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Detecting money laundering in emissions trading

Final report

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Detecting money laundering in emissions trading

Final report – anonymised and abbreviated version

by

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Abstract: Detecting money laundering in emissions trading

This report presents an empirical study on detecting the risks of money laundering in the EU-Emissions Trading Scheme (EU ETS). The first step was to carry out 16 qualitative interviews with selected account holders and experts. The main part of the study was a web-based survey of trading account holders and non-trading account holders carried out between the 10th of October and the 19th of November 2017. The non-trading accounts include installation operator accounts, aircraft operator accounts, and person holding accounts that can be assigned to 1,257 different account holders. A total of 238 account holders completed the questionnaire – a response rate of 19 per cent.

Based on account holders' reports on transaction constellations and perceived suspicious cases, the study projects an estimate of at least 300 suspicious transaction constellations within a trading year that give sufficient grounds for suspected money laundering. Because account holders are insufficiently aware of the risks, this is clearly an underestimate, and the potential risk is certainly much higher. In addition, increasing prices for certificates along with their declining volatility will make the EU ETS more and more attractive for money laundering. Further factors that increase the risk emerge from the lack of transparency of the Union registry, the lack of AML-compliance measures on the side of account holders, and the risks coming from countries with high levels of money laundering and corruption – particularly those within the EU.

Six recommendations are derived from the study: (1) to introduce software-based analyses of the Union registry, (2) to report suspicious cases, (3) to reform the Union registry, (4) to encourage account holders to implement compliance management systems, (5) to ask the German Environment Agency in the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (DEHSt) to introduce internet-based training measures, and (6) to carry out international risk analyses to counter money laundering in EU ETS.

Kurzbeschreibung: Erkennung von Geldwäsche im Emissionshandel

Es handelt sich um eine empirische Studie zur Erkennung der Risiken von Geldwäsche im Europäischen Emissionshandelssystem (EU-ETS). Hierzu wurden im ersten Schritt 16 qualitative Interviews mit ausgewählten Kontoinhabenden Personen und Experten durchgeführt. Im Hauptteil der Studie erfolgte eine webbasierte Befragung der Inhaber von Händlerkonten und Nichthändlerkonten vom 24.10. bis 19.11.2017. Zu den Nichthändlerkonten zählen Anlagen- und Luftfahrzeugbetreiberkonten sowie Personenkonten, die 1.257 unterschiedlichen Kontoinhaber/innen zuzuordnen sind. Von 238 kontoinhabenden Personen wurde der Fragebogen beantwortet, dies entspricht einer Rücklaufquote von 19 %.

Auf der Basis der Angaben der kontoinhabenden Personen zu Transaktionsmustern und wahrgenommenen Verdachtsfällen gelangt die Studie zu hochgerechnet mindestens 300 auffälligen Transaktionskonstellationen innerhalb eines Handelsjahres, die einen Verdacht auf Geldwäsche begründen. Hierbei handelt es sich aufgrund eines unzureichenden Problembewusstseins (Awareness) der Kontoinhaber/innen um eine deutliche Unterschätzung. Das Risikopotenzial dürfte sehr viel höher einzuschätzen sein. Außerdem wird mit steigenden Zertifikatpreisen und abnehmender Volatilität die Attraktivität des EU-ETS für Geldwäsche weiter zunehmen. Weitere risikoerhöhende Faktoren folgen aus der Intransparenz des Unionsregisters, fehlender AML-Compliance-Maßnahmen auf Seiten der Kontoinhaber/innen und den Risiken aus mit Geldwäsche und Korruption belasteten Staaten, vornehmlich im EU-Ausland.

Aus dieser Studie werden sechs Empfehlungen abgeleitet: (1) Softwaregestützte Analysen des Unionsregisters, (2) Abgabe von Verdachtsmeldungen, (3) Reformierung des Unionsregisters, (4) Implementation von Compliance-Management-Systemen auf Seiten der Kontoinhaber/innen und (5) webbasierte Schulungsmaßnahmen durch die Deutsche Emissionshandelsstelle im Umweltbundesamt (DEHSt). (6) Internationale Risikoanalysen zur Bekämpfung von Geldwäsche im EU-ETS.

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List of abbreviations

AML-CMS	Anti-money-laundering compliance-management system
BaFin	German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht)
BIC	Bank Identifier Code
BKA	German Federal Criminal Police Office (Bundeskriminalamt)
CO₂	Carbon Dioxide
ct	Cent
DEHSt	German Emissions Trading Authority (Deutsche Emissionshandelsstelle)
EEX	European Energy Exchange
EU	European Union
EU ETS	EU Emissions Trading System (Europäisches Emissionshandelssystem)
GwG	German Money Laundering Act (Geldwäschegesetz)
IBAN	International Bank Account Number
ICE	Intercontinental Exchange
KfW	KfW Banking Group (Kreditanstalt für Wiederaufbau Bankengruppe)
LEI	Legal Entity Identifier, [globally unique identifier for legal entities in the financial market]
LKA	German State Criminal Police Office (Landeskriminalamt)
MiFID II	European Markets in Financial Instruments Directive II
NGO	Non-Governmental Organisation
OTC	Over-the-Counter [non-exchange trading]
SAR	Suspicious Activity Report
StGB	German Penal Code (Strafgesetzbuch)
t	Ton
UBA	Federal Environmental Agency (Umweltbundesamt)
UK	United Kingdom
USA	United States of America
WpHG	German Securities Trading Act (Wertpapierhandelsgesetz)

Summary

This report presents an empirical study on detecting the risks of money laundering in the EU-Emissions Trading Scheme (EU ETS). It is based on surveys of companies that are active in the Union registry and the responsible staff members who maintain an account in the part of the registry administered in Germany.

It first carried out 16 qualitative interviews with selected account holders and experts. The main part of the study was a web-based survey of trading account holders and non-trading account holders carried out from the 10th of October to the 19th of November 2017. The non-trading accounts include installation operator holding accounts, aircraft operator accounts, and person holding accounts, which can be assigned to 1,257 different account holders. A total of 238 account holders answered the questionnaire – a good response rate of 19 per cent. Hence, the survey provided a representative picture of the attitudes, the experiences, and also the compliance measures in this population.

The study made it possible to identify suspicious transaction constellations from the patterns of trading surveyed and the reports given by holders of installation operator, aircraft operator, and trading accounts. These reports address ten different suspicious circumstances that provide sufficient grounds for suspected money laundering. On this basis, the study led to a projected 600 suspicious business constellations in each trading year. In many cases, suspicious activity reports (SARs) were justified by the presence of one single suspicious circumstance. These included:

- ▶ The business purpose of the prospective buyers was not clear ($n = 80$).
- ▶ The price of the emission certificates deviated strongly from the market price at that time ($n = 69$)
- ▶ Unusually high amounts were supposed to be traded ($n = 51$)
- ▶ Prospective buyer preferred to pay cash ($n = 48$)

Nonetheless, there were also cases in which several of these suspicious circumstances were present in one single trading constellation. Assuming an average of two suspicious circumstances in one trading constellation, the projected number of suspicious cases in the part of the EU ETS administered by Germany has a bottom line of about 300 per year. These are all cases in which there are grounds for suspected money laundering and an SAR would be indicated.

Moreover, the absolute dark field can be assumed to be far larger than the number of cases projected so far, because there is a generally inadequate awareness of the money laundering risks in the EU ETS. Only roughly one out of every ten non-traders possess an anti-money-laundering compliance officer (13 per cent) or carries out corresponding trainings (11 per cent) and risk analyses (13 per cent). In the group of traders – who are particularly susceptible to money laundering – AML compliance measures are far from being a matter of course. Only one-third of traders plan to appoint an anti-money-laundering compliance officer (32 per cent) and carry out corresponding risk analyses (35 per cent). Training courses on money laundering prevention are even less well established (26 per cent).

No decrease in the risks facing the EU ETS can be anticipated. There are basically five reasons why this market reveals major risks for money laundering:

1. Emissions certificates are an easily tradeable international financial product: ownership of a registry account is a precondition for trade, but not for fiduciary transactions.
2. The security of the financial investment is guaranteed by the state. Emissions certificates are immaterial goods administered by a state.
3. The Union registry provides relatively little transparency not only for trading account holders but also for the national registry administration itself.
4. There is currently no AML compliance management on the market that can address the risk appropriately – for either installation and airline operators or traders.
5. If the framing conditions for EU ETS develop positively and market prices go up, then the attractiveness of using emission certificates for money laundering will show a further major increase.

Six recommendations for reducing the risks of money laundering in EU ETS are derived from the results of the study:

1. Software-supported analyses of the registry

The registry administration should develop software-supported tools to identify the conspicuous transaction patterns stated in this study more clearly and gain a more detailed description of risky constellations.

2. Reporting suspicious cases and communicating them

If software-supported analyses of the Union registry reveal indications of potential money laundering, these should be reported as SARs. To increase the external impact, these SARs and the suspicious features (typologies) should be published on the DEHSt website.

3. Reform of the Union registry

An increasing number of qualitatively analysable SARs will require a reform of the Union registry to increase the transparency of the EU ETS in transactions with emission certificates for both registry account holders and national registry administrators.

4. Implementation of compliance-management systems

There is a need to make it easier for registry administrators and account holders to recognize and classify the susceptibility of accounts to money laundering. A reformed Union registry should contain sections documenting the implementation of central AML compliance measures for both registry account holders and registry administrators. As an incentive, the DEHSt website should communicate that when an account holder implements an AML-CMS that has been audited by the DEHSt, this will be taken into account when evaluating that account holders' money laundering risk.

5. Web-based training measures by the DEHSt

There is insufficient awareness of the risks of money laundering in EU ETS. The German Emission Trading Authority (DEHSt) should offer web-based information for account holders in order to help increase awareness and show holders how to submit SARs.

6. International risk analyses to fight money laundering in EU ETS

The present study is a national risk analysis limited to registry accounts administered in Germany. Hence, it is unable to assess the risks of money laundering in the total EU ETS. An adequate evaluation of the risk in EU ETS would require a dark field study of the entire Union. Such a study could draw on the methodological experiences gained in the present national study.

1 Methodological approach and sample description

1.1 Interviews with account holders and other experts

The first step in the project was to carry out 16 qualitative interviews with selected holders of registry accounts and experts. Due to the sensitivity of the topic, those being interviewed were guaranteed anonymity. The interviews also served to develop the web-based questionnaire. This was discussed in detail with two experts. Many of the interviews were carried out as conference calls, because most participants preferred this approach for organizational reasons.

1.2 Web-based survey

In cooperation with the UBA, we developed two questionnaires. One was aimed exclusively towards the holders of trading accounts (traders); the other, towards holders of registry accounts for installation and aircraft operators that we shall refer to below simply as non-handlers.

Data were collected in this web-based survey over a four-week period from the 24th of October 2017 to the 19th of November 2017. The UBA contacted a total of 3,852 persons by email. These persons can be assigned to 1,257 different account holders. They were made up of holders of 917 installation operator accounts, 167 aircraft operator accounts, 116 trading accounts, and 251 person holding accounts that were in part registered for several types of account. Of the holders of installation operator accounts, 36 also had a trading account and 58 a person holding account.

Approximately 200 mails were returned as undeliverable. The questionnaire was completed by 238 account holders (see Figure 1). There was only a relatively small number of persons with a trading account ($n = 116$). For this reason, operators who also possessed a trading account were also given the trader questionnaire. This is also a major risk group, so their participation had to be ensured. Trading accounts are subject to lower trading restrictions, allowing transactions to be carried out in real time without being documented in a trust account list.

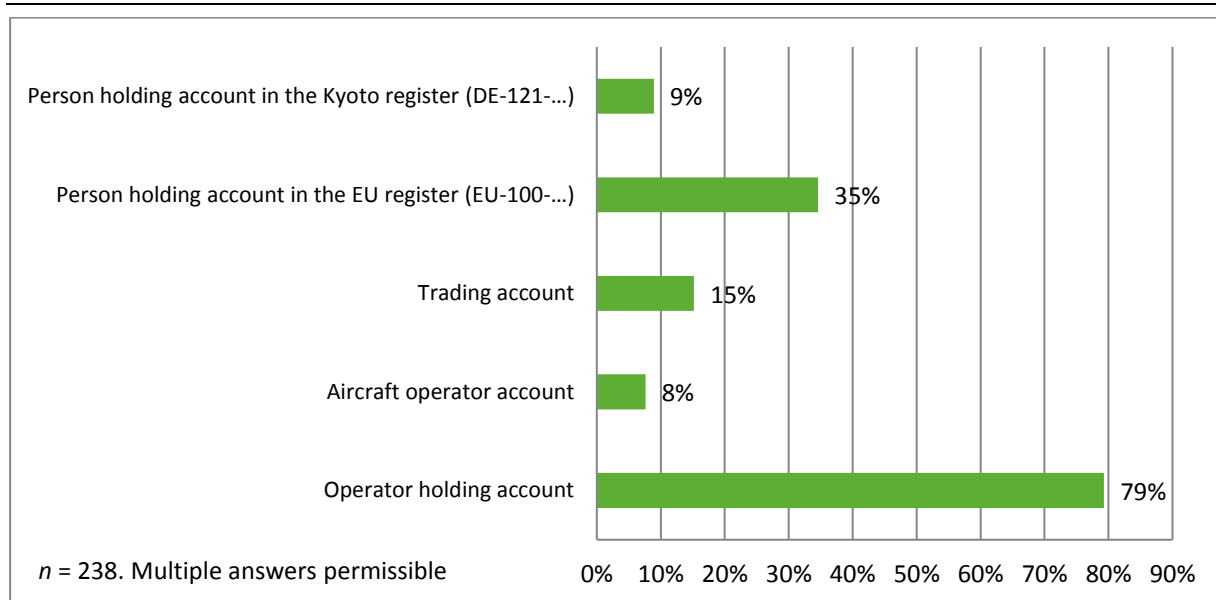
The total response rate was approximately 19% (see Table 1). This is a satisfactory rate for a survey of this kind. If a sample is to be representative, it is necessary for all members of the given population to be granted the same chance to participate in the survey. This was the case here, because every account holder was contacted. Moreover, the response rate should also reveal no systematic bias. Response rates for installation operator and aircraft operator accounts were 11% and 21% respectively; for the separately analysed trading account, it was even 31%. Hence, each group was represented. There were no indications for any systematic nonresponding to the questionnaires. Hence, the survey provided a representative picture of the attitudes, the experiences, and also the compliance measures in this population (for the weighting and unweighted extrapolation, see section 5.1).

