Taxation of virtual currency

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Title: Taxtation of virtual currency
Issue Date: 2014-12-02

6 Income tax: conclusions

6.1 THE MODEL SCENARIO

Chapter Four described the model system for taxing income from virtual trade by identifying the most comprehensive income definition and then limiting this concept on the basis of the generally acknowledged principle of taxation to make it capable of practical application.

According to the most comprehensive income definition (the Schanz-Haig-Simons concept), all increases in wealth and consumption should be taxable. It should not matter whether profits are generated in a virtual or traditional currency or whether they are realized or not. Virtual currency constitutes valuable resources and its receipt and appreciation in value enhances the economic power of an individual.

This economic view does not translate well into tax law because it ignores the practical requirement that taxes be something that can be reliably measured, reported and paid. Taxpayers with real and virtual income cannot be regarded as being in comparable situations. Taxpayers having cash can easily meet their tax liabilities, whereas taxpayers with income in a virtual form have to borrow the necessary funds or to sell their virtual currency to pay the tax due. Thus, the principle of equity does not preclude a different treatment of income in the real and a virtual form. Taxing virtual income would present insurmountable compliance and supervisory problems, in view of which it is doubtful whether it would be able to raise any revenue. The tax determination process ultimately rests on taxpayers disclosing their financial affairs and paying what they owe without overt government compulsion. Knowing that tax authorities are not aware of the existence of income in a virtual form (one of the main features of the Bitcoin system is anonymity), taxpayers would have little incentive to report the value of accumulated bitcoin profits. Those who would like to report their virtual earnings would have to differentiate between profits from sales and exchange transactions (which may be a challenging task for an average taxpayer). As virtual currency is frequently used for micropayments, tracking such low-value transactions would be burdensome for both taxpayers and tax authorities.

Therefore, in the model tax system, virtual income should not be subject to tax. In contrast, any real income derived from trade in virtual currencies and items should be subject to tax. This approach is in line with the principle of equity (increased ability to pay is taxed), administrative convenience (taxation is deferred until the taxpayer has the means to pay the tax) and neutrality (taxpayers are not "forced" to monetize their assets).

6.2 The actual scenario

Chapter Five examined whether income from virtual transactions is subject to tax in four countries: the United States, the United Kingdom, Germany and the Netherlands. These countries were selected on the basis of their different approaches to income taxation (global versus schedular) and the different treatment of capital gains and accumulated wealth. The following conclusions were reached.

The global income tax system of the United States taxes "all income from whatever source derived".[722] Profit motive and market participation are not part of the taxable income definition. Certain income categories (windfalls, prizes and winnings) that are excluded from income taxation in other countries are subject to tax. The Schanz-Haig-Simons model is generally accepted as the conceptually correct income definition underlying section 61 of the IRC. The Supreme Court restricted this definition by ruling that income taxes should be levied on any "accessions to wealth, clearly realized, and over which the taxpayers have complete dominion".[723] To take into account the fact that tax law must be implementable and enforceable, additional criteria are used to exclude some instances of economic income from the gross income concept. These criteria are: measurable market value and exclusion of imputed income. Under US tax law, real income from virtual trade is generally taxable. There are no exceptions for occasional sales or for gains below certain thresholds. With respect to profits existing only in a virtual form (for example, in the case of a seller who accepts bitcoins as consideration), it is necessary to distinguish between community-related and universal currencies. In my opinion, the taxpayer does not have a complete dominion over community-related currencies since he has expressly agreed to the contractual terms according to which the world operator may modify and terminate the virtual environment at its sole discretion. In contrast, the possession of universal currency (bitcoins) is free from such restrictions. The taxpayer has the private key and is the only person that can use the coins accumulated in his wallet. Thus, the receipt of universal virtual currency may give rise to taxable income, irrespective whether the currency was generated or obtained in an exchange transaction. The fair market value of the "coins" must be included in gross income.

The United Kingdom imposes both income tax and capital gains tax (CGT) on individuals.[724] UK income tax law is schedular in nature: the tax is levied

722 *See* section 5.2. *The United States.*
723 *Commissioner v. Glenshaw Glass Co.,* 348 US 426 (1955).
724 *See* section 5.3. *The United Kingdom.*

on several categories of receipts. Capital gains tax is imposed on disposals of assets. The terms "asset" and "disposal" have been extended by the legislator to cover transactions that would not fall within their commonsense meaning: a CGT liability arises if a capital sum is received, even if the person paying the sum does not acquire any asset. Virtual exchanges may result in trading income, miscellaneous income or capital gains. Repetitive and frequent transactions imply trade. Taxpayers occasionally selling virtual items and currencies are more likely to generate miscellaneous income. A profit on the sale of a single item (provided that the sale is not a trading venture based on its characteristics and size) may constitute a capital gain. Under UK tax law, it does not matter whether income is generated in the real or a virtual form. Virtual income is subject to tax based on the rules on benefits in kind (their fair market value is recorded as revenue). Accumulated virtual currency is not taxable. The creation of virtual currency and the possession of virtual currency that appreciates in value do not have any income tax consequences as they involve neither source nor disposal.

