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5 Income tax: country-specific considerations

5.1 Structure of tax systems

5.1.1 Global and schedular systems

From a structural viewpoint, two basic types of income tax systems can be distinguished: schedular and global.[319] A schedular system distinguishes income categories (salaries, dividends, business profits) and determines gross income and deductible expenses for each one of them. Different tax rates and procedures for tax reporting, assessment and collection apply to each category. In other words, a pure schedular system consists of a coordinated set of separate taxes on various types of income. In a global system, all receipts and expenses are considered together in the calculation of net income. The purpose of this approach is to distribute interpersonal tax burdens, vertically and horizontally, according to the ability-to-pay principle. In practice, most existing income tax systems lie on the spectrum between global and schedular (mixed systems). Many countries have become partially schedularized by the use of withholding taxes on particular income types or distinguish between income categories, but aggregate them and tax at a common rate.

The global system is considered to be superior to the schedular one because the separation of income into many categories makes it difficult to impose progressive taxation and to provide for personal tax relief.[320] Under a schedular system, a progressive marginal rate structure is applied to selected categories of income, leading to inequalities between taxpayers who earn income from different sources. Similarly, personal tax relief must be either applied wholly against one category of income, such as employment income, in which case the relief may not be fully effective, or divided among various categories of income, which increases complexity. The schedular system is also more difficult to administer: administrative resources are wasted on solving classification issues at the borders between the various schedules. For borderline cases, one must closely investigate how tax law and judicial interpretation shape the tax treatment of a particular item. Any differences in the

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319 L. Burns & R. Krever, *Individual Income Tax,* pp. 1-3 in: *Tax law design and drafting* (V. Thuronyi ed. IMF 1998); Plasschaert, *The Definition of Gross Taxable Income in Schedular or Global Income Taxes*, *supra* n. 278, at p. 535.

320 Burns & Krever, *Individual Income Tax, supra* n. 319, at pp. 2-3.

final tax burdens imposed on income in different categories may be exploited by taxpayers engaging in tax planning and restructuring to ensure that their income fits within the most advantageous category. Moreover, the schedular system involves a risk that if an item is not included into any income category, it is not included in the income at all. This risk has been overcome in some countries by including an open-ended residual income category.[321]

On the basis of the historical record, schedular systems appear to be typical for countries at less advanced levels of development. The existence of these systems also owes to cultural factors. As a Latin phenomenon, they are common in Southern Europe and developing countries in which the tax system was profoundly shaped by French and Spanish influences. As from 19th century, many countries moved from a schedular to a mixed or global system.[322] This transition resulted from the widespread recognition of the ability-to-pay principle and the drawbacks of the schedular system mentioned in the previous paragraph. Currently, a pure schedular system exists almost nowhere.[323]

Sections 5.2 to 5.5 examine the application of tax laws of some exemplary countries to income from virtual trade. Each jurisdiction has its own distinctive features. On account of the great variety in tax systems, even among systems following the same model, the answer to the question whether income from trade in virtual currencies is taxable varies from country to country.

In the United States, the income tax system has been of a global nature since its inception in 1913. Under the Internal Revenue Code (IRC), receipts from whatever source derived are subject to tax. The limits of the income concept are determined on a case-by-case basis by courts and administrators.

The United Kingdom is the first country where the modern income tax system was introduced (1799-1783). The British system evolved from an originally schedular model to a more global one that views all types of income aggregately for the purposes of applying the tax rates. Although the law lists items of income that are subject to tax, there is a residual category comprising income not mentioned in other categories. In 1965, a fully-fledged capital gains tax was introduced. Although legally distinct, this tax can, in terms of substance, be viewed as integrated with the income tax system.[324]

The German income tax system is of a mixed nature. Tax is levied on items belonging to particular income categories that are subsequently combined for the purpose of imposing a progressive tax rate and providing a personal tax relief. A logical structure and the global-type paradigm has been a prominent feature of the German system since its introduction in 1891.

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321 Id.

322 Plasschaert, *The Definition of Gross Taxable Income in Schedular or Global Income Taxes*, *supra* n. 278, at p. 543.

323 S. Plasschaert, *First Principles about Schedular and Global Frames of Income Taxation*, 30 Bull. Intl. Fisc. Doc. 3, p. 109 (1976).

324 S. Plasschaert, *The Definition of Gross Taxable Income in Schedular or Global Income Taxes*, *supra* n. 278, at p. 544.

The Netherlands has a mixed system with a distinct preponderance of the scheduler layer. The total taxable income is the sum of net incomes assessed separately in three categories (boxes). Each box has its own rules for the income determination. The distinctive feature of the Dutch system is the fact that the wealth tax has been partially incorporated in the income tax system (although it has officially been abolished as from 2001).

5.1.2 Income categories

The first step to determine a tax liability is to ascertain gross taxable income. The proper definition of gross income was for a long time the subject matter of considerable debate and gave rise to many competing theories.[325] In both schedular and global systems, the following three main income categories can be distinguished: employment, business, and investment income. Under a schedular system, it is common for a different tax regime to be imposed on each of these types. Under a global system, special rules, particularly tax accounting rules, may apply to business income.[326] However, not all amounts derived by a taxpayer fit neatly into one of the categories specified above. There are some areas in which the problem of defining gross income has proven more stubborn (imputed income, benefits in kind and capital gains). This section describes some income categories that deserve closer attention due to their potential relevance for virtual trade.

5.1.2.1 Business income

The starting point in determining whether an item of income is business income is to determine whether the underlying activity is properly characterized as a business. In the absence of a definition in the income tax law, the term "business" has its ordinary meaning. In broad terms, a business is a commercial or industrial activity of an independent nature undertaken for profit.[327] The definitions of business income in common law jurisdictions generally include income from professional activities.[328] In contrast, some civil law countries make a distinction between income from commercial trading activities, on the one hand, and income from professions and vocations, on

325 For a brief overview of these theories, *see* section 4.2. *Definition of income*.

326 L. Burns & R. Krever, *Taxation of Income from Business and Investment*, p. 2 in *Tax Law Design and Drafting* (V. Thuronyi ed. IMF 1998).

327 Id.

328 Section 995-1 of the Australian Income Tax Assessment Act ("business includes any profession, trade, employment, vocation or calling, but does not include occupation as an employee"); section 248 of the Canadian Income tax Act ("business" includes a profession, calling, trade, manufacture or undertaking of any kind whatever").

the other.[329] There are no persuasive tax policy reasons for this distinction, which developed out of historical, non-tax rationale. From a tax administration perspective, it is much simpler to have a single set of rules dealing with all business and professional activities.[330]

Although business activity generally requires a profit motive, a clear distinction between consumption-oriented and profit-seeking activities is difficult. Such distinction depends on the intent of the taxpayer as activities standing alone cannot be classified as consumption or profit-seeking. As making assumptions about the intent requires a case-by-case analysis of a taxpayer's state of mind, it is usually necessary that the profit motive is supported by objective evidence, for example, certain amounts of revenue or profit regularity.

5.1.2.2 Windfall gains

Windfalls constitute unexpected accretions to wealth. They are generally understood to be a transfer of property from one party to another for no (or inadequate) consideration given by the recipient.[331] The Schanz-Haig-Simons concept of income recognizes that gifts and windfall gains enhance the economic power of an individual and should be classified as income.

In most jurisdictions with schedular definitions of income, windfalls simply fall outside the categories included in gross income. Although there are no persuasive tax policy grounds for excluding them from the income tax base, political considerations and administrative difficulties in assessing these gains most often explain why they are not taken into account.[332]

A type of windfall payment is a prize or an award. Generally, tax systems distinguish between prizes and awards that are won by the taxpayer in a purely personal capacity (which are usually not taxable) and prizes and awards given in recognition of a taxpayer's business or employment activities (which are usually taxable).[333] Windfalls may also result from gambling or betting activities. However, if those activities are the primary income source for taxpayers and are carried out in a manner resembling business activity, they generate taxable business income. Such income is hardly ever reported by the taxpayer as the probability that the tax administration will find out about its existence is low.

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329 For example, sections 15 (*Gewerbebetrieb*) and 18 (*Selbstandige Arbeit*) of the German Income Tax Act (*Einkommensteuergesetz*).
330 Burns & Krever, *Taxation of Income from Business and Investment, supra* n. 326, at p. 30.
331 Burns & Krever, *Individual Income Tax, supra* n. 319, at p. 31.
332 Id.
333 Id.

5.1.2.3 Benefits in kind

A benefit in kind is a benefit derived in a form other than cash. The most obvious category of benefit in kind arises in barter transactions. Under the Schanz-Haig-Simons concept, the value of goods exchanged in barter is income, provided that it results in consumption or in a net increase in wealth. One often thinks of barter transactions in the context of primitive societies that have not developed a medium of exchange. However, fringe benefits (for example, free medical treatment, free use of recreational facilities or free meals) given by employers to employees in return for labor services provided by the latter to the former are also a form of barter transactions. Their tax treatment varies from jurisdiction to jurisdiction.

In transactions where the consideration does not involve monetary amounts but benefits in kind, the determination of value becomes a pivotal issue. Market value is the basic valuation standard in many countries. In some of them, an unambiguous definition of the market value is provided in the tax legislation. For example, in Germany, market value (*gemeiner Wert*) is defined as the price which would be obtained on disposal of an asset in the ordinary course of business, whereby all circumstances (except personal and extraordinary ones) are to be taken into account.[334] Under US tax law, the fair market value is the price at which an asset would change hands between a willing buyer and a willing seller, neither being under any compulsion to buy or sell and both having reasonable knowledge of the relevant facts.[335]

All the definitions of fair market value have some common characteristics: they define market value as the amount for which an asset could be exchanged between knowledgeable individuals in an arm's length transition. Market value is based on a hypothetical transaction (ordinary) and hypothetical participants (knowledgeable and willing) and assumes informational symmetry and profit maximization. Under perfect competition, there would be only one market price in a long-term equilibrium. However, as most markets are characterized by informational asymmetry, uncertainty and imperfect competition, an asset can have more than one market value.

5.1.2.4 Imputed income

Imputed income comprises the value of benefits derived from non-market transactions. It is a particular form of benefits in kind which is "imputed" because it is not derived from a transaction or an economic event that involves at least two parties. There are three types of imputed income: value derived from self-benefiting activities (for example, cleaning the house, gardening),

334 Sec. 9 of the German Valuation Act (*Bewertungsgesetz*).
335 Treas. Reg. 1.170A-1(c)(2).

value from using self-owned property and benefits derived from utilization of leisure time.[336]

From the economic point of view, to include imputed income in the income concept is to bring this concept closer to the utility function. Imputed income is included in the Schanz-Haig-Simons model as it constitutes a form of consumption: the consumer derives non-monetary benefits from the use and enjoyment of assets that he owns. In theory, there is no rational basis for excluding a consumption benefit derived by a person from the taxable income definition simply because the form in which it is derived differs from the form of other (taxable) benefits. The principles of equity and neutrality require that all benefits derived from personal consumption of one's own assets, services and time fall within the income tax base. Otherwise, people who purchase the same services from after-tax income are worse off than self-providers.

However, the inclusion of imputed income works only in a theoretical model. In practice, the determination of the value of leisure gives rise to insurmountable difficulty. Although this value could be established on an opportunity cost basis, how to estimate it for a person who has more than one source of income or who is involuntarily unemployed? Moreover, the line between taxable work and non-taxable leisure is to a large extent an arbitrary one and will necessarily lead to some unfairness. The second category of imputed income (self-performed services) is capable of measurement as the services have analogous market values. However, the administrative complexity associated with recording, reporting and auditing those services would make a tax system unworkable. Consequently, imputed income from leisure and self-performed services is not incorporated into the income tax base anywhere in the world.

It might seem appropriate to impute income with respect to the third category (self-owned property, i.e. consumer durables). Consumer durables mean any goods that are not immediately destroyed in consumption. Consider the following example: A and B live in similar houses, each worth EUR 200,000 with a rental value of EUR 20,000 per year (depreciation is disregarded). B moves to an identical house in a new location and rents out his old one for EUR 20,000. This amount is used to pay his new rent which means that B can live rent free in his new residence. It is generally assumed that A has no income, while B should be taxed on the received rent of EUR 20,000. However, both persons are in the same economic position and both should be treated as having the same income: A's income is imputed and does not take the form of observable cash flow, while B receives cash.[337] Imputed income from owner-occupied housing is taken into account in the calculation of taxable income in many countries (for example, Belgium, the Netherlands and Italy). While it is fairly easy to determine and collect imputed income from self-

336 Holmes, *supra* n. 251, at ch. 12.
337 Thuronyi, *The Concept of Income*, *supra* n. 246, at p. 84.

occupied house, it is not practicable to keep track of the values of other durable items that an individual owns and uses. Smaller and short-lived items shall be excluded as their value (after taking account of depreciation) is not worth taxing.

5.1.2.5 Capital gains

A capital gain is gain on disposal of certain fixed assets. What may constitute a fixed asset and, therefore, give rise to a capital gain varies from country to country and is often strongly fact-dependent. In some countries, capital gains are subject to a separate tax or no tax, while in others they may be subject to different tax treatment under the general income tax legislation. Gains may be classified as long-term or short-term according to the length of time the assets are held. They are generally taxed by reference to the difference between disposal proceeds and acquisition cost.[338] Capital assets also include intangibles that are controlled by the taxpayer through legal rights. Expenditures related to patents, copyright and trademark are capitalized and amortized over their useful life.

Equity considerations provide a strong case for taxing capital gains as comprehensively as it appears feasible. Otherwise, receipts which provide a taxpayer with spending power are left untaxed. Moreover, capital gains tend to be heavily concentrated among high-income individuals. Leaving them untaxed undermines the vertical distribution of the tax burden. On the other hand, a comprehensive taxation of capital gains would require each taxpayer to keep a balance sheet showing his properties. As obliging individuals to maintain accounting records is utterly unenforceable and politically unacceptable, the taxation of capital gains tends to be restricted to a few selected assets, among which real estate and securities are by far the most prominent.[339]

5.1.3 Income determination

Income tax is imposed on persons who have earned taxable income for the relevant tax period. Therefore, four central concepts underpinning the income tax system can be distinguished. First, the person liable to tax must be identified (income is allocated to a person who earns it by personal services or by virtue of owning property).

Second, the taxable income of that person must be calculated separately for each tax period, which means that it is necessary to provide accounting rules for the allocation of income and expenses to particular tax periods.

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338 Capital gain, IBFD Glossary, IBFD Tax Research Platform, available at: www.ibfd.org.

339 Plasschaert, *The Definition of Gross Taxable Income in Schedular or Global Income Taxes*, *supra* n. 278, at p. 540.

Income is usually determined on a cash or accrual basis. The accrual method seeks to allocate both income and deductions to the tax year in which the taxpayer's economic activity produces them. The records should reflect expenses definitely incurred and income definitely earned without regard to whether payment has been made or whether payment is due. This method is more resistant to manipulation as it is irrelevant whether taxpayers arrange for payment in a later tax period. The cash method takes account of income when it is received and of expenses when they are paid. Taxpayers are allowed to use this method because of its simplicity.

Third, the tax base must be defined. All income tax systems, whether global or schedular, seek to impose taxation on a net amount (gross income minus deductions) because this amount properly reflects a person's increase in his economic capacity for the tax period. The gross income is the total amount of taxable receipts derived by a person during the tax period. In many global systems, the definition of gross income provides little guidance to the income concept, often including the term that it purports to define. For example, in the United States, gross income is defined as "all income from whatever source derived".[340] Consequently, even under a global system, the inclusion of amounts in gross income is often specified by reference to particular categories (for example, employment, business, investment). The gross income of a person does not include amounts that are exempt from tax. An amount (welfare payment, scholarship) or an entity (charitable, or education institution) may be exempt for social compassion reasons. Exemptions may also result from international conventions, for example, to prevent double taxation. Finally, an amount may not be included in the tax base for administrative or political reasons (for example, windfall gains). The total amount of deductions consists of expenses incurred by the person in deriving amounts subject to tax plus any other amounts allowed as a deduction.[341] A deduction of business and investment losses is part of the logic of taxing net income. To earn income, one must incur the risk, and sometimes also the actuality, of loss which is just a cost of doing business. To tax gains but not allow the offset of losses would bias income tax against risk. If income tax is to remain neutral as to the risk and investment decisions, it must allow a deduction of losses in profit-seeking activities.

