

**Leveraging Blockchain for
excise duties in the tobacco
and alcohol industry**

Article

Contents

Introduction on excise duties	1
Excise duties for tobacco and alcohol in the European Union	2
Tobacco Industry	4
What is happening within the EU	4
Some examples	4
Alcohol Industry	5
What is happening within the EU	5
Some examples	5
What is happening outside of the EU	5
Pain points – Implications	6
Risk	6
How Blockchain can play a role in excise duties	7
Blockchain in the supply chain	7
Blockchain for excise duties	7
To-be situation	8
Benefits	8
Blockchain, the technology that will replace the EMCS system?	10
Challenges	10
Conclusion	10
Testimonials	11

Introduction on excise duties

Excise duties are indirect taxes on the sale or use of specific products, such as alcohol, tobacco and energy products. Different from customs duties, the revenue from these excise duties goes entirely to the country in which they are paid.¹ EU Member States have agreed on common EU rules to make sure that excise duties are applied in a uniform way across the Union, by imposing a requirement to apply at least a minimum rate of excise duty on a number of products, such as tobacco products. This aims at preventing trade distortions in the Single Market, while ensuring fair competition between businesses, and reducing administrative burdens for companies. Nevertheless, the applicable rates, the products in scope (to an extent), and the means through which excise duties are collected are decided on a national level.

Excise duties on tobacco and alcohol in the European Union

It is still necessary in most Member States of the European Union to pay excise duties on tobacco and alcohol products by purchasing physical excise stamps. According to Article 16 of Directive 2014/40/EU of the European Parliament and of the Council of 3 April 2014, Member States that require these physical stamps will be obliged to make them available to manufacturers and dealers based in other Member States².

Excise tax stamps have been in use for over 200 years. However, it was only 20 years ago, when trade became increasingly globalized and many border controls were removed, that many countries started using these stamps for the first time, especially in the former Soviet Union countries in Eastern Europe. The stamps gave governments an immediate solution to regain control over the goods – mainly cigarettes and spirits – being sold within their territory. They provided visible proof that excise taxes had been paid, and allowed counterfeits to be distinguished from genuine products. Still today, the purpose of excise stamps is to secure valuable revenue derived from customs and excise duty on tobacco and alcohol, the traceability and safety of public use of the products of these industries, and to act as a barrier to the distribution of illicit products, whether in the form of contraband or counterfeits.

Indeed, in order to address the issue of illicit trade in tobacco products, the EU Tobacco Products Directive (TPD) states that all unit packets of tobacco products need to be marked with a permanent unique identifier (UI), so that their movements can be recorded, tracked and traced across the European Union.

Currently, often physical (paper) excise stamps or non-excise stamps are used for this purpose. The EU TPD and the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products require that all unit packets of tobacco products placed on the market carry tamper-proof security features, composed of visible and invisible elements, facilitating the verification of tobacco products' authenticity.

In the European Union, it is still necessary in many countries to pay excise duties on tobacco and alcohol products by purchasing physical excise stamps. This process is also required to ensure these products' traceability and safety for public use.

Producing companies of excise products such as tobacco or alcohol need to order and procure excise stamps from the tax authorities or the providers appointed by the authorities for each country where they are selling their products. Companies need to place an order with each local authority, and once the stamps are available, they need to transport them to their facilities (i.e. tax warehouses) from the different countries where excise stamps have been requested. Companies that order the stamps need to bear the cost of transport themselves. Transport is usually carried out by highly secured trucks and is insured by producers against loss, degradation or theft.

Finally, companies have to paste the excise stamps on the tobacco and alcohol products before any sales to intermediaries or final consumers occur. Therefore, they need to adapt their manufacturing process and divide the stock in order to paste the stamps according to the country of destination.

Tobacco Industry

What is happening within the EU

In the EU, physical stamps are still required in 24 countries in the Tobacco Industry³. There are only a few EU countries where excise duties are not collected by means of physical stamps: Austria, Cyprus, Finland and Sweden. In these countries, excise duties are usually collected via excise duty declarations made by the tax liable person or paid to the authorities upon release of the goods into free circulation. In Sweden, tax authorities also use the Excise Movement Control System (EMCS) system to trace the products. Consequently, there is no possibility to ensure the tobacco products' traceability and safety for public use with efficient tools within these countries. For the remaining EU Member States, there is also room for improvement as excise duties are still collected via physical stamps.

