English Summary

Utrecht University and Ecorys jointly performed this study into the nature and extent of criminal behavior for the Research and Documentation Centre (WODC) in 2017/2018. The aim of the research is to find out the extent to which money laundering has an undermining effect on the regular economy and the financial system. The study consists of two parts: the first part examines where criminally earned revenues are placed in the regular economy, the second part estimates the annual amount that is laundered in the Netherlands.

This research wants to answer five main questions:

Question 1. What is the spending behavior of criminals and how does it differ from non-criminals?

Question 2. What is the estimated amount laundered in 2015 as a result of crime committed in the Netherlands and how has this developed since the last estimate in 2006?

Question 3. Are there indications that the relative size of the dirty money flowing through the Netherlands (via various constructions) changed since 2006 and what are these changes?

Question 4. What types of criminals can have an undermining effect on the regular economy and the financial system through their spending or money laundering?

Question 5. To what extent can money laundering have an undermining effect on the regular economy and the financial system when taking into account the nature and scope of spending of various types of criminals, of the estimated size of the illegal economy from crime committed in the Netherlands, and the estimates of the total amount of money laundered in the Netherlands?

Part I of this study examines questions 1 and 4 . Part I is a bottom-up approach that, based on existing academic studies, a theoretical model and interviews with detainees, constructs a picture of the spending behavior of criminals and the way in which the regular economy absorbs criminally earned money. Ecorys Nederland did this part of the study.

Part II of this study examines questions 2 and 3. Estimates of the size of the criminally earned assets are made on the basis of macroeconomic statistics, available crime data and a worldwide gravity model (see Walker, 1999; Walker and Unger, 2009). Unger et al. (2006) applied this estimation model to the Netherlands and this study further improves this model.

To answer question 5, the research from Part II builds on findings from Part I. Since Part I provided more qualitative data and only a limited amount of quantitative data, we can answer this question only partly.

Part III combines the results of both studies and recommends further research.

Part I - Nature of criminal spending

This part of the study focuses on the spending of criminally earned money, with two of the five research questions being central:

What is the spending behavior of criminals and how does it differ from non-criminals? What types of criminals can have an undermining effect on the regular economy and the financial system through their spending or money laundering?

To determine which criminals have a subversive effect on the regular economy and the financial system with their spending and money laundering behavior we need to have a clear insight in the spending habits of these criminals.

The research has an explorative character in which the questions are approached from different perspectives: literature study, interviews with experts and interviews with perpetrators.

Literature study

In the Netherlands, various empirical studies have been conducted into the expenditure of criminally obtained income. Most of these studies are based on case studies, which analyze closed criminal investigations and forfeiture reports. An exception to this is the research carried out by Spapens, which is based on the confession of a drug criminal.

In addition to studies conducted in the Netherlands there a number of studies abroad on the spending of dirty money. The study of the Matrix Knowledge Group is the most relevant for this study. This study asked more than 200 convicts about their spending preferences and behavior.

Interviews with detainees

In the context of the investigation into the nature and extent of criminal spending, 14 detainees were interviewed in the summer of 2017 and the spring of 2018 in two different penitentiary institutions (Lelystad and Dordrecht). The research population can be characterized as follows: different cultural backgrounds (Dutch, Turkish, Pakistani, Dutch Antillean); 13 of the 14 interviewees committed the offense(s) to earn money. Various offenses were covered: contract killing, murder, fencing, drug trafficking (heroin, cocaine, cannabis), fraud; Convictions were very diverse (short to lifelong). The earned income and life stages vary as well: ages range from early twenties to late fifties. Most detainees indicated to have a wife/girlfriend and (financially dependent) children; at least half of them have their own (legal) company.

The detainees were informed about the study through a flyer two weeks before the interviews. From each ward one detainee was asked to acts as a representative of the study. On the days of the interviews detainees were asked to participate in an interview with the two interviewers.

The interviews were open, with the first aim to make contact and win trust from the discussion partner, so that an open discussion could be held about lifestyles and money, without explicitly asking the inmates what they were convicted for and how much money they earned. The interviews were between 30 and 90 minutes.

Due to the (necessary) spontaneous selection of discussion partners and the open structure of the interviews, the results are more narrative and qualitative in nature than that there is a systematic collection of data. It is therefore not possible to indicate how many of the discussion partners have given a specific answer.

Detainees were asked not only how they handle their own money, but also what they see happening in their environment. How do others deal with their money? The reason for this broadening was to facilitate the conversation with the detainees. Many discussion partners were not immediately prepared to tell about their own situation, but were willing to talk about what they see happening in their environment. Speaking about a 'lifestyle' instead of directly about spending also generated more conversation material. The answers have been included in the analysis, but such

answers do not provide hard figures. They do, however, contribute to the more descriptive and qualitative analysis of criminal spending.

Conceptual framework

Investigating criminal spending can provide starting points for a targeted anti-money laundering policy. For this it makes sense not only to have a good idea of money laundering *methods*, but also of how the money earned is being spent and where it is invested. In order to investigate this, a meaningful subdivision must first be made in types of spending and investment categories.

Spending and assets in the Netherlands

In the report 'Prosperity in the Netherlands 2016', Statistics Netherlands (CBS) presents the latest data on income, expenditure and wealth of households and persons in the Netherlands. With regard to spending, Statistics Netherlands distinguishes between various categories. When we group a number of categories, it appears that Dutch households on average spend 38 percent on daily consumption expenditures and 30 percent on housing.