The fourth basic element is the method of calculation of the amount of tax payable. In most cases, this involves applying the relevant tax rates to the taxable income of the taxpayer and then subtracting any tax offsets that may be available.[342]

340 Sec. 61 of the IRC.
341 Burns & Krever, *Individual Income Tax, supra* n. 319, at p. 8.
342 Id., at p. 7.

5.2 THE UNITED STATES

5.2.1 Characteristics of individual income tax

The United States first adopted individual income tax in 1864 to finance the Civil War (1861-1865). This tax, which was repealed in 1872, affected only 1% of potential taxpayers due to generous exemptions. The next Income Tax Act was enacted in 1913 after the adoption of the 16th Amendment to the Constitution.[343] This Amendment gave Congress broad powers to implement income tax. It made clear that Congress may use taxes to discourage any activities without considering how the revenue will be affected. Moreover, Congress may favour some groups with tax preferences without favouring all groups as long as the distinction is not based on a suspect classification.[344] In *Regan v. Taxation with Representation of Washington* (1983), the Supreme Court confirmed that Congress had "broad latitude in creating classifications and distinctions in tax statutes".[345]

Individual income tax is levied on citizens, residents and non-residents. Taxpayers belonging to the first two groups are taxed on their worldwide income, whereas those falling within the latter category, only on their US source income. A person is considered a resident if he holds a green card under the US immigration laws or has a substantial presence in the United States over a three-year period. The substantial presence test is met if the person is present in the United States for at least 31 days during the current calendar year and for at least 183 days during the current and prior two years, determined by counting each day of presence in the current year as one day, each day of presence in the first prior year as one-third of a day and each day in the second prior year as one-sixth of a day.[346] US citizens residing anywhere in the world are liable for US income tax, irrespective of the income type and source. Persons who renounce their US citizenship may be subject to income tax on the net unrealized gain on their worldwide property as if the property had been sold at fair market value on the day before expatriation.[347]

Within the United States, taxes based on income are imposed at the federal, state and sometimes also at local levels. Although the tax system within each jurisdiction may define taxable income separately,[348] many states refer to the federal concepts for determining the taxable income. This thesis exclusively deals with the federal income tax law.

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343 J.R. Repetti, *The United States,* sec. 1 in: *Comparative Taxation: A Structural Analysis* (H.J. Ault & B.J. Arnold eds., Kluwer Law International 2010).

344 Id., at sec. 2.

345 *Regan v. Taxation with Representation of Washington,* 461 US 540 (1983).

346 Sec. 7701(b) of the IRC.

347 Sec. 877A of the IRC.

348 State and local income taxes are deductible from adjusted gross income for federal tax purposes by persons who itemize their deductions instead of claiming the standard one.

Although the US income tax system is of global nature, it has tended towards a schedular income concept in the recent years. Several categories of expenses are limited in their deductibility to similar categories of income. For example, investment expenses are deductible only from investment income.[349]

The starting point for determining which earnings are taxable for federal income tax purposes is the concept of gross income. The Internal Revenue Code (IRC) does not classify income by specific categories or sources. Instead, section 61 of the IRC states that "except as otherwise provided in this subtitle, gross income means all income from whatever source derived". This provision emphasizes that taxpayers have gross income when they receive anything of economic value, whether in the form of cash, property, services or other benefits in kind. Prizes, awards and lottery winnings are also included.[350] The gross income definition applies regardless of whether the underlying activity is legal or illegal. In the case *James vs. United States* (1961), the Supreme Court said that "when a taxpayer acquires earnings, lawfully or unlawfully, without the consensual recognition, express or implied, of an obligation to repay and without restriction as to their disposition, he has received income that he must report, even though it may still be claimed that he is not entitled to retain the money, and even though he may still be adjudged liable to restore its equivalent".[351] Section 61(a) of the IRC lists 15 examples of items included in the gross income. These are: (1) compensation for services, including fees, commissions, fringe benefits, and similar items; (2) gross income derived from business[352]; (3) gains derived from dealings in property; (4) interest; (5) rents; (6) royalties; (7) dividends; (8)alimony and separate maintenance payments; (9) annuities; (10) income from life insurance and endowment contracts; (11) pensions; (12) income from discharge of indebtedness; (13) distributive share of partnership gross income; (14) income in respect of a decedent; and (15) income from an interest in an estate or trust. This list is not exhaustive. Therefore, unless the IRC specifies that something is excluded from the gross income definition, the assumption is that it is enclosed. Exceptions to what is included in gross income can be found under sections 101-140 of the IRC. With respect to individuals, the most significant exclusions encompass: minor fringe benefits,[353] compensation received for injuries or sickness,[354] gain from sale of principal residence,[355] gifts and inheritance of property.[356] The characteriza-

349 Repetti, *supra* n. 343, at sec. 5.1.
350 Sec. 74 of the IRC.
351 *James v. United States*, 366 US 213 (1961).
352 In the case of business activity (manufacturing, merchandising or mining business), gross income amounts to gross profit and not to gross receipts. It is determined by deducting costs of goods sold from gross receipts (Treas. Reg. 1-61-3).
353 Sec. 132 of the IRC.
354 Sec. 104 of the IRC.
355 Sec. 121 of the IRC.

tion of a payment as either a gift or income must be made on a case-by-case basis.[357] Gifts made by an employer to an employee usually qualify as a (non-taxable) fringe benefits or employee achievement awards.[358] Any income derived from the gift, including profit upon its sale, is taxable.[359]

Gains from the disposition of capital assets also form part of the gross income. A capital asset is defined as property other than property held primarily for sale to customers in the ordinary course of business,[360] depreciable or real property used in the trade or business, copyright produced by the taxpayer or given to him by the creator, or derivative financial instruments held by a dealer.[361] The Supreme Court ruled that the definition of a capital asset must be broadly interpreted, and only assets coming within one of the statutory categories of non-capital assets are excluded.[362] To compute the tax liability correctly, it is necessary to distinguish between short- and long-term gains (the latter are subject to a preferential tax rate, whereas the former are taxed just like other ordinary income). An unrealized gain (an increase in the market value of an asset) is not subject to tax.[363] Correspondingly, a decrease in the value of property is not taken into account, unless the property is sold, abandoned or destroyed. Capital losses may be deducted in a tax year to the extent of capital gains for that year, with a USD 3000 limit on any excess.[364] The excess may be carried forward indefinitely.[365]

In order to arrive at taxable income, adjusted gross income must be determined first. It is computed by subtracting allowable deductions from gross income. Unlike gross income, which is broadly defined in section 61 of the IRC and expansively interpreted by the courts, deductions are cast in narrow statutory language, which, in turn, is construed strictly against the taxpayer. The main category of deductions includes ordinary and necessary trade and business expenses.[366] An activity qualifies as a trade or business if it is

356 Sec. 102 of the IRC.
357 CCH Editorial Staff, *US Master Tax Guide 2013,* sec. 702 (CCH 2013).
358 Sec. 74.c and 132.a of the IRC.
359 Sec. 102.b of the IRC.
360 When the taxpayer holds an asset for dual purposes – to rent or to sell, whichever becomes more profitable – he generally gets capital treatment since he did not hold it primarily for sale to customers (K. McNulty & D.L. Lathrope, *Federal Income Taxation of Individuals,* sec. 98, 8th ed. (West 2002)).
361 Sec. 1221 of the IRC.
362 *Arkansas Best Corporation v. Commissioner*, 485 US 212 (1988).
363 The Supreme Court held in *Cottage Savings Association v. Commissioner*, 499 US 554, 559 (1991) that: "Under an appreciation-based system of taxation, taxpayers and the Commissioner would have to undertake the 'cumbersome, abrasive, and unpredictable administrative task' of valuing assets on an annual basis to determine whether the assets had appreciated or depreciated in value."
364 Sec. 1211.b of the IRC.
365 Sec. 1212.b of the IRC.
366 Sec. 62 of the IRC.

regular, continuous and has a profit motive.[367] In determining whether there is a profit motive, the following must be taken into consideration: the manner in which the taxpayer carries on the activity, the expertise of the taxpayer, the time and effort expended by the taxpayer in carrying on the activity, the taxpayer's history of income or losses with respect to the activity, his financial status and any elements of personal pleasure or recreation.[368] Expenses are ordinary if they are generally accepted in the particular business sector (taxpayer need not often make them) and necessary if they are helpful and appropriate to the conduct of the trade and business.[369] In general, a taxpayer may deduct losses related to trade or business activity which have not been compensated by insurance or otherwise.[370] To be deductible, a loss must be evidenced by closed and completed transactions and fixed by identifiable events. No deduction can be made if there is a reasonable prospect of loss recovery.[371] No deduction is allowed for payments which are illegal under the federal or state law (but only if such state law is generally enforced) if such a transfer subjects the payer to a criminal penalty or the loss of license or privilege to engage in a trade or business.[372]

Taxpayers frequently try to deduct expenses/losses claiming that they are incurred in the production of income; however, the activity turns out to be not profitable. To prevent this abuse, the IRC allows deductions of losses resulting from activities not engaged in for profit (hobby losses) only to the extent of income produced by that activity. An activity is presumed not to be a hobby if profits result in any three of five consecutive tax years unless the IRS proves otherwise.[373]

After computing adjusted gross income, personal exemptions, and standard or itemized deductions are subtracted to arrive at taxable income.[374] Taxable income is the amount to which the tax rate is applied to determine the amount of the tax due. The standard deduction is a general tax-exempt amount. It cannot be claimed if a person chooses to itemize his deductions. Itemized deductions are any deductions permitted under the IRC which are not used to arrive at adjusted gross income. They include: medical expenses,[375] gambling losses (to the extent of gambling income),[376] expenses incurred in producing income as well as managing and holding of income producing assets.[377]

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367 *Commissioner v. Groetzinger*, 480 US 23 (1987).
368 Treas. Reg. 1.183-2.
369 *US Master Tax Guide 2013*, *supra* n. 357, at sec. 901.
370 Sec. 165.a of the IRC.
371 *US Master Tax Guide 2013*, *supra* n. 357, at sec. 1104.
372 Sec. 162.c of the IRC.
373 Sec. 183 of the IRC.
374 Sec. 63 of the IRC.
375 Sec. 213 of the IRC.
376 Sec. 165.d of the IRC.
377 Sec. 212 of the IRC.

The reason for the itemized deductions is that not every profit-seeking activity may be characterized as "trade or business" that gives rise to deductions of necessary and ordinary business expenses under section 162 of the IRC (for example, handling one's own investments in the stock market is not considered business activity).[378]

The federal income tax is based on an annual system of reporting. The year for which a taxpayer's income is reported may be either a calendar year (one that ends on the last day of December) or a fiscal year (one that ends on the last day of any other month than December). In order to ascertain what income is to be included and what deductions are to be taken, the taxpayer must use an accounting method on the basis of which he regularly computes his income.[379] Generally speaking, the taxpayer may adopt any method as long as it clearly reflects income and is applied consistently. The two basic methods are cash and accrual accounting. It is important to note that those methods are not related to financial accounting methods.

The cash method requires an individual to report income when it is received and to make deductions when expenses are actually paid.[380] Since income need not be received in the form of cash to be taxable, the cash method entails the reporting of a cash equivalent, for example the fair market value of property (doctrine of cash equivalence).[381] Income is also charged to tax if it has been constructively received, which occurs when income is made available for an individual, so that he may draw upon it at any time. However, income is not constructively received if the taxpayer's control of its receipt is subject to substantial limitations or restrictions.[382] The accrual method requires an individual to report income when the right to receive it is fixed, the amount in question can be reasonably determined and no substantial uncertainty about collection exists.[383] On the deduction side, a parallel statement can be made.

In the United States, unlike in Germany and in some other European countries, there is no "book/tax conformity", i.e. different set of rules is used for tax and financial accounting purposes.[384] An individual not engaged in business must report income on the cash basis. Accrual method is prescribed when, for example, the IRC requires an individual to maintain an inventory

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378 McNulty & Lathrope, *supra* n. 360, at sec. 37. Section 212 of the IRC applies in situations where a taxpayer has incurred significant expenses to produce income, but fails to meet section 162 trade or business requirements. The standard for deductions under section 212 is the same as under section 162. If a taxpayer lacks profit motive, section 183 may be applied.

379 Sec. 446 of the IRC.

380 Sec. 451 of the IRC.

381 McNulty & Lathrope, *supra* n. 360, at sec. 70.

382 Treas. Reg. 1.451-2.

383 Treas. Reg. 1.451-1.

384 J. Kadel, *Einkommensermittlung und Rechnungslegungsmethoden im US-amerikanischen Steuerrecht*, IStR 13 (2001).

to clearly reflect his income.[385] Change from one accounting method to another requires an IRS approval and recognition of any income escaping taxation under the change.[386]

5.2.2 Taxation of income from virtual trade

5.2.2.1 Initial comments

The statement "all income is taxable" seems to be clear and easy to apply in practice. However, the key problem is that the term "income" has never been defined in the tax law. The IRS claims that income is whatever it says it is. The 16th Amendment to the Constitution gave the federal government the power to tax every single receipt that it deems to be income.[387] According to the IRS, anything of value may constitute taxable income if it regards it as such.

The Schanz-Haig-Simons concept is widely accepted as the basis for the taxable income definition.[388] It holds that an individual's income consists of his consumption plus accumulation during the taxable period. The Schanz-Haig-Simons concept is an economic one. It is very broad and goes far beyond what tax law requires, including, for example, unrealized capital gains and imputed income in the income definition. Despite its wide acceptance, it remains ambiguous since the terms "consumption" and "accumulation" are open-ended. Taking it as the sole basis for defining taxable income would ignore the practical requirement that income must be something that can be reliably measured, reported and paid.[389]

The judicial interpretations helped clarify the term income. In *Eisner v. Macomber* (1920), the Supreme Court had to decide whether a pro-rata stock dividend was income.[390] In holding that it was not, the Supreme Court defined income as "the gain derived from capital, labor or from both combined, provided it be understood to include profit gained through a sale or conversion of capital assets." By requiring the gain be "derived" or "served" from the property, the Supreme Court gave birth to the realization requirement, which remains part of the definition of income today. The narrow *Macomber* definition did not cover many things one thinks of as income (embezzled funds, found money, prizes and awards).

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385 Treas. Reg. 1.446-1(c)(2)(i) and 1.471-1.

386 Sec. 446.e and 481 of the IRC.

387 The 16th Amendment states: "Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration."

388 Thuronyi, *The Concept of Income*, *supra* n. 246, at p. 46. For more information on the Schanz-Haig-Simons concept, *see* 4.2.3. *Schanz-Haig-Simons model*.

389 Camp, *supra* n. 24, at p. 24.

390 *Eisner v. Macomber*, 252 US 189 (1920).

More than three decades after it decided *Macomber*, the Supreme Court had to rule in *Commissioner v. Glenshaw Glass Co*. (1955) whether punitive damages were income.[391] Unlike compensatory damages, punitive damages bear no relationship to the labor or capital of the plaintiff but are paid solely to punish the defendant. Hence, they are a windfall for the plaintiff. As windfalls do not proceed from the recipient's labor or capital or both combined, the punitive damages received by Glenshaw Glass could not be income under the *Macomber* definition. The lower courts had consistently held so. To treat punitive damages as income, the Supreme Court needed to redefine the term.[392] Thus, in *Glenshaw Glass*, the Supreme Court laid down what has become the modern understanding of taxable income. It declared that income taxes could be levied on "accessions to wealth, clearly realized, and over which the taxpayers have complete dominion". If these requirements are met, any increase in wealth falls within the taxable income definition, unless Congress makes a specific exemption. The *Glenshaw Glass* definition, which is the Schanz-Haig-Simons concept limited by realization, is neither too broad, as the Schanz-Haig-Simons concept alone would be, nor too narrow, as the *Macomber* definition was. By retaining realization while moving to embrace the Haig-Simons-Schanz model, the Supreme Court seemed to develop the right income definition.[393]

As the main function of the tax system is to produce revenue, discussions of the income concept cannot be detached from practical considerations and implementation aspects. Unlike economics and other social sciences, tax law does not only describe phenomena but also creates rules that people (both those subject to the law and those who administer it) must follow. The US tax law – as expressed in statutes, cases and interpreted in administrative guidance – contains operational limits to what taxpayers must include as "gross income" in their tax return. All these limits represent instances of economic income that are not treated as gross income because they present significant operational problems of measurement, payment or compliance. The operational criteria are: measurable market value and exclusion of imputed income.[394] They close the gap between economic theory and administrative practicality, and turn the economic income concept into an administrable income definition that takes account of the fact that tax law must be implementable and enforceable.