Germany has a schedular tax system where income tax is levied on selected income categories.[725] There is no all-encompassing provision that would tax income from whatever source derived. Income from virtual trade may fall within either business or miscellaneous income category, depending on whether it is generated in a business or private capacity. No distinction is made between real or virtual income, community-related or universal currencies. All profits from exchange transactions are subject to tax. If income is received in a virtual form, rules on barter transactions apply. The creation of virtual currency and the possession of virtual currency that appreciates in value are not taxable since they do not involve reciprocal transactions with other market participants. The value of mined bitcoins can be considered a non-taxable prize.

The Netherlands has a schedular tax system where income tax is levied on receipts falling within one of the three boxes.[726] There is no all-encompassing provision that would tax income from whatever source derived. Income from virtual trade may fall within either Box 1 or Box 3. If the costs of the sales transactions exceed the revenues, a non-taxable hobby is assumed. Under Box 1, profits from virtual trade may constitute either business income (if the trader has a permanent organization of capital and labour) or other income. Under Box 3, income tax is levied on the net value of assets, irrespective of whether those assets are able to generate any income. Accumulated virtual currency may be regarded as a qualifying asset since it has economic value. Thus, not only profits from virtual exchanges but also accumulated virtual currency is subject to tax.

The different tax consequences of virtual transactions are summarized in Table 4. The outcome of the research may seem surprising: the Netherlands

725 *See* section 5.4. *Germany*.
726 *See* section 5.5. *The Netherlands*.

with its schedular income definition is a country where income in virtual currency is subject to the most comprehensive taxation.

Table 4: Tax consequences of the creation, possession and exchanges of virtual currencies

Event	*Tax consequences in selected countries*			
	United States	*United Kingdom*	*Germany*	*The Netherlands*
Creation and possession of virtual currency	Taxable (only universal currency)	Non-taxable (no source or disposal)	Non-taxable (no reciprocal transactions with other market participants)	Taxable under Box 3
Exchanges resulting in real income	Taxable	Taxable as trading income, miscellaneous income or capital gain	Taxable as business or miscellaneous income	Taxable as business or other income
Exchanges resulting in virtual income	Taxable (only universal currency)	Taxable as trading income, miscellaneous income or capital gain	Taxable as business or miscellaneous income	Taxable as business or other income

6.3 THE ISSUES

The actual scenario deviates from the model one since income in a virtual form is taxable in all the countries under consideration. However, the fact that income is taxable does not mean that it is *actually* taxed. People who have virtual income do not pay tax on that income for two reasons: either they are not aware that such income is taxable or they deliberately avoid paying tax knowing that this non-compliance is unlikely to be detected and punished.

The first issue (unawareness of tax liability) results from lack of clear guidance on the tax treatment of virtual currency. Tax authorities of many countries have not explained the tax consequences of mining of, and trading in, virtual currency. If taxpayers turn to the Internet for tax help, they may find a lot of misinformation there. There are a number of websites, wikis, and blogs that provide differing opinions on the tax treatment of virtual currency, including some that could lead taxpayers to believe that transacting in virtual currencies relieves them of their responsibilities to report and pay taxes.[727]

This problem of ignorance of tax liability has also been discussed in various contexts with regard to people who sell personal items on auction websites, such as eBay.[728] Online sales put many taxpayers at risk for underpaid taxes and penalties since those taxpayers do not consider themselves either to be in business or to generate taxable income at all. The IRS noted that "misinformation about laws, such as prohibiting the taxation of Internet access (Internet Tax Freedom Act) and limiting sales tax on interstate sales, have lead some to incorrectly believe that Internet sales income including online auctions is not subject to income tax."[729] Virtual income aggravates the existing problem: even if taxpayers dealing in virtual currency assumed that they should report their virtual profits, they would not know how to do it.

The second issue (deliberate non-compliance) stems from the characteristics of virtual currencies: transactions take place anonymously usually in a multi-jurisdictional setting. A seller that accepts payments in bitcoins is not required to identify himself when establishing his online Bitcoin wallet. Although the entire history of bitcoin transactions is publicly available, it is extremely difficult to trace earnings accumulated in a particular wallet back to a particular taxpayer. Thus, it is unlikely that tax authorities will know about the income, unless taxpayers voluntarily report it.