In addition to figures on spending, Statistics Netherlands publishes data on the assets/wealth of Dutch households.[5] These are divided into financial assets, real estate, movable property and corporate assets. Real estate is by far the largest asset class, followed by financial assets. The share of movable property and business assets is small (4 percent on average).

Both CBS formats give a rough indication of different types of expenditure and asset categories among Dutch households. The question is to what extent spending and investments of criminally earned money deviate from this general picture. For that it is also important to have insight into the motives behind spending and investment decisions.

Nature of criminal spending and CBS spending categories

The following picture emerges based on the existing literature and the interviews in the context of this research:

Daily consumption expenditure

The interviews with detainees show that the provision of daily living needs is an important motive for committing crimes. This does not only concern one's own needs, but also those of one's family – children and wives – and other close family members. Criminal activities are seen as a way to earn a lot of money in a short time. One interviewee explicitly said he did not want a working life like his father, which he characterized as 'a lot of work for little money'. A note here is that a number of interviews showed that criminal proceeds are not high and stable enough to leave crime. Criminally earned funds are also used to provide for living expenses within the prison.

The CBS figures show that daily consumption expenditure is a large category of expenditure for non-criminals. Although it cannot be substantiated with hard data, based on the interviews, daily consumption expenditures also appear to be an important spending category for criminals. In other words, a lot of criminal money directly returns to the regular economy.

Luxury consumption

The interviews revealed that spending money on holidays, relaxation and luxury goods (clothing and jewelry) can also be motivated by the fact that it is difficult to spend cash in a different way without being noticed. Others refuted this by saying that everything can be bought with cash, as long as one is willing to pay a higher price (a premium of 10 to 20 percent was mentioned). The opinions differed on the extent to which it is sensible to spend criminal money on luxury goods.

---

[5] Statistics Netherlands defines wealth as the difference between assets and liabilities (assets – liabilities = wealth)

According to some, it is mainly the small criminals who cannot refrain from spending a lot, making them stand out more and get noticed by law enforcement. The image emerges that the more experienced criminals are more aware of the risks they run. The spending pattern also appears to be dependent on the stage of life in which the criminal finds himself.

The CBS figures show that luxury consumer goods play a role, but are not the major spending category. In particular, spending on leisure is important for high incomes. This category also seems to be of great importance to criminals.

Real estate

It was striking that real estate investments (land, houses, hotels) outside the Netherlands were frequently mentioned as the destination of criminally obtained money by the interviewees and their criminal acquaintances. Repeatedly mentioned were Turkey, Morocco (Tangier and Marrakesh) and Spain (Marbella). Motives mentioned for the foreign real estate investments were to retire to these countries, and that investments could be a source of legal income (hotels). Ownership of real estate is also used to mix legal and illegal money.

CBS figures show that real estate is the most important asset class for Dutch households in general. This is also an important asset for criminals, especially real estate abroad seems to be important.

Business investments

The interviews showed that many interviewees own one or more legal companies, in addition to their criminal activities. This includes companies registered in their own name and in the name of others (clothing store, catering, thrift store, beauty salon, shisha lounge). In many cases these companies are meant both to invest and to launder money. The companies that serve as a cover are usually led by people (from their own ranks) without a criminal record. Cooperation is based on mutual trust, but if this trust is violated there will be retaliation. In other cases, there may already be a legal company in which criminal activities are developed, which endangers the continued existence of the legal company.

Role of foreign countries

The CBS makes no distinction between the Netherlands and abroad in its figures on expenditures and assets in the Netherlands. From data from Meloen et al. (2003), it seems that a relatively large amount of criminal money is sent abroad. Investments abroad (see above) were frequently mentioned as an important spending category in the interviews. In addition, interviewees gave detailed information on how criminally earned cash ends up abroad. The international network of underground banking (hawala) was named as the main method to safely and easily move large sums of money abroad.

In addition, the transfer of a series of small amounts (smurfing) by different persons (friends and family) via legal money transfers was mentioned. Finally, money is brought abroad in cash. Money is given to others or smuggled in the baggage or car (for example to Tangier). Furthermore, it was pointed out that the really big criminals who play a central role in the network often find themselves abroad.

Undermining the regular economic system

Direct spending in the regular economy

There seems to be a sharp boundary between cash and digital money. Getting cash in a bank account is difficult, so whoever has cash spends it in cash. Whoever has money on a bank account, spends it with credit or debit cards. There seem to be few attempts to cross the boundary between

cash and bank money. Interviewees indicated that it is increasingly difficult in the Netherlands to spend illegally obtained cash, but not impossible, provided they are willing to pay a premium.

Transferring money into the financial system
Attempts to deposit cash directly into a bank account was not mentioned in any of the interviews as common practice. Cash that is earned in cash remains cash and therefore out of the sight of the authorities. This involves the assistance of financial experts who are active in the legal economy and who are prepared to set up money laundering constructions. There seems to be no shortage of such financial experts.

Spending directly abroad
Spending (consumption, investment) outside the Netherlands is a frequent occurrence. Presumably these are large amounts, but the interviews provide no evidence for this. Popular countries seem to be Spain, Turkey, Morocco and the United Arab Emirates (Dubai). In order to get money abroad, underground banks (hawala) are frequently used.

Final consideration
The criminal economy is, as far as general offenses are concerned, still a largely cash-based economy. Money earned in cash is spent in cash or taken abroad. The extent to which there is an undermining of the regular economy and the financial system depends to a large extent on the criminal income distribution.