In answering the question whether the receipt of virtual currency may give rise to taxable income, a two-step process is necessary. First, it must be established whether the criteria laid down by the Supreme Court in *Glenshaw Glass* are met. Is that the case, the next step is to investigate whether practical

391 *Commissioner v. Glenshaw Glass Co.*, 348 US 426 (1955).
392 Abreu & Greenstein, *supra* n. 305, at p. 301.
393 Abreu & Greenstein, *supra* n. 305, at p. 305.
394 Camp, *supra* n. 24, at p. 25, with further references.

considerations, as reflected in operational limits and other non-recognition criteria, may exclude profits in a virtual form from the taxable income definition.

Before going into detail of the Supreme Court criteria and the operational limits, it is useful to take a look at activities that may be relevant for income tax purposes. These are:
- the creation and possession of virtual currency;
- exchanges of goods and services for virtual currency; and
- exchanges of virtual currency and items for traditional currency.

A detailed description of these activities can be found in section 4.1 (*see* Table 1).

5.2.2.2 Accession to wealth

An accession to wealth means that taxpayers gain access to valuable resources. They are able to use more resources than before. It is irrelevant whether their accession is legal or not (illegal income is also taxable).

The receipt of virtual currency or objects increases the spending power of an individual. Although virtual currencies are assets that amount to nothing more than a computer code existing in cyberspace, they can be exchanged for a number of (real or virtual) goods or services. The fact that the user's ability to convert virtual wealth to usable wealth (i.e. real money) may be remote and contingent on factors beyond his control is not important. The term "value" does not imply money or things convertible into money. Permission to use is what makes an item valuable, not just permission to sell it. The Supreme Court once held that use is almost as big a stick in the bundle of property rights as is alienability.[395] Thus, the receipt of both virtual items and virtual currency represents an accession to wealth. However, an exception needs to be made for community-related currency in situations where a virtual world closes down. As the usefulness of community-related currency depends on the virtual world it belongs to, once an online environment disappears, its currency becomes worthless.

5.2.2.3 Realization

Although the realization requirement is firmly embedded in US tax law, no general definition of realization has achieved widespread acceptance yet. The realization requirement has evolved in an unprincipled manner and remains

395 *United States v. Craft*, 535 US 274, 283 (2002).

ambiguous to this day.[396] Although it acquired constitutional status after the first Supreme Court decisions in income tax matters, it is widely accepted today that realization is not a constitutional requirement but a rule of administrative convenience and that Congress is authorized to tax unrealized gains if it chooses to do so.

In one of its first decisions regarding the 16th Amendment to the Constitution, *Eisner v. Macomber* (1920) (which authorized Congress to impose tax on "income from whatever source derived"), the Supreme Court held that "income" means only realized income.[397] The Supreme Court was called upon to decide whether a stock dividend declared and issued by a corporation to its shareholders constituted the shareholders' income. In ruling that it did not, the Court stated that realization required not only a mere transfer of property but also the receipt of a contemporaneous benefit by the transferor. After the *Macomber* decision, realization appeared to be a constitutional requirement.

Twenty years later, in *Helvering v. Bruun* (1940), the Supreme Court held that a landlord whose tenant built a building upon the leased land and then abandoned the lease had income in the amount of the value of the new building.[398] The landlord's legal relationship to the building changed upon the tenant's abandonment of the lease because, as a result of the abandonment, the landlord acquired rights which it did not have before (for example, the right to take possession of, or re-lease, the building). The *Bruun* decision marked a retreat from the *Macomber* standard of realization. It suggested that any definite event (for example, the forfeiture of a leasehold) could constitute realization.

Eight months after the *Bruun* decision, in *Helvering v. Horst* (1940), the Supreme Court explicitly acknowledged that the realization requirement was found on administrative convenience.[399] The Court reiterated this view in *Cottage Savings v. Commissioner* (1991).[400] In that case, the Supreme Court found that a taxpayer who exchanged a pool of mortgages with a fair market value of USD 4.5 million for another pool with the identical fair market value had a realization event, despite the equivalence of the market values because the underlying mortgages in each pool were different. In the Court's view, the difference in the identity of the properties and obligors in the underlying mortgages sufficed to create realization. The Supreme Court stated that a realization event occurs when there is a sale or exchange of property that is

396 Chung, *supra* n. 24, at p. 120; Seto, *supra* n. 24, at p. 17; D.N. Shaviro, *An Efficiency Analysis of Realization and Recognition Rules Under The Federal Income Tax*, 48 Tax Law Review 1 (1992). According to Black's Legal Dictionary, realization is "an event or transaction, such as the sale or exchange of property, that substantially changes a taxpayer's economic position so that income tax may be imposed or a tax allowance granted".

397 *Eisner v. Macomber*, 252 US 189 (1920).

398 *Helvering v. Bruun*, 309 US 461 (1940).

399 *Helvering v. Host* 311 US 112 (1940).

400 *Cottage Savings Assoc. v. Commissioner*, 499 US 554 (1991).

materially different in kind. To determine whether properties are materially different in kind, the Supreme Court rejected the idea of comparing the economic substance of the properties involved and, instead, evaluated whether the properties being exchanged had legally distinct entitlements.

Although the receipt of money in exchange for property is the most common form of realization, this requirement does not mean that property must be sold for cash. The exchange of any services or items for other services or items may constitute realization. If person A gives person B an item in exchange for USD 100, person A has gross income irrespective of whether the item given away was his property.

The realization requirement intends to ensure that federal income taxes are always levied on flows. From an accounting perspective, governments may tax two kinds of things: stocks and flows. Stocks include the kinds of items that would appear on a balance sheet, while flows enclose those that would appear on a profit-loss statement. In other words, "stocks" represent the state of the world at any given point, while "flows" changes in that state over time. Head and property taxes are taxes on stocks, whereas income taxes and sales taxes generally taxes on flows.[401]

The Supreme Court stated that "the concept of realization is founded on administrative convenience".[402] It defers taxation until the taxpayer has the means to pay the tax. As the occurrence of a realization is usually in a taxpayer's control, this requirement prevents hardship for many people with insufficient liquidity. The realization rule does not itself define income, but states when income may be taxable. It involves a "now or later" timing question and not a "whether or not" one.[403] To put it differently, the realization requirement plays the same role in income tax as the title transfer plays in sales tax: it establishes a taxable event. However, the liquidity constraint standing alone cannot be the sole justification for the realization requirement. There are a number of situations in which taxation occurs although taxpayers have not monetized the value of their property (barter exchanges or windfalls). Property taxes are also levied despite potential cash-flow problems. A more convincing reason for the application of the realization principle is that the annual valuation of the taxpayer's assets is administratively impossible due to the need to obtain subjective information, the expense of appraisals and a possible increase in the number of tax disputes.[404]

With regard to virtual worlds, some scholars observed that the nature of the participant's property rights in virtual items should determine whether

401 Seto, *supra* n. 24, at pp. 18-21.

402 *Cottage Savings Association v. Commissioner*, 499 US 554, 559 (1991) (quoting *Helvering v. Horst*, 311 U.S. 112, 116 (1940)).

403 McNulty & Lathrope, *supra* n. 360, at sec. 19. D.H. Schenk, *A Positive Account of the Realization Rule*, 57 Tax Law Review, p. 357 (2003-2004).

404 Schenk, *supra* n. 403, p. 359.

an in-world transaction (for example, an exchange of a virtual item for Linden dollars) constitutes a realization event.[405] In her article *Stranger than Fiction: Taxing Virtual Worlds*, Professor Lederman takes a right-based approach and concludes that the answer to the question of whether virtual exchanges can be considered taxable events depends on the rights that participants have in their virtual currency and items.[406] If virtual items are considered property, sales and barter exchanges should be taxable events because a disposition of property may constitute a realization for federal income tax purposes.[407] In contrast, if virtual items are not considered property but rather treated under a license theory, virtual transactions amount to mere reallocations of possession of items in which all participants have use rights. They do not constitute realization events and are not taxable. She cites to two real world examples where people trade possession of items to which they have use rights but are not subject to tax. The first involves co-workers who trade office equipment owned by their employer. The second involves passengers on a cruise who trade deck chairs owned by the cruise line.

Professor Lederman's right-based approach raises many problems. First, professor Lederman relies heavily on three sections of the IRC that deal with the taxation of property sales and other dispositions.[408] However, taxpayers have gross income when they receive anything of economic value, whether in the form of cash, property or services. A disposition may constitute a realization for federal income tax purposes even if it is not a disposition of property.[409]For instance, tax is due when a taxpayer sells his services in exchange for another's services; the taxpayer is taxed on the consideration he receives (i.e. the value of the other person's services), even though he did not receive any cash.

Lederman cites to two examples where people trade possession of items to which they have use rights but are not subject to tax (co-workers trading

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405 *See*, for example, Lederman, *supra* n. 24; Miano, *supra* n. 139. There are also scholars who reject this view. According to Camp, receipts of virtual items should be treated as income, regardless of whether what is given up or received is characterized as property. If the player has no property rights, the transaction constitutes the provision of services. In exchange for USD, one party agrees to help another party advance in the game by meeting in-world and transferring a game object that will enhance the game play. If non-tax law concludes that a virtual item is property, the sale of that item is subject to the formula in section 1001 of the IRC. See Camp, *supra* n. 24.

406 Lederman, *supra* n. 24.

407 Sec. 1001 of the IRC mentions "realization" in connection with the sale or other disposition of property.

408 Sec. 61(a)(3) of the IRC states that gross income includes "gains derived from dealings in property"; sec. 1001(a) mentions that "the gain from the sale or other disposition of property shall be the excess of the amount realized therefrom over the adjusted basis"; and sec. 1001(b) states that "the amount realized from the sale or other disposition of property shall be the sum of any money received plus the fair market value of the property (other than money) received."

409 Chodorow, *Ability to Pay and the Taxation of Virtual Income*, *supra* n. 24, p. 714.

office equipment owned by their employer and passengers on a cruise exchanging deck chairs owned by the cruise line). However, in my view, those examples are different from exchanges of use rights in virtual worlds. For instance, one generally possesses a deck chair for a short period, relinquishing it at the end of each day, if not sooner. Even if one were to hold a chair for the cruise's duration, cruises generally last a short time, and the chair must be given up when the cruise ends. In contrast, virtual worlds have no set end. While people may technically have only use rights in their virtual items, they are not expected to give them up on a set schedule. The number of people with whom one may trade on a cruise is also limited, as people can only trade with others on the same cruise. They cannot hold seats for people getting on the next cruise. These restrictions significantly limit the market for the deck chairs. Finally, the level of control that users exercise over the property in question may differ. It seems likely, or at least possible, that employers and cruise companies exercise significantly greater control over their property than do the developers of virtual worlds.[410]

The right-based approach also raises administrative difficulties. The determination whether to tax in-world transactions would require a difficult and potentially costly world-by-world analysis of the rights involved and could lead to inconsistent treatment of similar online environments. In *Second Life*, users have intellectual property rights in the self-created content but only license rights to use Linden Dollars. According to Professor Lederman, a sale of a self-created item for Linden Dollars would result in an exchange of distinct legal entitlements and constitute a taxable realization event. However, in *Entropia Universe*, participants have only license rights to any virtual items, including the PED currency. In this case, the sale of an item for PED would not be taxable because an item exchange transaction – even a currency transaction – is a non-taxable reallocation of possession. As the EULAs of *Second Life* and *Entropia Universe* differ, these two virtual worlds with commoditized economies would receive a different tax treatment.

Once an exchange transaction is complete, the legal rights to the avatar or the participant's account have changed. The participant has a different set of use rights in the avatar and can dispose of more virtual resources. Thus, the exchange of virtual currency for money, goods or services constitutes a realization event.

The creation of virtual currency (either through mining or game achievements) changes a taxpayer's economic position. As a result of the mining process or a successful completion of a quest, he acquires a right to use virtual currency he did not have before. The fact that there is no direct relationship between the taxpayer's mining efforts and the received currency (i.e. the taxpayer does not know in advance how long the mining process will be before

410 Id., at pp. 714-715.

any currency can be obtained) is irrelevant. As the Supreme Court ruled in *Glenshaw Glass*, a windfall may qualify as realized income, even though it is not derived either from capital or from labour.

5.2.2.4 Complete dominion

The question of complete dominion is problematic with regard to community-related virtual currency. On the one hand, virtual world users have some kind of horizontal rights against other participants – they may exclude them from using their virtual items and accounts. These rights are protected by the software itself, and the software makes their violation impossible. A player may freely dispose over his virtual items, at least as far as the architecture of the game permits, once they are credited to his account. On the other hand, the existence of a game provider could be regarded as a restriction preventing the participants from having a complete dominion over their virtual items. The game operator has a substantial influence on all in-world events and the ultimate control over the income-generating asset, which is the game itself. The EULA gives the virtual world operator the power to make a lot of decisions that may adversely affect an individual player's situation: it may shut down the virtual world, change it in a way that eliminates the value of the virtual item, unwind players' transactions or deprive them of all their virtual currency. By accepting the EULA, users explicitly agree that the world operator has the absolute right to manage, regulate, control, modify and eliminate the world contents as it sees fit in its sole discretion. The game operator has exercised those rights many times in the past. With regard to illegal activities, Linden Lab closed down all in-game casinos in July 2007, after recognizing that online gambling is considered illegal in the United States. All members operating this type of business lost their virtual assets without receiving any compensation.[411] The account of Marc Bragg was suspended when Linden Lab believed he was unethically purchasing land at less than fair market value.[412]

The application of the IRS ruling on barter clubs could lead to the conclusion that participants have complete dominion over virtual currency they receive.[413] A barter club credited or debited its members' accounts with trade units for goods or services provided or received. The IRS took the position that a member of a barter club received income for his services upon receipt of those trade units. The IRS stated that the receipt of trade units was the receipt

411 W. Terando et al., *Taxation Policy in Virtual Worlds: Issues Raised by Second Life and Other Unstructured Games, supra* n. 102, p. 106.

412 In 2006, a Second Life member, Marc Bragg, identified a way to purchase land for amounts below the market rates. After purchasing virtual real estate for thousands of dollars, Linden Lab terminated his account. Bragg sued Linden Lab over the termination. The suit was ultimately settled with a confidential agreement before the final decision was reached. *See* Dougherty, *supra* n. 7.

413 Rev. Rul. 80-52, 1980-1 C.B. 100.

of valuable property since those trade units could be converted into goods or services at any time. Any limitations on the use of the trade units by the barter club members were irrelevant for tax purposes. The IRS specifically noted that it did not matter that the barter club did not guarantee that a member would be able to use all of his trade units or redeem any unused credits. As trade units could be used immediately to purchase goods or services offered by other members of the club, they should be taxable upon receipt. Following the reasoning of the IRS, the EULA restrictions should not prevent community-related virtual currency from being taxable income. The EULA should be viewed only as affecting the amount of monetary income that one can obtain but not the existence of income in general.

The Supreme Court shed more light on the term "complete dominion" in the case *CIR v. Indianapolis P & L* (1990).[414] Indianapolis Power and Light Co. (IPL) required certain customers to make deposits with it to assure prompt payment of future electric bills. Although the deposits were at all times subject to the company's unfettered use and control, IPL did not treat them as income at the time of receipt, but carried them on its books as current liabilities. The question arose whether the purpose of those payments was to serve as a security or as advance payments for electricity. The Supreme Court held that although IPL derived some economic benefit from the deposits, it did not have the complete dominion over them at the time they were made. IPL had an obligation to repay the deposits upon termination of service and, thus, its right to retain them was contingent upon events outside its control. The customer controlled the ultimate disposition of a deposit. The circumstance that IPL enjoyed unrestricted use of the money was not decisive. The Supreme Court stated that:

> 'In determining whether a taxpayer enjoys "complete dominion" over a given sum, the crucial point is not whether his use of the funds is unconstrained during some interim period. The key is whether the taxpayer has some guarantee that he will be allowed to keep the money.'