Some examples

Belgium

In Belgium, companies need to order the stamps from the Federal Public Service (FPS) Finance. The stamps are produced internally by the public printing office since 2016 and are also providing the stamps for Luxembourg. This market represents 1.2 billion stamps per year, with the excise value estimated at approximately EUR 3 billion.⁴ The applicable law in Belgium⁵ requests the following information on the stamps:

- Type of manufactured tobacco (cigars, cigarettes or tobacco)
- Maximum selling price in Euros
- Quantity (number of pieces or weight)
- QR code

Slovenia

In Slovenia, excise stamps are required for tobacco products, excluding electronic cigarettes. The excise stamps are issued by the Public Payments Administration of the Republic of Slovenia, a body attached to the Ministry of Finance.

Companies subject to excise duty have to register for this activity with the Slovenian Tax authority, and are required to submit an excise duty return for every tax period, even if the value of the excise duty for a specific tax period is 0. Companies subject to excise duty are required to pay their liability to the Slovenian Tax authority - at the latest - on the last working day of the month, following the month in which the chargeable event occurred.

Czech Republic

The Czech Excise Tax Act only requires physical excise stamps for tobacco products, except raw tobacco. By ordering the excise stamps for tobacco products, the excise duty is payable/due. The excise stamps for tobacco products are distributed by the Customs office for the Central Bohemia region. Generally, the excise duties are due at the point when products subject to excise duty tax are put into free circulation in the Czech Republic. However, there are additional situations where excise duties are due, e.g.

- - By the assessment of customs when the goods in question are imported and are not subject to conditional exemption;
- - Breaching of excise tax law when transporting goods;
- - Loss of goods;
- - By its own consumption etc.

Alcohol Industry

What is happening within the EU⁶

In the EU, physical stamps are still required in 14 countries for the Alcohol Industry. Two Directives regulate excise duties on alcohol and alcoholic beverages: Directive 92/83/EEC sets out the basic structure of excise duties and Directive 92/84/EEC sets out the minimum applicable rates for these duties. Member States can apply higher rates on products if they want to. Alcohol and alcoholic beverages are not collected by means of tax stamps in Sweden, Finland, Cyprus and Austria.

Some examples

United Kingdom

Excise duty in the UK is not collected on the duty stamp's issue – the duty stamp is 'proof' that UK excise duty is or will be paid. Users of Duty Stamps have to be registered under the Duty Stamps Scheme.

Alcoholic beverages that require the addition of a physical tax (duty) stamp are wine, made wine, spirits in bottles (containers) of 35cl or more and 30% ABV and above. The stamp can be 'free standing' or incorporated into the bottle label. 'Free standing' stamps are ordered through the HMRC (UK Tax Authority) authorised contractor's secure website. If incorporated into the label or packaging, the design and position of the tax stamp has to be approved or authorised by HMRC. There are legal requirements for the design and position of the tax stamp. In general terms, unless authorised for deferment, excise duty is due when the goods:

- enter the UK from overseas (unless entering an excise duty suspended regime)
- are made available for consumption in the UK (removal from manufacturing premises or an excise duty suspended regime)

This varies depending on the circumstances and excise duty suspensive regime. In general terms however, it is the importer of goods or the person making the goods available for consumption.

Czech Republic

There is an obligation to mark some alcohol products with stamps. However, such stamps are not used for collecting excise duty tax. The stamp mark obligation applies to all alcohol products where the share of alcohol or spirits exceeds 15%. Beers, wine, sparkling wine and semi-finished wine products are exempt from stamp marking, if the share of alcohol does not exceed 15%.