What can be observed is that tax law is not applied to income from virtual trade. Ignored and unenforced tax law is useless. It neither generates revenue nor serves any redistributive purpose, so that its existence cannot be justified by any of the taxation objectives. It violates the principle of equity as it allows an increased ability to pay to remain untaxed. Low compliance rates harm the moral authority of law. Unenforced law creates a risk of arbitrary and discriminatory enforcement: it may be enforced against some but not others. It creates the impression that breaking the law is fine unless the taxpayer gets caught. The current legal situation of trade in virtual currencies can be best described as "vagueness in practice" – it is assumed that tax law should be applied but it is not clear when and how.[730] Thus, the application of the

727 *See* section 4.3.2. *Certainty and flexibility*.

728 In 2010, an IRS officer (Andrea Fabiana Orellana) failed to report USD 41,842 in income from eBay sales of private items. She was found liable for USD 12,428 in unpaid taxes and USD 2,486 in penalties. Orellana claimed her eBay sales were not a business and characterized them as an online garage sale. *See Orellana v. Commissioner*, TC Summ. Op. 2010- 51, US Tax Court (20 Apr. 2010). For compliance with sales taxes, *see*, for example, J. Alm & M.I. Melnik, *Do Ebay Sellers Comply with State Sales Taxes*? 63 National Tax Journal 2 (2010).

729 *See* www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Tax-Laws-and-Issues-for-Online-Auction-Sellers.

730 This statement is best illustrated by the approach taken in the GAO Report, *supra* n. 38, which provides various examples involving transactions in virtual currencies but does not elaborate on their tax consequences. Each example concludes that the taxpayer "may have earned taxable income".

current rules and concepts to virtual trade does not result in an economically reasonable outcome.

6.4 The solutions

6.4.1 Initial comments

It is obvious that "vagueness in practice" is not a desired situation and should be remedied. The approach suggested in this chapter seeks to align the actual scenario with the model one. It proposes to exempt any income in a virtual form from taxation (*see* section 6.4.2.) and implement reporting requirements together with taxpayer information services to improve compliance with regard to real income from virtual transactions (*see* section 6.4.3.).

A more radical solution to tackle the problem of virtual currencies would be to forbid their use and impose sanctions on those who disobey the law.[731] This form of action is interventionist and carries with it substantial political and normative implications. When faced with undesirable behavior, legislators often turn to sanctions to regulate. Statutory prohibitions are a simple tool for regulating people's conduct: if rules are violated, the offender is punished and others are deterred. However, sanctions are ineffective at regulating behavior which is common among law-abiding citizens and difficult to detect. Deterrence cannot be achieved if there are a large number of violators who get away with their actions. Too many sanctions can also provoke community outrage. Moreover, a ban on the use of virtual currency would not solve the conceptual issues of tax law. For those reasons, radical solutions are not advocated as a way to solve the virtual currency problem.

6.4.2 Virtual income

Income existing only in a virtual form should not be subject to tax. While it is clear that such a blanket exemption creates a preference for virtual economic activity, this exemption seems necessary in view of the difficulties that potential taxation of virtual income would create.[732]

Exchanges of goods or services for virtual currency constitute barter transactions. For an average taxpayer, the tax treatment of barter transactions is

731 Several Internet sources mistakenly reported that Thailand banned the use of Bitcoin (*see*, for example, The Telegraph, *Bitcoins banned in Thailand*, available at: www.telegraph.co.uk/finance/currency/10210022/Bitcoins-banned-in-Thailand.html). However, the Central Bank of Thailand did not ban Bitcoin, but issued a ruling that using bitcoins was illegal because of lack of laws that dealt with anonymous, cryptographically protected digital currencies.

732 *See* section 4.3. *Principles of income taxation*.

complex since he must know how to determine an objective (market) value of the transaction objects in order to calculate the taxable profit. This may be difficult if taxpayers engage in a large number of low-value barter transactions or if the objects of barter transactions are subject to significant price fluctuations.

Community-related currency is predominantly used for transactions within the virtual world. Such transactions generally involve low-value items. A single user may engage in many transactions every day, selling objects that he created and obtained from both the world operator and other participants. It is highly unlikely that he will be able to determine the taxable profit for each transaction and that an external party (for example, the tax authorities) will be able to check it.

Taxing both real and virtual income would require taxpayers to distinguish between gains from barter transactions and subsequent gains from exchanges of virtual currency into traditional currency, which may be a complex task for an average taxpayer.[733]

Although benefits in kind generally form part of taxable income, in some countries, certain categories of benefits in kind are explicitly excluded from taxation due to their complex valuation or for the sake of administrative ease. For example, the receipt of frequent flyer miles does not give rise to taxable income in the United States. Although frequent flyer miles would fall within the broad scope of section 61 of the IRC, it is impossible to assign a fair market value to miles in a frequent flyer account since such miles can be redeemed in multiple markets and the market value of a flight varies dramatically in response to various factors (market demand, oil prices and time of travel). Another example of income excluded from the US gross income concept are *de minimis* fringe benefits provided to employees. A *de minimis* benefit is any property or service that has so little value that accounting for it would be unreasonable or administratively impracticable. The exemption applies no matter how many *de minimis* fringe benefits are obtained. Those examples show that although benefits in kind make a person better off and increase his earning capacity, they are excluded from taxation for practical reasons, such as valuation complexity or large number of low-value transactions.