IPL's receipt of these deposits was accompanied by no such guarantee. If some other person can decide how, when, or whether the taxpayer can take actual possession of the funds, those funds are not in the complete dominion of the taxpayer. Another negative example is a loan. The borrower is unrestricted in his use of the loan funds received; however, he also has a current obligation to repay the funds, and, therefore, he realizes no taxable income from the loan.

Following the reasoning of the Supreme Court, the receipt of community-related virtual currency and items cannot be regarded as taxable income. Due to the legal restrictions contained in the EULA, users do not have a complete dominion over their in-world resources. They have no guarantee that they

414 *CIR v. Indianapolis P & L*, 493 US 203 (1990).

will be able to retain them: they have even explicitly accepted that the world operator can terminate their accounts for no particular reason. Moreover, they can use their virtual resources only as long as they pay the subscription fee. On the other hand, if income in the form of community-related virtual currency is cashed out, users may freely dispose of their money and should be treated as having taxable income.

The requirement of complete dominion does not exclude the receipt of bitcoins from the income concept. A bitcoin "owner" is the only person who can access and use the "coins" accumulated in his wallet. In contrast to community-related currency, taxpayers have complete dominion over any decentralized universal currency they receive.

The view that virtual world users may not have a complete control over their virtual currency and items was also expressed by a group of scholars from Iowa State University that examined the tax treatment of *Second Life* activities.[415] In their opinion, in evaluating when virtual income should be recognized for federal income tax purposes, an important factor is whether a participant's accumulation of virtual assets is subject to a substantial risk of forfeiture. If such a risk exists, any income that a player generates is held in currency that is essentially worthless until redeemed for a real one. In the case of *Second Life*, a risk of forfeiture may arise from two possible sources. First, no buyer of virtual currency may exist. Second, under the limits imposed by the EULA, Linden Lab may suspend or cancel any member's account without notice for any reason. Moreover, monitoring and reporting obligations with regard to taxing in-world gains could result in the collapse of virtual economies. For those reasons, income should be recognized when virtual assets are converted into real currency. Only users who elect to transform their virtual world participation from a game to real life should be subject to taxation.

5.2.2.5 Valuation

An accession to wealth must have ascertainable market value. This requirement presupposes some objective method of valuation, so that the tax authorities can verify what the taxpayer reports. If the value of an item cannot be reduced to a readily ascertainable value in US currency, there is no reportable income. Taxpayers cannot report as gross income an economic abstraction.[416]

This reasoning has been applied with regard to frequent flyer miles. Many taxpayers travel on business with their flights paid for by their employer. They receive credit for the travel in their personal frequent flyer accounts. Once

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415 W.D. Terando et al., *It's Just a Game, or is it? Real Money, Real Income; Real Taxes in Virtual Worlds,* Communications of the Association for Information Systems, vol. 20 (2007); *Taxation Policy in Virtual Worlds: Issues Raised by Second Life and Other Unstructured Games, supra* n. 102, at pp. 94-107 (2008).

416 Camp, *supra* n. 24, at p. 25.

they accumulate a certain number of miles or points, they can exchange them for free travel services. Thus, they translate their miles into USD in a way that is ascertainable and reviewable. For example, if taxpayers cash out their miles by using them to upgrade to first class on a private flight, the IRS may argue that they have income to the extent of the difference in the value between the cost of the first class seat and the cost of a normal seat. The general concept of frequent flyer miles would fall within the scope of section 61 of the IRC. However, before cashing out, it is impossible to find a reliably objective method to assign a fair market value to miles in a frequent flyer account. First, there is an issue of the relevant market. Miles can be redeemed in multiple markets apart from air travel. They can be redeemed for hotel stays, car rental and various types of merchandise. Second, even as to air travel, the market value of a flight between two points varies dramatically in response to the market demand, oil prices and time of travel. Third, there is no robust secondary market for flyer miles, because most contracts between carriers and flyers make the miles inalienable. Fourth, there is currently no practical way to determine a taxpayer's basis in a set of miles cashed out.[417]

The IRS initially issued a memorandum stating that a taxpayer permitted by his employer to keep the earned airline miles received income under a non-accountable plan. The employer would need to report the value of the airline miles as part of the employee's salary.[418] Due to an outcry from the public, the IRS changed its position and ultimately decided not to tax frequent flyer miles, unless they were exchanged for cash. Thus, while frequent flyer miles have economic value and their accumulation is an accession to wealth within the economic meaning of gross income, the impossibility of determining their fair market value led the IRS to exempting them from taxation.[419]

Treas. Reg. 1.61-2(d) contains rules on valuation of benefits in kind: if services are paid for in property, the fair market value of the property received as payment must be treated as consideration. If services are exchanged for other services, the fair market value of such other services is recognized as income. Individuals can make reasonable estimates of fair market value of virtual currencies based on exchange rates listed on various trading platforms. Historical data on virtual currency schemes can also be easily downloaded. However, it is difficult to determine the value of virtual items kept within the online environment. Many items are unique in nature and the only way to readily measure their value is to sell them. Due to the difficulty of finding similar items, the valuation process is likely to result in high compliance and administrative burden.

417 Id., at p. 27.
418 IRS. Tech. Adv. Mem. 1995-47-001 (24 Nov. 1995).
419 IRS Announcement 2002-18, 2002-1 C.B. 621.

5.2.2.6 Imputed income

Imputed income comprises the value of benefits derived from non-market transactions. There are three types of imputed income: value derived from self-benefiting activities (for example, cleaning the house, gardening), value from using self-owned property and benefits derived from utilization of leisure time.[420] In general, imputed income is capable of measurement. The value of leisure can be determined on an opportunity cost basis as the earnings foregone if the individual earned income rather than pursued free-time activities. It is also possible to quantify the value of self-performed services: for example, the value of the time that a parent spends assisting his child with his homework can be determined by the price that the parent would otherwise have to pay to hire a similarly qualified tutor to do the job.

Nowhere does the statute say that imputed income shall not be taxed; nowhere is imputed income excluded from the broad scope of section 61 of the IRC. However, the main reason for not including imputed income into the taxable income base is the administrative difficulty of properly and equitably measuring the economic utility experienced by every individual and determining the amount of the net gain. Secondly, tracking of millions of low-income self-benefiting activities would place an insurmountable administrative burden on the tax authorities.[421] Thus, an "unstated exclusion" shelters imputed income from taxation. This unstated exclusion is so well entrenched that most laymen would not even agree that imputed income is income at all.

The administrative basis for excluding imputed income from the legal definition in section 61 of the IRC is explained each year in the *Joint Committee on Taxation's Report on Tax Expenditures*:[422]

> 'the individual income tax does not include in gross income the imputed income that individuals receive from the services provided by owner-occupied homes and durable goods. However, the Joint Committee staff does not classify this exclusion as tax expenditure. The measurement of imputed income for tax purposes presents administrative problems and its exclusion from taxable income may be regarded as an administrative necessity.

According to Professor Camp, all in-world transactions should be exempt from tax as they "are not normal market transactions but represent self-provided services or, at most, enjoyment of self-owned property".[423] Thus, they consti-

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420 Holmes, *supra* n. 251, at ch. 12.; McNulty & Lathrope, *supra* n. 360, at sec. 20. *See also* section 5.1.2.4. *Imputed income*.

421 Camp, *supra* n. 24, p. 38.

422 Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2011-2015*, p. 6 (2012).

423 Camp, *supra* n. 24.

tute imputed income. Virtual items are play-things used within a play-market to enhance the value of the play, and the virtual currency is play-money which merely enhances a player's position in a virtual world.

However, an important feature of imputed income is that economic benefits are both produced and exhausted by the taxpayer outside the marketplace. In contrast, all virtual exchanges are market events. They are reciprocal transactions involving at least two parties. Although self-generated virtual currency does not require a direct involvement of third parties, such currency is not consumed by its creator. Rather, it is intended to be used in sales transactions either in a virtual or the real world. For those reasons, virtual currency cannot be labeled imputed income.

5.2.2.7 Income versus capital gain treatment

Capital gains form part of the gross income definition under section 61 of the IRC. This means that a capital gain must meet the general income characteristics, i.e. it must constitute an accession to wealth, clearly realized and over which the taxpayer has complete dominion. As long-term gains are subject to a lower tax rate, it is necessary to establish whether the sale of virtual items or currencies for real money may give rise to a capital gain. The following conditions must be met for the preferential treatment to apply: the objects sold are considered property, the sale does not occur within one year from their purchase, the objects are not primarily held for sale to customers and they do not constitute copyright produced by the taxpayer or given to him by the creator.

The first requirement means that virtual items must be property *in general* and not necessarily property of the person who arranges their disposal. According to the *Black's Law Dictionary*, the term "property" has a broad meaning: it extends to every species of valuable right and interest, to everything that has an exchangeable value or that goes to make up wealth. "Property" is also described as a bundle of rights (exclusion, possession and disposal).[424] The right to exclude is a principal component of all theories of property; the Supreme Court has also described it as fundamental on several occasions.[425] In *Halliburton v. Commissioner* (1935), the Ninth Circuit of the Federal Court of Appeal determined that property included money.[426]

Virtual items are capable of being owned. There is always a person who has the exclusive right of disposing and using them. In the case of Bitcoin, it is the person who acquired or produced the coins. Community-related virtual

424 D.J. Kochan, *The Property Platform in Anglo-American Law and the Primacy of the Property Concept*, 29 Georgia State University Law Review 2 (2013); *Kaiser Aetna v. United States*, 444 US 164, 176 (1979).

425 *Coll. Sav. Bank v. Fla. Prepaid Postsecondary Educ. Expense Bd.*, 527 US 666, 673 (1999).

426 *Halliburton v. Commissioner*, 78 F.2d 265 (9th Cir. 1935).

items and currency are controlled by the world operator who is vested with the right to exclude others from enjoying any parts of the virtual environment. The IRS confirmed that virtual currency constitutes property in its Notice 2014-21.[427]

In order to apply the preferential tax treatment, the items sold must not primarily be held for sale to customers. An example of a situation in which an item is not primarily held for sale is the sale of *Second Life* virtual real estate that the seller acquired from another user, developed and used for renting out to other participants. Whereas casual sales may qualify for the preferential tax treatment, a lower tax rate cannot be applied if a person engages in a large number of transactions involving similar items. In such circumstances, the items sold are more likely to be treated as stock in trade.

5.2.3 Conclusions

The term gross income is described in section 61 of the IRC as including "all income from whatever source derived". The decisions of the Supreme Court have made it clear that this definition is to be broadly interpreted and that it includes all sources of income (not necessarily limited to cash), unless specifically excluded by law. The Schanz-Haig-Simons model is generally accepted as the conceptually correct income definition underlying section 61 of the IRC. As this concept is too broad to be translated into functional legal rules, the Supreme Court ruled that income taxes could be levied on any "accessions to wealth, clearly realized, and over which the taxpayers have complete dominion".[428] 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 are: measurable market value and exclusion of imputed income. This chapter evaluated profits from virtual transactions against the above mentioned criteria.

Under US tax law, real income from virtual transactions (for example, sales of bitcoins and virtual items for USD) is taxable. Those who sell virtual items or currencies for real money must report profits from such transactions according to the general rules. The fact that a person acts without a profit motive does not preclude taxation. Income from a hobby also falls within the broad scope of section 61 of the IRC. The intensity of an activity, the amount of profits and losses and the type of items sold are only relevant for determining the applicable deductions. In certain circumstances, the sale of virtual objects for real money may also give rise to preferential capital gains taxation.

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427 The IRS classified convertible virtual currency as property in its Notice 2014-21 (*see* IRS, Virtual Currency Guidance, *supra* n. 40).

428 *Commissioner v. Glenshaw Glass Co.*, 348 US 426 (1955).

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.[429] Community-related currency is created by a private operator who has significant influence on its functionality. Participants of virtual worlds must agree that they do not have any proprietary rights in the virtual currency and that such currency can be modified at the operator's discretion. Thus, in my opinion, virtual world participants do not have complete dominion over their virtual income. This applies irrespective of how that community-related currency was obtained (through trade with other participants or from the world operator). In contrast, 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 rules outlined above with respect to the taxation of real income from virtual transactions and the provisions on the valuation of benefits in kind apply accordingly.

5.3 The United Kingdom

5.3.1 Characteristics of individual income tax

The United Kingdom imposes both income and capital gains tax on individuals. Residents are taxed on their worldwide income. There is no statutory definition of residence. In determining it, reliance is placed on the HMRC guidance contained in *HRMC 6 Residence, Domicile and the Remittance Basis*.[430] The UK tax law distinguishes between residence, ordinary residence and domicile. Domicile[431] is mainly important for inheritance tax purposes, whereas capital gains and income tax are founded on residence. To be resident, an individual must be present in the United Kingdom during some part of the year of assessment. An individual who is present in the United Kingdom for 183 days or more in a tax year is always considered resident for that year. If an individual spends less than six months in the United Kingdom, he may still be regarded as resident depending upon whether his visits are frequent

429 The guidance issued by the IRS does not make such a distinction. It applies to convertible virtual currency, defined as currency that "either has an equivalent value in real currency or acts as a substitute for real currency" (*see* IRS, Virtual Currency Guidance, *supra* n. 40). Based on that definition, both community-related currency and universal virtual currency would qualify as convertible. However, although the notice mentions Bitcoin explicitly, it contains no reference to currency used in virtual worlds.

430 HRMC, *Residence, domicile and the remittance basis*, available at www.hmrc.gov.uk/cnr/hmrc6.pdf.

431 Domicile is where the individual has a settled intention to reside permanently. Everybody must have a domicile and a person can only be domiciled in one place at any time. *See* CCH Editors, *British Master Guide*, sec. 227 (CCH 2012).

and substantial.[432] Ordinary residence implies continuity or habitual residence. It is referred to a man's abode in a particular place or country which he has adopted voluntarily and as a part of the regular order of his life for the time being. It is possible to be resident but not ordinarily resident in a country and vice versa. For example, if an individual is abroad for a full tax year, he may be ordinarily resident in the United Kingdom without being resident.[433]

Income tax was introduced in the United Kingdom in 1798 and has remained in force ever since, except for a gap between 1816 and 1842. It was completely overhauled in 1803 when the Finance Act of 1803 established a set of Schedules for different income categories. Each Schedule was subject to different rules. Income that did not fall within a Schedule was not subject to tax. The 1803 system included the taxation of imputed income arising from the occupation of property, which remained in force until 1963.[434]

With time, the UK tax law became lengthy and complex. Referring to a particular provision of income tax law, Lord Reid held in the House of Lords that it "is so obscure that no meaning can be given to it. I would rather do that then seek by twisting and contorting the words to give to the subsection an improbable meaning. Parliament is so accustomed to obscure drafting in finance Bills that no one may have noticed the defects in this subsection."[435] Following the criticism that tax law became complex and incomprehensible, the Tax Law Rewrite Project was established and commissioned with the task of rewriting tax legislation into a more logical and user-friendly format. As a result of the Tax Law Rewrite Project, the UK income tax legislation is now included in three principal statutes:

- Income Tax (Earnings and Pensions) Act 2003 (ITEPA 2003), which covers income from employments pensions, social security benefits, and replaces the former Schedule E;
- Income Tax (Trading and Other Income) Act 2005 (ITTOIA 2005), which covers income from trade, professions, vocations, property, savings and investment, and replaces the six cases of former Schedule D, A and F;
- Income Tax Act 2007 (ITA 2007), which covers basic provisions about the charge to income tax, tax rates and personal relief.