Table 1: Response rates for individual types of account

Account holder by type of account (number of accounts)	Response rate
Operator holding accounts ($n = 917$, incl. multiple holdings)	21 per cent ($n = 189$)
Aircraft operator holding accounts ($n = 167$)	11 per cent ($n = 18$)
Trading accounts ($n = 116$)	31 per cent ($n = 36$)
Person holding accounts ($n = 251$)	41 per cent ($n = 103$)
Total ($n = 1,257$, without multiple holdings)	19 per cent ($n = 238$)

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

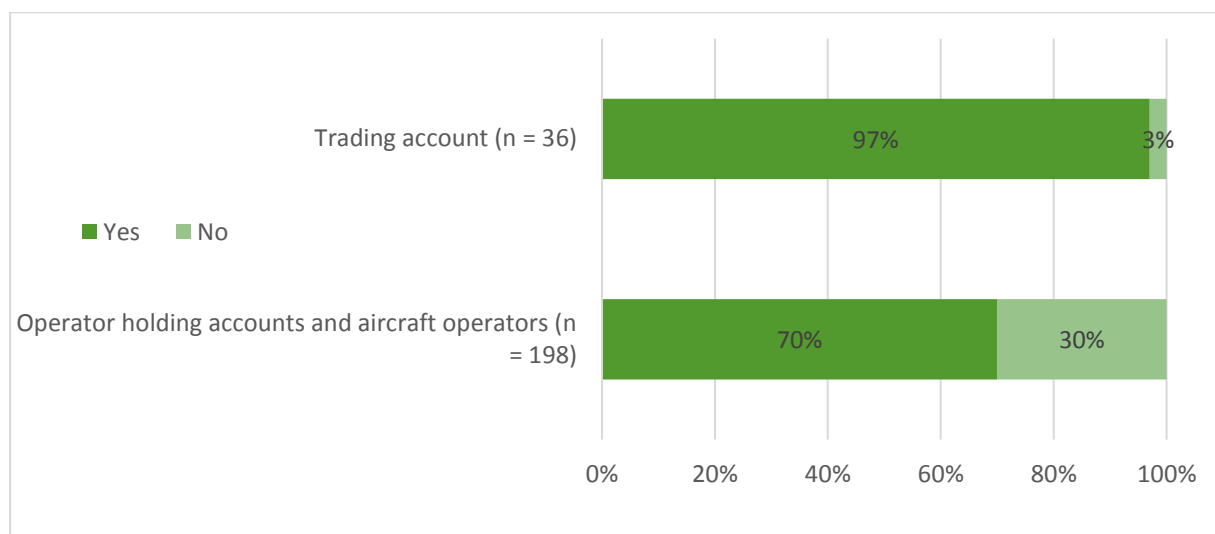
Figure 1: Sample characteristics



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

A filter item in the questionnaire ensured that further questions were answered only by account holders who had traded in emission certificates (purchase, sale, or exchange) in 2017, the year of the field phase of the study, and/or in the previous trading year. In 2016 and 2017, 3 per cent of traders and 30 per cent of installation and aircraft operators reported having engaged in no transactions.

Figure 2: Transactions with emission certificates in 2016 and 2017

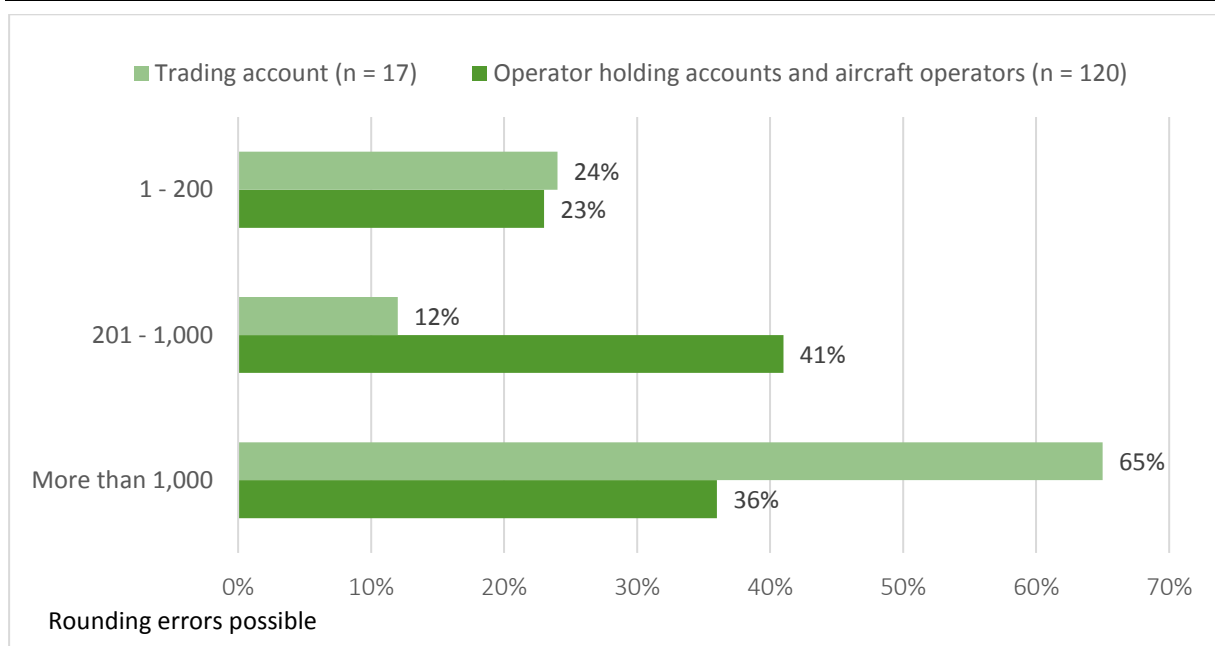


Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

The majority of installation and aircraft operators in the survey are small or medium-sized companies: 23 per cent have less than 200 employees and 41 per cent have 201–1,000 employees. In contrast, the companies of the traders in the survey were much larger with roughly two-thirds having more than 1,000 employees. This was probably because these were either larger financial institutes or companies possessing not only a registry account for installation and aircraft operators but also at least one trading account.

This question on the number of employees was placed at the end of the questionnaire. Some respondents evidently did not continue right to the end of the questionnaire, as shown by the lower number of respondents in Figure 3.

Figure 3: Number of company employees



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

2 Characteristics of trading

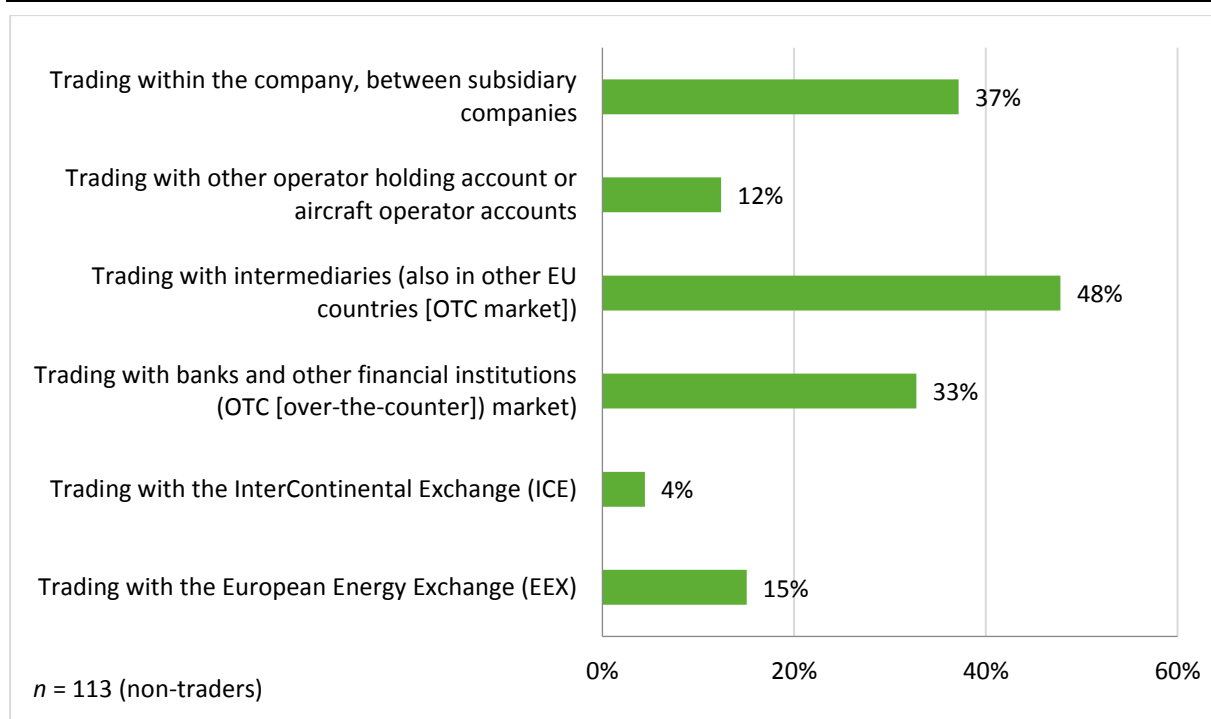
2.1 Trading platforms and transaction frequencies

The surveyed holders of registry accounts for installation and aircraft operators traded least frequently over exchanges such as ICE or EEX. Only 4 per cent of account holders reported having acquired emission certificates over the ICE and 15 per cent over the EEX for 2016 and 2017. Transactions with other installation and aircraft operators were relatively infrequent: they were reported by only one in ten account holders (12 per cent).

In contrast, almost every second holder of an installation and aircraft operator account reported trading on the OTC market with intermediaries (48 per cent); and one in three, with banks or other financial institutions (33 per cent). Transactions within a company or between subsidiaries were also relatively frequent (37 per cent).

This is in line with the findings from our qualitative interviews. Installation and aircraft operators who do not have their own trading accounts are frequently not interested in speculative profits, and accordingly engage in hardly any transactions.

Figure 4: Trading platforms used by installation and aircraft operators in 2016–2017