Lithuania

In Lithuania, stamping is simply a means of control, and is not directly involved in excise tax collection. All excise obligations are reported within excise duty reports that are submitted on a monthly basis. Stamps are ordered and provided by the State

Tax Inspectorate under the Ministry of Finance. Payments follow reporting and, in some cases, payments are split if certain set obligation amounts are exceeded. Lithuanian legislation provides only the following exceptions from stamping:

- Beer and beer mixtures with non-alcoholic beverages as well as naturally-fermented cider (alcohol volume should not exceed 8.5%Vol.);
- Ceremonial wines used by approved religious communities.

Excise duties are paid on a monthly basis, by the 15th of the month following the reporting period. In some cases, payments are performed on ten-day periods (upon exceeding certain thresholds) and paid by excise warehouse operator, registered acquirer, or other entity.

What is happening outside of the EU

The reason for which countries such as the United Arab Emirates⁷ (UAE) and Thailand are working on the implementation of new digital mechanisms to ensure tobacco and alcohol (only for Thailand) products' traceability and safety for public use relates to the disadvantages of using physical stamps.⁸

This paper-based process highlights the fact that the EU is not as efficient as other countries in excise duty collection. The following example from the UAE conclusively demonstrates that new technology can be used to ensure the traceability of tobacco products.⁹

Since January 2019, it is required by the country's Federal Tax Authority (FTA) to paste a digital stamp on cigarette packets. The objective is to apply this across all tobacco products in the future. This mechanism is accompanied by a database where all tax-related data will be recorded and accessible through a special reading device. Going forward, cigarettes packs with the digital seal will be electronically tracked to verify that excise duties have been paid.¹⁰

The direct consequence of this system is that it will not be possible to import cigarettes in the UAE without asking for digital stamps from the country's tax authorities in advance. Any sale of cigarette packages without this digital stamp will be forbidden and almost impossible to execute.

The replacement of physical stamps is also foreseen by Thailand to fight tax evasion linked to alcohol products. The mechanism is the same as the one that the UAE has already implemented for cigarette packets. This track and trace system will prevent the duplication or re-use of stamps in avoiding tax payment on products.

Pain points – Implications

Once requested, excise stamps have to be very securely transported from the authorities to the producer's or importer's facilities. Moreover, transportation is insured to cover any degradation or theft.

The physical stamps process brings other costs. Transport is not the only step requiring insurance. The pasting of physical stamps onto product packages also requires insurance as it can damage the actual products. In that scenario, new stamps will have to be requested, leading to additional costs (new transport arrangements, more insurance, etc.).

In conclusion, the use of physical excise stamps is a costly process.

The procedure also imposes an additional administrative burden because of its complexity. As the stamps are physical, the tax authorities need to print, control and supervise the printing process. This requires additional administrative papers. More administrative papers are also required for the stamps' transportation, which lead to an increased risk of losing said documents.

Finally, the process to check if the stamps and tobacco products are authentic is manual, with products being checked one by one, thereby leading to a lack of efficiency.

Risk

The new digital mechanisms that have been, or will be, set up in the UAE and Thailand are also used to avoid risks of the situation as it is today. As previously mentioned, the risks are linked to two phases of the process: the physical stamps' transportation and their pasting on products.

Risks in the stamps' transportation

The transport risks include the stamps' transfer from the authorities to the producer's warehouse, as well as the transfer from the latter location to the sellers' excise warehouse(s) and degradation or theft of stamps or of products with the stamps pasted on them.

Risks in stamp pasting

The pasting is also a risky process as it can be involve theft in the warehouse, printing of double stamps or destruction of stamps (during the pasting process or in cases of fire, flooding, etc.).

Finally, the risk of the current process is that stamps can be pasted on counterfeit cigarettes or are exposed to a high risk of copy/falsification. This leads to a loss of billions in excise duties for tax authorities.

How Blockchain can play a role in excise duties

Blockchain in the supply chain

Blockchain is a distributed ledger technology that records a transaction's occurrence, when it occurred and whether it occurred correctly. It is a decentralised network based on cryptography that uses peer-to-peer consensus to validate transactions. Accuracy, traceability and trust are key Blockchain benefits.¹¹

This technology is based on a series of interconnected blocks, with new blocks added to the end of the ever-lengthening chain. Each block can contain transactions, data and a reference to the previous Blockchain (creating the so-called chain). For blocks to be added to the chain, it must be achieved through consensus. Every transaction is recorded chronologically and cannot be changed once added to the chain.