Income tax has been of schedular nature since its introduction in 1798. There is no statutory definition of income, beyond the statement that income is taxable if it falls within one of the income categories.[436] Section 3 of the ITA

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432 Id., at sec. 224.
433 Id., at sec. 226.
434 J. Tiley, *The United Kingdom,* sec. 1 in: *Comparative Income Taxation: A Structural Analysis* (H.J. Ault & B.J. Arnold eds., Kluwer Law International 2010).
435 *Fleming v. Associated Newspapers Ltd* (1972) 48 TC 382.
436 J. Tiley et al., *Tiley and Collison's UK Tax Guide* 2012-2012, sec. 9.3 (LexisNexis 2012).

2007 lists the following income sources: employment, pension, social security, trading, property, savings and investment, and miscellaneous ones. Each category has its own rules to compute taxable income. Losses can only be offset only within the categories.[437] If there is no source, there is no taxable income. Profits from illegal activities or legally unenforceable contracts are also allocated to the sources and subject to tax.[438]

Total income consists of the taxpayer's income from all sources, calculated according to the provisions under which it arises and after deducting expenses appropriate to a particular category. To arrive at taxable income, allowable payments (pension payments, loss relief, gifts to charities) and personal reliefs (age-related allowance, tax reduction for married couples) are deducted.[439] Income tax is a self-assessed tax. Taxpayers must calculate their tax due no later than 31 January following the end of their tax year. The year of assessment runs from 6 April to 5 April in the next year. Trading and professional income is assessed on the basis of the accounting year ending in the year of assessment. For certain types of income (for example, dividends), tax is deducted at source.

Revenue receipts must be distinguished from capital receipts that attract capital gains tax. What is income and what capital has to be determined in the light of all the circumstances and the weight to be given to a particular circumstance depends on the common sense rather than any legal principle. The two main tests used in distinguishing income from capital are: whether receipts relate to assets that form part of the permanent business structure and whether they relate to circulating or fixed capital. The former is acquired to be used or sold, whereas the latter is retained in the business with the object of making profits.[440] Capital expenditure is not deductible in computing profits, even though incurred wholly and exclusively for business purposes. The difficulty of determining whether payments are income or capital receipts was expressed in *IRC v. British Salmson Aero Engines Ltd* (1938): "in many cases it is almost true to say that the spin of the coin would decide the matter almost as satisfactorily as an attempt to find reasons".[441]

5.3.2 Characteristics of capital gains tax

An individual who is either resident or ordinarily resident in the United Kingdom is subject to capital gains tax (CGT) on his worldwide capital gains.

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437 Id., at sec. 9.6.
438 Id., at sec. 14.9.
439 N. Lee et al., *Revenue Law: Principles and Practice*, sec. 7.4 and 7.21, 28th ed. (Bloomsbury 2010).
440 *British Master Guide*, *supra* n. 431, at sec. 630.
441 *IRC v. British Salmson Aero Engines Ltd* (1938) 2 KB 482.

The statutory provisions relating to capital gains tax are laid down in the Taxation of Chargeable Gains Act (TCGA) 1992. The distinction between income and capital still remains central to the UK tax system, despite a certain amount of convergence. According to section 39 of the TCGA 1992, an income tax characterization takes priority over one for CGT purposes.[442]

When income tax was first introduced, various forms of capital had already been subject to other taxes. Trust law made a sharp distinction between income and capital receipts. As income tax was seen as temporary, there was little room for extending it to capital gains.[443] CGT was eventually introduced in 1965 on the grounds of equity rather than for yield because taxpayers started exploiting opportunities to convert income into capital to escape taxation. Originally, CGT was charged at a significantly lower rate than income tax. This encouraged the proliferation of sophisticated devices, whereby an income profit was turned into a capital gain. The scope of this type of arrangements was reduced by the alignment of the tax rates and the extensive anti-avoidance legislation.[444]

Capital gains tax is levied on gains from the disposal of assets. Some assets are exempt; for example, a private car, personal possessions (tangible and moveable assets) that are individually worth GBP 6,000 or less and "wasting assets" (i.e. assets with a lifespan of up to 50 years that often lose their value over time).[445] The chargeable gain is found by taking the disposal consideration and deducting from that figure the allowable expenditure. If the latter exceeds the former, the taxpayer has made a loss for CGT purposes.[446] Capital gains tax is levied at 18% on gains up to the limit of the taxpayer's basic rate band and at 28% on gains in excess of that limit. Capital losses may be only set off against capital gains of the same or subsequent years.[447] There is an annual tax-free allowance (known as the Annual Exempt Amount), which for 2013-14 is GBP 10,900 for an individual.[448]

442 HRMC, *Schedule D: Relationship to Capital Gains Tax*, available at: www.hmrc.gov.uk/MANUALS/bimmanual/BIM14055.htm.

443 Tiley, *The United Kingdom*, *supra* n. 434, at sec. 1.

444 *British Master Guide*, *supra* n. 431, at sec. 202.

445 *See* HMRC, *Capital Gains Tax on personal possessions: the basics*, available at www.hmrc.gov.uk/cgt/possessions/basics.htm#2.

446 Lee, *supra* n. 439, at sec. 19.21.

447 For 2013-14, the basic rate band was GBP 32,010. If a taxpayer has taxable income up to the amount of the basic rate band, any chargeable gains are taxed at 28% (HMRC, *Income Tax – the basics*, available at www.hmrc.gov.uk/incometax/basics.htm#6).

448 *See* HMRC, *Capital Gains Tax rates and allowances*, available at www.hmrc.gov.uk/rates/cgt.htm#1.

5.3.3 Taxation of income from virtual trade

5.3.3.1 Initial comments

Having established the legal framework for income taxation in the United Kingdom, it can be examined whether and to what extent receipts from trade in virtual currencies and items may be subject to tax.

A detailed description of activities that may be relevant for income tax purposes can be found in section 4.1 (*see* Table 1). In short, these are:
- the creation and possession of virtual currency;
- exchanges of any goods or services for virtual currency;
- exchanges of virtual currency and items for traditional currency.

Any profits from those activities are subject to tax if they fall within one of the source categories (trading, professions or vocations, miscellaneous) or constitute a capital gain. This is examined in the following sections.

5.3.3.2 Trading income

Trading income is dealt with under Part 2 of the ITTIOIA 2005. The term "trade" is incompletely defined in the legislation, which states that this concept includes "every trade, manufacture, adventure or concern in the nature of a trade".[449] Without precise legislative guidance, it must be studied on a case-by-case basis whether a transaction under consideration measures up to the usual characteristics of trade.[450] Those characteristics were developed by case law and were divided by the Royal Commission of 1955 into six badges: subject-matter, period of ownership, frequency of transactions, supplementary work, circumstances responsible for sale and motive.[451]

The first badge (subject-matter) states that some forms of property, such as commodities or manufactured articles, are normally the subject of trading and only very exceptionally the subject of investment. When a person buys an item for investment, he intends to keep it for a reasonable time, i.e. long enough to develop a feeling that he will enjoy the possession or use of the item purchased.[452] Property that neither yields income nor gives personal enjoyment to its owner is more likely acquired with the object of a deal.[453] A gain made from the sale of assets held for investment may give rise to a charge under the CGT rules.

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449 Sec. 832(1) of the Income and Corporation Taxes Act 1988.
450 *British Master Guide*, *supra* n. 431, at sec. 555.
451 Royal Commission on the Taxation of Profits and Income, Final Report Cmd 9474 (1955), Comments on what is a trade.
452 *British Master Guide*, *supra* n. 431, at sec. 558; Tiley, *UK Tax Guide*, *supra* n. 436, at sec. 14.10.
453 *British Master Guide*, *supra* n. 431, at, at. 562; Lee, *supra* n. 439, at sec. 10.23.

The second badge (period of ownership) assumes that if property is meant to be dealt in, it is sold within a short time after acquisition. A quick sale is more consistent with a trading activity rather than an investment that is likely to be long-term.[454]

The third batch (frequency of transactions) presumes that if realizations of the same sort of property occur in succession over a period of years, the taxpayer has been engaged in trade.[455] Nonetheless, an isolated transaction may be an adventure in the nature of the trade depending on the facts of an individual case.[456] Some cases illustrate this principle. In the first one, a money-lender bought one million of toilet paper rolls while being on business trip abroad. He sold the paper to a single purchaser on his return to the United Kingdom and made a profit of GBP 10,000. The court held that the taxpayer was engaged in an adventure in the nature of a trade and that he made the purchase of such a vast quantity obviously for no other purpose than that of reselling it at a profit.[457] Trade was also assumed in another case, where a woodcutter who had never previously traded in whisky bought three lots of it and sold them two years later at a profit.[458] Thus, the nature and size of the transaction are more important than its frequency in determining whether a particular activity may constitute trade.

Later transactions may colour earlier ones and trigger a trading income tax liability on them.[459] This statement is well illustrated by the case in which a taxpayer started a driving school and sold it at a profit. Subsequently, he set up and sold some 30 driving schools. The court held that the sales that followed the first one had tainted it. The first transaction could also be considered a trading transaction, even though initially there might not have been any intention to sell the first driving school. The subsequent sales made the court believe that there must have been.[460]

The fourth badge (supplementary work) states that if property is worked upon in any way during the ownership to bring it into a more marketable condition or if any special efforts are made to attract purchasers, there is evidence of trading.[461]

Under the fifth badge (circumstances responsible for the sale), the knowledge that a purchase will increase in value is insufficient evidence to find that a transaction is in the nature of trade. Many people buy things to keep and enjoy them, but, at the same time, they know that these objects will increase in value and may be sold at a profit. If the resale appears to be the

454 *British Master Guide*, *supra* n. 431, at sec. 564; Lee, *supra* n. 439, at sec. 10.24.
455 *British Master Guide*, *supra* n. 431, at 566.
456 *T. Beynon & Co Ltd v. Ogg* (1918) 7 TC 125.
457 *Rutledge v. IRC* (1929) 14 TC 490.
458 *IRC v. Fraser* (1942) 24 TC 498.
459 Lee, *supra* n. 439, at sec. 10.25.
460 *Pickford v. Quirke (HMIT)* (1927) 13 TC 251.
461 *British Master Guide*, *supra* n. 431, at sec. 568; Lee, *supra* n. 439, at sec. 10.26.

only reason for the purchase, it can be concluded that the taxpayer is trading.[462] The fact that an asset is sold in response to a sudden opportunity negates the idea that any plan of dealing prompted the original purchase.[463] A forced sale to raise cash for an emergency raises the presumption that the transaction is not a trade.[464]

If there is clear evidence upon which it can be decided whether the taxpayer is trading, the taxpayer's motive (the sixth badge) is irrelevant. However, if the evidence is ambiguous, the motive can be considered. A desire to make a profit is not sufficient evidence to support a finding of trading since it is uppermost in the minds of all who buy for investment. The question of motive is important where the taxpayer buys for investment and quickly thereafter changes his mind and decides to sell or the other way round. Providing that there is clear evidence that the asset was bought for investment, a quick resale will not make the transaction an adventure in the nature of trade. If the taxpayer who bought an item with the intention of reselling it at a profit decides to retain it, he will not be trading when he decides to sell it later on.[465]

A scheme that inevitably involves a loss may not be a trading transaction.[466] However, operations of the same kind and carried out in the same way as those which characterize ordinary trading are not excluded from trading operations because they make a loss or there is no intention to make profits.[467] HMRC advises taxpayers to be consistent in their approach to transactions that may be trading transactions, irrespective of whether they lead to a profit or a loss.[468]

With regard to hobby activities, the HMRC acknowledges that "in some cases the person's hobby can lead them to make substantial supplies and may grow to become a business activity. Many successful businesses grow out of a hobby or private interest."[469] The distinction between a hobby and a trade, profession or vocation is a question of fact and degree.[470] It seems that the main criterion to distinguish between hobby and trade is the manner in which

462 *British Master Guide*, *supra* n. 431, at sec. 564.
463 Id., at sec. 570.
464 Lee, *supra* n. 439, at sec. 10.27; Tiley, *UK Tax Guide*, *supra* n. 436, at sec. 14.24.
465 *British Master Guide*, *supra* n. 431, at sec. 571.
466 *FA and AB Ltd v. Lupton* (1971) 3 All ER 948, 47 TC 580.
467 *JP Harrison (Watford) Ltd v. Griffiths* (1960) 40 TC 281.
468 HMRC, *Trade: general: hobbies and artificial trades,* available at: www.hmrc.gov.uk/manuals/bimmanual/bim20090.htm.
469 HMRC, *VAT Business and Non-Business activities: hobbies*, available at: www.hmrc.gov.uk/manuals/vbnbmanual/VBNB27000.htm.
470 HMRC, *Athletes: Trade/profession or hobby*, available at: www.hmrc.gov.uk/manuals/bimmanual/BIM50605.htm.

the activity is organized and its profitability in general. If profits are an isolated event in the overall picture of continuing losses, trade cannot be assumed.[471]

In order to establish whether exchanges of virtual items and currencies may give rise to trading income, it is necessary to have regard to the entire context in which they are made. As there are no precise legal rules on income characterization, case law is the only frame of reference for distinguishing among various income sources. Based on that case law, the following general observations can be made. Virtual currencies do not yield periodical income, so they are not likely to fall into the investment category. The main reason for the purchase of universal currencies is to benefit from their increase in value: taxpayers want to make a profit by reselling them. Although community-related currencies are also bought to "enjoy their possession or use", the use of the currency in the virtual world should be treated as incidental to trade if objective circumstances imply that the taxpayer acts as a trader (i.e. he sells and buys currency in large quantities, his sales transactions are not related to his in-world situation). A one-off deal (for example, the sale of a virtual island) may be considered an adventure in the nature of trade. This characterization is even more likely if the taxpayer has put effort to develop and improve the virtual item. Trading income may be assumed if the time between acquisition and sale is relatively short. A taxpayer who made some occasional sales of virtual currency before commencing a more intensive trading activity runs the risk that all his previous transactions will be considered trade.

The HMRC has provided useful guidance to help taxpayers who sell items online to establish whether they may qualify as traders or are subject to capital gains taxation.[472] From this guidance, it follows that a person selling ten self-made items a week at a profit of at least GBP 35 each carries on a trade. The guidance places particular emphasis on whether items are purchased with the intention of resale.

If virtual trade gives rise to trading income, it is necessary to outline how to compute the taxable profit. Profits are defined as the surplus by which the receipts from trade or business exceed the expenditure.[473] Trading profits are usually computed on the earning basis, i.e. on sums earned in the period of account as opposed to sums received (the cash basis).[474] Accounts prepared

471 HMRC, *Trade: general: hobbies and artificial trades* (available at: www.hmrc.gov.uk/manuals/bimmanual/bim20090.htm) states that "taxpayer who wants tax relief for losses, which are not, in truth, trading losses may point to a profit in a particular year to support the trading assertion. This factor would normally carry little weight if that profit were an isolated event in an overall picture of continuing losses."

472 HMRC, *Selling items online, through classified advertisements and at car boot sales*, available at www.hmrc.gov.uk/guidance/selling/examples.htm.

473 *Russell v. Aberdeen Town and County Bank* (1888) 2 TC 321 at 327.

474 *British Master Guide*, *supra* n. 431, at 590.

for commercial purposes according to generally accepted accountancy practice[475] rarely show the taxable trading profits, although over the years the accounting and tax profits have become more aligned. Under Finance Act 2013, small trading businesses (with turnover lower then GBP 79,000) will be allowed to use the cash basis.

The right to deduct expenses in computing taxable income does not rest on any express statutory provision but rather on the absence of any express prohibition. It is interfered from the fact that it is the profit and not the receipts that are taxed.[476] The right to deduct is limited by a number of rules: (1) expenses must be incurred "wholly and exclusively" for the purpose of trade (principle of remoteness and duality); (2) they must be income and not capital;[477] and (3) a deduction must not be prohibited by a statute.[478] The word "wholly" refers to the quantum of the money expended, whereas the word "exclusively", to the motive accompanying it.[479] Expenditure for personal purposes is not deductible. The duality rule prevents the deduction of expenditure for mixed purposes. There have been numerous cases where this principle was strictly applied.