Taxing virtual income would affect taxpayers who visit virtual worlds only for hobby purposes. Those taxpayers might have large amounts of accumulated virtual currency which they use only for the purposes of their virtual identity. Participation in virtual worlds enables people to act without consequences to their "other" life. They can separate what happens online from the rest of their existence. Las Vegas has commercialized the idea as "what happens in Vegas, stays in Vegas". Similarly, virtual worlds allow large numbers of people to engage in role-playing that many do not expect to carry over into the real

733 This problem is also recognized in: W.R. Davis, *Bitcoin Is Property, Not Currency, IRS Says*, Worldwide Tax Daily, Tax Analysts (26 Mar. 2014).

world.[734] In other words, what happens in virtual worlds should stay in virtual worlds. As Walpole and Gray (2010)[735] concluded "it would be simpler to leave the virtual world to itself and only invoke the tax rules when the virtual world activities lead to a real world event. In this regard, it may be worth considering the virtual world as a work of ?ction such that only when the characters step off screen and into the real world should we become concerned with their actions."

It may seem that a tax exemption for virtual income would favour entrepreneurs accepting bitcoins as consideration for goods and services. Such entrepreneurs would have virtual profits which would remain tax free. However, it must be kept in mind that profits in Bitcoin are quite different from profits in traditional currency. Although Bitcoin intends to function as legal currency, it has not become one yet. Neither can it be used to pay legal debts nor can customers demand its acceptance by the sellers. Bitcoin users can fully benefit from their virtual currency once they convert it into traditional money.

The proposed solution could be implemented by inserting the following passage into the income tax law:

> 'Virtual currency (i.e. digital currency that does not have legal tender status in any country) created by the taxpayer or obtained from exchange transactions does not constitute gross income for the purpose of individual income tax law.'

Additionally, sellers accepting virtual currency as a means of payment should be required to report this fact to the tax authorities. This would allow tax administrations to monitor the virtual currency market and take appropriate steps in case a virtual currency starts functioning like a traditional one, i.e. it will be able to be used to purchase so many goods and services that its conversion will no longer be necessary to enjoy its benefits.

6.4.3 Real income

6.4.3.1 Initial comments

Real income from virtual exchanges should generally be subject to tax since it increases the ability to pay. The taxpayer has liquid means to satisfy the tax liability and he is not forced to monetize any assets. Real income from virtual exchanges can be successfully subjected to tax if the taxpayers are aware of their compliance obligations (*see* section 6.4.3.2.) and the tax authorities have effective means to enforce compliance (*see* section 6.4.3.3.).

734 Camp, *supra* n. 24, at p. 60.
735 Walpole & Gray, *supra* n. 23.

As regards the method of regulation for taxation of real income from virtual trade, two approaches can be distinguished: a rule-based or a risk-based approach. The differences between those two approaches have essential implications for the type of legislative and regulatory instruments, the extent and nature of compliance obligations (such as reporting or customer due diligence) and controls performed by tax authorities.

A rule-based approach provides precise rules, covering all instances in which measures have to be applied and determining the content of such measures. There is no or little room to apply different methods, even though the mandatory ones may prove inadequate or ineffective in a particular case. In an ideal rule-based system, no loopholes should exist. New rules are added over time to take account of the experience in implementation, and the regulations tent to grow in size and complexity in a continuous search for clarity and completeness. Although the creation of a fully comprehensive and detailed legal framework is not possible, any attempts to do so run the risk of over-regulation. To address a problem, legislators respond by enacting a set of rules, which requires a further subset of rules. Tax legislation is sometimes described as a never-ending process of closing one loophole to create another one. Although the rule-based approach is less costly and simpler to implement, it is also less flexible and less effective since it may provide similar rules to different situations and encourage formalistic over-reporting.

A risk-based approach relies on the general assumption that compliance and control obligations should be designed by taking into account the risks they are intended to tackle and mitigate. It is based on high-level legislation which sets out the main objectives to be pursued through compliance and essential measures to apply for those purposes. This legislation is accompanied by widespread guidance, instructions and best practice indications. Those instruments are updated and improved in an ongoing manner to take account of changing circumstances and evolving risks. Risk-based systems are more effective since they take into account particular circumstances in a more targeted manner and encourage convergence towards common practices that have proven effective in tackling particular risks in specific circumstances. Risk-based systems need ongoing maintenance to make sure that the understanding of the risks is always up-to-date and require the evaluation of the effectiveness of the applied measures, which is a more complex task than the application of pre-determined rules. Risk-based systems also provide less legal certainty.