Consequently, Blockchain is a solution that can be implemented to mitigate risks related to the complexity of today's supply chains.

The first and most obvious solution provided by Blockchain is a redesign of the supply chain. Its very nature as a decentralised ledger that can store a complete history of transactions on a shared database means that one can trace a product's movements across the world. This is where Blockchain plays a major part as gatekeeper of transferred information. Companies experiencing issues of trust in their supply chain need to consider Blockchain technology. The secure nature of Blockchain is what makes it reliable and trustworthy. The data on the Blockchain is legitimate, given its validation by multiple participants within the network.

In the current globalised trade landscape, the supply chain for a single product has become increasingly complex. It is now composed of many different stages, taking place in several locations and countries, and involves many companies and individuals. This leads to a range of problems: additional costs (i.e. for intermediaries such as banks or lawyers), friction in the supply chain, lack of transparency, data integrity, etc.

Data integrity is ensured by the fact that every transaction is recorded and cannot be changed, except through the consent of all participants in the chain. Moreover, Blockchain technology allows an efficient track and trace system as it shows a holistic view of the product's supply chain journey. The results are enhanced security

for the public, increased compliance with regulatory requirements (i.e. export controls) and an additional improvement in the fight against counterfeit products. The logic behind Blockchain allows the authorities to have better control regarding information and products, and guarantees the information's accuracy for final customers.

Finally, the technology provides cost reduction possibilities. The best example is the use of smart contracts. A smart contract is a script written in machine readable language, and executes automatically once its conditions are met. At its core, it is a simple "if-then" statement. It can automatically verify conditions on the Blockchain and execute their code autonomously. Once deployed in the Blockchain, a smart contract cannot be modified, and will execute as originally programmed. The fact that parameters in the contract can be set up and deployed to the Blockchain (requiring all trading partners to use the same and unalterable contracts) reduces the need for lawyer intervention.

Blockchain for excise duties

As previously mentioned, without Blockchain, tax administrations usually rely on tax- or excises returns for information reporting. The impact on the amount of collected taxes and excises can be significant because of errors, negligence and/or fraud by taxpayers. Blockchain technology can help mitigate these risks and can represent large amounts of revenue collected by the tax authorities.

The efficient audit trail and the accuracy of information available on the chain can facilitate the transmission of correct tax data between taxpayers and authorities. The implications can be important as loss in taxes is estimated at billions of Euros for authorities. For instance in Belgium in 2016¹², the Belgian Ministry of Finance was expecting an extra €220m in excise revenues but Federal Public Service Finance (SPF Finance) figures indicate that excise tax revenue has fallen from €830.7 million in 2016, to €823.2 million in 2017, and €815.5 million in 2018. Due to cross border purchase, Belgium registered important losses in VAT resulting in a net loss for the Belgian exchequer compared with 2015.¹³ In addition, the security and efficiency provided by Blockchain (when deployed correctly) can lead to shorter times for excise duty payments.

To-be situation

In collecting excise duties related to tobacco and alcohol products, the use of digital ledger technology such as Blockchain can provide a more efficient process than what is currently in place.

In the short term, the objective is to remove the fiscal value from excise stamps in countries where such stamps still carry a fiscal value. In the long term, Blockchain will allow the phasing out of physical excise stamps, replacing them by using Internet of Things technologies (IoT), such as NFC or QR codes. This will digitalise the asset and create a digital twin.

In a future Blockchain solution, producing companies would need to order the digital excise stamps from the tax authorities. At this point, a specific amount of unique digital unique IDs will be issued by the authorities through a Blockchain-based platform.

These unique IDs will be linked to a NFC chip/QR code with anti-copy protection features. They will be assigned to packages of cigarettes or alcohol bottles and then activated. The NFC chips and QR codes contain all the information regarding the manufacturer, product details/ingredients, date of production, company number, status of duty payment, etc.

Once the chips/codes are assigned and activated, the products can be transported to the excise warehouses, to intermediaries or to the final consumers.

Users, depending on their assigned role on the Blockchain, will be able to change/read the product's data.