The leading case on that matter is the decision of the House of Lords in *Mallalieu v. Drummond* (1983), in which a lady barrister sought to deduct the cost of clothes bought to wear in court since such clothes were required by court etiquette.[480] The undisputed evidence was that the taxpayer's expenditure was motivated solely by thoughts of court etiquette. However, the House of Lords disallowed the deductibility as, in addition to the business purpose, there were the purposes of warmth and decency.

In *Prince v. Mapp* (1969), a guitarist in a pop group could not deduct the cost of an operation on his little finger because he played the guitar partly for business and partly for pleasure.[481] The dual-purpose cases show that if the taxpayer incurs the expenditure for two purposes, one business and the other personal, none of expenditure is deductible. However, an exception is made if it is possible to split a payment into a portion which is incurred for business purposes and a portion which is not.[482] Section 34(2) of the ITTOIA 2005 provides that if an expense is incurred for more than one purpose, a

475 Generally accepted accounting practice has no legal definition in the United Kingdom. It encompasses the principles set out in the accounting standards and other statements issued by the Accounting Standards Board (ASB) but goes beyond that to include the requirements of company law, industry-specific requirements, regulatory factors and pronouncements by HMRC (Lee, *supra* n. 439, at sec. 10.64).

476 Tiley, *UK Tax Guide, supra* n. 436, at sec. 14.99.

477 A payment is capital expenditure if it is made to bring into existence an asset for the enduring advantage of the trade (Lee, *supra* n. 439, at sec. 10.131.).

478 Id., at sec. 10.130.

479 Tiley, *UK Tax Guide, supra* n. 436, at sec. 14.100.

480 *Mallalieu v. Drummond* [1983] STC 665, [1983] 2 AC 861, HL.

481 *Prince v. Mapp* [1969] 46 TC 169.

482 Tiley, *UK Tax Guide, supra* n. 436, at sec. 10.137.

deduction can be made for any identifiable part which is incurred wholly and exclusively for the purposes of trade. This approach was followed in *Copeman v Flood* (1941) where a 17-year old daughter of the managing director of a company was also appointed as director. The tax authorities claimed that the entire salary expense was not wholly and exclusively incurred for business purposes.[483] In order to judge whether an item of expenditure is deductible in computing profits, it is necessary to look at the nature of the activity of the taxpayer in incurring that expenditure. Sums spent for earning profits will be deductible even if no profit is expected that year. Losses which are incidental to the carrying out of the business are deductible.[484]

The characterization of profits from virtual exchanges as trading income may result in onerous compliance obligations for taxpayers wishing to claim deductions. The dual-purpose cases show that courts tend to interpret deductions very narrowly. As many of the resources used in the production and maintenance of universal virtual currency (electricity and Internet) are also used for private purposes, it will be difficult to find a reasonable key to allocate part of them to trading activities. The costs of the necessary computer equipment are not deductible as trading expenses but may qualify for capital allowances.[485]

Traders who accept virtual currency as consideration for goods and services perform barter transactions. According to IAS 18 (which provides guidance on accounting for revenue from the sale of goods and provision of services), in barter transactions, the fair market value of goods and services received (if it is reliably measurable) should be recorded as revenue.[486] If this fair market value cannot be measured, the value of the goods and services given up (determined by reference to non-barter transactions) should be used (SIC 31).

5.3.3.3 Income from profession and vocation

The law does not contain the definitions of profession and vocation. According to the case law, a profession involves work requiring purely intellectual skill or manual labor dependent upon purely intellectual skill.[487] A journalist and an editor carry on a profession, but a newspaper reporter carries on a trade.[488] A profession differs from a trade as it involves an element of continuity. Casual profits arising from an isolated professional or vocational

483 *Copeman v Flood* [1940] 24 TC 53.
484 Id., at sec. 14.109.
485 HMRC, *Capital allowances on plant and machinery*, available at: www.hmrc.gov.uk/capital-allowances/plant.htm.
486 Under IAS 18, fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.
487 *IRC v. Maxse* (1919) 1 KB 647 at 656.
488 Id.

transaction are more likely to be taxed as miscellaneous income.[489] An isolated transaction may be an adventure in the nature of trade, but income from an isolated service cannot be taxed as professional income. Vocation is analogous to calling: the way in which a man passes his life.[490] This definition is somewhat unhelpful as it would embrace a wide variety of activities not all of which would be vocations. A dramatist and a jockey have been held to be carrying a vocation, but a gambler has not.[491] In the case where the taxpayer's sole means of livelihood was betting on horses, the court held that the profits were not taxable. There was no vocation; the taxpayer was simply addicted to betting.[492] Profits from professions and vocations are computed under the same rules as those applicable to trading income.

To establish whether an activity constitutes a profession or vocation, it is necessary to determine the degree of intellectual skills involved. The production of universal currency and its exchanges rely more on the available resources and business sense than on intellectual skills. The only case where a profession could be assumed is the creation of virtual objects (programming) that has a certain level of permanence. However, as these self-generated virtual items produce income only when they are sold, the whole activity is more likely to be treated as trade.

5.3.3.4 Miscellaneous income

Section 687 of ITTOIA 2005 includes a residual category to catch receipts not covered by any other provisions. However, the HMRC has made clear that although the miscellaneous income provisions are "sweep up" sections, this does not mean that these provisions tax all profits that fall outside the other charging provisions of the tax acts. Excluded are, for example, voluntary receipts (gifts), gambling winnings from wagers and bets, and capital accretions on isolated transactions in assets.[493]

The courts have named three requirements for profits to qualify as miscellaneous income: they must possess a quality of recurrence, be of income nature and not be gratuitous.[494] There is no rule that profits must recur each year to be taxable. Case law does not provide guidance on how frequently a particular activity must be pursued. A profit on the sale of a single item that is not a trading venture will be a capital accretion and not miscellaneous

489 Lee, *supra* n. 439, at sec. 10.46.
490 *Partridge v. Mallandaine* (1886) 18 QBD 276 at 278.
491 *Billam v. Griffith* (1941) 23 TC 757; *Wing v. O'Connell* (1927) IR 84.
492 *Graham v. Green* (HMIT) [1925) 2 KB 37.
493 *See* HMRC, *Miscellaneous income: scope of the provisions: overview*, available at: www.hmrc.gov.uk/manuals/bimmanual/BIM80101.htm.
494 Tiley, *UK Tax Guide*, *supra* n. 436, at sec. 18.4.

income.[495] Profits from a series of sales may amount to a trade.[496] A large number of transactions (50 transactions a year over an eight year period) were found assessable under the miscellaneous income provisions.[497] However, the HMRC observes that such a case might also be viewed as giving rise to trading income.[498]

To be of income nature, a receipt must have a source and be distinct from that source. Hence, a gift, the casual finding of a thing or the receipt of gambling winnings are not subject to tax.[499] When profits are derived from the provision of services or exploitation of a capital asset, such profits are treated as having income quality. Those derived from the disposal of a capital asset are of capital nature.[500]

According to case law, the following activities may give rise to miscellaneous income: sale of cotton futures, letting racehorses for share of prize money, sale of rights in life story to newspaper and the receipt of commissions.[501]

Profits from occasional virtual exchanges which do not qualify as trade (for example, they are rarely carried out) may constitute miscellaneous income.[502] It is difficult to draw the line between trade and other income-generating activity as there are no precise guidelines on that matter. It is not clear what intensity, frequency and turnover an activity must have to become trade.

The mining of bitcoins cannot give rise to miscellaneous income. At the first sight, it may appear that bitcoin miners perform a service: they solve complicated cryptographic algorithms to verify bitcoin transactions and prevent double spending. Those calculations require computer hardware, large amount of electricity and a lot of processing. In exchange for their services, bitcoin miners get paid in bitcoins. However, not every miner is rewarded with new bitcoins. As more and more miners compete for a limited supply of blocks (ledgers of past transactions) to verify, not everyone receives reward for his mining efforts. Mining resembles a gamble and gambling winnings are not subject to income tax.

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495 *See* HMRC, *Miscellaneous income: scope of the provisions: isolated sales of assets*, available at: www.hmrc.gov.uk/manuals/bimmanual/BIM80135.htm.

496 *See* HMRC, *Miscellaneous income: scope of the provisions: series of sales of assets*, available at: www.hmrc.gov.uk/manuals/bimmanual/BIM80140.htm.

497 *Cooper v. Stubbs* [1925] 10 TC 29.

498 *See* HMRC, *Miscellaneous income: scope of the provisions: series of sales of assets*, available at: www.hmrc.gov.uk/manuals/bimmanual/BIM80140.htm.

499 Tiley, *UK Tax Guide*, *supra* n. 436, at sec. 18.4. More recently, in *Anise v Hammond* [2003] STC (SCD) 258, gambling profits were held not to be taxable income because they had been received by chance.

500 Id., at sec. 13.3.

501 Tiley, *UK Tax Guide*, *supra* n. 436, at sec. 18.6.

502 Id., at 13.6.

Miscellaneous income can be computed on either a cash or an accrual basis. Miscellaneous losses cannot be set off against income under another heading of the same year. They can be carried forward into next taxable periods.[503]

5.3.3.5 Capital gains

Capital gains tax is levied on a gain a taxpayer makes when he disposes of an asset. Under section 21(1) of the TCGA, all forms of property should be considered assets and, in particular, incorporeal property, any currency other than sterling[504] and any form of property created by the person disposing of it. The word "property" is not expressly defined in the legislation. It is generally believed that it should encompass anything which is capable of being owned.[505] The following were recognized as assets: a lease,[506] goodwill,[507] loans,[508] royalty rights,[509] the right to an action for damages[510] and rights under a service contract.[511] These examples show that "asset" is a very broad term; rights that do not seem to constitute property in its ordinary sense may nevertheless constitute assets for CGT purposes. A right may qualify even if it is incapable of valuation or assignment.[512] In *Marren v. Ingles* (1980), the right to receive an unquantifiable sum in the future was considered to be an asset.[513] Each asset is treated as a distinct item, so that tax only arises on the disposal of that asset and is computed in the light of the expenditure on that asset. An exception is made for shares and securities of a company of the same class and held by one person.[514]

There is no general definition of the word "disposal". It is believed that "disposal" encompasses the transfer of beneficial ownership (whether legal or equitable), or some parts of it, from one person to another.[515] Section 22 provides that there is a disposal of assets even where a capital sum (i.e. money or money's worth) is derived, notwithstanding the fact that no asset is acquired by the person paying the capital sum. As an example, it mentions capital sums received as consideration for use or exploitation of assets. A disposal under

503 Tiley, *UK Tax Guide*, *supra* n. 436, at sec. 18.13.
504 Currency in sterling is not an asset. It is means by which the gain on other assets is measured.
505 P.G. Whiteman et al., *Whiteman on Capital Gains Tax,* sec. 6-04 (Sweet & Maxwell 2008).
506 *Bayley v. Rogers* (1980) TC 420.
507 *Kirby v. Thorn EMI* (1987) STC 621.
508 *W.T. Ramsay Ltd. v. IRC* (1981) 54 TC 101.
509 *Rank Xerox v. Lane* (1979) 53 TC 185.
510 *Zim Properties v. Procter* (1984) 58 TC 371.
511 *O'Brien v. Benson's Hoisery* (1979) 53 TC.
512 Whiteman, *supra* n. 505, at sec. 6-37 and 6-38.
513 *Marren v. Ingles* (1980) 54 TC 76.
514 Sec. 104(1) of the TCGA 1992.
515 Whiteman, *supra* n. 505, at sec. 7-04.

the contract is treated as made even though the contract itself is unenforceable.[516]

Virtual currency and items constitute assets (property) for CGT purposes as they are capable of being owned and transferred (in the case of universal currency, the owner is the person who legitimately acquired or created it, whereas in the case of community-related currency, it is the world operator. Virtual items are owned either by a user or the world operator). Any contractual restrictions imposed on community-related currency do not affect its characterization as property.[517] Even if the status of virtual currency as capital asset was doubtful, a capital sum is received upon its sale, creating a "disposition of assets".

For virtual currency whose value is subject to fluctuations, section 24(2) of the TCGA may also be relevant. According to this provision, if an asset becomes of negligible value, the taxpayer is deemed to have disposed of and immediately acquired the asset at its market value (nil), enabling him to claim loss relief. Should the value of the asset subsequently increase, the result will be that, on a later disposal, the base value will be nil so that all the consideration received will be treated as gain. According to the HRMC, negligible value should be less than 5% of the original value.[518]

The chargeable gain is calculated by deducting allowable expenditure, which is defined as expenditure incurred wholly and exclusively in the acquisition, disposal of the asset and any enhancements of its value. Deductions must be computed with regard to the disposal of a particular asset and not a group of assets.

5.3.4 Conclusions

UK income tax law is schedular in nature. It imposes income tax on several categories of receipts. One of them is trading income. Whether a person qualifies as trader must be established a case-by-case basis using the six criteria developed by the case law. A residual category catches non-gratuitous receipts of income nature not covered by any other provisions. Capital gains tax is imposed on disposals of assets. The terms "asset" and "disposal" have been extended by the legislation to cover transactions that would not fall within their commonsense meaning: tax liability arises if a capital sum is received, even if the person paying the sum does not acquire any asset.

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516 *Thompson v. Salah* (2000) STC 113.

517 *See* HMRC, *Schedule D: Meaning of property*, available at: www.hmrc.gov.uk/manuals/bimmanual/bim14070.htm "The property also does not have to be owned directly or absolutely. If an interest in the property allows the person concerned to derive income from it, he or she will be taxable."

518 Tiley, *UK Tax Guide, supra* n. 436, sec. 27.22.

The creation of virtual items does not have any income tax consequences as it involves neither source nor disposal. Virtual exchanges may result in trading income, miscellaneous income or capital gains. It follows from section 39 of the TCGA 1992 that an income tax characterization takes priority over one for CGT purposes.[519] Repetitive and frequent transactions may 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) constitutes a capital gain. However, as there are no numerical indicators, it is difficult to make an unambiguous distinction among various income sources and decide which category receipts from virtual trade will be allocated to. Any attempts to do so by the taxpayer will result in uncertainty because a particular transaction may be found, by the tax authorities and courts, to fall within a different category. An incorrect characterization of the income source results in the wrong computation of the tax liability, which may lead to the imposition of penalties and interest. Under UK law, it does not matter whether income is generated in a real or virtual form. Virtual receipts are subject tax based on to the rules on benefits in kind (their fair market value is recorded as revenue). Accumulated virtual currency is not taxable.[520]

5.4 GERMANY

5.4.1 Characteristics of individual income tax

The German concept of income has undergone many changes since its introduction. The Prussian Income Tax Act of 1981 followed the source theory (*Quellentheorie*), under which a receipt constitutes income if it is periodic and comes from a permanent source. Under the influence of Georg von Schanz, the Income Tax Act of 1920 contained an accrual income concept. The current system follows a mixed approach: tax is levied on inputs from several different categories that follow either the source or the accrual income theory.[521]

Income of individuals is taxable in Germany either because of a nexus between the country and the individual earning the income (residence taxation) or because of a nexus between the country and the activity which generates

519 HRMC, *Schedule D: Relationship to Capital Gains Tax*, available at: www.hmrc.gov.uk/MANUALS/bimmanual/BIM14055.htm.

520 The views outlined in the chapter are generally in line with the opinion of the HMRC on the tax treatment of Bitcoin. In Brief 09/2014, the HMRC stated that income from activities involving virtual currency is subject to the general rules of income tax and capital gains tax. The question whether there is a taxable profit or gain must be answered on a case-by-case basis. *See* HMRC, *Brief 09/14, supra* n. 44.

521 W. Schön, *Germany*, sec. 6.1.1 in *Comparative Income Taxation: A Structural Analysis* (H.J. Ault & B.J. Arnold eds., Kluwer Law International 2010).

the income (source taxation). Individuals whose domicile or habitual place of abode is in Germany are considered residents and are subject to tax on their worldwide income. According to section 8 of the General Tax Code (*Abgabenordnung*, AO), an individual's domicile is the place where he occupies a home in circumstances which indicate that he will retain and use it (only actual facts are relevant and not the intention of the taxpayer). An individual's habitual place of abode is the place where he is present in circumstances which indicate that his stay is not just temporary. Such a place is deemed to exist if an individual has been continuously present in Germany for a period of more than six months.[522]

Income tax liability of individuals is increased by a solidarity surcharge (*Solidaritätszuschlag*), which was introduced in 1995 to raise money for the financial reconstruction of the federal states in the eastern part of Germany following the German reunification.[523] Solidarity surcharge amounts to 5.5% of the payable income tax. Individuals carrying on a trade or business (excluding agricultural and professional sector) are also subject to business tax (*Gewerbesteuer*). Business tax is an important source of revenue for municipalities. Its rate varies from one municipality to another.[524] Foreign businesses are only subject to trade tax if they have a permanent establishment in Germany.