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

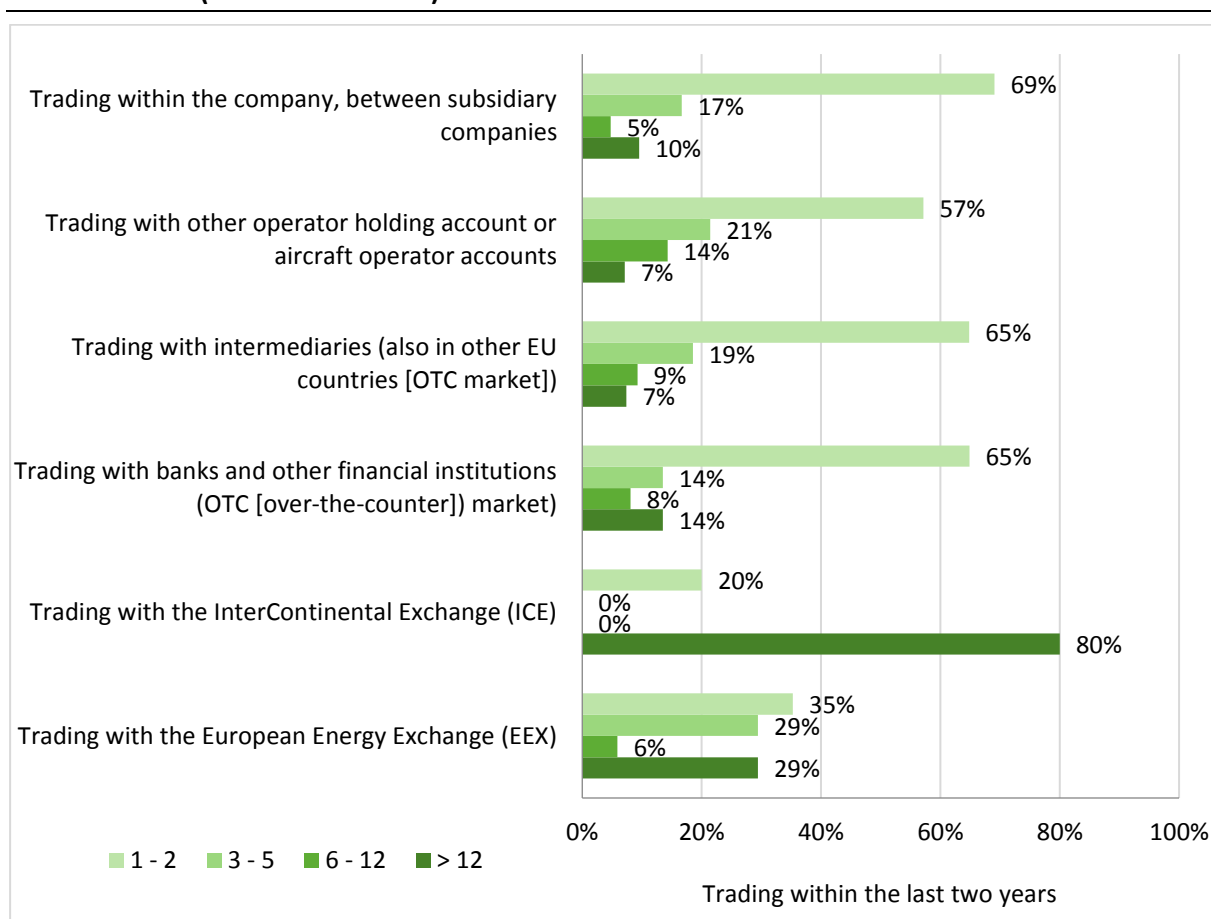
As far as companies are liable, that is, obliged to cover their emissions of the previous year with emission certificates, this is mostly covered throughout the year over so-called futures or forward contracts with financial institutions and not carried out within the core transaction period in March and April. These contracts are effected in a small number of instalments that first become due at the end of the year. The standard term is generally the 15th of December so

that these will fall within the fiscal year and can be set off against tax. A total of 65 per cent of the installation and aircraft operators that engage actively in the EU ETS reported trading with banks and other financial institutions once or twice within a trading year (Figure 5).

However, there is also a group of installation and aircraft operators that are evidently far more active and do not just cover their compliance needs over a few transactions within the year. Indeed, 22 per cent of the surveyed installation and aircraft operators carried out more than five transactions with financial institutions and 16 per cent carried out more than five transactions with intermediaries. Trade with other operators and aircraft operators was similarly frequent (21 per cent more than five times).

Turning to exchange trading, although business with the ICE was relatively infrequent (4 per cent), those that did trade with the ICE engaged in an above-average number of transactions, with 80 per cent reporting more than 12 transactions per trading year (Figure 5). Because of the very short maturity dates, these were in many cases no longer really long-term futures or forward contracts, but more like spot transactions in disguise. In other words, they were motivated by speculation as in free trading.

Figure 5: Intensity of use of trading platforms by installation and aircraft operators (without ‘no trade’)



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

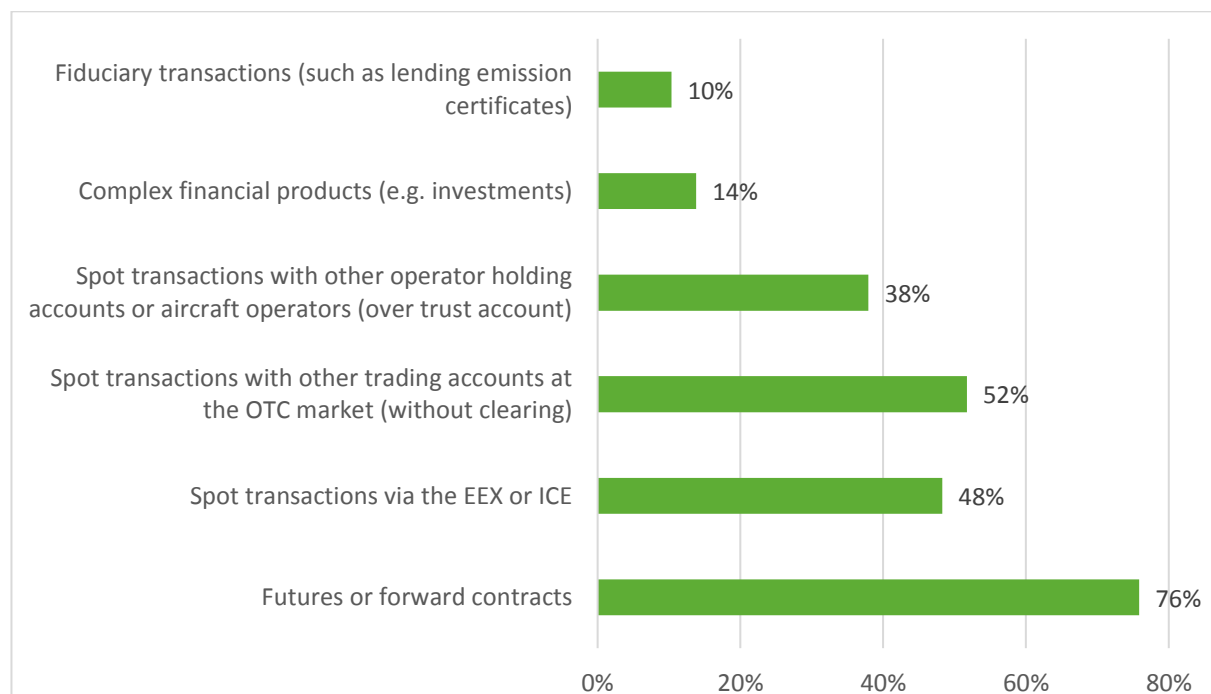
Hence, the OTC markets are markedly more significant in terms of the frequency of transactions compared to all other trading platforms. These are also used more frequently than the ICE or EEX. Nonetheless, the majority of account holders traded only once or twice per trading period on both OTC markets (65 per cent) and with other installation and aircraft operators (57 per cent).

Further analyses showed that it was almost exclusively companies with more than 1,000 employees that engaged in more than 12 transactions on OTC markets and other markets within one trading year. This is probably because larger companies may well pursue speculative business interests in the EU ETS and are potentially able to protect themselves sufficiently against price losses through risk management.

2.2 Importance of products in EU ETS

Holders of trading accounts can be so called independent traders or members of the regulated banking and financial institutions sector. However, the qualitative interviews with experts revealed that there are only a few independent traders in Germany ($n < 6$). Most account holders with a trading account are larger companies or financial institutions. This explains why most traders deal in futures or forward contracts (76 per cent). However, spot transactions on the OTC market over trading accounts or exchanges also play a significant role: one in two traders carry out their emissions trading in this way (52 per cent [OTC] and 48 per cent [EEX or ICE], see Figure 6).

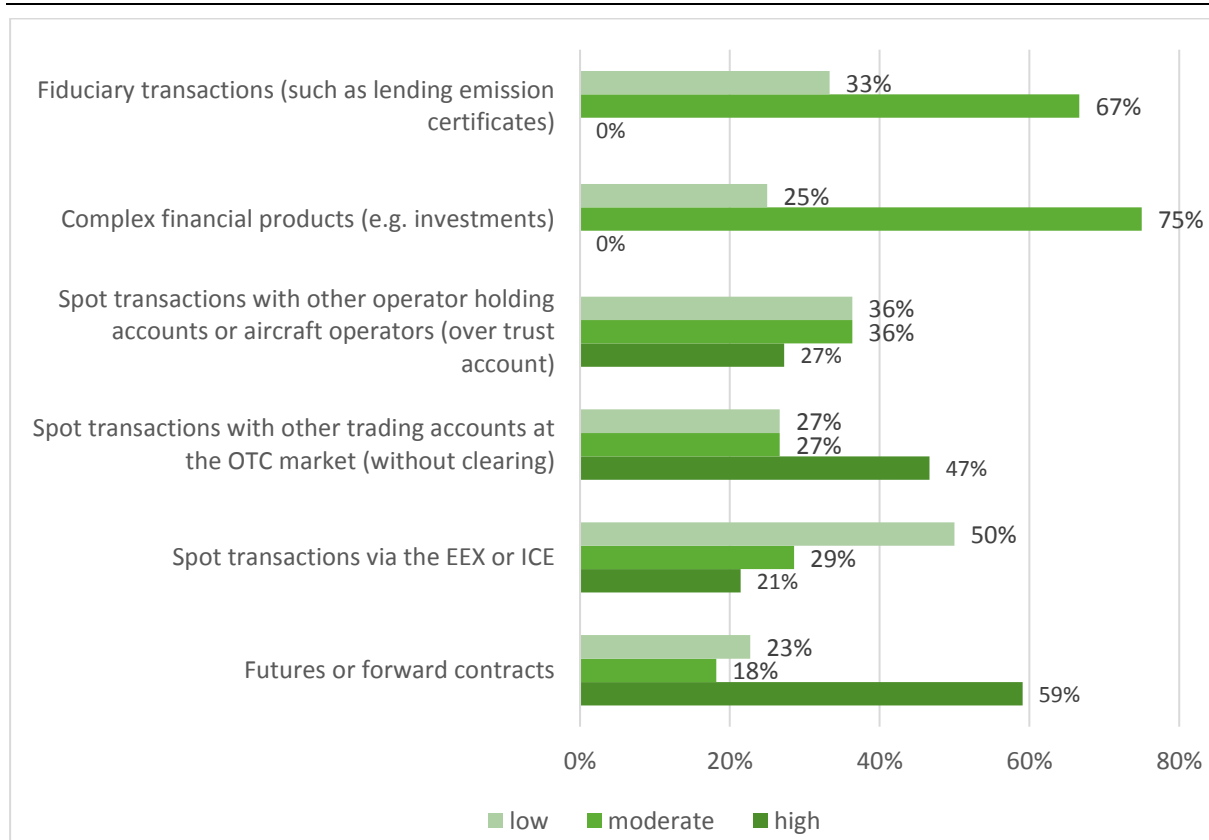
Figure 6: Trading platforms used by traders during the previous two years



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

For every second trader active in this way, futures or forward contracts (59 per cent) and spot transactions over trading accounts on the OTC market (47 per cent) play a significant role. These are markedly more significant than spot transactions over exchanges (EEX, ICE) and spot transactions with other installation and aircraft operators, with 21 per cent (EEX, ICE) or 27 per cent (other installation and aircraft operators) of traders reporting that these products played a significant role in their emissions trading (Figure 7). There is also a small group of traders for whom emission certificates are integrated into complex financial products (14 per cent) and for whom these were nonetheless of moderate significance (75 per cent).

Figure 7: Intensity of use of trading platforms by traders (without ‘no trade’)



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

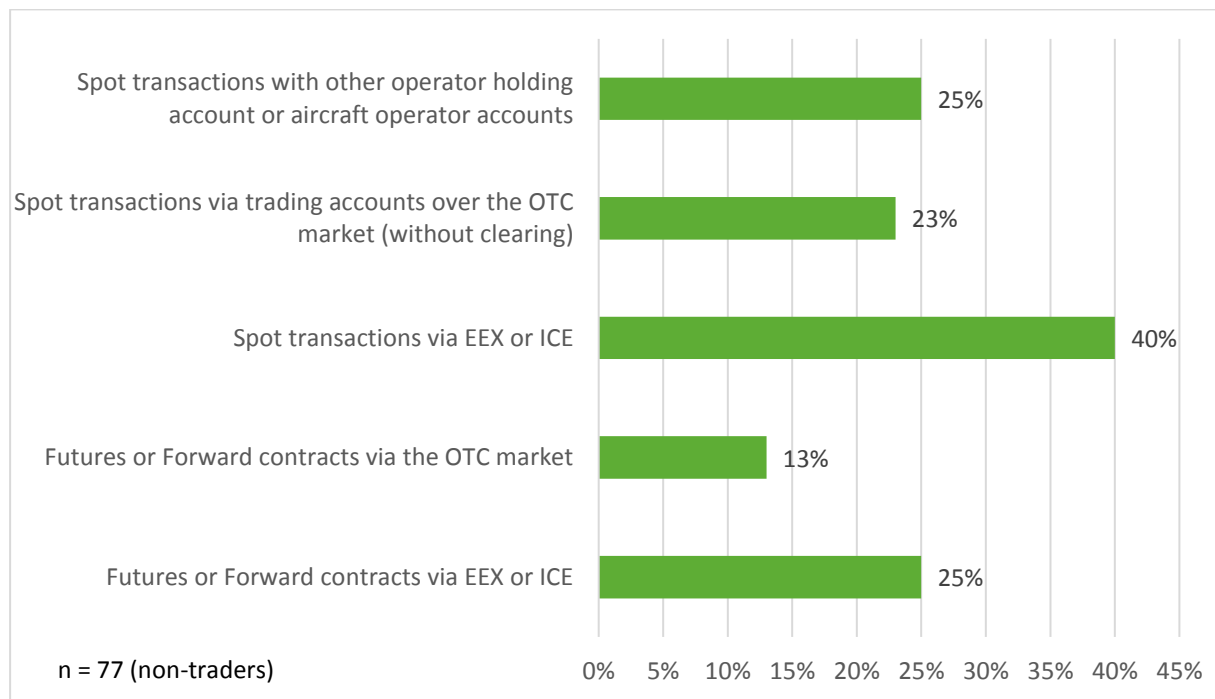
2.3 Trading platforms in other EU countries

Large number of emission certificates are traded across national borders. Most international trade is with business partners based in other EU countries that possess either a German account or an account in other EU member states (including the three associated states of Iceland, Liechtenstein and Norway). These are most frequently spot transactions over exchanges (40 per cent) such as ICE¹ and future or forward contracts over exchanges (25 per cent).