- The excise warehouse manager can trigger the duties payment through a smart-contract once the goods leave the warehouse and are released for consumption
- Customs authorities can see while they perform random checks on whether duties were paid or not and track the good in the supply chain
- The end consumer can see the product's provenance, manufacturing details etc.

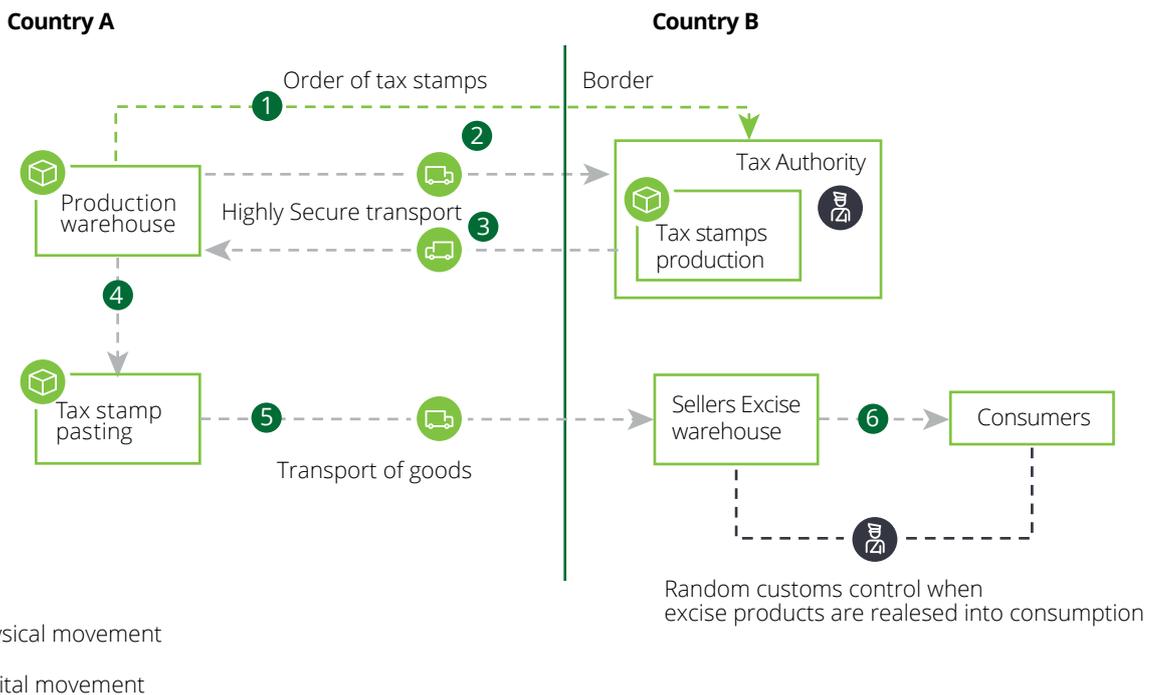
Benefits

The benefits of the Blockchain solution are multiple in the case described in this article.

First, a copy of all transactions is saved on all participating devices, with everyone within the system having access to the same copy of all transactions (with the possibility to restrict access to certain data per type of user / participant). As previously mentioned, the records of all transactions with corresponding timestamps of entry

Use case - Excise Stamps

As-Is



are unchangeable. This means that tax authorities can have a full view on the flow of goods and ensure the traceability of excised goods. The system's security is guaranteed by authentication and identification through well applied cryptography, namely asymmetric encryption (public and private keys).

By digitalising the asset through IoT, a digital twin of the physical product is also created and Blockchain is used to "anchor" or ensure that information in a secure manner.

Finally, the automation of excise duty payment through smart-contract upon the goods' release for consumption allows an efficient automation of the payment process. The use of Blockchain technology may even make it possible to bring the payment of excise duties closer to the moment of consumption and trace products beyond the tax warehouse.

