI) has been commissioned by the Swedish Tobacco Manufacturers Association to estimate the size of the NDDP market in Sweden. This is the fourth time since 2008 that HUI estimates the size of this market.

In order to estimate the size of the NDDP market in Sweden in 2011, HUI has conducted three surveys:

- A pack survey was conducted where 10 000 packets of cigarettes from 29 Swedish cities were analyzed. HUI commissioned the CPM Group to perform the survey. By identifying the country of origin of each packet we have been able to estimate the size of the NDDP market.
- 2. An "illicit whites" survey was conducted to identify brands of cigarettes that are frequently sold at prices below legitimate products because Swedish duty has not been paid. These cigarettes are referred to as "illicit whites". HUI commissioned the security firm Securitas to have civilian clothed personnel visit 319 retail outlets in twelve Swedish cities requesting to buy cheap cigarettes. If the pack was sold for less than 37 SEK the brand of the pack was taken note of. The results from the "illicit whites" survey have been matched to the results from the pack survey in order to estimate the share of "illicit white" cigarette brands as a proportion of total cigarette consumption in Sweden.
- 3. A **consumer survey** was conducted with the assistance of Synovate. The survey was divided into two parts. In the first part, 610 smokers were interviewed. In the second part, which was directed towards both smokers and non-smokers, 1 037 persons were

² "Cheap whites" are generic brands that are frequently sold at prices below legitimate products because Swedish duty has not, or partly not, been paid. These products frequently have Swedish warning texts.





interviewed. The interviews have provided additional information on the NDDP market for cigarettes as well as the consumer attitudes towards purchasing such cigarettes.

The main conclusions from the report are as follows:

- The total proportion of cigarettes consumed in Sweden without domestic taxes being paid is
 estimated at 11.6 percent. This estimation is, as in the previous studies from 2008, 2009 and
 2010, on the low side since counterfeit cigarettes with Swedish warning texts are not
 included.
- From the pack survey, we estimate that products with foreign language warning text constitute 9 percent of the total cigarette consumption in Sweden. The estimate of this sector has decreased more than two percent compared to earlier studies. This drop in the share of NDDP cigarettes is to a large extent explained by a drop in the number of duty free cigarettes.
- HUI estimates the "illicit white" segment to constitute up to an additional 2.5 percent of
 total consumption. The Securitas personnel performing the "illicit whites" survey reports
 that 37 percent of the retail outlets visited sold cigarettes classified as "illicit whites".
 Furthermore, a large number of the retail outlets visited by Securitas did not register the
 cigarette packs at the check-outs, thus selling cigarette packets without paying the correct
 taxes.
- We calculate the cost in tax losses for the national economy accruing to the NDDP sector to 1.25 billion SEK, representing lost tax revenues on 711 million cigarettes.
- A high tax pressure on cigarettes will help to reduce cigarette consumption. This public
 health objective is however undermined by the extensive availability of extremely cheap,
 untaxed cigarettes.
- The consumer survey on the consumption of NDDP cigarettes shows that 44 percent of the
 respondents think it is OK to buy cheap cigarettes brought into Sweden from other
 countries. Furthermore, two thirds of the respondents believe that it is common among
 Swedish smokers to buy cheap cigarettes from abroad.



- Organised crime's involvement in the smuggling of cigarettes is assessed to be substantial.
 Therefore, an increasing demand of NDDP cigarettes threatens to further increase criminal activity. The Swedish Customs Authority reached a new all time high in 2010 with their seizure of 76.7 million cigarettes. It indicates that a significant number of cigarettes are brought into Sweden illegally.
- Public opinion is supportive of stronger government measures to prevent smuggling and illicit sales of cigarettes, according to an opinion poll conducted by Synovate and presented in this study for the first time. Eight times as many respondents were favourable compared to those against.







TABLE OF CONTENTS

1	Introduction	9
1.1	Background	9
1.2	Method	9
1.3	The Cigarette Market	10
1.3.1	Cigarette Consumption in Sweden	10
1.3.2	The Price of a Pack of Cigarettes	13
1.3.3	Illicit Tobacco – an Explanation	14
2	Estimating the Non-Domestic Duty Paid Sector	18
2.1	Total Estimate of the NDDP Sector	18
2.2	The Pack Survey	18
2.2.1	Method	18
2.2.2	Results	19
2.3	The "Illicit Whites" Survey	24
2.3.1	Method	24
2.3.2	Results	25
2.4	Estimated Tax Losses Caused by the Non-Domestic Duty Paid Sector	
2.4.1	Reliability	27
2.5	Consumer Survey	
2.5.1	Method	
2.5.2	Results	29
3	Conclusions	39
4	References	Δ 1





1 INTRODUCTION

1.1 Background

A large part of the cigarettes consumed in Sweden are not taxed in Sweden. We refer to these cigarettes as non-domestic duty paid (NDDP) since they are not bought through legal channels in Sweden and thus do not create any tax revenues for the Swedish economy. Some of these NDDP cigarettes are bought by Swedish tourists during stays abroad. Some are smuggled into the country, either by private persons or organised crime. Some are internet purchases and therefore often tax avoided. There are also cases of potential tax fraud where products are sold in stores at prices below tax and expenses. The categories presented above constitute the NDDP sector of cigarette consumption in Sweden.

In order to estimate the size of the NDDP market for cigarettes in Sweden, HUI, on behalf of the Swedish Tobacco Manufacturers Association, carried out a study of this market in 2008 as well as follow up studies in 2009 and 2010. These studies have shown that the consumption of NDDP cigarettes in Sweden constitute a large share of the total annual cigarette consumption in Sweden. The 2011 study is the fourth study HUI carries out on the NDDP market. The purpose of the study is, in addition to estimating the size of the NDDP market for cigarettes in Sweden in 2011, also to measure consumer attitudes towards the consumption of NDDP cigarettes.

1.2 Method

In order to estimate the size of the NDDP market for cigarettes in Sweden and measure consumer attitudes towards the consumption of NDDP cigarettes HUI has carried out three surveys:

Pack survey

HUI has commissioned the CPM Group to perform a "pack survey" where 10 000 packets of cigarettes are collected in 29 cities all over Sweden. By determining the country of origin for these packets of cigarettes we are able to identify the number of packets that originate from abroad. This allows us to estimate the size of the market for domestically untaxed cigarettes with foreign warning texts in Sweden.