Virtual currencies are an evolving phenomenon. Although, for the purposes of this thesis, they have been divided into two categories, each virtual currency scheme has its unique characteristics. New schemes with yet unknown features may appear and replace the existing ones. For those reasons, legal instruments used to regulate virtual currencies should exhibit a certain degree of flexibility and adaptability to the changing circumstances. Those objectives are better achieved through the risk-based approach with general high-level legislation accompanied by more detailed guidelines that can be issued and amended in a simpler and less time-consuming procedure.

6.4.3.1 Taxpayer information

One of the main problems encountered by taxpayers is to know when sales of virtual currency for real money generate taxable income. In other words, when the hobby ceases and taxation may begin. For many taxpayers, occasional sales of virtual currency may be treated as non-taxable "garage sales" of personal property or part of their non-taxable hobby. As countries generally do not provide for numerical or monetary thresholds above which a hobby may give rise to tax liability, the question of when income from virtual exchanges is subject to tax is strictly fact dependent. The circumstances of an individual case must be examined. This approach has its merits as there is no principled way to set thresholds: taxpayers who are just below or just above the threshold may feel that they are treated unfairly. Thresholds are also subject to manipulation since taxpayers may artificially prevent exceeding them.

On the other hand, fact-dependent solutions create legal uncertainty since taxpayers and tax authorities may reach different conclusions as to the tax consequences of a particular situation. The unsophisticated taxpayer may not properly qualify income earned through virtual economies or currencies as taxable income. Even if taxpayers are aware that they may have a tax liability, they may be uncertain about the proper income characterization and any available deductions.

This legal uncertainty could be reduced if tax authorities issued appropriate guidelines, taking into account the special characteristics of virtual trade. A similar approach was suggested in the GAO Report, which states that:[736]

> 'to mitigate the risk of noncompliance from virtual currencies, the Commissioner of Internal Revenue should find relatively low-cost ways to provide information to taxpayers, such as the web statement IRS developed on virtual economies, on the basic tax reporting requirements for transactions using virtual currencies developed and used outside virtual economies.'

Tax authorities should promote compliance by explaining tax implications of virtual trade on their websites. The guidance should provide information on income characterization, allowable deductions,[737] income calculation methods and records to be kept. Links to such websites (or even short tax

736 GAO Report, *supra* n. 38, at p. 17.
737 The question of which expenses are deductible may not be straightforward. Tax laws of many countries contain more than one type of deductions. For example, in the United States, taxpayers may be confused whether section 62, 212 or 183 of the IRC is applicable.

information) could be inserted on the exchange platforms. Linden Lab used this approach to educate its European users about potential VAT consequences of their transactions.[738]

Tax authorities should seek a better understanding of the nature of virtual currency transactions and provide targeted guidance. As the range of potential income-generating situations is broad (there are bitcoin miners who treat their currency as stock in trade, hobby players who sell virtual items once in a while, users who cultivated their hobby into a business venture and professional entrepreneurs who accept virtual currency as a means of payment), taxpayers need be able to determine when their activity can be categorized as trade or business, a for-profit activity or a hobby. Assistance could be provided by means of examples, in a way similar to that used by the HMRC to educate its taxpayers about the tax consequences of online sales.[739] Those examples should include explanations on how to calculate tax liability in a particular case and provide for templates for recording transactions.

One of the central issues to be addressed is the question of basis and how to trace it through virtual spaces.[740] Basis is the previously taxed assets used to invest in the asset. It is usually an item's price. Thus, if a player bought virtual currency for USD 100, he will have a USD 100 basis in this currency. Upon sale, the basis is recovered by subtracting it from sales proceeds. Two rules can be used for the basis recovery. The first grants each object its own basis and determines the gain on an item-by-item basis. The second approach pools basis and allocates it across a type of assets. Which method of basis recovery should be used depends on the income-generating situation. Casual sellers are more likely to be able to determine the basis for the item sold. However, taxpayers that carry out a lot of transactions are unlikely to calculate the gain for each of the "coins" sold. Instead, the application of an inventory valuation method seems to be a more practical method of profit calculation. The choice of the method has a significant impact on the tax liability. Consider the following example, the taxpayer generated 50 bitcoins, bought another 50 (when 1 bitcoin = 50 USD) and another 50 (when 1 bitcoin = 100 USD). He has now 150 bitcoins. If 100 of them are sold when 1 bitcoin = 200 USD, what is his gain? According to the first-in first-out (FIFO) method, the first 100 coins are deemed to be sold, which results in the gain of USD 17,500 (20,000-2,500). If the last-in first-out (LIFO) method is used, the gain is only USD 12,500 (20,000-7,500).