With a very skewed criminal distribution of income (many criminals earn a little and a few earn a lot), it is possible that a large part of the cash income from crime simply 'evaporates' in the regular economy, because it is mainly spent on daily necessities, luxury consumption, holidays and leisure. So far, there has not been any empirical research into this skewness of the criminal income distribution and the question is whether this is possible at all. Not only the size of the criminal economy, but also the income distribution determine how the regular economy is affected.

Another striking fact is that as countries abroad are so close, it seems easy to move large sums of money abroad. The current generation of the criminal's biggest earners seems to be abroad often, but criminals from the middle category also have so much money that they want to build up assets abroad.

All of this could possibly explain why there is such a big gap between the (alleged) size of the criminal economy in the Netherlands and the amount of wealth that is actually found in criminal investigations (and could in theory be forfeited). Another explanation is that it is easier for the police to focus on small-time criminals than on big earners. The same applies to criminals who are mainly active on Dutch territory and criminals who mainly stay and spend abroad.

Part II – Scope of criminal spending

How much money is laundered annually in the Netherlands? By definition, money laundering cannot be measured. After all, the goal of money launderers is that money laundering remains unseen for the outside world, and certainly for law enforcement. Therefore, the extent of money laundering will always have to be estimated. There are only a few estimation methods for money laundering to be found in the literature (see Ferwerda, 2012 for an overview).

In this study we chose to apply the Walker model (see Walker, 1999; Walker and Unger, 2009). Unger et al. previously applied this model to the Netherlands in 2006. We take this method as a starting point.[6]

We have been able to expand and improve the estimates. The most important improvements compared to the most recent money laundering estimates for the Netherlands (see Unger et al., 2006) are estimating over a longer period of time (eleven years instead of one year), with better data and much more money laundering flows (not 20 money laundering flows of the top 20 countries, but 360 thousand money laundering flows between all countries over 11 years). In addition, we made the estimates more transparent and replicable. We could improve the estimation model even further if we learn more about the behavior of money launderers using microeconomic and qualitative research methods.

Since criminal money from all over the world can flow into the Netherlands, we cannot restrict ourselves to collecting only Dutch data. We will have to include the whole globe in our calculations and collect data for all countries in the world. We ultimately make an estimate of the total amount of criminal money that is being generated and needs to be laundered and of where all this money is flowing to, allowing us to estimate the extent of money laundering in each country. We have collected the relevant data for the period 2004 to 2014 – the last year for which the required data was available at the time of the study. This means that we have collected data for more than 32 thousand country pairs combinations – from 181 countries to 181 countries[7] – for all variables for the years 2004 through 2014. Our total dataset therefore contains more than 20 million observations.

In order to be able to make these nearly 2000 (181 countries for 11 years) national money laundering estimates, we have to tap a large number of data sources and make a large number of calculations. For example, we need to know for each country what the money laundering need is in each year, defined as how much money criminals from a certain country want to launder. This money can then be laundered in the country itself or sent to another country to launder the money there. We follow the calculation along the following four steps:
1. Estimation of the money laundering need for Dutch crime.
2. Estimation of the money laundering needs for all other countries in the world.
3. Using the gravity model to estimate where the criminally generated money in the world (the money laundering need) is laundered.
4. Take the sum of the flows to the Netherlands in order to arrive at a scale estimate for money laundering in the Netherlands.

To make an estimate of the money laundering need from Dutch crime, we use two types of data: the number of registered crimes (broken down by type) and the average money laundering need per registered crime (broken down by type). We use crime data from UNODC because they are internationally comparable. Unfortunately, no internationally comparable data are available for fraud, which is why we had to estimate this. The number of registered drug-related crimes in the Netherlands is fairly constant over the period 2004-2014. The number of registered cases of fraud is increasing. All other crimes (theft, burglary, violence, robbery and murder) show a decreasing trend over the period 2004-2014.

---

[6] Section 3.2.6 (in Dutch) gives a detailed overview of the underlying assumptions and limitations. Chapter 5 (also in Dutch) contains a reflection on these assumptions and their effect on the results of the model.

[7] For a few – mostly very small – countries there was not enough data available so that our final database contained 181 countries.

ECORYS

Universiteit Utrecht

Table 0.7	The number of registered crimes in the Netherlands in the period 2004-2014										
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Theft	790,300	758,045	711,085	684,870	682,495	681,465	662,105	669,680	652,250	644,725	587,210
Burglary	313,708	307,770	300,815	295,380	287,645	283,785	292,585	304,045	300,025	291,295	254,330
Fraud*	81,691	81,046	89,945	92,769	99,532	99,880	106,493	96,685	99,227	99,843	101,011
Of which:											
Fiscal fraud	*15,143*	*15,440*	*17,098*	*18,179*	*15,022*	*14,530*	*14,921*	*16,307*	*16,051*	*16,655*	*16,987*
Investment fraud	*9,563*	*9,802*	*10,047*	*10,298*	*10,555*	*10,818*	*11,090*	*11,366*	*11,649*	*11,941*	*12,240*
Acquisition fraud	*8,740*	*8,959*	*9,183*	*9,412*	*9,647*	*9,888*	*10,136*	*10,388*	*10,648*	*10,914*	*11,187*
Violence	62,511	74,345	76,325	78,090	79,500	75,935	69,890	68,620	66,180	61,180	58,300
Drug crime	15,700	15,305	16,361	16,284	16,206	16,129	16,051	15,974	15,897	15,819	15,742
Robbery	18,300	16,445	14,485	13,660	13,175	16,265	16.125	15,390	14,765	13,120	10,320
Murder	191	174	128	143	150	154	144	143	145	125	123

Source: UNODC, CBS (2017) and own calculations. * There is no internationally comparable fraud data available. Therefore, the number of fraud cases is an estimation.