¹ The EEX is a public limited company based in Leipzig. However, the exchange and forward transactions are carried out by a multitude of subsidiaries that differ in their legal status and locations. The ECC as the clearing bank of the EEX is located in Luxemburg although the staff work exclusively in Leipzig.

However, when engaging in spot transactions with other installation and aircraft operators or with traders on the OTC market, one in four respondents (23 per cent) reported trading with partners in other EU countries. In contrast, international futures or forward contracts on the OTC market or over financial institutions are less frequent (13 per cent). Generally, emissions trading with banks and other financial institutions is carried out over domestic institutes.

Figure 8: Transactions with business partners in other EU countries (non-traders)



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

A great deal of both exchange trading with the ICE, and spot transactions with other installation and aircraft operators, and spot transactions with traders on the OTC market is international. The installation and aircraft operators surveyed reported the location of the head offices of the international trading partners with whom they did the greatest volume of business.

Table 2: Location of head offices of foreign trading partners among non-traders

Location of head offices of foreign trading partners	
UK (n = 8)	USA (n = 2)
Netherlands (n = 7)	Switzerland (n = 2)
France (n = 5)	Norway (n = 1)
Germany (n = 5)	Belgium (n = 1)
Spain (n = 4)	Austria (n = 1)

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

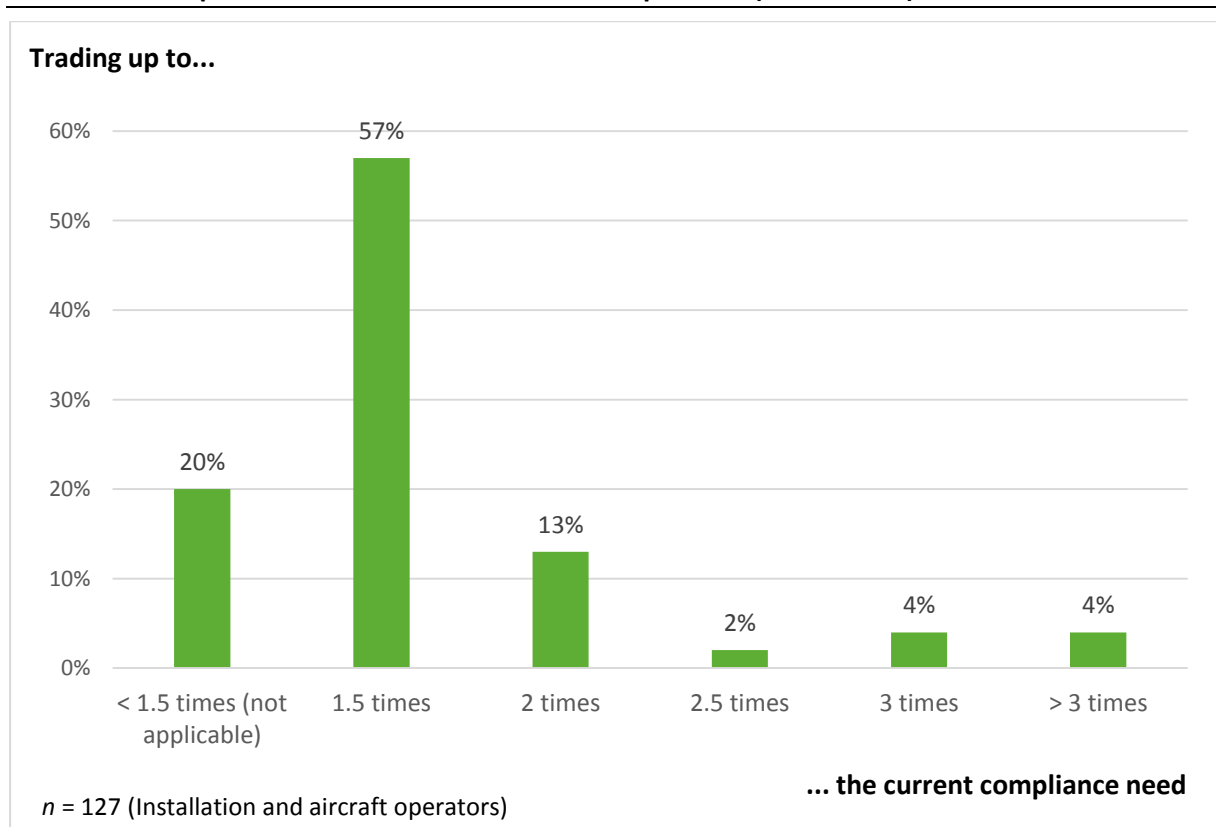
3 Indications of suspected money laundering

3.1 Indications of suspected money laundering

Installation and aircraft operators are interested in purchasing emission rights to cover their needs as economically as possible. They do this by using either futures or forward contracts or by engaging in spot transactions. However, in view of the current vacillations in market prices, this is subject to major risks, making it unusual to ‘cover’ oneself with emission certificates going far beyond one’s need for the year.

Results show that more than three-quarters of the companies cover little more than their compliance need on the market. For 20 per cent of the surveyed account holders, purchases are allowed either not to go or to go only slightly beyond their current compliance need. More than one-half of account holders (57 per cent) reported that acquiring emission certificates covering up to 1.5 times their compliance need would still be in accordance with their company’s business practices or in-house regulations. There were only a few companies for which trading volumes twice as high as the annual compliance need (13 per cent) or higher (2–4 per cent) would still be acceptable.

Figure 9: Volume of trade in emission certificates still in accordance with the business practice of installation and aircraft operators (non-traders)



Source: Author’s own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

For companies with 100–1,000 employees, it was only very rarely (9 per cent) in line with their company's business practices or in-house regulations to acquire emission certificates beyond 1.5 times their current compliance needs compared to more than one-third (35 per cent) of companies with more than 1,000 employees. Hence, acquiring emission certificates with a view to future prices and needs is found far more frequently among larger companies. One explanation could be that larger companies possess sophisticated risk management systems, and this makes trading in volumes markedly higher than their compliance needs an acceptable business practice designed to exploit anticipated future price differences.

Table 3: Compliance need and number of employees in company ($n = 87$)²

	Operator holding accounts ($n = 105$)	Number of employees in company	
		101–1,000	> 1,000
Trading volume in emission certificates (still in line with business practice)	Maximum of 1.5 times compliance needs	91 % ($n = 40$)	65 % ($n = 20$)
	More than 1.5 times compliance needs	9 % ($n = 4$)	35 % ($n = 11$)
	Sum	100 % ($n = 44$)	100 % ($n = 31$)

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

Distinguishing between types of accounts reveals the high proportion of holders of aircraft operator accounts for whom acquiring emission certificates more than 1.5 times their current compliance needs is not in line with their company's business practices or in-house regulations. For 91 per cent of aircraft operators, their in-house regulations would not permit acquiring larger volumes than 1.5 times their compliance needs.

Table 4: Relation between compliance need and type of account

Trading in how many times compliance needs	Installation operator account ($n = 105$)	Aircraft operator account ($n = 11$)
< 1.5-times and 1.5-times	74.29%	90.91%
2 times and more	25.71%	9.09%

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

² Because the sub-sample size was too low ($n = 12$), it was not possible to analyse this measure in companies with less than 100 employees.

3.2 Dark field of suspicious transaction offers or purchase interests

The risk of any form of crime – in the present case, money laundering – cannot be estimated reliably from the number of registered criminal charges that – in the present case – the German money laundering laws label as SARs (§§ 43 f. GwG). For the EU ETS domain, the complete lack of SARs would lead to the unlikely conclusion that there is simply no risk of money laundering. As a result, the DEHSt has not yet reported any incidents of suspected money laundering in the EU ETS. Likewise, in the opinion of the experts surveyed, account holders have correspondingly not reported any suspicious cases.³

Nonetheless, reports by the surveyed installation operators, aircraft operators, and traders on their business experiences do support the assumption of a considerable dark field. To study its size, the study gathered information on suspicious transaction constellations revealing features giving grounds for a suspicion of money laundering. It should be noted that the German money laundering laws set a very low threshold for an obligatory SAR.⁴ It suffices to have recognizable indications of possible money laundering (see below).⁵

On the basis of the qualitative interviews with installation, aircraft operator, and trading account holders, we compiled a list of suspicious transaction proposals or purchase interests that indicated possible money laundering (see Figure 10). Respondents were asked to report how frequently they had come across the items on the list in 2016 and 2017. Frequencies were reported on a 3-point scale ranging across *one case*, *two to three cases*, and *more than three cases*. Mean scores were used for the following computation of the absolute case numbers (1 case = 1 case; 2–3 cases = 2.5 cases; more than 3 cases = 5 cases).

First of all, the study showed that all ten suspicious features listed in the questionnaire could be found and were perceived as such on the market. The holders of installation and aircraft operator accounts most frequently reported on interested parties with whom they were not familiar in the CO₂ field ($n = 34$) and on cases in which interested parties wanted to act only as intermediaries without having their own registry account ($n = 26$). Business approaches in which the business purpose of the interested party was unclear ($n = 19$) or in which the price of the emission certificates deviated markedly from the current exchange price ($n = 17$) were also relatively frequent.⁶

Installation and aircraft operators ($n = 12$) as well as traders ($n = 1$) also reported cases in which the interest was in trading unusually high amounts. This is in line with our finding that installation and aircraft operators generally acquire at most 1.5 times or 2 times the emission certificates they require for their compliance needs (see section 3.1). Markedly higher volumes are abnormal and thereby call for a transparency that was not given in some cases according to respondents.

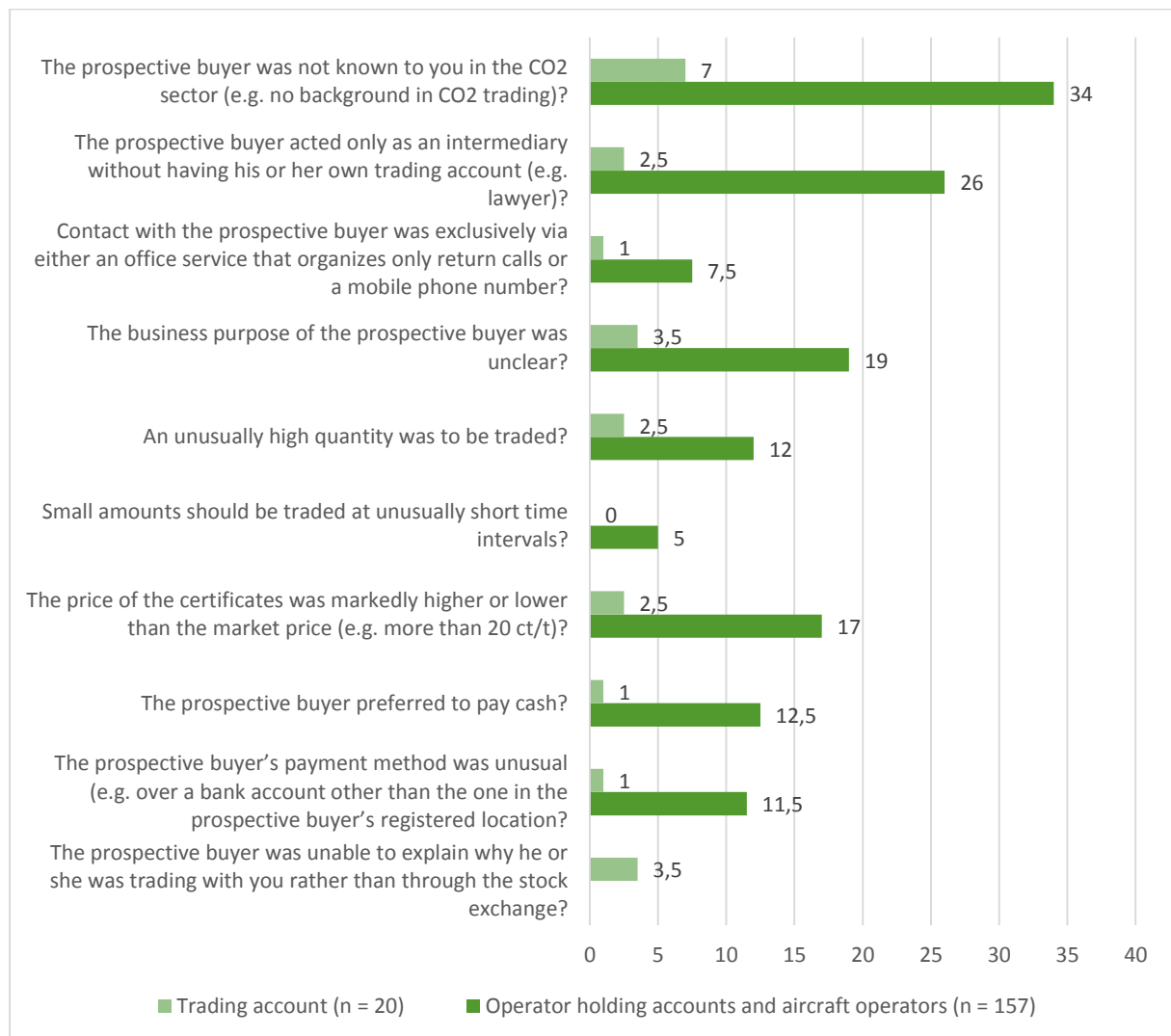
³ The FIU statistics could, in principle, also contain incidents of suspected money laundering in the EU-ETS within the large group of allegations by financial services providers. See the BKA annual report for 2016. However, neither the financial institutions surveyed in the expert interviews nor any other experts reported on any such practice.