"Illicit whites" survey

In addition to the pack survey another survey has been conducted to identify "illicit white" brands, also called "cheap whites". "Illicit whites" are generic brands frequently sold at prices below legitimate products because Swedish duty has not, or partly not, been paid. These products frequently have Swedish warning texts and thus cannot be identified through the pack survey. HUI has commissioned the security firm Securitas to have civilian clothed personnel visit retail outlets in twelve Swedish cities requesting to buy cheap cigarettes. If the pack was sold for less than 37 SEK the brand of the pack was noted. HUI matched the result from the "illicit whites" survey with the result from the pack survey in order to estimate the share of "illicit white" cigarette brands as a proportion of total cigarette consumption in Sweden. This has allowed us to identify the total consumption of "illicit white" brands from the pack survey results.

Consumer and public survey

HUI has conducted two surveys. The first, directed towards 610 smokers, investigated the respondents' attitudes towards cheap cigarettes brought in from abroad and also their perception of the magnitude of the consumption of cheap cigarettes in Sweden. The other survey, with 1 037 respondents, was directed towards both smokers and non-smokers and investigated their attitudes towards and knowledge about cheap cigarettes' link to criminal activities and the efforts of the government to counteract that criminality. Both consumer surveys provided complementary information on the NDDP market for cigarettes and the attitude towards purchasing such cigarettes.

1.3 The Cigarette Market

1.3.1 Cigarette Consumption in Sweden

In 2010, according to FHI³, 13 percent of the Swedish men and 12 percent of the Swedish women were smoking cigarettes on a daily basis. The trend is a steadily declining share of smokers since 1980. In table 1.1, data on cigarette sales and smokers share of total population in Sweden during the period 1980-2010 is presented.

³ This data is the latest available update on cigarette smoking from Folkhälsoinstitutet (FHI).



Table 1.1 Registered sales of cigarettes in numbers per person aged 15 and older and smokers share of total population age 16-84⁴, 1980-2010

Year	Cigarette sales per person aged 15+	Annual percentage changes in cigarette sales per person 15+	Smokers share of total population age 16-84*
1980	1780		32,5%
1981	1710	-3,9%	30,5%
1982	1790	4,7%	31,0%
1983	1700	-5,0%	29,0%
1984	1690	-0,6%	30,5%
1985	1630	-3,6%	28,5%
1986	1630	0,0%	28,0%
1987	1610	-1,2%	27,5%
1988	1620	0,6%	27,0%
1989	1570	-3,1%	26,0%
1990	1510	-3,8%	26,0%
1991	1490	-1,3%	25,0%
1992	1550	4,0%	26,0%
1993	1230	-20,6%	23,0%
1994	1220	-0,8%	23,0%
1995	1130	-7,4%	23,0%
1996	1150	1,8%	22,0%
1997	830	-27,8%	19,5%
1998	800	-3,6%	19,0%
1999	960	20,0%	19,0%
2000	980	2,1%	19,0%
2001	1000	2,0%	19,0%
2002	1030	3,0%	17,5%
2003	980	-4,9%	17,5%
2004	930	-5,1%	16%
2005	930	0,0%	15%
2006	890	-4,3%	14%
2007	810	-9,0%	14%
2008	770	-4,9%	13%
2009	786	2,1%	12%
2010			13%

Source: CAN (2008), SCB (2010) and FHI (2011)

*SCB 1980-2003 and FHI 2004-2011

-0000

 $^{^4}$ This data is the data from CAN available to HUI. There is unfortunately no official data starting at age 18, the legal age limit for buying and consuming tobacco.



When comparing cigarette sales data with the SCB/FHI data on daily smokers, discrepancies can be found between the numbers. This is most evident in data from the late 1990's and early 2000's. In 1997 a 3.5 percentage point decrease in the share of smokers from 22 percent to 19.5 percent was followed by a plummet in sales numbers by 30 percent. This trend was later reversed when sales again were up almost 25 percent, in spite of the share of smokers now being constant at a lower level. In 2007 the registered sales of cigarettes were still higher than the numbers for 1998. Meanwhile the number of smokers as part of total population dropped an additional 5 percentage points during the same period.



Diagram 1.1 Annual cigarette sales per person aged 15+5, 1980-2010

Source: CAN (2010)

HUI argues, with support in earlier research, that these discrepancies in the data are due to variations in the size of the non domestic duty paid (NDDP) sector. This sector contains all NDDP cigarettes brought into Sweden, legally or illegally, from abroad. We further argue that changes in the size of the NDDP sector are triggered by changes in price differences between countries. In the

⁵ This data is the data from CAN available to HUI. There is unfortunately no official data starting at age 18, the legal age limit for buying and consuming tobacco..

-0000



case of Sweden changes in price differences mainly accrue from tax rises and to some extent foreign currency exchange rates.

Because of the NDDP consumption of cigarettes, the official data on cigarette sales does not provide us with the total picture of cigarette consumption in Sweden. Official data only cover the <u>registered</u> and <u>taxed</u> sale of cigarettes. The vast majority of these cigarettes are distributed by Swedish Match Distribution. NDDP cigarettes, on the other hand, do not create any tax revenues for the Swedish economy and they do not show up in official statistics.

Some of the NDDP cigarettes are smuggled into Sweden on a large scale and are thus avoiding local excise taxation. On other occasions cigarettes are brought in by travellers back from vacation abroad or from cross-border shopping, sometimes in abuse of the EU personal consumption indicative limits for private import and sale of tobacco. In addition, the emergence of internet sales has made it easier to buy cheap foreign cigarettes without paying taxes, no longer requiring anyone to physically travel abroad. Earlier research by Granberg and Trolldal (2005) and Persson (1999), as well as cigarette seizures by Swedish Customs indicate that the NDDP sectors share of yearly cigarette consumption is substantial.

1.3.2 The price of a pack of cigarettes

In this section the average price of a pack of cigarettes in Sweden, including taxes and VAT, will be illustrated. In the example an average pack of 19 cigarettes is sold for 45.03^6 SEK at retail outlets. The price for the cigarette pack, excluding taxes but including production and distribution costs and the retailers' margin, is 11.44 SEK. To this a fixed tobacco tax of 24.13 SEK per pack as well as a value related Ad Valorem tax of 0.45 SEK, or 1 percent of the retail trading price, is added. Finally the regular VAT, 20 percent of the store pack price, is added to the calculation. This result in a 74.6 percent tax share for a packet of cigarettes sold for 45.03 SEK.