We multiply these crime figures by the average profit per registered crime that needs to be laundered. Table 0.8 shows this average money laundering need for each year and every type of crime. There are big differences in money laundering between the various crimes. Drugs yield the greatest amount of money that needs to be laundered, where violence has only a limited money laundering need.

Table 0.8	Money laundering need per registered crime in euros for the Netherlands in the period 2004-2014										
	2004	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Drug crimes	157,508	163,497	171,779	166,570	161,553	163,673	174,556	168,377	182,173	177,896	180,385
Fraud	78,754	81,748	85,889	83,285	80,777	81,837	87,278	84,189	91,087	88,948	90,193
Robbery	2,205	2,289	2,405	2,332	2,262	2,291	2,444	2,357	2,550	2,491	2,525
Burglary	945	981	1,031	999	969	982	1,047	1,010	1,093	1,067	1,082
Theft	630	654	687	666	646	655	698	674	729	712	722
Murder	354	368	387	375	363	368	393	379	410	400	406
Violence	4	4	4	4	4	4	4	4	4	4	4

Source: own calculations with data from Walker (1995) and World Bank data.

By multiplying the number of registered crimes by the average money laundering need, we can calculate for the Netherlands how much money Dutch criminals must launder. In our estimates, drug crimes and fraud together are responsible for more than 90 percent of the money laundering need.

Figure 0.6   **The development of money laundering for drugs, fraud and other crimes in the Netherlands for the period 2004-2014, x billion**
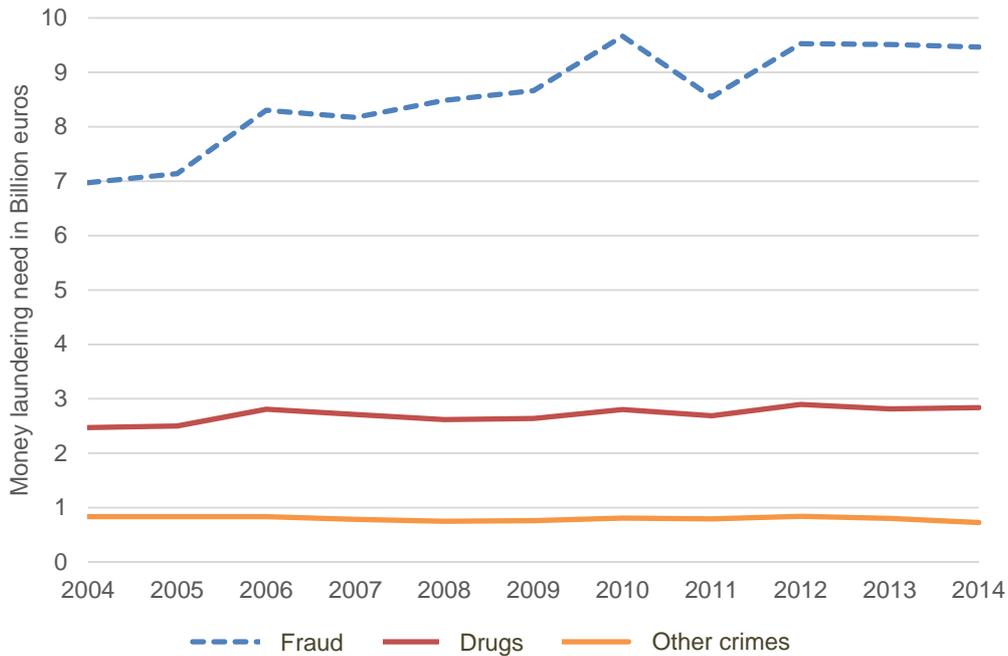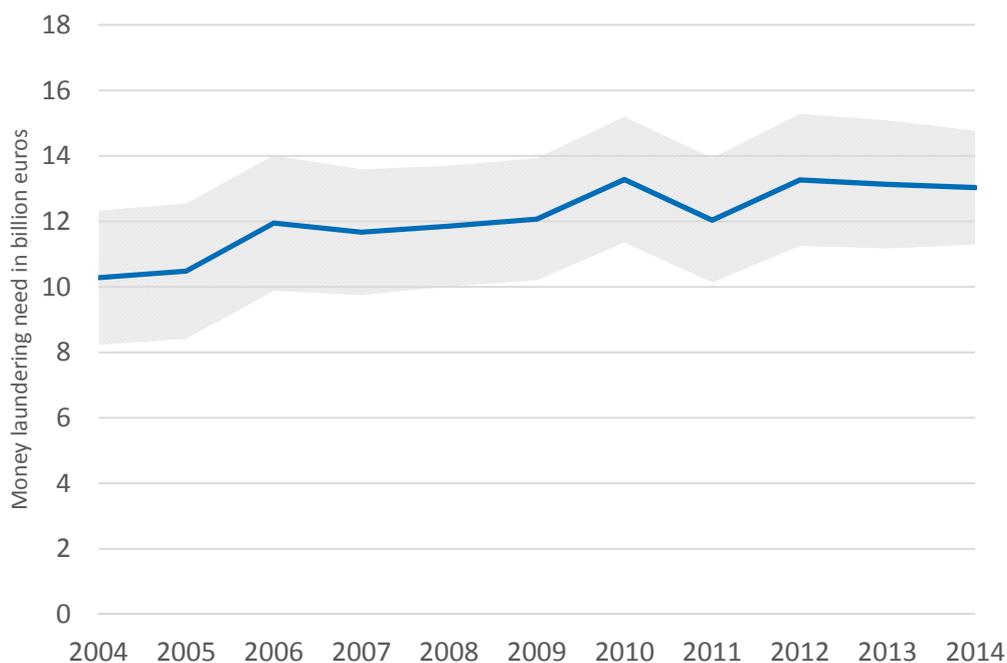