In the majority of countries, tax administrations are not aware of virtual currency issues and do not produce any administrative guidance. Some countries issued a notice on the tax treatment of virtual currency, but limited it

738 *See* https://secondlife.com/corporate/vat.php.
739 *See* www.hmrc.gov.uk/guidance/selling/examples.htm.
740 Chodorow, *Tracing Basis through Virtual Spaces, supra* n. 103.

to the statement that the general rules apply.[741] Such a statement is insufficient as it presupposes that individuals know precisely what those general rules are. An individual who is only familiar with, for example, tax on employment income may not know what rules apply to entrepreneurs. Moreover, the general rules apply be default, so there is no need to state that fact explicitly.

The most comprehensive and informative guidance has been provided by the IRS, the Australian Taxation Office (ATO) and the Finnish Tax Administration. In March 2014, the IRS issued a notice on the tax treatment of convertible virtual currency.[742] This notice takes the form of answers to frequently asked questions. It describes the tax consequences of various activities involving virtual currency (for example, mining or acceptance as consideration for sales of goods and services) and answers, inter alia, the following questions:

- Is virtual currency treated as currency?
- Must a taxpayer who receives virtual currency as payment for goods or services include in computing gross income the fair market value of the virtual currency?
- How is the fair market value of virtual currency determined?
- What is the basis of virtual currency received as payment for goods or services?
- Does a taxpayer have gain or loss upon an exchange of virtual currency for other property?

Taxpayers are provided with short clear answers to those questions and with references to additional explanatory documents, if necessary. The provision of the guidance on the tax treatment of virtual currencies demonstrates that the IRS is able and willing to respond to innovations in the digital marketplace.

With regard to the tax treatment of virtual worlds, the IRS was less successful in providing clear and comprehensible information. It published the following general information on its website:[743]

> 'The IRS has provided guidance on the tax treatment of bartering, gambling, business and hobby income – issues that are similar to activities in online gaming worlds.
>
> In general, you can receive income in the form of money, property, or services. If you receive more income from the virtual world than you spend, you may be required to report the gain as taxable income. IRS guidance also applies when you spend more in a virtual world than you receive, you generally cannot claim a loss on an income tax return.

741 For example, the Dutch Ministry of Finance, Letter of 10 April 2013, *supra* n. 41; HMRC, *Brief 09/14*, *supra* n. 44.

742 IRS, *Virtual Currency Guidance*, *supra* n. 40.

743 IRS, *Tax consequences of virtual world transactions*, available at: www.irs.gov/Businesses/Small-Businesses-&-Self-Employed/Tax-Consequences-of-Virtual-World-Transactions .

> In addition, the IRS issued guidance on the tax consequences of various activities that apply to Internet-based activities and online businesses. This guidance can help answer questions about the tax consequences of your online virtual world activities.'

This statement is accompanied by links to websites where taxpayers can find more information on non-taxable hobbies, non-profit activities, online auctions, bartering, capital gains and self-employment. Those websites provide further links, so that the information which is essential for the taxpayer to understand tax consequences of his virtual activities covers more than 100 pages. Although the provision of administrative guidance is a positive development, the volume of the information and the way of its delivery (a collection of links to various sources, some of which are not relevant for virtual trade) may confuse an average taxpayer. Neither does the IRS guidance explain when activities in virtual worlds are sufficiently analogous to transactions mentioned on the various websites.[744]

The Finnish Tax Authority (*Vero Skatt*)[745] clarified the tax treatment of Bitcoin for income tax purposes in its notice issued on 28 August 2013. This Notice discusses various situations in which bitcoins are mined, traded as a hobby or in the course of business, or used for investment purposes. It includes six numerical examples showing how to calculate taxable income in bitcoin transactions. The Notice is written in a simple language, but it also provides references to the applicable Finnish legislation, so that taxpayers interested in the exact wording of the legal rules know where to find it.

The ATO issued guidance on the tax treatment of Bitcoin and other crypto-currencies on 20 August 2014.[746] The guidance clarifies the nature of virtual currency and proceeds to explain both GST and income tax aspects of bitcoin exchanges and mining. It covers a wide range of different situations in which virtual currency is traded for business or private purposes and describes what records are to be kept by taxpayers performing bitcoin transactions.

Comprehensive guidance can help taxpayers but it does not solve all their problems. Given the variety of virtual currency schemes and different personal situations of taxpayers, advice on the individual circumstances would be greatly appreciated. Taxpayers would like to have certainty that the chosen income characterization and income calculation methods will not be challenged by the tax administration. For those reasons, taxpayers should have the possibility to request advice, and tax authorities should handle those requests in a timely manner. The system of individual ruling should operate in a simple

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744 The same criticism is expressed in the National Taxpayer Advocate's *2013 Annual Report to Congress* (*see supra* n. 35).
745 Finnish Tax Authority, *supra* n. 47.
746 ATO, *supra* n. 59.

and customer-friendly manner. For example, it should be possible to submit the relevant forms and all the supporting documentation by electronic means.