۷

⁶ Estimated average price of Swedish Tobacco Manufacturers' Association



Table 1.2 Price example for a pack of 19 cigarettes, 2011, SEK

	SEK	Percent
Price excluding tax	11.44	25
Fixed tobacco tax	24.13	54
Value related tobacco tax	0.45	1
VAT	9.01	20
Retail trade price	45.03	100

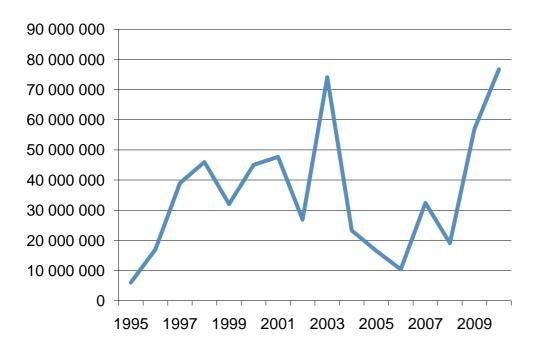
Source: Skatteverket 2011 and Swedish Tobacco Manufacturers' Association

1.3.3 Illicit tobacco – an explanation

The price difference between markets gives criminals an incentive to bring in cigarettes to Sweden from cheaper markets or to avoid tax payments. Cigarette smuggling has existed for decades in many countries, and organised crime plays a large role in this process. Data on Swedish Customs seizures indicate that cigarette smuggling first became a significant concern in Sweden following the sharp tax increase in 1997. In 2003, seizures reached its highest number so far, when 74 million cigarettes were seized. In 2009 almost 57 million cigarettes, corresponding to 98 million SEK in taxes, were seized (Swedish Customs, 2009). In 2010 a new record was noted with the seizures of 76.7 million cigarettes, corresponding to 131.9 million SEK in taxes. Swedish Customs states that more than half of the seized cigarettes are counterfeits. Unfortunately this study's methodology at the time of publication does not allow us to identify counterfeits, leading to an underestimation of the total NDDP consumption. The ambition is to develop the methodology to include counterfeit data in future, following analysis of the packs with brands belonging to the participating companies.



Diagram 1.2 Seizures of cigarettes by Swedish Customs 1995-2010



Common smuggling methods:

- Lorries / containers are sent under cover
- Cars are packed with cigarettes and cross the border
- Boats are used to pick up or drop off consignments
- Individuals or groups travelling to and from countries pack their luggage with cigarettes

Counterfeits

Counterfeits are illicitly produced cigarettes manufactured to look like well known cigarette brands. China and Eastern Europe are common places of manufacture. Visually, these copies can very closely resemble the originals. Swedish Customs estimate that the majority of cigarette seizures in 2010, (more than 38.4 million), were counterfeit cigarettes. Unfortunately this study's methodology did not allow us to identify counterfeits at the time of publication. Information on counterfeit data will be made available in future when such data is available following the analysis of packs with brands belonging to the participating companies.

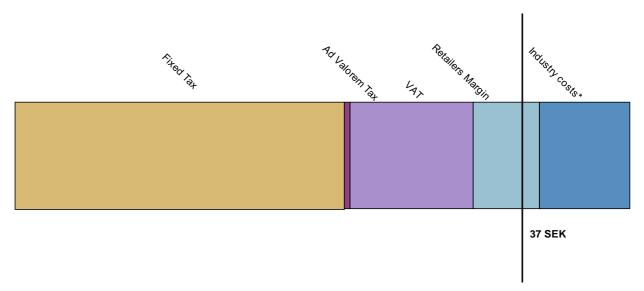


"Illicit whites"

"Illicit whites" (also called "cheap whites") are generic cigarette brands that are frequently sold at prices below the price of legitimate products because Swedish duty has not, or partly not, been paid. There are a number of these cigarette brands on the Swedish market. "Illicit white" brands for sale in Sweden frequently have Swedish warning texts, and can therefore be difficult for the layman to identify as untaxed products.

In diagram 1.3 below an illustration is made of the different costs included in the price of a packet of cigarettes. The diagram illustrates that the majority of the price consists of tax costs and that cigarettes sold too cheap cannot have full tax coverage.

Diagram 1.3 Illustration of the cost distribution for a pack of cigarettes, 2011



^{*}Industry costs include all needs to cover variable costs, such as costs of goods, distribution and marketing, in addition to contributing to fixed operational costs and eventual profits.

Source: HUI (2011), Skatteverket (2011)

The minimum total tax for one package containing 19 cigarettes that has been fully taxed according to Swedish legislation is 24.13 SEK in fixed tax and 1 percent in Ad Valorem tax. To this the VAT, 20 percent of the pack price, is added (Skatteverket 2011). In the following sections of this study, calculations are made of the "illicit whites" share of the Swedish tobacco market. An assumption is made that cigarettes sold for 37 SEK or less cannot be fully taxed. Diagram 1.3 above shows how the costs for a pack of cigarettes are distributed. This illustration shows that it is not possible to sell

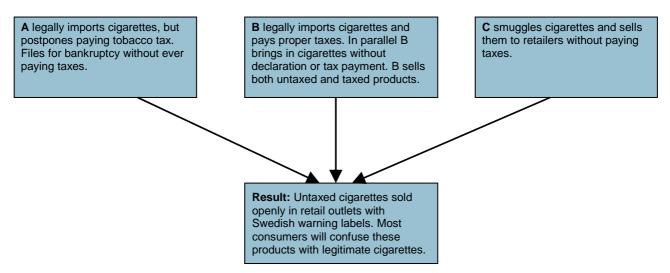


a packet of cigarettes for 37 SEK or less without generating losses as the tobacco industry does not generate any income to cover cost of goods, salaries, marketing, etc. Furthermore; a dishonest, but rational, retailer will not sell an illegal product in his store if it generates lower margins than a legal product. This means that the margins offered by illicit products need to be higher than those that are legitimate in order to be attractive, which is only possible through tax evasion.

How can "illicit whites" be sold below costs?

"Illicit whites" can be sold at a lower price since they are not fully taxed. There are different ways to import these cigarettes to Sweden and then distribute them to retail outlets without paying the tobacco excise tax. In diagram 1.4 three examples are presented.

Diagram 1.4 Illustration of different methodologies to distribute "cheap whites"



Company A legally imports cigarettes but postpones the payment of the tobacco excise tax. The company sells the cigarettes to distributors and/or resellers at a cheaper price than if the tax was covered. The company then files for bankruptcy without ever paying the tobacco taxes.

Company B legally imports cigarettes and pays proper excise taxes. In parallel to this company B (or associates) also brings in cigarettes without proper declaration or payment of taxes. The representatives of company B sell both untaxed and taxed products.

Company C (or individuals) smuggles cigarettes, which are then sold to retailers without tobacco tax ever being paid.