Source: own calculations based on Walker (1995), World Bank and UNODC data

Figure 0.6 shows that fraud is the most important crime in our estimates. Unfortunately, it is precisely the fraud data that we had to estimate ourselves, because no complete data is available. We therefore used a dotted line in the figure above to depict the development of fraud. To make the sensitivity of the estimation for fraud visible, we use a bandwidth around our estimates. In the figures below, we show this with a grey area around the estimate of the money laundering line.

We estimate that the total domestic money laundering need in the Netherlands has increased from 10.3 to 13 billion euros in the period 2004-2014. This amounts to approximately 2 percent of Dutch GDP over the entire period. It should be noted that it is difficult to indicate a clear trend due to the sensitivity of the fraud estimates (see the bandwidth in Figure 0.7).

Figure 0.7   The development of domestic money laundering need in the Netherlands for the period 2004-2014, in billion euros

Source: own calculations based on Walker (1995), World Bank and UNODC data (2004-2014)

For the other 180 countries in the world we use the same method to estimate the amount of criminal money that needs to be laundered. The Table 0.9 shows the top 20 countries with the highest money laundering need in 2014, with the Netherlands in the 14th place.

Table 0.9   Top 20 countries with money laundering need per country in billion euros in 2014

Rank	Country	Money laundering need
1	United States	185.8
2	Germany	72.4
3	United Kingdom	50.3
4	France	35.7
5	Australia	33.2
6	China	26.8
7	Canada	26.5
8	Italy	19.3
9	Switzerland	18.3
10	Sweden	18.2
11	Norway	16.3
12	Russia	14.1
13	Brazil	13.9
14	The Netherlands	13.0
15	Japan	11.9
16	Belgium	11.7
17	Spain	7.9
18	Denmark	7.2
19	Mexico	6.3
20	Israel	5.6
Total for all countries		677.6

The total domestic money laundering need indicates how much money has to be laundered by criminals from that country. Worldwide, the total money laundering need was 677.6 billion euros in 2014. However, it is not yet clear where the money laundering will take place. To determine this we use a gravity model.

An important ingredient of our gravity model is the so-called attractiveness index. This index estimates how attractive each country is for money launderers. In our model, the Netherlands is relatively attractive to money launderers, as it ranks number 8 in the world. This can be due in particular to high prosperity, well-developed financial markets, low corruption (corruption is costly for money launderers) and a stable economy. Luxembourg has the highest attractiveness index over the entire period. Norway, a rich country with oil, appears to be more attractive to money launderers in our model than most of us expect.

Table 0.10   Top-10 Unger attractiveness index

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1	Luxembourg	Luxembourg	Luxembourg	Luxembourg	Luxembourg	Luxembourg	Luxembourg	Luxembourg	Luxembourg	Luxembourg	Luxembourg
2	San Marino	Bermuda	Norway	Norway	Norway	Norway	Norway	Norway	Norway	Switzerland	Norway
3	Bermuda	Norway	Bermuda	Bermuda	San Marino	Bermuda	Switzerland	Switzerland	Switzerland	Norway	Switzerland
4	Norway	San Marino	San Marino	San Marino	Bermuda	Switzerland	Bermuda	Qatar	Qatar	Qatar	Qatar
5	Switzerland	Switzerland	Switzerland	Iceland	Qatar	San Marino	Qatar	Bermuda	Bermuda	Bermuda	Bermuda
6	Ireland	Iceland	Qatar	Switzerland	Switzerland	Qatar	San Marino	Australia	Australia	Australia	Australia
7	Iceland	Ireland	Ireland	Qatar	The Netherlands	The Netherlands	The Netherlands	San Marino	Sweden	Belgium	Belgium
8	The Netherlands	Qatar	Iceland	Ireland	Ireland	Ireland	Australia	The Netherlands	The Netherlands	Sweden	The Netherlands
9	Finland	The Netherlands	The Netherlands	The Netherlands	Finland	Finland	Finland	Sweden	Belgium	The Netherlands	Sweden
10	Qatar	Finland	Finland	Finland	Belgium	Belgium	Belgium	Finland	Canada	Canada	Canada

Money can be laundered in the country where it is earned (with criminal activities) or it can be sent to another country and laundered there. In addition to the attractiveness index, we also use the cultural distance between countries to estimate the flows of each country in the world to each country in the world.