Unlike the US tax system, the German tax law does not contain an all-encompassing provision that would tax income from whatever source derived. The German income definition is of schedular nature. Tax is only levied on seven income categories (*sieben Einkünftsarten*) that are listed in section 2 (1) of the Individual Income Tax Act (*Einkommensteuergesetz*, EStG).[525] These are:

1) income from agriculture and forestry (section 13 of the EStG);
2) business income (section 15 of the EStG);[526]
3) income from independent personal services (section 18 of the EStG);
4) income from employment (section 19 of the EStG);
5) capital investment income (section 20 of the EStG);
6) rental income (section 21 of the EStG); and
7) miscellaneous income (sections 22, 23 of the EStG).

522 Sec. 9 of the AO.

523 D. Grashoff & F. Kleinmanns, *Aktuelles Steuerrecht 2012,* sec. 2.1 (229) (Verlag C.H. Beck 2012).

524 Id., at sec. 2.3 (331).

525 The term "*Einkünfte*" means net income (receipts minus expenses).

526 Business income is called in Germany "*Einkünfte aus Gewerbebetrieb*". For tax purposes, the term "*Gewerbebetrieb*" has a different meaning in the German Commercial Law Act (*Handelsgesetzbuch,* HGB). It is also not equivalent to the term "entrepreneur" (*Unternehmer*) or "enterprise" (*Unternehmen*) used in the German VAT Act (T. Stapperfend, *Hermann/Heuer/Raupach Einkommensteuergesetz. Kommentar,* sec. 15 (1003) (Otto Schmidt Verlag 2008)).

The last category is not an open-ended group encompassing sources that are not referred to in the previous provisions,[527] but includes a conclusive list of income items, which contains, among others, annuities and private short-term capital gains. If a taxpayer's income does not fall into any of the above mentioned categories, it is not subject to income tax. Among financial benefits that are not covered by the list are gifts, bequests and lottery winnings.[528] Prizes are subject to tax only when they arise in connection with one of the income categories (for example, an architect creates a prize-winning item within his professional activity). If they are granted for personal achievements or a successful participation in an event (for example, tournament for amateur sportsmen, quiz show), they are not taxable.[529] Activities performed by a taxpayer that fall within more than one income category should be considered separately. However, if they are economically connected with one another, they should not be artificially split but treated according to their dominant element.[530]

The income categories are not of equal rank; there is a priority order among them. Income items are first allocated to the main income categories (*Haupteinkünftsarten*): agriculture, business, self-employment and employment. Within this group, business income is subordinated to income from agriculture and independent personal services. If none of the four categories mentioned above is appropriate, income items may be assigned to the remaining three groups (*Nebeneinkünftsarten*).[531]

For the computation of taxable income, two different methods exist (*Dualismus der Einkünfteermittlung*). Section 2 (2) of the EStG divides the seven income categories into two types: profit categories (*Gewinneinkünfte*, categories 1 to 3) and surplus categories (*Überschusseinkünfte*, categories 4 to 7), and prescribes a different method for the determination of net income for either of them.[532] The main difference between these categories concerns capital gains and losses from the disposition of assets.

Taxable income for *Gewinneinkünfte* is the profit accounted for on an accrual basis by way of comparing the tax balance sheet results for the current year with those for the preceding year (net worth comparison method, *Betriebsvermögensvergleich*).[533] Economic events are recognized regardless of when cash transactions occur. The profit calculation is based on generally accepted ac-

527 G. Niemeier et al., *Einkommensteuer,* p. 51 (Erich Fleischer Verlag 2009).
528 K. Tipke & J. Lang, *Steuerrecht,* sec. 8 (124), 21st ed. (Otto Schmidt Verlag 2013); H. Endriss at al., *Steuerkompendium, Band 1: Ertragsteuern,* p. 40 (NWB, 2007).
529 Zugmaier, *Hermann/Heuer/Raupach*, *supra* n. 526, at sec. 2 (80).
530 Id., at sec. 2 (92); P. Kirchhof et al., *Einkommensteuergesetz. Kommentar,* sec. 2 (50) (Otto Schmidt Verlag 2011).
531 Niemeier, *supra* n. 527, at p. 50; E. Ratschow, *Blümich: Einkommensteuergesetz. Loseblatt-Kommentar,* sec. 2 (52) (C.H. Beck Verlag 2009).
532 Ratschow, *Blümich*, *supra* n. 531, at sec. 2 (41).
533 Sec. 4 (1) and (5) of the EStG.

counting standards (*Grundsätze ordnungsmäßiger Buchführung*), which are in turn based on commercial law (*Handelsgesetzbuch*, HGB). The accounting records have to meet several requirements and several principles have to be taken into account. In the first place, the accounts have to be complete and faithful.[534] Profits that are not yet certain are not taken into account (the prudence principle), whereas losses are recognized when they are expected.[535] An increase in the value of business assets is not included in profits (the realization principle).[536] In Germany, there is a strong connection between tax and commercial accounting (*Maßgeblichkeit*). An interpretation by the Federal Tax Court holds that whenever there is an accounting choice, the taxpayer must use, for tax purposes, the option that results in a higher taxable income.[537] However, currently, there is a growing pressure on the legislature to delink the relationship between financial and tax accounting.[538]

The cash method (*Einnahmen-/Überschussrechnung*) may be used for *Gewinneinkünfte* by taxpayers who are neither under a legal obligation to keep the accounts nor keep them voluntarily.[539] The obligation to maintain accounting records could arise from tax or commercial law provisions.[540] Under the General Tax Code, entrepreneurs are required to keep the accounts if their profit and turnover exceed certain thresholds (EUR 50,000 and EUR 500,000 respectively). Neither tax nor commercial law imposes a bookkeeping obligation on independent service providers.

Net income from *Überschusseinkünfte* is determined on a cash basis per calendar year by deducting income-related expenses from gross income. Gross income may take the form of cash or benefits in kind (*geldwerte Vorteile*). The value of the benefits in kind is determined as the price that the taxpayer would have to pay to purchase the same goods at the same place and at the same time.[541] Under the cash method, income and expenses are reported in the year that they are actually paid or received (*Zu- and Abflussprinzip*). *Überschusseinkünfte* follow the source theory as they capture revenue derived from certain sources

534 Sec. 239 of the HGB and sec. 146 of the AO.

535 Sec. 252 of the HGB.

536 Sec. 252 of the HGB.

537 BFH, 3 Feb. 1969, GrS 2/68, BStBl. II S. 251; BFH, 21 Oct. 1993, IV R 87/92, BFHE 172, 462, BStBl II 1994, 176.

538 Schön, *supra* n. 521, at sec. 10.1.

539 Sec. 4 (3) of the EStG.

540 Sec. 1 and 238 et seq. of the HGB and sec. 140 and 141 of the AO. According to the Commercial Code, people carrying on commercial business activity (*Handelsgewerbe*) are required to keep the accounts and prepare annual financial statements. Commercial business activities are any business activities, except those that do not require a commercial business operation. Whether such an operation is necessary depends on many quantitative and qualitative factors (range of business relations, use of external financing, number of employees, fixed assets, turnover, branches, size of business activity). *See* A. Baumach et al., *Handelsgesetzbuch,* sec. 1 (23) (C.H. Beck Verlag 2010).

541 Sec. 8 (2) of the EStG.

but not the sources themselves (sales of assets used to earn income are not taxable).[542]

Under both methods, expenses incurred in producing taxable income are generally deductible. The condition is that they must be directly related to gross income.[543] Restrictions apply, in particular with respect to expenses of personal character (for example, gifts and the use of company cars for travelling from home to work). The costs of living are not deductible. This also applies to personal expenses that are also likely to support an individual's career.[544] An exception is made for expenses that can be allocated either to business or private use based on an objective and verifiable method.[545]

Losses may be fully set off against income arising in the same tax year (subject to certain restrictions). In general, losses up to EUR 1 million may be carried back to the preceding year, whereas the rest may be carried forward.[546] It is important to note that losses cannot be offset if they are generated by a hobby (*Liebhaberei*) as profits from a hobby remain non-taxable. German law does not know a provision similar to section 183 of the IRC.[547] A hobby activity exists if an individual has no intention to make a profit.

The net results of all categories are aggregated.[548] The sum of net income is reduced by certain allowances (for example, for children, elderly taxpayers) as well as special and extraordinary hardship costs (*Sonderausgaben und aussergewöhnliche Belastungen*).[549] The general income tax rate is progressive and depends on the amount of income, whereby a tax-free threshold for the minimum standard of living (*Grundfreibetrag*) exists.[550] Income tax is assessed annually. The assessment period is the calendar year. However, taxpayers earning business income may choose a year which is different from the calendar year.

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542 Kirchhof, *supra* n. 530, at sec. 2 (28).

543 Endriss, *supra* n. 528, at p. 54.

544 Sec. 12 of the EStG.

545 R 12.1 of the Individual Income Tax Guidelines (*Einkommensteuerrichtlinien*). Administrative guidelines (*Richtlinien*) are non-statutory rules issued by the tax administration. Although they are only binding for lower-level tax administration, they are often used by taxpayers as guidance. A taxpayer who wishes to deviate from the guidelines must generally do so through court proceedings.

546 Sec. 10d of the EStG.

547 Sec. 183 of the IRC allows the deduction of hobby losses up to the amount of hobby profits.

548 From 1 January 2009, income from private capital investment (category five) is generally taxed separately by way of a final flat withholding tax.

549 Special expenses are those incurred in connection with an individual's private lifestyle (for example, education costs, life and health insurance contributions), which are acknowledged as deductible by tax law. By virtue of equity reasons, the legislator allows individuals to deduct unusual and inevitable expenses for personal purposes (for example, high expenses for medical care, funerals, damages caused by violence) if they exceed expenses borne by a comparable group of taxpayers with a comparable income. *See* sec. 10 and 33 of the EStG.

550 The tax-free threshold for a single person was EUR 8,130 in 2013.

Germany does not have a capital gains tax. Capital gains derived from the sale of business assets are treated as ordinary business income, whereas those from the selling of non-business assets generally remain tax free. There are however two exceptions. Gains derived from private transactions are taxable if their total amount exceeds EUR 600 during the tax year and they arise from the disposal of: immovable property within ten years of the date of acquisition or other assets within one year of the acquisition date.[551]

5.4.2 Taxation of income from virtual trade

5.4.2.1 Initial comments

Having established the legal framework for income taxation in Germany, it can be examined whether and to what extent receipts from trade in virtual currencies and items may be subject to tax.

A detailed description of activities that may be relevant for income tax purposes can be found in section 4.1 (*see* Table 1). In short, these are:

- the creation and possession of virtual currency (through mining or game achievements);
- exchanges of any goods or services for virtual currency;
- exchanges of virtual currency and items for traditional currency.

Any profits from those activities may be subject to tax if they fall within one of the following income categories: business income, income from independent personal services or miscellaneous income. This is examined in the following sections.

It is generally recognized that income can only be taxed in the hands of the person who has derived it (*Erzielen der Einkünfte*). Income is considered to be derived by a person who uses his labour or his assets to obtain it through market participation.[552] A question arises whether, within the meaning of German income tax law, virtual income in the form of community-related money can be deemed to be "derived" by the users. On the one hand, restrictions imposed on participants by the EULA could prevent users from "deriving" income.[553] Users agree that they do not own any part of the virtual world which may be modified according to the discretion of its operator. On the other hand, although the legal ownership of virtual items lies with the operator, users are economic owners of their virtual items. Economic ownership, which is decisive for tax purposes, implies a factual control over an

551 Sec. 23 of the EStG.
552 Tipke & Lang, *supra* n. 528, at sec. 8 (121-123).
553 *See* section 3.2.2. *Legal framework*.

object.[554] Legal relationships are not a component of the economic ownership definition.[555] An item can be economically owned by a taxpayer even if he has to share his right to dispose of this item with others.[556] For those reasons, virtual income in the form of community-related money can be deemed to be derived by virtual world users.

5.4.2.2 Business income

Section 15(2) of the EStG defines business activity as an independent repetitive activity that is undertaken with a profit motive and involves business relations with third parties. The activity may not be considered agriculture, forestry, asset management or independent personal services.[557] The distinction between these groups is important as only business income is subject to business tax. Business activity may take many different forms: trade, production, supply of services – there are no restrictions on its type.[558] It does not require any capital investment. It is sufficient if the taxpayer's own work is the only input.[559]

Business income must be earned through transactions with other market participants (*Beteiligung am allgemeinen Wirtschaftsverkehr*).[560] The activity must be offered on the market against consideration that does not have to be a fixed price but may be performance-related.[561] It is sufficient if goods/services are offered to selected groups and not to the general public.[562] The market participation requirement is not met in the case of gifts, lottery winnings, income derived from self-performed services and utilization of self-owned property.[563] As regards winnings, the Federal Tax Court (*Bundesfinanzhof*) distinguishes between games of chance (wagering, lottery, roulette) and those whose outcome depends on the skills of the player (Skat, Backgammon, and Poker).[564] The former do not result in taxable income due to the lack of a market exchange. A lottery fee is paid in return for the lottery participation and not for the drawn prize since the chance of winning depends on circumstances beyond the player's (and the organizer's) control. Consequently, a lottery win is given without any consideration. On the other hand, if a game

554 A. Pahlke & U. Koenig, *Abgabenordnung*, sec. 39 (15) (C.H. Beck 2009).
555 Kirchhof, *supra* n. 530, at sec. 11 (11).
556 E. Littmann et al., Das Einkommensteuerrecht: Kommentar, sec. 11 (114) (Schäffer-Poeschel 2010).
557 BFH, 3 July 1995, GrS 1/93, BStBl II 95, 617; Tipke & Lang, *supra* n. 528, at sec. 8 (414).
558 Niemeier, *supra* n. 527, at p. 630.
559 Stuhrmann, *Blümich: Einkommensteuergesetz. Loseblatt-Kommentar*, *supra* n. 531, at sec. 15 (15-16).
560 Tipke & Lang, *supra* n. 528, at sec. 8 (413).
561 BFH, 11 Nov. 1993, XI R 48/91.
562 Kirchhof, *supra* n. 530, at sec. 15 (30).
563 Tipke & Lang, *supra* n. 528, at sec. 8 (124); Kirchhof, *supra* n. 530, at sec. 2 (47).
564 BFH, 11 Nov. 1993, XI R 48/91.

result depends on the player's skills, the player can more or less influence it. He does not take a huge risk since players with better skills are likely to be more successful in the long run. There is a market exchange: the player pays his initial stake in return for other players promising him to give him their contributions in case he wins. The consideration he receives depends on the game outcome.[565]

All profits derived from exchange transactions are generated through market participation. Virtual goods are offered to all other Internet users potentially interested in buying them. It does not matter that (at least) one part of the transaction consists in virtual money or items.

In the case of currency obtained outside exchange transactions, the matters are more complicated. To acquire community-related money through game participation, users do not offer any goods or services to others; they just take part in a quest and are lucky enough to get a reward. The reward is received from the game provider who cannot be considered as a participant in the exchanges the in-world market. He is the creator of the online environment and does not directly interfere in in-world user-to-user transactions. By accepting the EULA and paying the subscription fee, the user is granted the right to play that does not include the right to win any virtual objects. Although better players tend to get more virtual rewards, an analogy to games whose outcome depends on the player's skills is not possible. The same reasoning applies to virtual objects created by the user. They are obtained without entering into exchange transactions. ltems that form part of virtual worlds are made thanks to the software provided by the world operator and their creation occurs without a direct involvement of another party. Thus, neither community-related currency nor virtual items are obtained in market transactions.