Cigarettes from all three example companies are sold openly in independent retail outlets throughout the country. The presence of (in most cases) Swedish language warning labels mean that the products will not raise the attention of the customers.

2 Estimating the non domestic duty paid sector

2.1 Total estimate of the NDDP sector

The results of the surveys indicate that the total estimate of the NDDP sector is 11.6 percent, with 9.08 percent of packs in the pack survey having foreign language warning texts and a further 2.50 percent being brands identified as "Illicit Whites".

2.2 The Pack Survey

2.2.1 Method

In order to estimate the size of the non domestic duty paid (NDDP) sector HUI commissioned the CPM Group to conduct a "pack survey". The 2011 survey is the fourth survey on the NDDP sector that the CPM Group has conducted on behalf of HUI since 2008. In the 2011 survey the CPM Group has been collecting 10 000 packets of cigarettes on a random basis in 29 Swedish cities. The methodology of the pack survey, as well as the cities where the survey is conducted, is identical to the 2008, 2009 and 2010 surveys. The time period for the study, April, is also identical with the earlier studies due to possible calendar effects in the consumption of NDDP cigarettes.

Visible cigarette packs have been collected from the ground⁷ and the country of origin of each collected packet has then been determined by looking at information on the cigarette packet such as the language of the warning label. We thus have been able to measure the share of cigarette packets that do not originate from the Swedish market. The brand of each packet has also been recorded. Cities from all regions of Sweden have been included in the survey. The number of cigarette packets collected in each city is dependent on city population. This gives us a result that does not

18

⁷ Due to health and hygiene reasons cigarette packs were not collected from garbage cans.



have a bias towards any region in Sweden. From this data we estimate the size of the NDDP market for cigarettes in Sweden in 2011.

2.2.2 Results

Out of the 10 000 collected cigarette packets, 908, or 9.08 percent, of the total packets collected, had foreign warning texts. In the 2008, 2009 and 2010 studies the share of collected packets with foreign warning labels was 15.22 percent, 15.37 percent and 11.75 percent respectively. The 2011 survey results in a considerably lower share of NDDP cigarettes than in previous years. Interestingly, the drop in the share of NDDP cigarettes can be largely explained by a sharp drop in the share of duty free cigarettes. The result from 2011 is similar to the result from previous year, with a particularly notable reduction in Duty Free, and a much smaller decline in the much larger segment of products with foreign warning text from national markets (primarily eastern Europe). This result indicates that the estimated decrease in the NDDP sector in Sweden in 2011 is 2.67 percentage points. Other types of NDDP cigarettes as share of total packets collected have decreased by roughly one percent compared to the 2010 results.

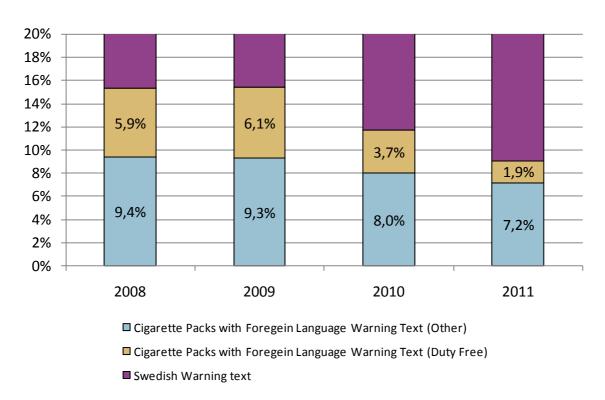
_

_0000

⁸ Included in the duty free category are cigarettes labelled duty free and cigarettes with English warning texts but without country reference. The majority of packs in the latter category is likely to be duty free cigarettes since all duty free cigarettes do not have duty free labels but frequently have English warning texts and since British and Irish cigarettes are expensive and unlikely to be brought in to Sweden in significant quantities. Some of these cigarettes might have been brought in from English speaking countries outside the EU, though. It is likely however, that the quantities of cigarettes originating from countries such as The US and Canada are also relatively small.



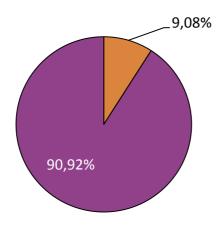
Diagram 2.1 Cigarettes with foreign language warning text (split by duty free and others) as share of total packets collected 2008-2011



Source: CPM (2011)



Diagram 2.2 Estimated market shares of cigarette packets with foreign language warning text, 2011



■ Cigarette Packs with Foreign Language Warning Text

■ Cigarette Packs with Swedish Language Warning Text

Source: CPM (2011)

Country of origin

In the 2010 pack survey, a substantial amount of packets, roughly 3.7 percent were marked either "duty free" or with an English language warning label. The 2011 survey shows a slightly lower figure for this category at 3.42 percent. The falling share of duty free cigarettes in proportion to the total packets collected accounts for much of the falling share of NDDP cigarettes in the 2010 pack survey.

Table 2.1 Place of origin, foreign cigarette as percent of total packs 2008-2011

	2008	2009	2010	2011
Duty Free	4.00	6.05	2.40	1.88
Former CIS states	4.46	3.85	2.65	1.62
Poland	1.99	1.53	1.44	1.10
Total foreign language	15.22	15.37	11.75	9.08

Source: CPM

Besides Duty Free, Poland, Russia and Ukraine are the most significant countries of origin; Poland with 1.1 percent, Ukraine with 0.98 percent and Russia with 0.64 percent in 2011.



^{*} The market share for packs with Swedish language warning texts includes cheap whites (see section 2.2 of this report) and counterfeits with Swedish warning text





Geographical aspects

There is great variation among cities in the proportion of NDDP: Malmö has the highest percentage of cigarette packs with foreign language warning text, 21 percent, and Luleå has the lowest with 1.59 percent.