Table 0.11   Estimation of money laundering that flows to the Netherlands, 2004 and 2014, x million euros

	2004			2014		
	Country of origin	Inflow amount	Percent of total inflow	Country of origin	Inflow amount	Percent of total inflow
1	US	1,889	26 percent	US	2.217	24 percent
2	Germany	860	12 percent	Germany	969	11 percent
3	VK	727	10 percent	VK	804	9 percent
4	France	408	6 percent	China	531	6 percent
5	Italy	250	3 percent	France	497	5 percent
6	Canada	221	3 percent	Russia	313	3 percent
7	Belgium	181	3 percent	Italy	289	3 percent
8	India	170	2 percent	Canada	266	3 percent
9	Sweden	162	2 percent	Brazil	236	3 percent
10	Australia	157	2 percent	Sweden	227	2 percent
11	Mexico	152	2 percent	Australia	208	2 percent
12	Japan	152	2 percent	Belgium	196	2 percent
13	China	149	2 percent	Switzerland	178	2 percent
14	Switzerland	149	2 percent	Norway	154	2 percent

15	Spain	134	2 percent	Spain	136	1 percent
16	Norway	121	2 percent	Japan	130	1 percent
17	Russia	117	2 percent	Mexico	115	1 percent
18	Austria	91	1 percent	Poland	105	1 percent
19	Brazil	82	1 percent	Denmark	95	1 percent
20	Denmark	76	1 percent	Israel	94	1 percent
	Total of all 181 countries	7.153	100 percent	Total of all 181 countries	9.122	100 percent

Source: own calculations with Walker (1995). We also estimated the years 2005-2013, but they are not shows here because of the layout.[8]

Table 0.11 shows that the US sends more than twice as much criminal money to the Netherlands to be laundered than the number 2, Germany. We see the clear pattern that the inflow of money laundering mainly comes from either very large countries (in terms of money laundering: US, Canada, China) or from countries close to the Netherlands (Germany, United Kingdom, France, Belgium). China, Russia and Brazil are emerging in the period 2004-2014. In total, 9.1 billion euros from other countries are flowing to the Netherlands in 2014, 2 billion euros more than in 2004.

Table 0.12   **Estimation of money laundering money from the Netherlands, 2004-2014, x million euros**

	2004			2014		
	Destination country	Outflow amount	Percent of total outflow	Destination country	Outflow amount	Percent of total outflow
1	Luxembourg	299	7 percent	Luxembourg	385	6 percent
2	San Marino	190	4 percent	Norway	266	4 percent
3	Belgium	184	4 percent	Switzerland	254	4 percent
4	Switzerland	174	4 percent	Belgium	244	4 percent
5	Norway	174	4 percent	Qatar	193	3 percent
6	Ireland	148	3 percent	Bermuda	169	3 percent
7	Bermuda	139	3 percent	Sweden	159	3 percent
8	France	132	3 percent	Ireland	157	3 percent
9	Iceland	127	3 percent	Germany	156	3 percent
10	Finland	126	3 percent	Denmark	154	3 percent
11	Sweden	125	3 percent	San Marino	145	2 percent
12	Germany	125	3 percent	France	140	2 percent
13	Denmark	116	3 percent	Austria	139	2 percent
14	Austria	106	2 percent	Iceland	135	2 percent
15	Andorra	104	2 percent	Finland	131	2 percent
16	Qatar	101	2 percent	Canada	117	2 percent
17	VK	87	2 percent	Greenland	109	2 percent
18	Italy	87	2 percent	Italy	102	2 percent
19	UAE	82	2 percent	Andorra	98	2 percent
20	Canada	77	2 percent	VK	97	2 percent
	Total for all 180 countries	4.503	100 percent	Total for all 180 countries	6.095	100 percent

Source: own calculations with Walker (1995). We also estimated the years 2005-2013, but they are not shows here because of the layout

---

[8] The marked decline of India in our estimates is due to a lack of data

Table 0.12 shows the amount of Dutch criminal money that flows to other countries to be laundered. The money mainly flows to Luxembourg, Norway and Switzerland. In total, 6.1 billion euros of criminal money leaves the Netherlands in 2014, 1.5 billion euros more than in 2004.

In total, we estimate the scale of money laundering in the Netherlands in 2014 at 16 billion euros (see Figure 0.8). This amount consists of domestic criminal money that is laundered in the Netherlands (6.9 billion in 2014) and the influx of money laundering from other countries (9.1 billion in 2014). This illustrates that money laundering in the Netherlands is of an international nature.

Our estimates are reasonably in line with previous estimates in Unger et al. (2006). Because we use more accurate data on (Dutch) crime, the current estimates are slightly lower than the 18.5 billion estimated in Unger et al. (2006). If we express money laundering in terms of GDP, money laundering accounts for 2.5% of GDP. This remains approximately constant over the period 2004-2014.