⁴ Löwe-Krahl (2012), 1607, Rn. 69; Herzog/Achtelik, in: Herzog/Achtelik/Nestler/Warius, GwG, § 11, Rn. 7.

⁵ For practical examples of culpably careless failure to exercise due diligence, see Bausch/Voller (2014), 63 ff.

⁶ Full text of the item: 'The price of the certificates was markedly higher or lower than the market price (e.g. more than 20ct/t)'.

Figure 10: Number of suspicious cases reported for a period of two-years: Traders and non-traders ⁷



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

The main offices of business partners making suspicious transaction offers or showing suspicious purchase interests were not concentrated in Germany but spread across the EU.

⁷ Absolute case numbers were computed with the averaged frequency groups: '1 case' = 1 case; '2-3 cases' = 2.5 cases; 'more than 3 cases' = 5 cases).

Table 5: Main offices of foreign trading partners of installation and aircraft operators

Main offices of foreign trading partners	
Germany (<i>n</i> = 4)	Finland (<i>n</i> = 1)
Netherlands (<i>n</i> = 3)	Italy (<i>n</i> = 1)
UK (<i>n</i> = 2)	France (<i>n</i> = 1)
Hungary (<i>n</i> = 2)	Czech Republic (<i>n</i> = 1)

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

3.3 Foreign aircraft operators

The accounts of foreign aircraft operators generally represent a high risk. They may also have their main office outside the EU. However, because landing at European airports renders them subject to compulsory emissions trading, they also possess a corresponding registry account.

The study shows that it is the 18 holders of aircraft operator accounts taking part in the survey who were aware of an above-average frequency of suspicious cases. Two of these also possessed a trading account. Both of these reported having observed no suspicious transaction offers or purchase interests. In contrast, from the 16 non-traders possessing an aircraft operator account, 4 reported on at least one of the following abnormalities:

- ▶ 'The prospective buyer was previously not known to you in the CO₂ sector',
- ▶ 'The prospective buyer acted only as an intermediary without having his or her own trading account',
- ▶ 'The business purpose of the prospective buyer was unclear',
- ▶ 'The prospective buyer's payment method was unusual'.

Of these four account holders, two completed the questionnaire in English. This indicates once more that money laundering in the EU ETS is not just a national phenomenon, and that European reforms need to be made to the Union registry and, if necessary, to the EU registry regulations (section 6.4).

3.4 Trading accounts

The holders of trading accounts can be so called independent traders or belong to the regulated banking and financial institutions sector. The latter were already subject to the financial control of the Federal Financial Supervisory Authority (BaFin) before the implementation of the new 2014/65/EU guideline; that is, the Markets in Financial Instruments Directive II (MiFID II). In so far, risk evaluation applies to them in the same way as to the financial sector in general.

We estimate that the greatest risks currently come from what are still independent, unregulated traders. This does not just concern the few independent traders still to be found in Germany (*n* < 6), but also holders of trading accounts for major installation operators.

In addition, traders can have their main office in other EU countries, but their registry accounts in either Germany or other EU countries. Hence, there are major risks particularly in those EU member states that are particularly subject to corruption and money laundering.⁸

Despite the relatively low number of traders participating in the survey, a pattern still emerges. Particularly smaller traders (e.g., without being attached to a company) more frequently report abnormal transaction offers or purchase interests. This pattern can no longer be ascertained among traders with larger workforces. Either the smaller traders know the market better because of their everyday professional work and have developed a greater problem awareness, or small traders are sought out specifically for transactions in the field of money laundering.

Table 6: Traders: Relation between number of employees and number of cases (number of reports)

Number of employees	Case named: No	Case named: Yes
1–5	0	2
6–25	0	1
51–100	1	0
501–1,000	2	0
1,001–5,000	3	1
More than 5,000	6	0
Total	12	4

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

3.5 Prior offence of market manipulation

According to § 261 StGB (penal code), market manipulation is a prior offense to the crime of money laundering. A criminal market manipulation, according to § 119 Abs. 1 Nr. 1 WpHG n. F., occurs when false or misleading signals for exchange or non-exchange trading are given through buy or sell orders. This can take the form of either false and misleading information or actual trading activities. Therefore, a distinction is made between:

- information-based and
- trade-based market manipulation

A suspected market manipulation according to § 119 Abs. 1 Nr. 1 WpHG n. F. is also grounds for a SAR on money laundering, because the assets of the trader performing the manipulation are now contaminated.

⁸ See the ECOLEF-Study: Unger et al. (2013): Project 'ECOLEF', The Economic and Legal Effectiveness of Anti-Money Laundering and Combating Terrorist Financing Policy, Final Delivery to the EU; see also Basel AML Index 2016, Tax Justice Network Index.

Because trading with emission certificates is a relatively small market compared to other securities markets and especially to the stock market, it can accordingly be influenced by a few agents trading in relatively small volumes. Hence, a risk exposure has to be assumed in principle.

For the EU ETS, all variants can be considered in which a few holders of trading accounts have very high volumes and thus a market power at their disposal that enables them to influence the market and exchange price through concerted buy or sell orders:

Matched Orders

Businesses in which at least two traders coordinate their market behaviour (e.g. by buying or selling emission certificates at the same time) in order to simulate a brisk sales activity and influence the market price in one direction.⁹

Pumping und Dumping

Through agreed collaboration, the price of emission certificates should be driven up artificially in order to engage in a massive sell off of emission certificates. To drive up the price, an information-based market manipulation is also often engaged in by, for example, spreading rumours.¹⁰

Circular Trading

Stringing together transactions so that they occur in repeated cycles in order to push the price of emission certificates in a certain direction.¹¹

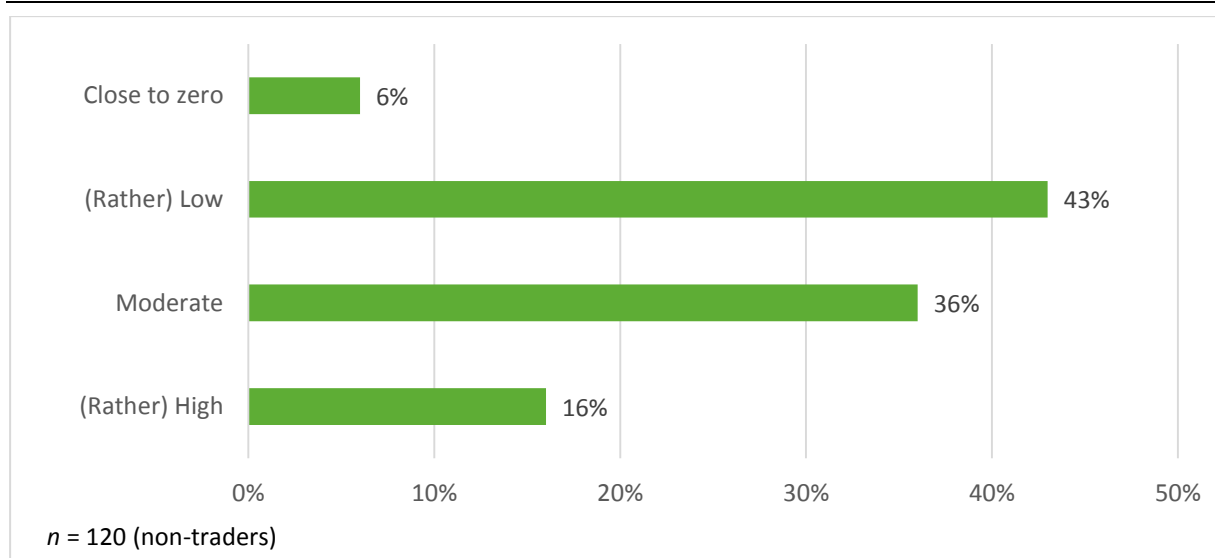
Respondents differed in their opinions on the risks of a market manipulation. More than one-half of the installation and aircraft operators judged the risk of a market manipulation as 'moderate' (36 per cent) or even 'rather high' (16 per cent), whereas only 6 per cent rated it as 'close to zero'. Hence, there is a tendency among account holders to recognize some risk of market manipulation.

⁹ Schröder, Handbuch Kapitalmarktstrafrecht, 3rd ed.- 2015, Rn. 491.

¹⁰ Schröder, Handbuch Kapitalmarktstrafrecht, 3rd ed. 2015, Rn. 496 ff.

¹¹ Schröder, Handbuch Kapitalmarktstrafrecht, 3rd ed. 2015, Rn. 492.

Figure 11: Judgement of the risk of market manipulation of prices in the EU ETS among non-traders



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

Those account holders who see a '(rather) high' risk of market manipulation basically use two arguments to justify their appraisal:

a) Market power and speculation

- ▶ 'Energy suppliers have an extremely strong influence because of the large amounts traded'
- ▶ 'Few market participants' and 'market is very illiquid, anonymous'
- ▶ 'Increased speculation with emission certificates through the involvement of speculators (banks) – possibility of private persons becoming involved'
- ▶ 'Large amounts of surplus emission certificates are thrown onto the market at the lowest prices'
- ▶ 'Activity of non-operators (interests of those engaged in the financial market)'
- ▶ 'Few obstacles to price movements' and 'reducing the amount of emission certificates available to produce short-term price increases'

b) Influence of politics and regulatory failure

- ▶ 'Strong political influence and manipulation by politics on a federal state level!'
- ▶ 'Insufficient control mechanisms'
- ▶ 'Attempts from the EU to annul market mechanisms (centrally planned instruments)'

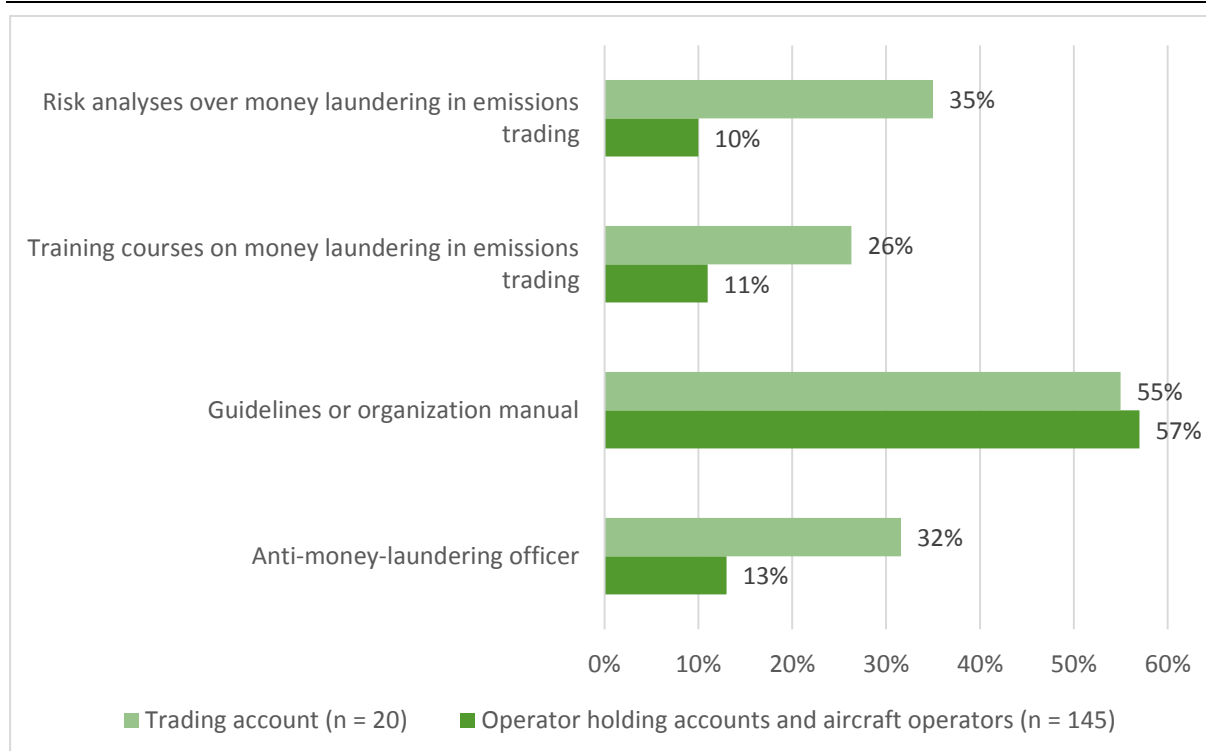
This makes it necessary to keep an eye on the risk of market manipulation. However, the market price is probably determined primarily through exchange trading at the EEX in Leipzig and, in particular, at the ICE in London; in other words, trading within the EU that this study was unable to examine sufficiently due to the national focus of our research.