The impact of Blockchain on companies and tax authorities can be observed in the short and long term. In the short term, such a solution could allow for an increased efficiency in duty payments, an easier duty management and an improvement of fiscal control. The use of smart-contracts can also lead to improved payment

terms. In the long term, the costly process of the current situation can be improved and can lead to fewer costs for companies. This is possible because transport and insurance for the physical stamps would not be required anymore. Moreover, process efficiency is also improved because the step of pasting stamps on products is removed. Finally, the security of the supply chain is guaranteed as a real audit trail is created by the Blockchain solution.

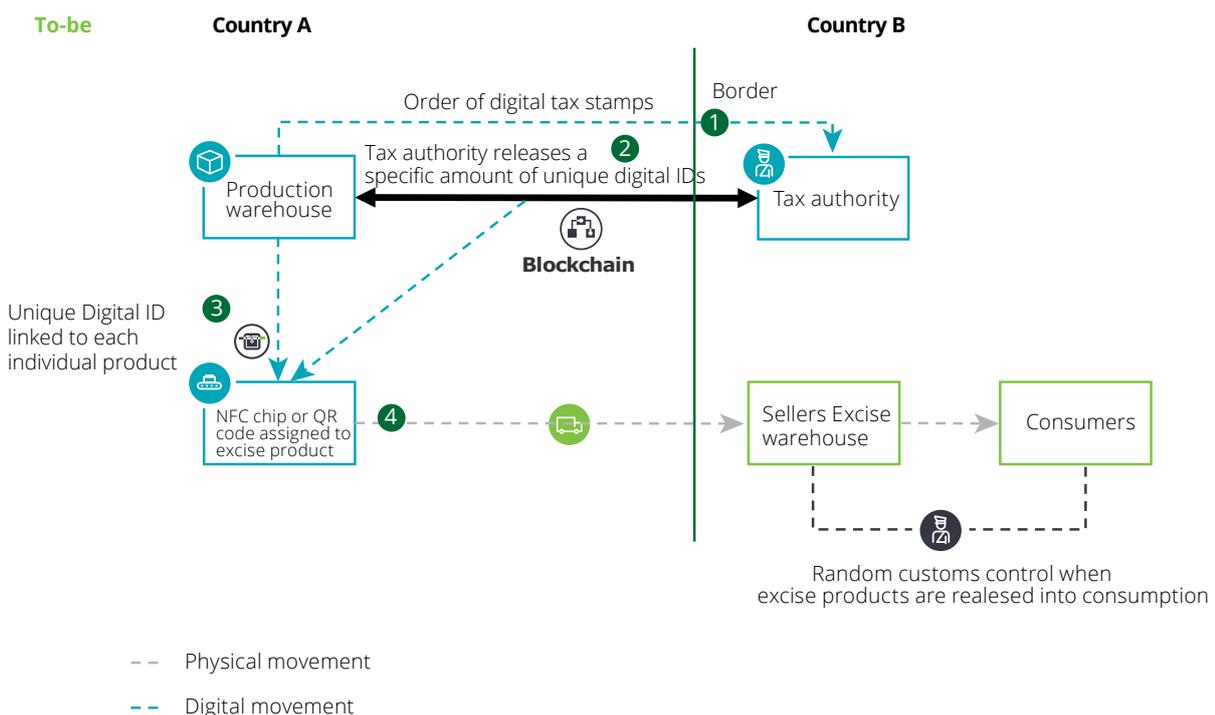
Short term

- Increase efficiency in duties paid
- Easier duty management
- Improved payment terms
- Enhanced fiscal control

Long term

- Fewer costs for companies that sell excise products
- No insurance needed on excise stamps
- No excise stamps transportation cost
- Enhanced traceability
- Lower manufacturing cost of adding the stamp to the package
- Neutral stock

Solution - Excise Stamps



Blockchain, the technology that will upgrade the EMCS system?

The EMCS is the EU computerised system for monitoring the movement of excise goods under duty suspension.¹⁴

In the current situation, an electronic Administrative Document (eAD) accompanies excise goods during their movement. The eAD is issued by the consignor, validated in the Member State of dispatch and transmitted to the destination Member State, who will forward it to the consignee. A report of receipt will then be sent by the consignee to the consignor when the goods are received.

DG TAXUD recently implemented a Proof of Concept (PoC) to analyse feasibility and validate the use of Blockchain technology to monitor the movement of excise goods under duty suspension in the EU and in real time.