Table 2.2 Place of origin, foreign cigarette as percent of total packs 2011

	Total NDDP	Duty Free	Poland	Former CIS
Sweden	9.09	1.88	1.10	1.72
Malmö	21.74	1.40	8.84	3.23
Jönköping	16.31	3.86	1.72	2.15
Borås	16.00	2.29	0.00	10.29
Katrineholm	13.56	1.69	0.00	1.69
Lund	12.80	1.42	0.95	1.90
Södertälje	12.57	8.98	0.00	2.40
Norrköping	11.81	2.95	0.00	2.95
Västerås	10.81	2.70	0.00	2.03
Sundsvall	10.29	3.68	0.74	2.94
Varberg	9.86	0.00	1.41	4.23
Stockholm	9.66	2.43	0.58	1.48
Helsingborg	9.49	1.19	0.40	3.16
Halmstad	8.44	5.19	0.00	0.00
Alingsås	7.81	0.00	3.13	0.00
Uddevalla	7.14	0.00	3.57	2.38
Uppsala	6.76	0.00	0.56	1.41
Växjö	6.49	0.00	0.65	4.55
Gävle	6.32	2.63	0.53	0.00
Kalmar	6.19	1.03	0.00	0.00
Falun	5.94	0.00	0.00	3.96
Linköping	5.93	0.74	0.00	1.11
Karlskrona	5.56	0.00	0.00	0.00
Eskilstuna	4.82	0.00	0.00	1.81
Göteborg	4.26	0.99	0.57	0.71
Skellefteå	3.33	1.11	0.00	1.11
Örebro	3.31	0.74	0.00	0.74
Karlstad	2.45	2.45	0.00	0.00
Umeå	1.91	0.48	0.48	0.00
Luleå	1.59	0.79	0.00	0.79

Source: CPM



There are also major differences between the origins of the cigarette packets between cities. Malmö has a very high percentage from Poland, whereas Borås has a very high percentage of packets from Ukraine. In Katrineholm, the majority of the packets are labeled by the EU, Spain or France.

2.3 The "Illicit whites" survey

"Illicit whites" are generic cigarette brands that are frequently sold at prices below the price of legitimate products because Swedish duty has not been paid. There are a number of these cigarette brands on the Swedish market. "Illicit white" brands for sale in Sweden frequently have Swedish warning labels, and are therefore not included in the NDDP estimate of the pack survey. A particular survey to identify "illicit white" brands on the Swedish market has therefore been performed. In conjunction with the pack survey itself this survey permits a rough estimate of "cheap illicit whites" with Swedish warning labels.

2.3.1 Method

In order to identify as many of the "illicit white" brands as possible, HUI commissioned Securitas to conduct a follow up survey on the survey from the 2009 report. In 2009, 100 retail outlets (50 in Stockholm and 50 in Malmö) were visited by representatives from Securitas (in civilian clothing). The Securitas-representatives requested to buy cheap cigarettes. If the pack was sold for less than 36 SEK the brand of the packet was noted. Brands that were known to be from established international suppliers were not categorized as "illicit whites". Even if these brands were sold for less than 36 SEK, it would be assumed that these were being sold at a loss. In 2010 the survey was extended to include 12 cities. These cities were: Stockholm, Gothenburg, Malmö, Halmstad, Strömstad, Trelleborg, Haparanda, Helsingborg, Borås, Västerås, Gävle and Eskilstuna. The cities were chosen from three criteria: size, locations close to border regions, and high incidences of NDDP cigarettes from the pack surveys of 2008 and 2009. The method of the survey was identical to the 2009 survey, except for the packet price, which was raised from 36 to 37 SEK in order to account for inflation and excise tax increases.

In the survey of "illicit whites" from 2011, 319 stores were investigated in 12 different cities. 127 of 319 stores sold cigarettes at a packet price below 37 SEK. The Securitas-representatives were told to visit retail outlets that they thought could be selling cheap cigarettes. It is therefore important to note that the sample is not representative for retail outlets as a whole.

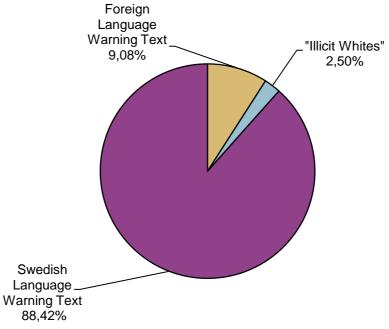


Despite the increase in scope from year 2010 we do not expect to identify all "illicit white" brands on the Swedish market. Some brands identified as "illicit whites" may exist both in taxed and untaxed channels. Furthermore, other "illicit white" brands might be sold only in specific regions of Sweden not covered by our survey.

2.3.2 Results

The results from the "illicit whites" survey were matched to the results from the pack survey in order to estimate the share of "illicit whites" as a proportion of total cigarette consumption in Sweden. Based on the "illicit whites" study, 2.50 percent of the total packets collected in the pack survey were brands that were identified as "illicit whites". This share is higher than in the 2010 survey where the share of "illicit whites" constituted 1.24 percent of the total packs collected.

Diagram 2.3 Estimated market shares of foreign cigarette packs and "Illicit Whites", 2010



Source: CPM and Securitas 2010



2.4 Estimated tax losses caused by the non domestic duty paid sector

Out of the 10 000 packs of cigarettes collected, 9.09 percent were of foreign origin and another 2.50 percent were classified as "illicit whites". Consequently, we estimate the non domestic duty paid sector including both packs with foreign warning texts and "illicit whites" to constitute between 9.09 percent and 11.59 percent of total cigarette consumption in Sweden in 2011 depending on the proportion of the "illicit white" cigarettes that have been sold avoiding tax.⁹

According to Swedish Match statistics, **6.13 billion**¹⁰ **registered cigarettes were sold in Sweden in 2010**. Assuming that this figure remained similar for 2011 we are able to quantify the size of the NDDP sector and estimate a **tax loss of 1.25 billion** in that year.

An assumption of 10-12 percent NDDP consumption gives an annualised number of cigarettes, not domestically taxed, of approximately 613-736 million¹¹. If these cigarettes instead had been bought and taxed on the Swedish market they would have generated tax revenues to the Swedish economy. According to Skatteverket 2011, the fixed tobacco tax, the value related tobacco tax and the VAT add up to 74.6 percent of the retail price for cigarettes in the most popular price category in 2011. With a representative pack price of 45.03 SEK¹² for 2011 this gives a calculated tax loss accruing to the NDDP sector of about 1.25 billion SEK depending on how large share of taxation the "illicit whites" would have generated.

If counterfeit cigarettes with Swedish warning labels could be included in these calculations, our estimation of the Swedish tax losses would be even greater.¹³

¹² Estimated average price of Swedish Tobacco Manufacturers' Association

-0000

26

⁹ Some of the "illicit white" brands would appear to avoid taxation altogether, whereas certain brands appear to exist in both taxed and untaxed channels. In the case of these latter brands it is hard to ascertain the percentage sold without proper payment of taxes.

¹⁰ Swedish Match Distribution covers the vast majority, but not all, legally distributed cigarettes in Sweden. Hence this figure is an underestimation of the total market.

¹¹Based on total domestically taxed sales in 2010.

¹³ Counterfeit packs with Swedish warning texts have been identified on the Swedish market (UPDATE).