4 AML compliance management

4.1 AML compliance measures

Compliance measures for the prevention of money laundering in emissions certificate trading are hardly ever implemented by installation and aircraft operators. Although 57 per cent of the operators surveyed reported possessing guidelines on money laundering prevention or a corresponding organizational manual, only roughly one in ten had an anti-money-laundering compliance officer (13 per cent) and carried out corresponding training courses (11 per cent) and risk analyses (13 per cent).

Figure 12: Compliance measures to prevent money laundering



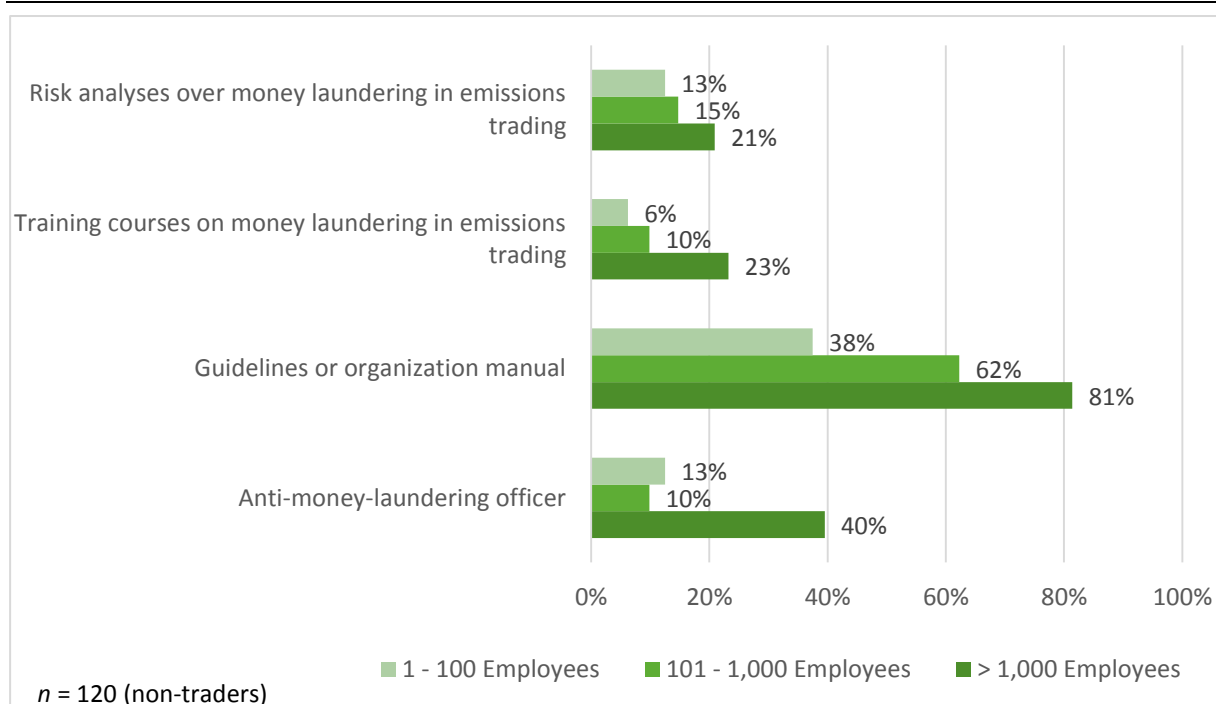
Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

Although *traders* implement AML compliance measures more frequently than installation and aircraft operators (without a trading account), this implementation is still far from being a matter of course. Only one-third of traders have an anti-money-laundering compliance officer (32 per cent) or carry out corresponding risk analyses (35 per cent), and training courses are even less well established (26 per cent). Guidelines or organizational manuals can scarcely compensate for this deficit, because without corresponding training courses and risk analyses, their contribution to money laundering prevention can be considered to be very low.

Larger installation operators and aircraft operators with more than 1,000 employees are more likely to have AML compliance measures at their disposal than smaller ones. Nonetheless, here as well, the majority have no anti-money-laundering compliance officer (40 per cent); and

corresponding training courses (23 per cent) and risk analyses (21 per cent) are also implemented infrequently (Figure 13).

Figure 13: Compliance measures in relation to company size among non-traders



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

4.2 Precautionary measures with new customers

We also assessed what precautionary measures installation or aircraft operators and traders take with new business customers. Results show how insufficiently the necessary diligence is observed in the EU ETS. Even when there is a sound suspicion of money laundering, respondents stated that only two-thirds of companies (65 per cent) would actually then report this to the State Criminal Office Police (LKA) or almost three-quarters (70 per cent) to the Federal Criminal Police Office (BKA).

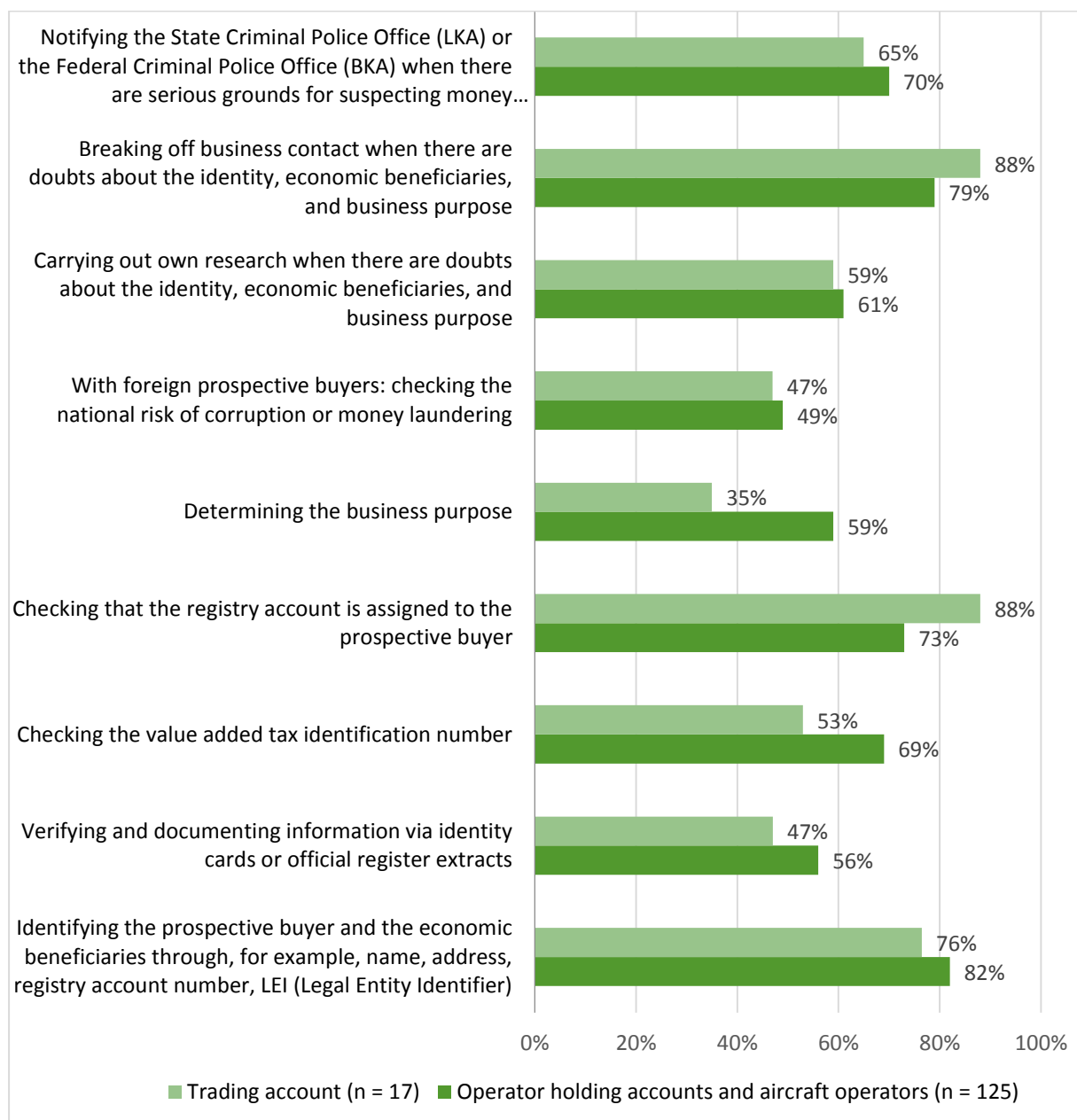
For most traders (88 per cent) and installation or aircraft operators (73 per cent), it is standard business practice to check whether the registry account and the counterparty match and 'identify the interested parties and the economic beneficiaries through names, addresses, and registry account numbers, Legal Entity Identifier (LEI)' (76 per cent of times and 82 per cent of times respectively). However, controlling and comparing the reports with, for example, identity cards or official registry extracts (47 per cent and 56 per cent respectively) as well as checking the value added tax identification number of the transaction partner is less a matter of course (53 per cent and 69 per cent respectively). Moreover, only roughly one-half of companies check the national risk for corruption or money laundering of interested parties from foreign countries.

In sum, precautionary measures with new customers tend to remain superficial among the account holders surveyed, and checks are not always made even when there are suspicions. Only 59 per cent of traders and 61 per cent of installation or aircraft operators carry out their own investigations when there are doubts about the identity or the true economic beneficiary. In any

case, determining the business purpose (e.g. the plausibility of the need) plays hardly any role for traders (35 per cent) and is also in no way general practice among installation and aircraft operators (59 per cent). As a result, it is no help when according to their reports business relations are generally broken off if doubt emerges (88 and 79 per cent).

In addition, it has to be taken into account that these findings are based on self-reports and therefore provide only limited information on the actual diligence practiced. Because of the social desirability effect and the tendency to overestimate one's capabilities, the real situation is probably markedly more negative (see also section 4.3)

Figure 14: Comparison of precautionary measures with new customers



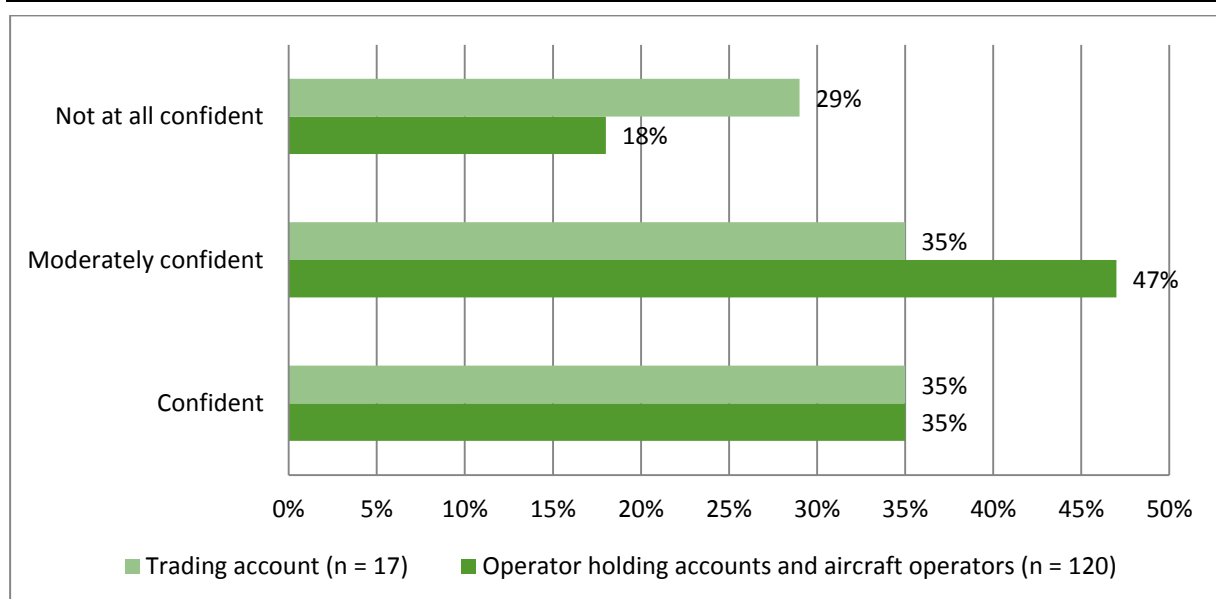
Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

4.3 Problem awareness

Noticing suspicious trading offers or purchase interests that could give grounds for a suspicion of money laundering calls for a problem awareness and, in particular, knowledge of concrete criteria with which to judge a risk.

Because of the major deficits in AML compliance management in many companies, it is not surprising that only about one-third of traders and installation and aircraft operators (both 35 per cent) reported being confident about which criteria might indicate a use of illegal funds. Traders rated themselves as being the least confident. More than one-quarter (29 per cent) reported they were not at all confident compared to one-fifth (18 per cent) of installation and aircraft operators.

Figure 15: Indications of suspected money laundering



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

Although the low number of participants in the group of traders (n = 17) has to be taken into account, there is still a recognizable trend towards a greater problem awareness among traders. They more frequently have AML compliance measures at their disposal, and this probably makes them more aware of the risks of money laundering compared to installation and aircraft operators.