The proof of concept has been built on Hyperledger and the scope spans three EU countries' administrations (Austria, Belgium and Bulgaria). For each, four virtual servers (peer, database, certificate authority and smart contract) are foreseen. The full network is provided by one orderer server.

In their PoC the consignor sends the eAD to the Blockchain network. The transaction is submitted to the orderer server, which will add it to a block and submit it to all peers (other administrations). Once checks are made by these peers, the block with the transaction will be added to the chain. Finally, the peers notify the different parties of the transaction's business identifier (Administrative Reference Code (ARC)). This ARC is proof that the transaction has been successfully added to the Blockchain. Once the goods are received, the consignee can select the ARC and complete the report of receipt in the network.

At every stage of the process, all participants can obtain a real time status indication for the goods involved in the transaction¹⁵. The first proof of concept results were assessed as very encouraging, and there is a real possibility that a Blockchain solution can replace EMCS on the medium to long-term.

As mentioned, tax stamps can be upgraded by using IoT devices to carry all required authentication elements, as well as the unique identifier for tracking and tracing.

In terms of security level, ease of examination, cost-effectiveness and independence, combining all authentication elements with the UI onto one excise tax stamps provide the best overall solution. This proposed solution is aligned with the guidelines for interoperable object identification and related authentication systems to deter counterfeiting and illicit trade (ISO 16678:2014), which recommends the combination of digital codes with physical security features.

Challenges

It is clear that Blockchain can have a big impact because of its disruptive nature. This, however, is also one of the big challenges of this solution, because it requires considerable investment in terms of both time and money. It is a completely altered vision of collecting and monitoring excise duties; as such, one can be reluctant to invest in this area. Given that Blockchain is still in the initial development phase, the technology can still be improved.¹⁶ Every day, the network grows and the number of transactions increases. Consequently, a significant future challenge will be the size of the Blockchain network.

Moreover, it will not be easy to secure all involved stakeholders' cooperation and create a complete Blockchain system. It is also necessary to have the tax authorities on board to take the lead, or at least endorse the solution. A regulatory support is also crucial for other reasons. For example, Blockchain concepts like smart contracts are not covered by existing regulations. Consequently, investors can be reluctant to invest money in a technology where authorities cannot ensure legal guarantees.¹⁷

During the EMCS proof of concept, some technical challenges were faced. Even if DG TAXUD manages to overcome them, they may represent significant burdens in the future.

Firstly, the confidentiality of the data to support EMCS requirements was not fully guaranteed.

To align with legal restrictions, each transaction in EMCS must be signed off by the Member State of the trader submitting the transaction. The endorsement policy did not allow the specification that the endorser nodes are those of the Member States involved in the transaction. The complexity of the network's deployment and all national regulations that need to be taken into account can represent a sizeable burden for replacing previous technologies with Blockchain.¹⁸

Conclusion

Digitalizing the tax stamps won't be straightforward and it will require time and effort. However, the benefits of Blockchain will probably impact the full sector of tobacco and alcohol products, and create additional value for authorities and companies.

We are currently helping industry clients and authorities to digitalize the tax stamps by leveraging the benefits of the blockchain technology in combination with IoT.

We can offer various service capabilities that help overcome the challenges associated with establishing a digital tax stamps framework. Government organizations can leverage legislation advisory, project management, and technical integration support services extended by our professionals to ensure successful implementation.

Reach out to find out more!

Testimonials

We received some testimonials from leaders in the tobacco and the alcohol industry that describe the current struggle in this process.

"The mechanism of collecting a consumption tax through a physical stamp is, considering the technological developments, clearly outdated. The current tax stamp mechanism is not a waterproof system for the government to collect the appropriate excise taxes on the consumption of tobacco taxes and in addition it is a burdensome and costly tax levy mechanism for producers, importers and distributors. Currently, if an EU-based producer of tobacco products wants to produce tobacco products for another EU market, the stamps need to be physically shipped to the place of production where they will be attached to the product during the production process. If stamps get lost during the production process or during the transport, this may cause excise liabilities. If a finished product is subject to theft the consequences (including double taxation) can be even more complicated."