2.4.1 Reliability

Swedish Customs assess roughly half of their seized cigarettes in 2010 to be counterfeit. Since some of these counterfeits have Swedish warning labels, and thus clearly are meant for the Swedish market, the methodology of this pack survey did not identify such packs. Even though it is difficult to make an assessment of the scope of the problem, the pack survey does risk underestimating the NDDP sector because of counterfeited cigarettes.¹⁴

The accuracy of the pack survey is also dependent on the assumption that smokers dropping empty packets of cigarettes on the street, albeit sometimes unknowingly, do not differ in characteristics from other smokers. If people who litter our streets also are more prone to buy illegal cigarettes or to shop cigarettes across the border we risk overestimating the size of the sector.

There is also the possibility that the size of the NDDP sector varies by season. In the summer more people travel abroad on vacation, which may increase the private import of cigarettes. This survey has, since the first study in 2008, been conducted in April and the result therefore is representative for this period but might not be an adequate assessment for the whole year. For instance, if consumption of foreign cigarettes is higher in the summer, a pack survey conducted in that time period would have resulted in a larger estimate of the unregistered sector. An earlier pack survey, conducted by CPM in August 2007, where only 1 000 packs were collected, resulted in a 16.7 percent share of cigarette packets with foreign warning texts. Even though the survey was smaller the result indicates that seasonal variations in NDDP cigarette consumption might be a factor necessary to consider.

2.5 Consumer Survey

2.5.1 Method

In addition to the pack survey and the "illicit whites" survey, Synovate has conducted a consumer survey. 610 smokers were asked questions regarding their attitudes to consumption of cheap

¹⁴ According to The European tobacco control report of 2007, the market share of counterfeit cigarettes is rising in many countries. The report further states that it seems to be even harder to control counterfeit cigarettes than other smuggled cigarettes. The reason given for this is that the origin of counterfeit cigarettes only can be discovered through close collaboration with the country from which the cigarettes are produced. In addition it is stated that it is also more difficult for Customs to identify cigarettes as counterfeits when they make seizures since counterfeit cigarette packets are very similar to genuine cigarette packets.



cigarettes brought in from abroad and their perception of the scope of this consumption of cheap cigarettes. The consumer survey provides complementary information on the NDDP market for cigarettes and the attitude towards purchasing such cigarettes.

The respondents were asked if they thought it was common that people in Sweden buy cheap cigarettes that are brought in from other countries and further if they thought that the access to cheap cigarettes originating from abroad had increased or decreased. Finally, respondents were asked if they thought it was OK or not OK to buy cheap cigarettes brought in from abroad.

In this year's survey respondents were asked some additional questions about awareness and action against illegal activities linked to NDDP, for both smokers and non smokers. A total of 1 037 responded to these questions, 143 of them were smokers.

These questions provide us with insights on people's perception of the magnitude of this issue as well as their stated attitude to consumption of cigarettes brought in from abroad. Data on the respondents' occupation, age, place of residence and more enable us to look at socioeconomic and regional aspects of NDDP cigarette consumption.

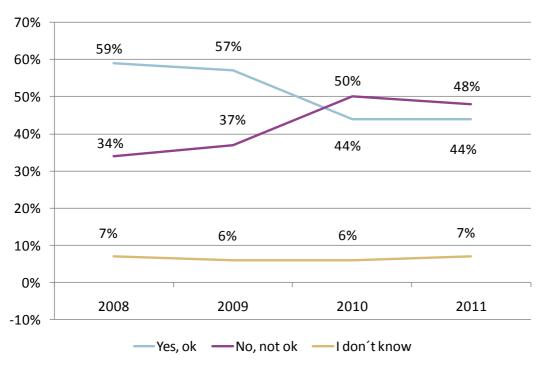


2.5.2 Results

Nearly half of all smokers think it is OK to buy cheap cigarettes brought in from abroad.

The respondents were asked if they thought it was OK or not OK to buy cheap cigarettes brought into Sweden from other countries. In total, 44 percent of the respondents thought it was OK, while 50 percent thought that it was not. A comparison between these results and the earlier consumer surveys shows that the share of smokers thinking that it is not OK to buy cheap cigarettes brought in from abroad is the same as last year and a lower level than in year 2008 and 2009. The result indicates a less forgiving attitude among smokers to the consumption of these kinds of cigarettes over time. When looking at other aspects, younger respondents and respondents with low levels of education as well as lower household incomes, thought it was OK to buy cheap cigarettes from abroad more often than older and higher educated respondents.

Diagram 2.4 Do you consider it OK or not OK to buy cheap cigarettes that have been brought to Sweden from abroad?



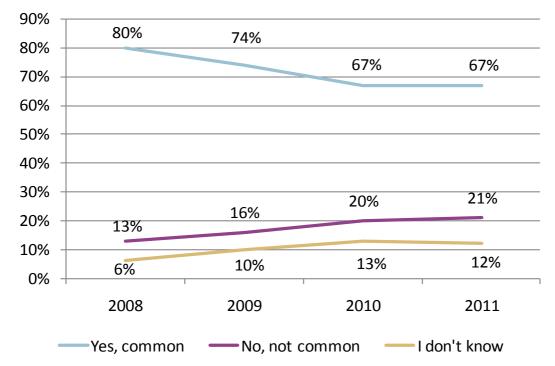
Source: Synovate 2011, based on a total of 610 respondents



Two out of three smokers think that it is common to buy cheap cigarettes from abroad

The respondents were also asked questions on how common they thought it was that people buy cheap cigarettes brought into Sweden from abroad. A total of 67 percent thought that it was common that other people buy cheap cigarettes brought in from abroad while 21 percent thought that it was not. When looking at other aspects, younger respondents and female respondents thought it was more common to buy cheap cigarettes brought in from abroad than others. The share of respondents thinking that it is common that people buy cheap cigarettes from abroad is the same as in 2010.

Diagram 2.5 Do you believe it to be common that people buy cheap cigarettes that have been brought to Sweden from abroad?



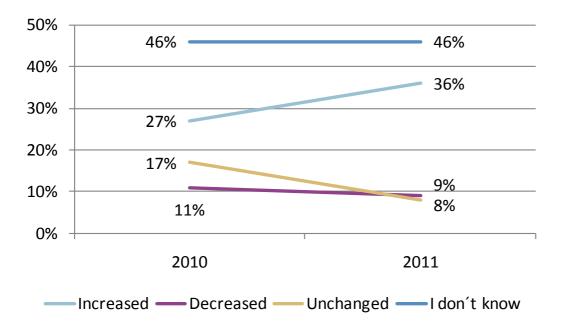
Source: Synovate 2011, based on a total of 610 respondents



Changes in access to cheap cigarettes from abroad difficult to assess for many smokers

37 percent thought that the access to cheap cigarettes brought in from abroad had increased during the last year. That is an increase of 9 percent points since year 2010. Almost half of all respondents answered that they did not know if the access to cheap cigarettes brought in from abroad had increased or decreased.