Figure 0.8   **Money laundering the in the Netherlands in billion euros**
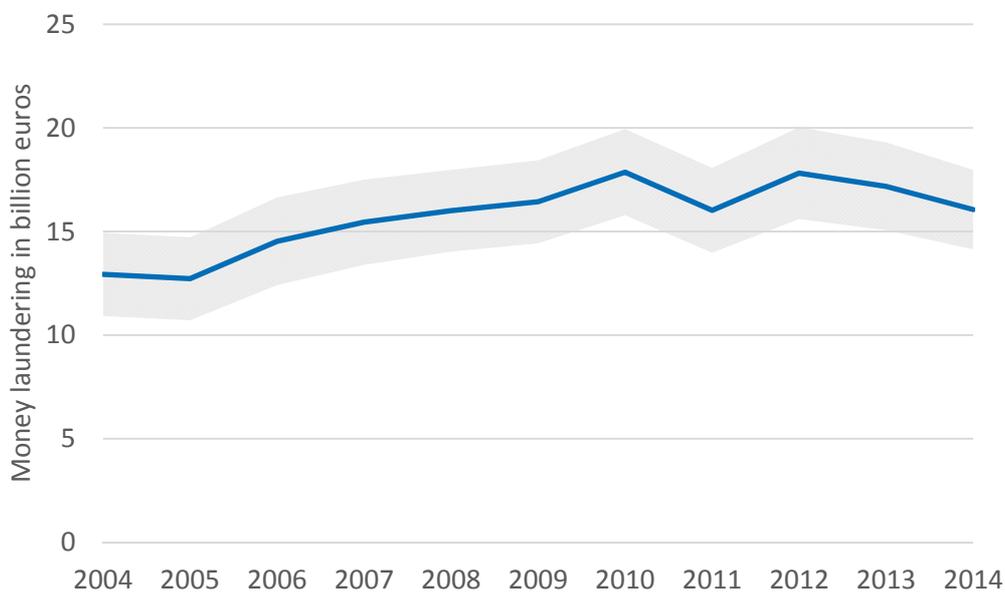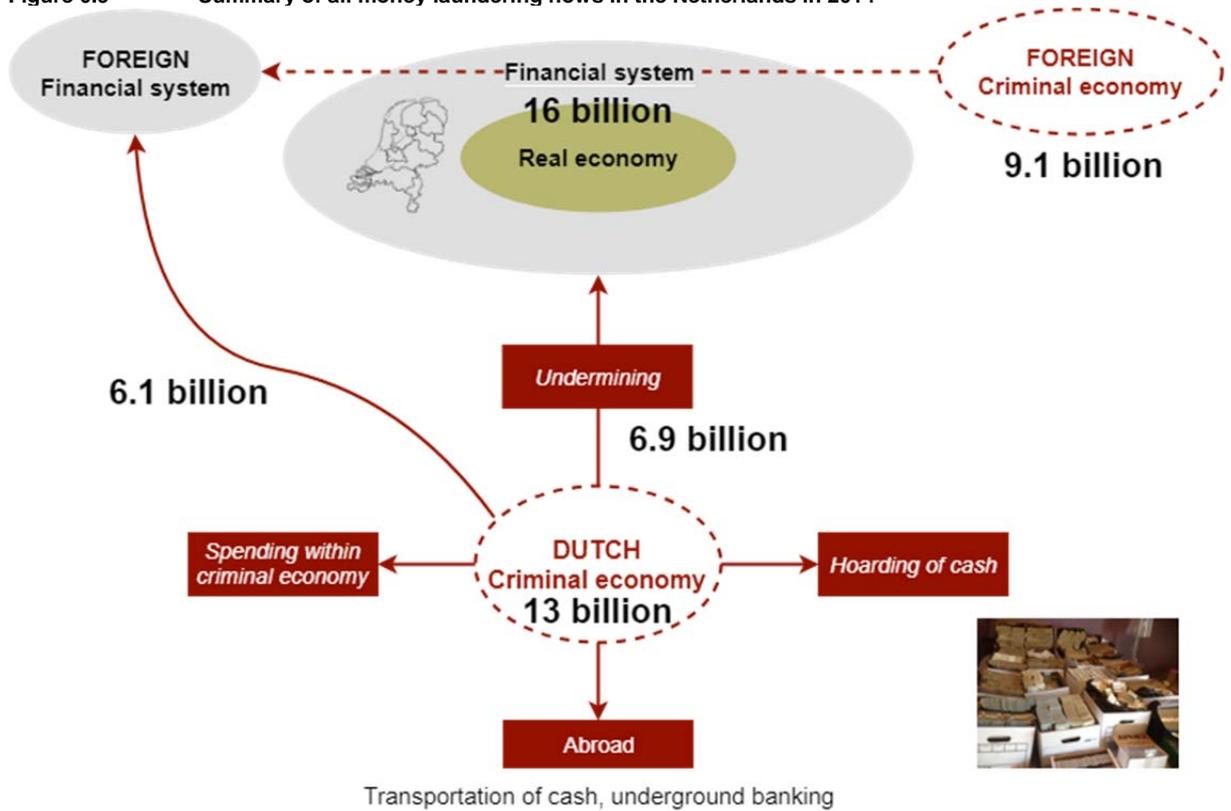

Source: own calculations based on Walker (1995), World Bank and UNODC data

We also estimate the total amount of money laundering for the entire world. We estimate the extent of money laundering in the world at an amount of 677 billion euros in 2014, or 1.2 percent of the world's GDP.

As with all estimates, our estimates are based on assumptions and are subject to limitations. This applies to both our research and the previous research on which we base ourselves. These are described in detail and discussed in sections 3.2.6 and 5, respectively.

**Figure 0.9**   **Summary of all money laundering flows in the Netherlands in 2014**

FOREIGN Financial system

Financial system
16 billion
Real economy

FOREIGN Criminal economy

9.1 billion

6.1 billion

Undermining

6.9 billion

Spending within criminal economy

DUTCH Criminal economy
13 billion

Hoarding of cash

Abroad

Transportation of cash, underground banking

All amounts are in euros

Source: made by the authors

In the literature we find 24 different effects of money laundering. Our estimates make it possible to carry out more research into – and provide empirical evidence for – these effects of money laundering in the future. At the moment we can only lift a tip of the veil and there are insufficient results to draw general conclusions about the effects of money laundering. Furthermore, not all effects of money laundering are necessarily measurable with internationally comparable data. A lot of future research is needed to be able to establish the effects of money laundering and the extent to which these effects occur in the Netherlands.