6.4.3.2 Monitoring and reporting

Educating taxpayers may improve tax compliance but it falls short of addressing the main difficulty that virtual currencies pose, i.e. the low likelihood of detection and enforcement of tax liabilities. The main threat to tax compliance is anonymity (tax enforcement cannot be secured if the identity of the taxpayer is not known) and asymmetric information (the taxpayer knows the facts regarding the transactions he engages in, but the government is forced to obtain that information either from the taxpayer or from third parties). Taxpayers who are well aware of their obligations to report earnings and to pay taxes may purposely choose not to do so if they know that tax authorities are not aware of the existence of such profits. Activities of individuals are difficult to track. Tax authorities are not aware that someone sells bitcoins and virtual items until the story is remarkable enough to receive media coverage. Monitoring individuals is nearly impossible and excessive surveillance would raise civil liberty concerns. Traditional anti-tax-evasion mechanisms cannot successfully address virtual currency-based tax evasion. For example, agreements on exchange of information are irrelevant since Bitcoin's operation is not dependent on the existence of a sovereign jurisdiction. There is no jurisdiction to exchange information with. Although tax authorities may employ complex statistical analysis to try to associate bitcoin transactions with external information allowing the identification of taxpayers, such an approach is labour intensive and time-consuming. It can only be used in particular cases but not to address the problem systematically.[747]

Enforcement and monitoring measures by tax authorities should not target an infinitely large number of unidentified individuals but a much smaller number of operators providing exchange services.[748] The problems of exploiting electronic commerce should be corrected at their source. Institutions are easier to regulate as they are smaller in number, have known locations and incentives to comply with the law. Their core business activity is to facilitate trade in virtual currencies and they get benefits from it. No real value can be obtained without their involvement: while virtual currencies are valuable, their value is limited and it is their conversion into real money that allows the taxpayer to fully enjoy their benefits. If intermediaries were subject to reporting requirements, online marketplaces would cease to support anonymous transactions. Properly implemented information reporting can significantly reduce

747 Marian, *supra* n. 30, at p. 45.
748 Game operators that do not provide facilities for redemption of virtual currency should not be subject to such measures since their aim is to create a virtual world, a place where people interact without consequences to their real life.

opportunities for tax evasion. It is no surprise that tax compliance is highest if a third party reporting is present.[749] Technology developments can make third-party reporting of tax relevant information less cumbersome.

The application of third-party reporting obligations to online businesses is not a new phenomenon. Such regulations have been already in place for online casinos for some time. Online casinos offer a means of transferring value across national boundaries in an easy and fast manner without any face-to-face contact. Virtual chips have real value when the user exchanges them for real currency, as it is the case with the Linden Dollar and Bitcoin.[750] Thus, regulations for online casinos may offer a useful starting point in considering an appropriate regulation for virtual currency. Online casinos are subject to strict anti-money laundering regulations in many countries.[751] For example, the UK Money Laundering Regulations 2007 require online casinos to establish and verify the identity of all customers before access is given to any remote gaming facility or where the customer purchases or exchanges casino chips totaling GBP 2,000 or more. Furthermore, the casino is required to establish policies that provide for the scrutiny of: (1) complex or unusually large transactions; (2) unusual patterns of transactions that appear to have no economic purpose; and (3) any other activity which the casino deems is particularly likely to be related to money laundering.[752]

Another example of a reporting mechanism applicable to online businesses is the procedure based on section 6050W of the IRC. Starting from the tax year 2011, the IRS began the implementation of a new reporting requirement designed to make auditing and compliance of online sellers easier. Any individual whose sales exceed USD 20,000 and who is engaged in more than 200 transactions has his gross revenue reported to the IRS by a third party settlement organization (for example PayPal or eBay).[753] That organization has to track the payment volume of an individual's accounts to check whether his payment volume goes above both of the above-mentioned thresholds in a calendar year. The amount of USD 20,000 is calculated by looking at a seller's gross payment volume for sales of goods or services, i.e. any adjustments for credits, cash equivalents, discounts, fees, refunded amounts or any other amounts are not netted out.[754] The affected sellers have to provide the settlement organization with their tax identification and social security number. The implementation of section 6050W of the IRC is estimated to raise USD 9.5

749 Lederman, *supra* n. 310, at p. 1737.
750 Stokes, *supra* n. 27, at p. 229.
751 Money laundering is the process by which unlawful funds are bestowed with the appearance of legitimacy or lawfulness or, alternatively, the illicit nature of the funds is obscured.
752 *See* www.legislation.gov.uk/uksi/2007/2157/contents/made.
753 Sec. 6050W of the IRC.
754 IRS, *IRC Section 6050W – Frequently Asked Questions*, available at: www.irs.gov/pub/irs-utl/irdm_section_6050w_faqs_7_23_11.pdf.

billion over the next ten years.[755] The main advantage of the new reporting requirement is that of centralization: one middleman files reports for many sellers. Its principal drawback is that the reporting entities cannot provide all of the information necessary for the tax authorities to match the report with the amount on the taxpayer's return because the reporting entity generally has no reliable way of knowing the taxpayer's basis in the property sold. Another limitation is that, given the applicable thresholds, section 6050W will likely apply to relatively few sellers.