Siebert Slagmans, Director of the Global Tax Operations at Philip Morris International

"Tax stamps on alcoholic beverages have been introduced in some EU countries many years ago and in other countries more recently. The aim of the tax stamp for Member states is to have in any moment the proof that goods were duly subject on the payment of the Excise duties in the MS by having a "tax mark" applied on the bottle/container. The problems for our business are:

- **The physical application of the Tax**
- **The traceability of stamps serial ID when necessary**
- **The application of stamps outside MS territory for goods bottled in other MS/Third countries**
- **Records of application/arrival to be kept when requested**

There is definitely a need to find an easier procedure to electronically identify containers/bottles or batches of containers/bottles during the bottling process or the reworking process (if needed). In addition there is a need of an easier process to link the above information to release the products for consumption/ and trigger the payment of the excise duty by sending them to the competent authority and lastly to help competent authorities to have a quick proof during any verification within the supply chain that the excise duties of the goods have been paid."

Sergio Palumbo, European Customs and Excises Manager at Bacardi

Authors

Fernand Rutten

Partner
Global Trade Advisory
Indirect Tax
Deloitte Belgium

Daan de Vlieger

Director
Global Trade Advisory
Indirect Tax
Deloitte Belgium

Athina Stantzos

Senior Consultant
Global Trade Advisory
Indirect Tax
Deloitte Belgium

Mirko Ambrogetti

Consultant
Global Trade Advisory
Indirect Tax
Deloitte Belgium

Endnotes

- 1 https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy_en
- 2 <https://eur-lex.europa.eu/legal-content/GA/TXT/?uri=CELEX:32014L0040>
- 3 <https://www.tax-stamps.org/news-article/tax-stamp-body-briefs-eu-government-on-flaws-in-tobacco-track-and-trace-legislation--->
- 4 <https://www.xeikon.com/fr/node/50>
- 5 http://www.etaamb.be/fr/arrete-ministeriel-du-25-fevrier-2016_n2016003080.html
- 6 https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy/excise-duties-alcohol_en
- 7 <https://gulfnews.com/business/retail/cigarette-packets-marked-with-the-digital-tax-stamps-arrive-1.63596133>
- 8 <https://www2.deloitte.com/xe/en/pages/tax/articles/vat-gcc-fta-publishes-public-clarification-two-new-cabinet-decisions.html>
- 9 <http://www.mayurbatragroup.ae/insights/uae-bans-import-of-cigarettes-without-new-digital-seal/>
- 10 <https://www.emirates247.com/news/emirates/first-batch-of-cigarette-packs-bearing-digital-tax-stamps-reach-uae-markets-2019-03-27-1.681655>
- 11 <https://www2.deloitte.com/ie/en/pages/technology/articles/beefing-up-Blockchain.html>
- 12 <https://spirits.eu/taxation-economy/high-tax-incentive-for-illicit-alcohol>
- 13 <http://vinumetspiritibus.be/fr/etude-revenus-accises/>
- 14 https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy/excise-movement-control-system_en
- 15 https://ec.europa.eu/taxation_customs/business/excise-duties-alcohol-tobacco-energy/excise-movement-control-system_en#heading_0
- 16 <https://www.cnbc.com/2018/10/01/five-crucial-challenges-for-Blockchain-to-overcome-deloitte.html>
- 17 <https://www.cnbc.com/2018/10/01/five-crucial-challenges-for-Blockchain-to-overcome-deloitte.html>
- 18 <https://www.youtube.com/watch?v=qsmo7VOqATI&feature=youtu.be>



Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee (“DTTL”), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. Please see www.deloitte.com/about for a more detailed description of DTTL and its member firms.

Deloitte provides audit, tax and legal, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte has in the region of 244,400 professionals, all committed to becoming the standard of excellence.

This publication contains general information only, and none of Deloitte Touche Tohmatsu Limited, its member firms, or their related entities (collectively, the “Deloitte Network”) is, by means of this publication, rendering professional advice or services. Before making any decision or taking any action that may affect your finances or your business, you should consult a qualified professional adviser. No entity in the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this publication.