Moreover, further analyses reveal that self-rated money laundering awareness does not depend on the size of the company. Nonetheless, both traders and installation and aircraft operators tend to underestimate rather than overestimate their awareness.

When also considering the 'overconfidence bias' that has been confirmed in psychological research along with the effect of social desirability, it can be assumed that the actual competence of the account holders in the survey is markedly lower than their self-appraisals would suggest. This probably applies particularly to the installation and aircraft operators in the survey. In this group, compliance measures for the prevention of money laundering tend to be infrequent.

Nonetheless, they rated themselves as being more confident than traders regarding their knowledge of criteria indicating the use of illegal funds.

5 Dark field of money laundering in emission certificates trading

5.1 Attributes of suspicion

The reports by the surveyed installation operators, aircraft operators, and traders on suspicious circumstances they had come across that were grounds for suspected money laundering deliver some indications on the dark field (see above, section 3.2, Figure 10).

It is possible to estimate the size of this dark field of money laundering in the EU ETS. The suspicious facts reported by the 177 account holders surveyed were projected on to the total number of account holders. This did not take the number of accounts as the population, because only persons can perceive suspicious facts. Hence, the projection is based on a population of 1,257 account holders, some of whom hold more than one account (see section 1.2).

It was not possible to weight the reported suspicions according to specific features of the participating account holders. Structural weighting can be performed only when the relevant features in the population have a known distribution and can be classified unequivocally. Although the following weighting variables would have been conceivable, they could not be used in a structural weighting for the following reasons:

- ▶ The study did not record the compliance needs of the holders of installation operator and aircraft operator accounts.
- ▶ The study did not record the trading volumes of the account holders.
- ▶ Although information was gathered on the number of employees, the Union registry contains no data on this. Therefore, the corresponding distribution of company sizes in the population was unknown.

For these reasons, the darkfield for the population was estimated with an unweighted extrapolation of the survey findings.

Table 7: Relative dark field of suspicious facts per year

Various types of suspicious facts	Projected number of suspicious facts
The prospective buyer was not known in the CO ₂ sector	146
The prospective buyer acted only as an intermediary without having his or her own trading account	101
Contact with the prospective buyer was exclusively via either an office service that organizes only return calls or a mobile phone number	30
Business purpose of the prospective buyer was unclear	80
An unusually high quantity was to be traded	51
Small amounts should be traded at unusually short time intervals	18
The price of the certificates was markedly higher or lower than the market price	69
The prospective buyer preferred to pay cash	48
The prospective buyer's payment method was unusual	44
The prospective buyer was unable to explain why he or she was trading with you rather than through the stock exchange	10 ¹²
Total number of reported suspicious facts	597

Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

In total, the projection reveals a dark field of approximately **600 abnormal business constellations** per trade year.

The surveyed account holders most frequently reported that the prospective buyer was not known in the CO₂ sector – a projected 146 cases. This does not necessarily have to be a covert attempt at money laundering, but it is a risk scenario that calls for increased precautionary measures. The second most frequent cases were those in which the prospective buyer acted only as an intermediary – a projected 101 cases. Because this meant that the trading partner could not identify the true economic beneficiary, this constellation also calls for increased precautionary measures to prevent money laundering.

In many cases, only one single suspicious fact is needed to justify a Suspicious Activity Report (SAR). These include:

- ▶ The business purpose of the prospective buyer was unclear ($n = 80$).
- ▶ An unusually high quantity was to be traded ($n = 51$)

¹² Because suspicious facts were surveyed only in traders, the computed number of cases is limited to the number of traders.

- The price of the certificates was markedly higher or lower than the market price ($n = 69$)
- The prospective buyer preferred to pay cash ($n = 48$)

Reports on (the preference for) cash payments were particularly surprising, because emission certificates are not actual products and, precisely speaking, not even financial instruments intended for private customers. They are available only for companies subject to compulsory emissions trading that do (should) not engage in cash transactions for accounting and fiscal reasons. The projected 48 cases per year with (a preference for) cash payments is therefore far higher than to be expected. A further projected 44 cases also had an unusual prospective buyer's payment method from the perspective of the account holders in the survey.

Nonetheless, several suspicious facts could be present in one business constellation. In specific case constellations, account holders could also consider that more than one criterion has to be met in order to justify an SAR. As a rule, however, two suspicious facts from our list should suffice to identify a business transaction as suspicious in the sense of the German Anti Money Laundering Act. If, for example, the prospective buyer is not known in the CO₂ sector and wants to trade an unusually high quantity, a suspicion of money laundering is justified.

In addition, those responsible are in no way obliged to prove attempted money laundering; they only have to report an indication of possible money laundering. The reporting threshold is set very low. In fact, it is no more than a kind of justified criminal charge.¹³

Among the suspicious facts surveyed, any combination of two facts present at the same time generally suffices for a suspicion of money laundering. Hence, with two suspicious facts, we have to assume conservatively that there are approximately 300 cases per year in which there are grounds to suspicious money laundering and a SAR should be submitted.

Even just on the basis of the reports of the surveyed installation operators, aircraft operators, and traders, it is necessary to think in terms of more than 500 suspicious cases. In addition, the growing awareness in the EU ETS trading may well lead account holders to become aware of suspicious cases more frequently. Hence, the absolute dark field is probably far larger than the number of cases projected up to now.

Only a forecast: empirical experience with trial proceedings initiated by the Department of Public Prosecution shows that only between 5 and 10 per cent of preliminary proceedings for suspected money laundering actually result in charges being brought or a court order.¹⁴ Transferred to preliminary proceedings for suspected money laundering in the EU ETS, this would mean that from 300 reported suspicious cases, there would be only up to 30 successful preliminary proceedings for suspected money laundering per year.

However, the *prevention effect* is due first and foremost to the communication of SARs, because the greatest deterrent effect from the perspective of those concerned – that is, account holders and prospective buyers – is not so much the severity of sanctioning as the subjective probability of being caught (see also Recommendation 2, section 8).¹⁵

¹³ Bussmann (2018), pp. 1 ff. with further references.

¹⁴ BKA, Annual Report of the Financial Intelligence Unit for 2016, p. 17.

¹⁵ For a detailed report on deterrent effects, see Bussmann (2016), Rn. 923 ff.

5.2 Significance of precautionary measures for increasing awareness of suspicious circumstances

Because these projections are based solely on the reports of the surveyed installation operators, aircraft operators, and traders, they are probably underestimates. Criminologists distinguish between a relative and an absolute dark field. The previous projection of approximately 300–600 suspicious transaction constellations per year represents a relative dark field, because these features giving grounds for suspected money laundering are perceived by the account holders and reported in the survey.

However, these reports are subject to a *lack of awareness* in respondents, particularly due to a lack of adequate training programmes and risk assessment. This deficit makes it harder or even improbable that such suspicious circumstances will be perceived as such. Basically, the absolute dark field is particularly high in crimes that are hard to identify such as money laundering or fraud rather than theft.¹⁶ Hence, the real, so called *absolute dark field* will be far larger than the perceived relative dark field particularly for offences that require special knowledge to commit them. The extent of the absolute dark field can only be guessed, because these are incidents – in the present case, of suspected money laundering – that no account holders have noticed or that they were unwilling to report in the survey – and the latter was certainly sometimes the case.

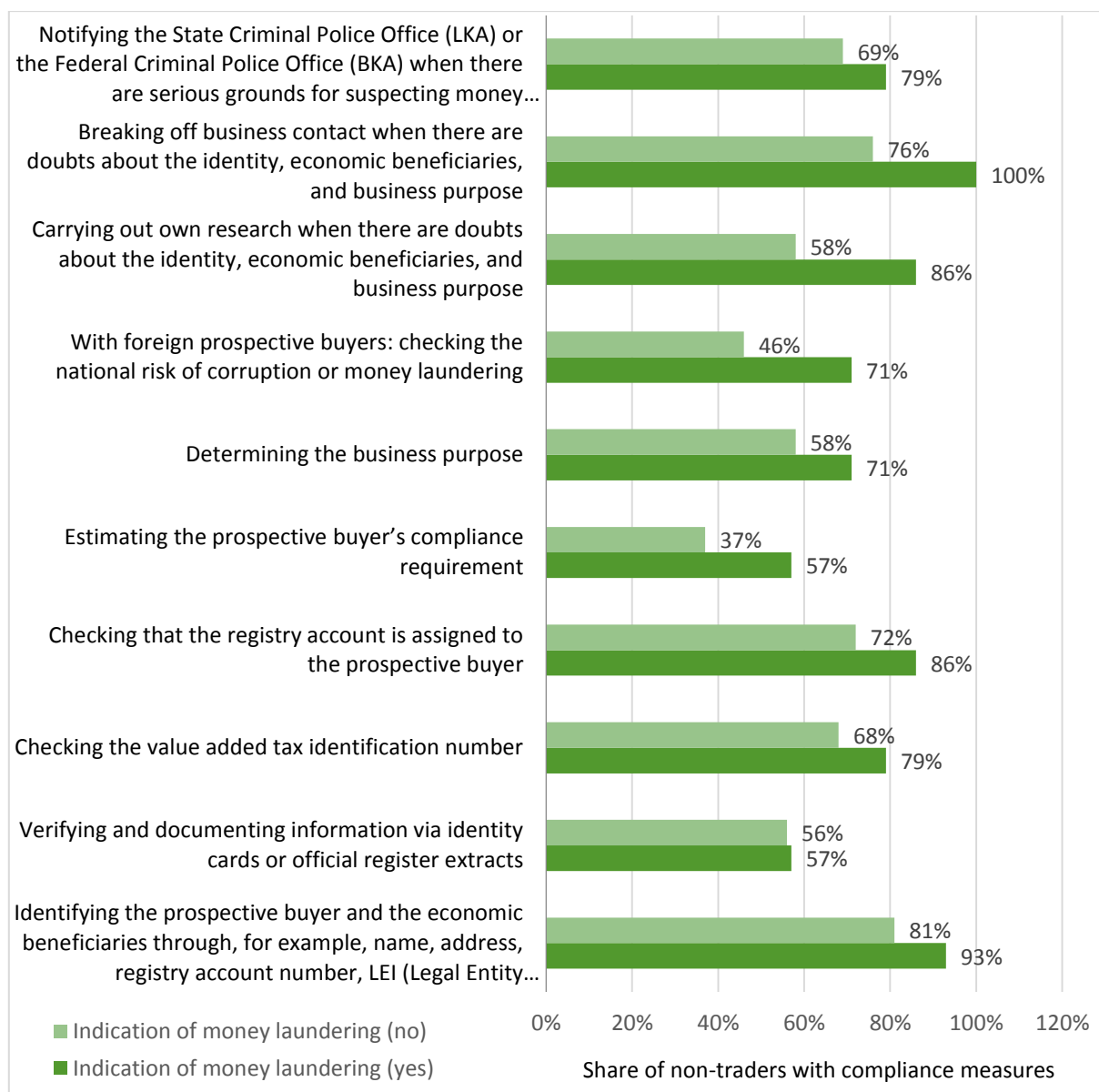
This effect of awareness on the size of the perceived and, hence, the relative dark field can also be confirmed empirically in the present study. Installation and aircraft operators who exercise more caution regarding the risks of money laundering and more often take precautionary measures with new traders or new installation and aircraft operators significantly more frequently reported suspicious prospective transactions. This correlation can be found across almost all precautionary measures.

Four precautionary measures carried out by the surveyed non-traders are particularly notable and especially emphasize the need for diligence in emissions trading:

- ▶ All account holders (100 per cent) who broke off business because of doubts regarding the identity and business purpose of the prospective buyer reported at least one fact substantiating a suspicion of money laundering (100 % versus 76 %).
- ▶ Eighty-six per cent of those account holders who more frequently carry out their own research when they have doubts about the identity and the economic beneficiary of a new buyer remembered at least one suspicious fact compared to only 58 per cent of the account holders for whom this is not a common practice.
- ▶ When the national risk of corruption and money laundering are taken into account with prospective foreign buyers, the probability of the perception of a suspicious fact of money laundering rose (71 per cent) compared to those who did not take it into account (46 per cent).
- ▶ Account holders who estimate the compliance needs of the prospective buyer markedly more frequently perceived a fact that substantiates a suspicion of money laundering (57 per cent) than those who do not (37 per cent).

¹⁶ Bussmann (2016), Rn. 56 ff.

Figure 16: Dependence of perception of notably suspicious cases on precautionary measures carried out as common practice by non-traders



Source: Author's own representation, Bussmann, Martin-Luther-Universität Halle-Wittenberg

6 Risks of money laundering in the EU ETS

6.1 General appraisal

Basically, emissions trading harbours major risks of money laundering for four reasons:

1. Emissions certificates are an easily traded international financial product. Although possession of a registry account is a precondition for trade, this is not necessary for fiduciary business.
2. The security of the financial investment is guaranteed by the state. Emissions certificates are immaterial goods that are state-administered.
3. The Union registry provides relatively low transparency for both the trading account holders and the administrators of the registry itself.
4. There is currently no AML compliance management in the market that matches the risks on the side of either the installation and aircraft operators or the traders.
5. If the framing conditions for the EU ETS develop positively with rising market prices, then the attractiveness of using emission certificates for money laundering will show a further major increase.