Diagram 2.6 Respondents view on changes in access to cheap cigarettes brought in from abroad



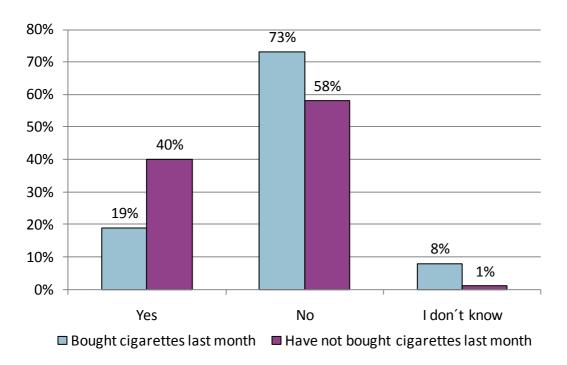
Source: Synovate 2011, based on a total of 610 respondents



Knowledge about the market share for NDDP

38 percent of the respondents are aware of the fact that one in eight cigarettes¹⁵ has been introduced in Sweden illegally. In general, people who are older and with higher education are better informed. That the knowledge of this is significantly lower among smokers than among non-smokers is noteworthy.

Diagram 2.7 Are you aware of the fact that more than one eighth of the cigarettes smoked in Sweden have been brought to Sweden from abroad, illegally or without tax having been paid?



Source: Synovate 2011, based on a total of 610 respondents

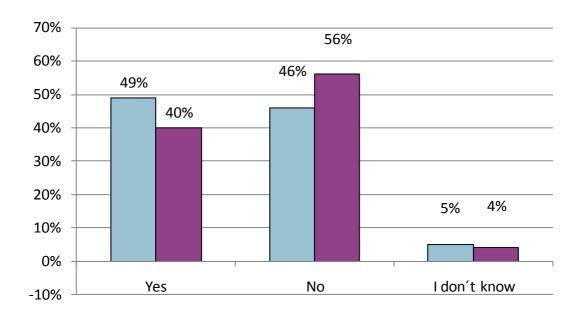
¹⁵ According to HUI's 2010 report "The Non-duty Paid Market for Cigarettes in Sweden"

32



Knowledge about the content in illegal cigarettes

Diagram 2.8 Are you aware of the fact that illegal cigarettes often contain higher contents of tar, carbon monoxide and heavy metals compared to legal cigarettes?



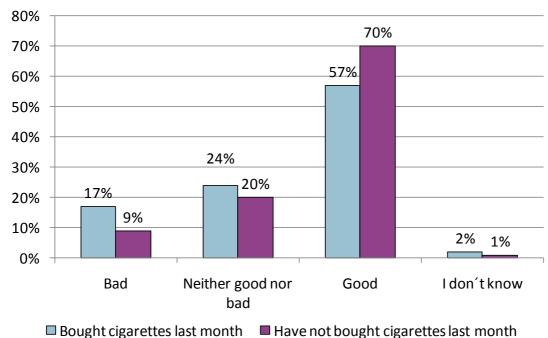
■ Bought cigarettes last month ■ Have not bought cigarettes last month

Source: Synovate 2011, based on a total of 610 respondents

The awareness of the fact that illegal cigarettes often contain higher shares of tar, carbon monoxide and heavy metals compared to legal cigarettes is 41 percent. Smokers are generally more aware of this fact. Knowledge of this is greatest among people over 60 and people with higher education.



Diagram 2.9 The State should allocate more resources to stop cigarette smuggling

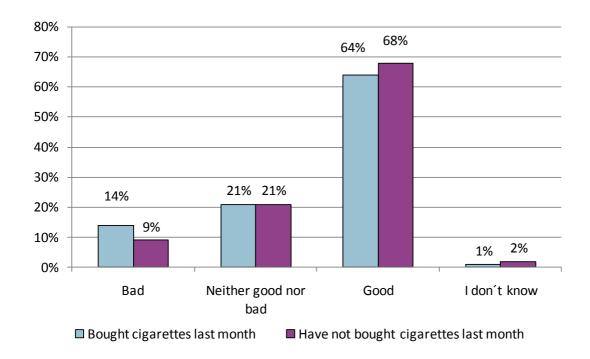


Source: Synovate 2011, based on a total of 610 respondents

69 percent of the respondents are in favor of the claim that the state should invest more resources in preventing cigarette smuggling. A higher proportion of non-smokers are in favor of the claim than smokers. Women are more positive than men. Older respondents and respondents with lower education level are more sympathetic to invest more resources to preventing smuggling.



Diagram 2.10 The State should allocate more resources to supervision of stores selling tobacco products in the aim of minimizing the access of smuggle cigarettes

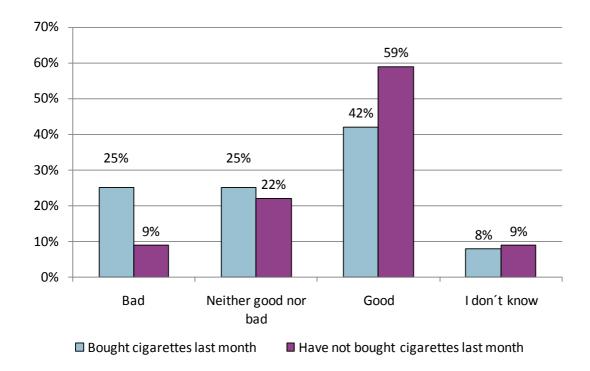


Source: Synovate 2011, based on a total of 610 respondents

67 percent of Sweden's population thinks that the state should invest more resources into enforcement of shops selling tobacco products in order to minimize the availability of contraband cigarettes. Older people and those with lower educational level have a more positive attitude towards increasing resources for enforcement of tobacco sales.



Diagram 2.11 The penalty for cigarette smuggling should increase

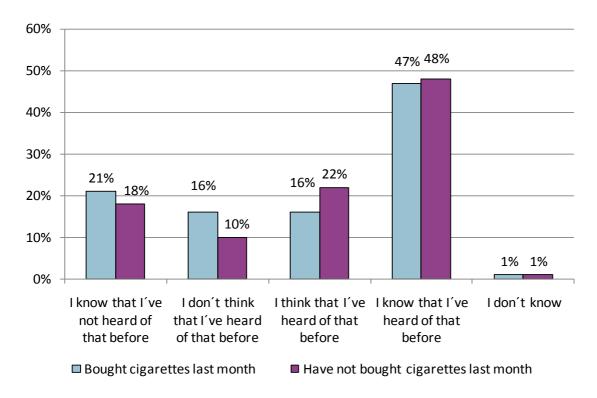


Source: Synovate 2011, based on a total of 1037 respondents

The respondents were positive towards increasing the penalty for cigarette smuggling. Most positive were the elderly and people with lower education.