With regard to virtual currency, the extent of customer identification and reporting requirements imposed on intermediaries would depend on the regulatory method chosen. A ruled-based approach would require the identification and reporting of all sellers or only those whose transactions exceed certain thresholds. Under the risk-based system, intermediaries would have to identify risks, judge their type and extent and apply measures that appear adequate, taking due account of any available guidance.

The most appropriate solution seems to be a combination of both approaches. All users of platforms where virtual currency can be sold for real money should be properly identified (for example, with their name, address, country and bank account). Customer due diligence would ensure that an intermediary keeps records with basic data of all traders, even if such information does not need to be immediately reported to the tax authorities. More extensive customer due diligence measures (for example, tax identification number or a copy of the identity card) should be used for frequent traders. The term "frequent" should be defined based on the characteristics of an individual currency and the risks involved. Tax authorities, in cooperation with exchange platforms, should develop qualitative and quantitative indicators for various currency schemes (for example, geographical risks and patterns of suspicious transactions). These are not static assessments. Efforts to combat tax avoidance using virtual currencies should be flexible in order to adapt as the currency schemes evolve. Trading platforms should be required to maintain user data and transaction records for a fixed period of time. They should provide taxpayers with access to such records, so that the latter can also use them to report their income.

The combination of both approaches should also be used for reporting requirements. To keep the volume of reportable information manageable, only transactions above predetermined thresholds and those with risky patterns and should be reported. Although the principle of equity would require that all income is reported, tax authorities are unlikely to have the administrative capacity to process such a large set of data. Moreover, it should not be forgotten that exchange platforms are global marketplaces visited by users from all over the world. Business activity of intermediaries would be negatively affected if they had to comply with a patchwork of inconsistent and detailed

755 Roscoe, *supra* n. 157, at p. 29.

country-specific filing and documentation obligations. Thus, they should be only required to report mere facts, for example, list of frequent traders and their trade volume on a country-by-country basis.

The imposition of reporting requirements affects the fundamental freedoms of intermediaries since they bear liability risks and have additional compliance costs.[756] It is therefore important that their fundamental rights are protected by the proportionality principle. Intermediaries should not be held responsible for anything which occurs outside their business relationships with taxpayers. Nor do they have to examine facts occurring beyond the scope of such relationships. Furthermore, intermediaries need a cost-free means of requesting a ruling from the tax authorities if they are in doubt about the scope of their reporting requirements. If they tax authorities do not respond in a timely manner, intermediaries should not be held liable for making a discretional decision.

As an additional tool for detecting non-compliance, tax authorities could use programmes specifically engineered to discover anonymous users who sell items on online marketplaces but fail to claim such income on their tax return. Special software can crawl through the websites and capture data necessary to identify sellers which is later cross-referenced with other databases and tax records. For example, German tax authorities use XPIDER, a software robot extracting information about sellers with high turnover from platforms, such as eBay.[757] The Xenon Spider Software, developed for the Dutch tax authorities, has been successfully applied in Canada, the United Kingdom, Austria and Denmark.[758]

Finally, it is clear that every third-party reporting and monitoring system has its limitations. It will not prevent all violations. Determined offenders will find ways to circumvent the rules[759] or sometimes even the institution itself (the trading platform) may be the source of the wrongdoing. However, the inability to achieve perfect compliance should not stand in the way of some improvements. There is a tendency to think that the creation of an unflawed income tax system is possible. That thought is wrong. It is possible to mitigate some of the problems of income tax law as they manifest themselves in some cases or to make some aspects of income tax law work well in certain situations. However, a perfect income tax system cannot exist in practice. Tax authorities cannot guarantee tax enforcement in every single case. Such an expectation is not only unrealistic in fact but also not acceptable under the

756 Seer, *supra* n. 310, at sec. 5.

757 *XPIDER – der virtuelle Jäger der Steuerfahndung*, available at http://www.onlinesteuerrecht.de/home/index.php?option=com_content&task=view&id=231&Itemid=33.

758 *Zoekrobot Belastingdienst wereldwijd success* (2007), available at https://www.security.nl/posting/15305/Zoekrobot+Belastingdienst+wereldwijd+succes.

759 This can be accomplished by creating multiple user accounts (for example, in the name of a spouse or children) or by using several exchange platforms.

primacy of law. A 100%-tax enforcement would require administrative forces that would lead to a police state and violate the basic individual freedoms.[760]

760 Seer, *supra* n. 310, at sec. 5.