We have subdivided the 24 effects into four categories: Real economy, Financial sector, Public sector policy, and Society. Based on expert opinions, we have been able to indicate for each of these effects whether they are considered the most relevant (red), less relevant (orange) or least relevant (blue) for the Netherlands. The figure below gives an overview of the possible effects of money laundering mentioned in the literature. For the Netherlands, the reputation and profit of the financial sector, the change of output and employment, the change of foreign investments, growth and the disruption of economic statistics are the most important effects. As an important trading nation, the Netherlands must also pay attention to disruptions in imports and exports and the contamination of business and professional groups by money launderers.

Figure 0.10   The 24 effects of money laundering
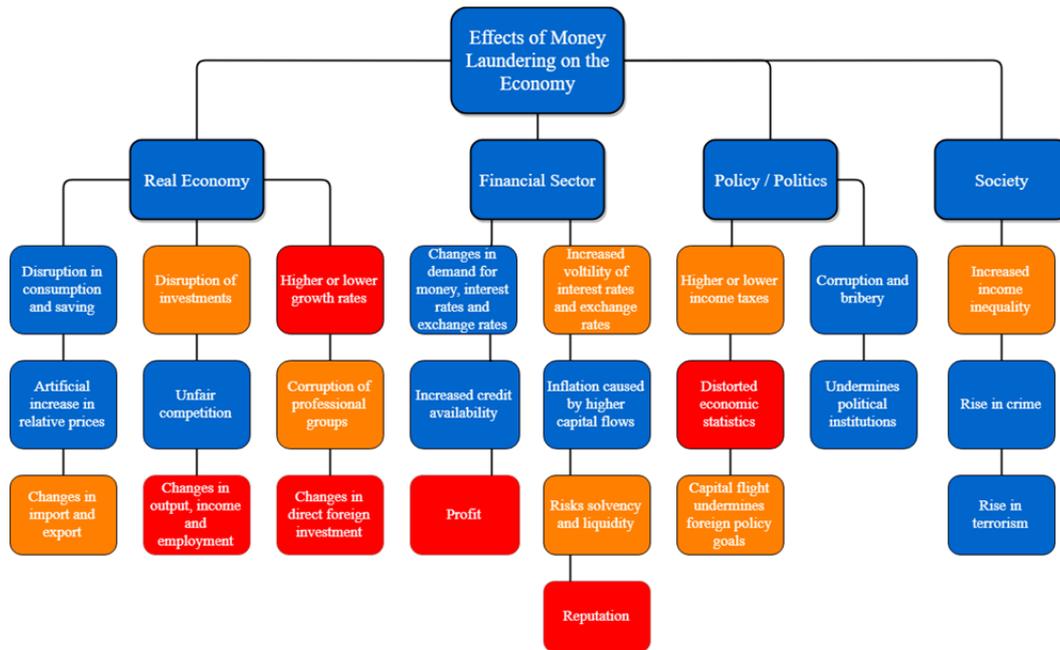
Source: the authors. This classification is made based on the expert opinions of the authors and presented with argumentation to the supervisory committee of this study. Legend: the effects in red boxes are considered most relevant, the orange boxes as less relevant and the blue boxes are seen as least relevant to the Netherlands.

Part III – Recommendations

Recommendations: policy

- A differentiated anti-money laundering policy must be based on the distinction between different types of crime and different spending categories. For money laundering, fraud and drugs are the main offenses with very different effects for society. Since fraud is becoming increasingly important, a differentiated approach is becoming increasingly relevant.

- Both parts of this study point at the importance of the international dimension of money laundering. Knowledge about and commitment to tackling cross-border criminal money flows is a necessary precondition for a successful Dutch anti-money laundering policy. It also links up with the cross-border nature of much of the crime in the Netherlands and the ties that some (groups of) criminals have with the country of origin or that of their family. If Dutch criminals look far across the border, law enforcement will have to do so as well.

- Setting up legal businesses is important for facilitating money laundering in the Netherlands. Advisors that are normally active in legitimate business are actively helping criminals as well. Sufficient financial and economic knowledge within law enforcement agencies is necessary to understand and tackle the use of businesses for criminal behavior. Interviews show that there is no shortage of supply of this financial service for criminals. A stricter policy with regard to these service providers is therefore crucial in order to limit the undermining of our society by criminals.

Recommendations: research

The Walker gravity model can be further improved by assigning a heavier weight to relations with countries of origin of large groups of migrants. This is explained by, among other things, the social opportunity structure (due to ties with a country of origin, which can also be used by other criminals). Furthermore, there are 'criminal hotspots', where criminals usually choose to stay for part of the year or as a holiday destination (e.g. Marbella in Spain, Dubai, Marrakesh). The model can be adjusted to account for this. The presence of informal financial channels (such as hawala) is

often linked to migrant flows, but can be further investigated and lead to possible adjustments in the model.

The interviews show that the transfer of cash to other countries (especially outside of Europe) is an important option for criminals and has not been sufficiently researched so far. This could be researched in more detail on the basis of interviews, information from criminal investigations and information based on security checks (for example at airports in the Netherlands and neighboring countries).

Further research can also be done into the price of money laundering. Reuter and Soudijn (2016) indicate that the "total cost of service" for smuggling cash to Colombia ranges from 10 to 17 percent of the total amounts. In interviews with detainees figures of 10 to 20 percent were mentioned for spending large sums of illegally obtained cash. Such costs can be an indication of how difficult or easy it is to launder money and could be used for international comparison.