Diagram 2.12 Have you heard that smuggled tobacco is an important source of income to organized crime?



Source: Synovate 2011, based on a total of 610 respondents

Nearly half of the respondents have heard that smuggled cigarettes are an important source of income for organized crime. More non-smokers than smokers have heard about the link between cigarette smuggling and organized crime. Males and persons with higher education are more aware of this link.

To sum up, the consumer survey indicates that a large, but decreasing, share of smokers do not see a problem in buying cheap cigarettes brought in from other countries. 44 percent of the respondents think that it is OK. In addition 2 out of 3 smokers think it is common that other people buy cheap cigarettes. The proportion who thinks that the availability of cheap cigarettes has increased in recent years has increased from 27 percent to 36 percent in this year's survey. Finally, nearly half of all smokers do not know if the access to cheap cigarettes brought in from abroad has increased or decreased during the last year. This result is not surprising since it is likely that a fairly large share of smokers do not frequent a large number of retail stores and therefore seldom find themselves in a situation where they can make an assessment of changes in access to cheap cigarettes brought in from abroad.



Finally there is a strong public support for increasing efforts to control cigarette smuggling and its sales channels. There is also a great support for increased penalties for cigarette smuggling. Non-smokers are more positive than smokers to step up efforts against smuggling of cigarettes, control of the business and increase penalty for cigarette smuggling. It can be explained by the fact that more resources to control and prevent as well as an increased penal value of cigarette smuggling would reduce the availability of cheap cigarettes.



3 Conclusions

A significant share of the total annual cigarette sales in Sweden is tax avoided, with adverse effects on the national economy, the state budget, retailers, wholesalers, and the industry. This result is based on:

- The present as well as previous reports on the non-duty paid sector (NDDP)
- The number of cigarettes seized by Swedish Customs since the late nineties
- The discrepancies in data between official sales and number of smokers.

Although HUI:s estimates of the size of the NDDP sector in 2011 is smaller than in previous years, up to 11.6 percent, including "illicit whites", compared to up to 13.0 percent in 2010, the calculated tax losses due to NDDP cigarette consumption in Sweden are still significant. The calculation in this study shows that the tax losses due to NDDP cigarette consumption in Sweden, given that the 11.6 percent estimate is a representative figure for 2010¹⁶, add up to about 1.25 billion SEK. This estimate, however, does not account for counterfeit cigarettes with Swedish warning texts since it is beyond the scope of this report at the time of publication to identify these cigarettes. Counterfeits are an increasing problem with links into organised crime but since they are difficult to identify, this problem is overlooked in the survey. If we could properly identify the counterfeited cigarette packs, our assessment of the NDDP sector would be even larger.

The purpose of the relatively high tax on cigarettes is to reduce the consumption. If the tax is too high it may result in total consumption of cigarettes rising due to increased consumption of NDDP cigarettes. In this way, the high tax on cigarettes may be counterproductive. The greater the difference between countries in terms of tax burdens on cigarettes, the greater the incentives for the marketing of NDDP cigarettes in Sweden. If the state wants to achieve the full effect of a high tax on cigarettes, in terms of reduced consumption, then high tax on cigarettes should also be accompanied by preventive measures against the various forms of smuggling, tax fraud and the sale of NDDP cigarettes.

¹⁶ Since the 2009 pack survey in April resulted in a 15 percent share of NDDP cigarettes, excluding "cheap whites", the calculation is likely to be on the low side.



Further insight on the consumption of NDDP cigarettes as well as consumer attitudes to this problem is given from our consumer survey. Two thirds of the respondents think it is common in Sweden to buy cheap cigarettes brought in from abroad. 44 percent of the respondents personally think it is OK to buy such cigarettes while 48 percent think it is not. Interestingly, the last number is down from 50 percent in last year's survey. From this result it is possible to draw two conclusions; although a large proportion of smokers, 44 percent, do not see a problem in buying cheap cigarettes brought in from abroad, and an even larger proportion think that it is a common behaviour among other smokers, the public acceptance for this kind of cigarette consumption has decreased. A possible explanation for these, albeit relatively small, changes in attitudes on this issue might be an increased awareness of the scope of this problem, as well as its connection to organized crime, due to large seizures by Swedish Customs. These seizures have in turn created media attention, thus highlighting the problem. The possibility that attitude changes to consumption of cheap cigarettes from abroad can be partly explained by increased media coverage is encouraging since the consumer survey also show that a large share of smokers do not feel that they can assess any potential changes in the access to these type of cigarettes.

What was completely novel in this year's report was the expanded survey section, including non-smokers, where Synovate ascertained that a strong majority of the Swedish population want the government to act more forcefully to combat illicit tobacco. Public support for more state resources to stop cigarette smuggling is unequivocal. Likewise eight times as many people want more resources for store supervision to minimise illicit sales, compared to those who are opposed. Similarly, seven times as many respondents were also supportive of increasing the penalties for smuggling cigarettes. The message is clear – there is a tough public sentiment supportive of tackling this societal problem.



4 References

Axelsson Sohlberg, T. (2007) "Oregistrerad tobak – Om svenskars privatinförsel av tobaksprodukter samt köp av cigaretter och snus under perioden januari-juni år 2007", SoRAD, Stockholms Universitet.

Centralförbundet för alkohol- och narkotikaupplysning, CAN (2007), *Drogutvecklingen i Sverige* 2007, Rapport nr 107.

Christiansen, V. (2003-2004), "Cross-border shopping and tax structure", Economic Policy Research Unit, University of Copenhagen.

Goel, R. K., and M. A. Nelson (2006) "The Effectiveness of Anti-smoking Legislation: A Review", *Journal of Economic Surveys*, Vol. 20, No. 3.

Granberg, M. and B. Trolldal (2005), "Resandeinförsel och smuggling av cigaretter åren 2003-2004", Forskningsrapport nr. 29, SoRAD, Stockholms Universitet.

Skatteverket (2011), Tax Statistical Yearbook of Sweden 2010

Tullverket (2010), Tullverkets Årsredovisning 2009, 2006, 2003 och 2000.

World Health Organization (2007), The European Tobacco Control Report 2007