Although the market for emission certificates runs largely over national registry accounts, one in four installation and aircraft operators reported spot transactions with trading partners in other EU countries (section 2.3). This allows the higher national risks of money laundering and corruption in some countries to seep into the German market, and shows how it is particularly important for other EU countries to be included in any adequate risk evaluation. This requires cooperation and an exchange of information with other institutions in EU countries and Switzerland. The present study with its primarily national focus can deliver only limited estimates on these relatively high risks within Europe.

It should also be taken into account that rising prices for emission certificates increase the attractiveness of this financial product for money laundering. It is relatively stable markets that are suitable for money laundering: although they should potentially reveal some increase in value, they should not be too volatile. Currently, the market for emission certificates still shows a relatively high volatility accompanied by relatively low prices. If the framing conditions for EU ETS develop positively with higher and more stable prices, then the attractiveness of using emission certificates for money laundering will show a further major increase.

Hence, given a positive development of the framing conditions for the EU ETS (higher and more stable prices), the market for emission certificates will become far more attractive for money laundering than it is today.

The following will distinguish between suspicious circumstances that the national registry administrator can recognize on the basis of the available registry information and those that would require legal reforms to extend the current registry database. At the time of this study, the DEHSt possessed only the following information:

- Information on accounts, account holders, and authorized representatives together with such details as the industrial sectors of legal entities for accounts held in the German registry.
- Date of the transaction

- ▶ Transaction type, certificate type, and volumes of the transaction
- ▶ Account numbers of the transferring and receiving accounts together with the registry in which they are held.
- ▶ Payers and beneficiaries of the transaction if their accounts are held in the German registry.
- ▶ Amount of emission entitlements granted
- ▶ Verified emissions of an installation

6.2 Information potential of the current Union registry

Based on the reports of the surveyed account holders, the relative dark field of emissions trading can be estimated to be at least 300 suspicious cases per year. However, the majority of these suspicious transaction constellations will be impossible or only very difficult to recognize on the basis of the previously available registry data.

However, by just looking at the amount of suspicious cases in which account holders reported that the buyer or prospective buyer traded or wanted to trade in usually high amounts, one can arrive at a projected 51 suspicious cases within a trading year (see Table 7) that the registry administrator would be able to uncover on the basis of the information already available. Moreover, further suspicious cases could probably be detected from the data on type of account (or aircraft operator account), number of transactions, and volumes (see above).

Hence, the current information potential of the national registry can be estimated at between 50 and 100 suspicious transaction patterns that would be grounds for an SAR for money laundering.

6.3 Suspicious circumstances that would be revealed by reforming the European Registry Regulation

Detecting further conspicuous transaction constellations that give grounds to suspicious money laundering would require a reform of European registry regulations (EU) 389/2013.

The surveyed installation operators, aircraft operators, and traders reported relatively frequently that the business purpose of the prospective buyer was unclear. This projected to a considerable 80 suspicious cases within a trading year (see Table 7). Because the Union registry contains no information on the business purpose, neither the registry administrator nor account holders have corresponding information on the prospective trading partner's business background. Hence, the business purpose of the account holder should be included in the Union registry for all account types in order to increase transparency in the EU ETS.

Reforming European registry regulations.

To include information about the business purpose of the account holder entered in a standardized list

One subcategory of unclear business interests was asked for specifically: whether the price of emission certificates deviated markedly by more than 20ct/t above or below the current exchange price. Here as well, this is a rather frequent type of suspicion in the dark field that was projected to occur in 69 cases in the EU ETS over the course of a trading year (see Table 7).

Such proposals give grounds for a suspicion of money laundering because of the economic inefficiency of such trading. However, no information about the price of the traded emission certificates at the time when the contract was concluded can be gained from the Union registry, indicating the need for a corresponding reform.

Reforming European registry regulations.

Reports on the prices of the traded emission certificates along with the date of the transaction contract.

Moreover, cash transactions always represent a high risk of money laundering because cash leaves no traces. It is usual practice for installation and aircraft operators to buy and sell emission certificates with non-cash payments, because these transactions represent fiscally relevant operating costs or income. Nonetheless, based on the reports of the surveyed account holders, the study projected 48 cases per year in which a prospective customer preferred to pay cash.

In addition, the paths taken by financial transactions remain unknown to the registry administrator, so that any lack of agreement between the holder of the registry account and the bank account used remains invisible. The present study projected a considerable total of 101 suspicious cases in which the prospective buyer handled as an intermediary without an own trader account (see Table 7). The true economic beneficiary thereby remained hidden.

In a further projected 44 suspicious cases, the prospective buyer's payment method was unusual in the opinion of the surveyed account holders. However, the Union registry contains no information on payment modalities for transactions.

Reforming European registry regulations.

To include reports on the ways financial transactions are made (BIC and IBAN or cash payment)

Most frequently, the surveyed account holders reported on cases in which the prospective buyer was not known in the EU ETS – a projected 146 suspicious cases (see Table 7). It can be assumed that these are cases that could also not be clarified. It should also be rated as suspicious when the prospective buyer could be reached exclusively via either an office service or a mobile phone number (a projected 30 suspicious cases). Hence, the Union registry should provide trading account holders with more information about their counterparty.

For example, the Union registry does not inform account holders as to who owns the account, in which member state it is registered (for EU-100 accounts), and whether it is an installation operator, aircraft operator, or trader account. Hence, account holders lack the required business transparency, because all they get to see is the account number.

Reforming European registry regulations.

For the account holder initiating the transaction, to include not only the account number of the counterpart but also the transparency of the account holder, the type of account, and the country administering the registry.

7 Compliance management for money laundering prevention

Legal reforms of the financial market¹⁷ have led to the implementation¹⁸ of numerous measures that are of major importance for compliance in banking and capital markets law. The main legal reform of the financial market is the implementation of the *Markets in Financial Instruments Directive II (MiFID II)*. The reform of the German Securities Trading Act (WpHG) also extended the scope of the term ‘financial instrument’. § 2 Abs. 4 Nr. 5 WpHG also rates ‘emission certificates’ as financial instruments that are exposed to increased money laundering risks.

The present study shows that the market for the EU ETS does not just reveal a low risk of money laundering. Even when based only on the perceptions of the surveyed account holders, it can be assumed that at least 300 conspicuous transaction constellations each year show grounds for suspected money laundering (see Table 7). However, the real number must be far higher, because most account holders possess only minimal or even no AML compliance measures (AML-CMS) (see section 4.1). As a result, they do not become aware of suspicious transaction constellations.

Basically, the highest risks are to be found on the **OTC market** that is of major importance for many installation operators, aircraft operators, and traders. Trading between holders of installation and aircraft operator accounts is subject to particular restrictions because transaction regulations require the parties to set up a trust account. However, this regulatory restriction was introduced against the background of past cases of fraud and theft, and it was not designed to prevent money laundering. On the contrary, all installation and aircraft operators can set up trusted accounts for all possible account holders even when they come from other EU countries. The security advantages of a trusted account is solely that transactions to a newly trusted account can be proposed only after seven working days, thereby making it possible to discover and fight hacking. To the extent that no AML-CMS is implemented, there is a medium to high risk that money laundering will be overlooked.

Trusted accounts can also be set up for traders at installation operators. Due to the lower trading restrictions on the side of trading accounts, the risk has to be considered to be even higher here. This applies particularly to traders who come from other EU countries with high national levels of money laundering and corruption. Hence, particularly in other EU countries, there can be cases in which a company with a registry trading account makes purchases with illicit funds and sets up nominees as authorized representatives so that the true economic beneficiaries remain concealed.

In addition, emission certificates are securities and therefore a suitable investment and object of speculation for natural persons and legal entities. Without having their own registry account, outsiders can participate in the market over the construct of trust management through traders who hold these securities in their registry accounts. This raises the problem of not knowing who the true economic beneficiaries are, and this is known to be one of the weak points in the fight against money laundering.

¹⁷ Zweites Gesetz zur Novellierung von Finanzmarktvorschriften auf Grund europäischer Rechtsakte - 2. FiMaNoG [Second law to amend financial market regulations in compliance with European legislation].

¹⁸ See the announcement in the Bundesgesetzblatt [Federal Law Gazette]:
<http://www.bundesfinanzministerium.de/Content/DE/Downloads/Gesetze/2017-06-24-Zweites-Finanzmarktnovellierungsgesetz.pdf?__blob=publicationFile&v=2>

On the side of not only installation and aircraft operators but also traders, there is a need to prevent money laundering by implementing an AML-CMS that encompasses at least the following four measures:¹⁹

- ▶ Guidelines and an organization manual on how to deal with the risks of money laundering in the EU ETS
- ▶ Appointment of an anti-money-laundering compliance officer
- ▶ Training courses on the risks of money laundering in the EU ETS
- ▶ Analysis of risks in one's own dealings with the EU ETS

All registered companies in the EU ETS should possess such a CMS minimum as soon as they have more than ten employees, as required of traders in goods through the general rulings of the supervisory authorities of the Länder.²⁰ Moreover, § 7 Abs. 1 Nr. 1 of the Money Laundering Act (GwG) obliges banks, financial services providers and payment institutions, and financial companies to appoint an anti-money-laundering compliance officer. The GwG specifies this expressly as a prevention measure (§ 6 Abs. 2 Nr. 2 GwG).

The implementation of an AML-CMS aims at prevention and in particular, at making account holders aware of the risks of money laundering. For this purpose, it is recommended that information on the account holder's AML compliance measures should be documented in the Union registry. This should be visible for all account holders as a fundamental condition for ensuring market confidence. For the administrators, this information can be used to estimate the identified money laundering risks.

¹⁹ On the efficacy of an AML-CMS, see *Bussmann/Vockrodt* (2016), 138–143.

²⁰ See, for example, the general rulings of *Stadt Düsseldorf* (2012) and *Stadt Hildesheim* (2013).

8 Recommendations

Essentially, five recommendations can be derived from the present study:

1. Software-assisted analyses of the Union registry

It is recommended that the registry administrator should develop software-assisted analysis tools with which to study the conspicuous transaction constellations found in this study in more detail and to refine analyses of risky constellations.

The registry administrator will not be able to recognize most of the projected circa 300 suspicious cases per year on the basis of the Union registry data available at present. This indicates the need to reform the Union registry and gain the support of account holders. Nonetheless, the current potential of the national registry to detect cases can be estimated at 50–100 suspicious transaction constellations per year that would give grounds for an SAR on money laundering.

2. SARs and their communication

If software-assisted analyses of the registry reveal indications of possible money laundering, a SAR should be made. Sufficient proof for a criminal procedure is not necessary, because the threshold for an SAR is set very low.²¹

The website of the Federal Environmental Agency (UBA) should list the SARs each year in order to promote awareness and encourage the willingness to submit an SAR on the market. It should report the number and kind of suspicious features (typologies). This, in particular, can have the highest deterrent effect, because it is less the severity of sanctions and far more the subjective probability of being caught that counts from the perspective of account holders.

3. Reforming the European Registry Regulation and the Union Registry

To gain an increasing number of qualitatively analysable SARs, it will be necessary to reform the European registry regulations and the Union registry in order to enhance transparency in the EU ETS with emission certificates for both the holders of accounts and the national registry administrator.

4. Implementation of compliance management systems

The reformed Union registry should have sections documenting the implementation of central AML compliance measures such as an anti-money-laundering compliance officer, training courses, guidelines and an organization manual, and risk assessment for both holders of registry accounts and the Union registry administration. It would help to be able to specify the compliance measures such as reporting who is the anti-money-laundering compliance officer. There should also be a section for an independent auditing (evaluation) of the CMS.

As an incentive, the website of the UBA or DEHSt should inform account holders that if they implement an audited AML-CMS, this will be taken into account by the registry administration

²¹ Löwe-Krahl (2012), 1607, Rn. 69; Herzog/Achtelik, in: Herzog/Achtelik/Nestler/Warius, GwG, § 11, Rn. 7.

when evaluating their exposure to risks of money laundering. Potentially, these public registry reports on AML-CMS can also serve to encourage competition between account holders.

5. Web-based training measures through the registry administration

There is insufficient problem awareness regarding the risks of money laundering in the EU ETS. The German Emissions Trading Authority (DEHSt) should offer web-based training measures to increase awareness among account holders and enable them to make SAVs. There is also a need to examine whether participation should be obligatory only for new applicants for accounts or for all registry account holders and their representatives.

6. International risk analyses to fight money laundering in EU ETS

The present study is a national risk analysis that is limited to the registry accounts administered in Germany. However, the expert interviews revealed that the drop-in prices for emission certificates has led to a shift in non-exchange trading to other EU countries. As a result, a major part of trading is carried out transnationally between various national registries. For example, one in four installation and aircraft operators reported spot trading with partners in other EU countries (see section 2.3). Moreover, there are additional risks of money laundering in transnational trade, because of the greater difficulty in ensuring transparency of information between trading partners.

Hence, a national risk analysis is unable to assess the risks of money laundering in the total EU ETS. An adequate evaluation of the risk in EU ETS would require a dark field study of the entire Union. Such a study could draw on the methodological experiences gained in the present national study.

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