Although the mining of bitcoins may look like a service (solving cryptographic algorithms to verify bitcoin transactions in exchange for newly-created bitcoins), not every mining effort results in the creation of virtual currency. Miners compete for a limited number of blocks of transactions to verify. They cannot be sure that they will receive a reward. Thus, the mining process resembles a game of chance and is deemed to take place without market participation.

The profit intention (*Einkünfteerzielungsabsicht*) is a desire to earn a favourable financial return on an activity.[566] It does not have to be the main reason for engaging into a transaction.[567] It may initially not be present, later appear and subsequently disappear.[568] As an inner component, the profit intention

565 A. Schmidt-Liebig, *Einkommensteuerbarkeit und Einkunftsqualifikation von Spiel- und ähnlichen Gewinnen*, Steuer und Wirtschaft 2, p. 162 (1995).

566 Niemeier, *supra* n. 527, at p. 52.

567 BFH, 20 Jan. 2004, IV B 203/03, BStBl II 04, 355; Tipke & Lang, *supra* n. 528, at sec. 8 (414); Endriss, *supra* n. 528, at p. 69.

568 Stuhrmann, *Blümich*, *supra* n. 531, at sec. 15 (50).

has to be determined on the basis of external circumstances.[569] A mere declaration of the intention to make profits is not sufficient.[570] The actual profit realization is not necessary; it merely implies that an activity is performed with a profit motive.[571] If losses are generated for a longer period, the taxpayer must take measures to improve his economic performance.[572] It is also necessary to estimate whether there are sound economic reasons to expect profits in the future (*positive Ergebnisprognose*). A mere chance to realize them is not sufficient.[573] The prediction can be based on business plans, cash-flow statements or other accounting documents. No minimum amount of profits is required; however, the amount should be economically relevant (unfortunately, the case law does not state what is "economically relevant").[574] Activities that are not undertaken for the purpose of making profits are regarded as a non-taxable hobby. Thus, the painter van Gogh, who sold hardly any of his paintings during his lifetime, or the novelist Franz Kafka, who wanted to burn down his manuscripts, would not be considered as engaged in taxable activities. In sum, the following circumstances imply that an activity is not undertaken with a profit motive: business misconduct (no measures taken despite heavy losses), no sound profit prediction, part-time activity, the use of income generated from other activities to cover losses and hobby character of an activity.[575] Profit intention has to be determined on a case-by case basis taking into consideration the principles outlined above. If the play ceases, taxation may begin. However, there are no general monetary thresholds above which a profit intention would be assumed.

Both playing computer games and visiting online communities are generally regarded as a pastime. Gamers spend hours in front of the computer screen to prove others who has the best skills in reaching top levels, whereas unstructured worlds are visited by those seeking social interaction or distraction from the routine of everyday life. Many people enter virtual worlds in their free time and pursue other careers for their income-earning purposes. They are unable to predict how much virtual profit they will generate within a particular period of time. For many users who occasionally buy and sell virtual items, the trade is motivated by in-world considerations and not by monetary reasons. Even if they spend more money on their virtual world participation than they derive from it, they are not likely to quit or to switch to a different

569 S. Seeger, *Schmidt: Einkommensteuergesetz. Kommentar*, sec. 2 (22) (C.H. Beck 2012); Stuhrmann, *Blümich*, *supra* n. 531, at sec. 15 (45); Niemeier, *supra* n. 527, at p. 51.
570 BFH, 15 Nov. 1984, IV R 139/81, BStBl 1985 II, 205.
571 Endriss, *supra* n. 528, at p. 70.
572 Seeger, *Schmidt*, *supra* n. 569, at sec. 2 (22).
573 BFH, 2 Mar. 1994, VII R 59/92, BStBl II 96, 219.
574 BFH, 26 June 1985, IV R 149/83, BStBl II 85, 549.
575 N. Braun, *Objektivierung der Gewinnerzielungsabsicht bei der Liebhaberei*, 55 Betriebsberater 6, p. 283 (2000).

and more profitable world. Thus, in the majority of cases, the profit intention is likely to be denied.

Nevertheless, there are people, such as gold farmers, power levelers and professional bitcoin miners, who perform their activities exclusively for economic purposes. Sales of virtual objects are a normal income-earning activity for them. A strong indication of the profit intention is the number of sales exceeding the number of purchases. A person that routinely sells virtual currency for real money at a profit is likely to use virtual money for non-virtual reasons.

The burden of proof regarding the profit intention rests on the tax authorities. If they want to tax profits derived from virtual trade, they must come forward with evidence that the activities ceased to be a mere hobby and became an income-generating activity.[576] On the other hand, if a taxpayer wants to deduct losses from his virtual trade participation, he must prove that he is engaged in business activity.

Other requirements of business activity are independence and repetitive character. An activity is independent if the taxpayer acts in his own name and on his own account.[577] He must bear business risk and develop business initiative. Repetitive character (*Nachhaltigkeit*) requires an activity be performed regularly or at least with an intention to repeat it.[578] It is not sufficient that a taxpayer purchases inputs needed for the activity on a regular basis. He must have the intention to make the activity a permanent income source. The activity need not be performed continuously. It may be performed occasionally or temporary. However, the taxpayer must have the intention to repeat it when an appropriate opportunity appears.[579]

People who engage in virtual trade may freely decide about the time, place and character of their activity. The amount of money that they earn depends on their work performance. Those who engage in many trade transactions and treat the trade as an income source meet all the criteria of the business income definition (provided that their income falls outside the definition of income from independent personal services, which is examined in the next section).

There are two methods of net business income determination: cash method (*Einnahmen-Überschussrechnung*) and accrual method (*Betriebsvermögensvergleich*). Virtual trade, even if performed on a large scale, is highly unlikely to cause obligation of keeping the accounts and applying the accrual method (the relevant thresholds are turnover higher than EUR 500,000 and profit exceeding EUR 50,000). The cash method seems to be the most appropriate method to

576 Weber-Grellert, *Schmidt*, *supra* n. 569, at sec. 15 (35).
577 Niemeier, *supra* n. 527, at p. 631; Tipke & Lang, *supra* n. 528, at sec. 8 (413).
578 Niemeier, *supra* n. 527, at p. 632; Tipke & Lang, *supra* n. 528, at sec. 8 (413); Weber-Grellert, *Schmidt*, *supra* n. 569, at sec. 15 (17).
579 Stapperfend, *Hermann/Heuer/Raupach*, *supra* n. 526, at sec. 15 (1040).

determine the net amount of income from virtual transactions. Under this method, revenues are recorded during the period they are received and expenses in the period, in which they are actually paid (*Zu- and Abflussprinzip*).

Business-related expenses can be deducted from the gross income. In the case of virtual worlds, it may difficult to draw a line between expenses caused by business and private motives. A division of expenses must be made on a case-by-case basis by weighing all the individual circumstances. If a clear allocation to a private or business sphere is not possible, no deduction is allowed.[580]

5.4.2.3 Income from independent personal services

Section 18 (1) of the EStG enumerates three different groups that may generate income from independent personal services. The first group is described by activity. It contains scientific, artistic, literary, teaching and educational activities that are provided in an independent capacity. The second group is comprised of professions and includes, among others, physicians, attorneys, engineers, public accountants, tax advisers, journalists and interpreters. The third group encompasses other similar professions. Case law provides guidance on what degree of similarity is required to fall within the scope of that group. By virtue of this case law, a similar profession must have the typical features of one profession from the second category and a comparable level of education (which does not need to be obtained in the same way; it is possible to replace university degree with self-study or distance learning programmes). Similarity to one of the activities in the first group is not sufficient.[581] The following were recognized as similar professions: construction engineer (but not construction manager), software engineer and film maker. The case law on that matter is very intransparent. It is always necessary to consider the facts of an individual case to recognize a profession as similar. The fact that a profession is regarded as freelance by other laws is irrelevant. Professional independent service providers are only those who are regarded as such for tax law purposes.[582]

People who sell self-created virtual items for real or virtual money could be regarded as independent service providers if: (1) their activities could be regarded as artistic ones within the meaning of section 18 of the EStG; or (2) they can be seen as a "professions similar to those listed in section 18(1) of the EStG.

There is no precise legal definition of an artist. According to the Federal Tax Court, an artistic activity is an independent creative activity with a high

580 BFH, 21 Sep. 2009, GrS 1/06, BStBl II 10, 672.
581 Littmann, supra n. 556, sec. 18 (128).
582 R. Jahn, *Steuerliche Abgrenzung gewerblicher Tätigkeit von freiberuflicher und sonstiger Tätigkeit, Der Betrieb*, p. 1947 (31 Aug. 2012).

level of originality and individuality.[583] No academic education is required to be an artist; the natural talent is decisive.[584] The artist must be able to influence the whole process of art creation.[585] Case law and legal doctrine distinguish between commercial and pure art.[586] Pure art has no other purpose than to be itself and has only aesthetic value that aims to impact people's senses.[587] Artworks created for commercial purposes cannot be created in large numbers and must have utility value which is lower than their artistic value.[588] In the case of commercial art, a careful examination is required to distinguish art from other business activity. The latter is the case if industrial elements outweigh the creative ones[589] or if an item is mainly created for practical use (for example, photographs used for advertising purposes).[590] The Tax Court of Hamburg (*Finanzgericht Hamburg*) ruled that a video editor working in advertising cannot be considered as an artist since he processes film material according to prescribed standards which leave no room for his own creative inventions.[591] If an artist earns a living from the sale of his creations (writer owning a publishing house), the whole activity is considered as a business.[592]

Community-related virtual objects could be regarded as commercial art since they are developed for use in virtual worlds. However, it is rather unlikely that somebody would create only one copy of a virtual item that may be successfully sold to other participants: virtual items are usually generated in large quantities Moreover, virtual objects are mainly purchased because of their in-game value and functionality and not because of their aesthetic features. Thus, neither virtual objects nor high-level avatars can be regarded as commercial artworks.

Income from sales of self-generated virtual objects could be qualified as income from independent personal services is if its creators could be seen as having professions similar to those listed in section 18(1) of the EStG. The occupation that they are most likely to resemble is the engineer. According to the case law, the job of an engineer requires the planning, supervising and

583 BFH, 11 July 1991, IV R 33/90, BStBl II 92, 353; BFH, 11 July 1991, IV R 102/90, BStBl II 92, 413.
584 Hutter, *Blümich*, *supra* n. 531, at sec. 18 (92); Brandt, *Hermann/Heuer/Raupach*, *supra* n. 526, at sec. 18 (102).
585 Littmann, *supra* n. 556, at sec. 18 (91).
586 BFH, 29 July 1981, I R 183/79, BStBl II 82, 22; BFH, 14 Aug. 1980, IV R 9/77, BStBl II 81, 21; Hutter, *Blümich*, *supra* n. 531, at sec. 18 (93); Brandt, *Hermann/Heuer/Raupach*, *supra* n. 526, at sec. 18 (103); Littmann, *supra* n. 556, at sec. 18 (91).
587 Hutter, *Blümich*, *supra* n. 531, at sec. 18 (94-95).
588 Id., at sec. 18 (95).
589 Kirchhof, *supra* n. 530, at sec. 18 (75).
590 Littmann, *supra* n. 556, at sec. 18 (91b).
591 FG Hamburg, 16 Dec. 2004, VI 263/02, 10 DStRE 2005, p. 553.
592 Littmann, *supra* n. 556, at sec. 18 (91).

constructing of technical objects based on technical and scientific knowledge.[593] To date, there is no case law on gold farmers or bitcoin miners, but the Federal Tax Court held a few years ago that software developers might be regarded as similar professions to engineers if their services were based on appropriate education or practical training and had a comparable level of sophistication.[594] However, a software developer cannot be automatically considered to be similar to an engineer; evidence of comparable theoretical know-how is required.[595] A developer of trivial software is excluded from the scope of section 18 of the EStG.[596]

Although not everyone can successfully produce community-related virtual objects, the relevant skills are mainly acquired through practice. The more one practices, the better one becomes. Neither special education nor organized trainings for professional development are required. The creation of bitcoins is a matter of appropriate software and other technical resources. In conclusion, income from virtual trade cannot be regarded as income independent personal services as defined in section 18(1) of the EStG.

5.4.2.4 Miscellaneous income

Miscellaneous income comprises gains derived from disposal of assets if the time period between their purchase and sale does not exceed one year and the total profits from such transactions exceed EUR 600.[597] Disposals may be both barter and sales transactions.[598] The term "asset" (*Wirtschaftsgut*) is very broad. It includes all benefits (both tangible and intangible) that are capable of valuation and that can be used for a longer period.[599] Objects of everyday life that are not likely to increase in value are excluded from the scope of this provision.[600]

Virtual currencies are capable of valuation on the basis of the daily exchange rates. The value of other virtual objects (for example, a virtual sword) is more difficult to establish as it requires comparisons with the prices of similar objects. As almost every virtual object has value which is more or less difficult to measure,[601] those objects can be regarded as assets for the purposes of section 23 of the EStG. They cannot fall within the excluded category

593 BFH, 7 Dec. 1989, IV R 115/87.
594 BFH, 4 May 2004, XI R 9/03, BStBl II 2004, 989; BFH, 18 Apr. 2007, XI R 29/06, BStBl II 2007, 781.
595 BFH, 8 Nov. 2002, IV B 120/01.
596 BFH, 4 May 2004, XI R 9/03, BStBl II 2004, 989.
597 Sec. 22 No. 2 and 23(1) No. 2 of the EStG.
598 Weber-Grellert, *Schmidt*, *supra* n. 569, at sec. 23, (50) and (71).
599 Glenk, *Blümich*, *supra* n. 531, at sec. 23, (62-63); H 4.2. (1) of the Individual Income Tax Guidelines.
600 Sec. 23(1) No. 2 of the EStG.
601 For the concept of value, *see* section 4.2.5.1. *Value*.

of objects of everyday life given their significant volatility and price fluctuations. An exclusion is not possible if an object is likely to increase in value.

The gain is determined as the difference between the purchase and sales price of the asset. In the case of self-generated virtual currency, the purchase price may include the software, hardware and Internet costs as expenses necessary to obtain the item.[602] If a person has virtual currency from different sources (i.e. currency both purchased at different exchange rates and self-generated), he may use the first-in first-out (FIFO) method, under which the oldest items are recorded as sold first although they may not necessarily be actually sold first.[603]

Thus, section 23 of the EStG applies to income from virtual trade if transactions are performed in a private capacity (as opposed to those forming part of business activities that give rise to business income). It covers situations where a person sells virtual currency within a year from its purchase to benefit from its increase in value and the total profit from disposal of private assets has exceeded the threshold of EUR 600 in a calendar year.

5.4.3 Conclusion

German income tax law is schedular in nature. It imposes income tax on seven categories of receipts. Unlike in the United States, in Germany, there is no all-encompassing provision that would tax income from whatever source derived. A common characteristic of all categories is that income must be derived through market participation. This requirement is not met in the case of currency generated by a person (for example, bitcoin mining) or obtained from the virtual world operator. Consequently, those activities do not have any income tax consequences. Income from virtual trade may fall within either business or miscellaneous income category. The latter is subordinate to the former. Business activity requires an independent repetitive activity that is undertaken with a profit motive. If any of these elements is missing, the sale of virtual currency and items can be covered by the miscellaneous income provision provided that the time period between their purchase and sale does not exceed one year and the total gain from disposals of private assets has exceeded EUR 600 in a calendar year. Under German law, it does not matter whether income is generated in a real or virtual form. Virtual receipts are subject tax based on the rules on benefits in kind.[604]

602 Eckert, *supra* n. 30, at sec. IV.1.

603 Weber-Grellert, *Schmidt*, *supra* n. 569, at sec. 23, (22).

604 The market value (*gemeiner Wert*) is to be used as valuation standard. For definition, *see* sec. 9 of the Valuation Act.

5.5 THE NETHERLANDS

5.5.1 Characteristics of individual income tax

Dutch individual income tax (*inkomstenbelasting*) is levied on the basis of the Individual Income Tax Act of 2001 (*Wet inkomstenbelasting*, IB). It was radically reformed in 2001; the reform brought about a schedular system with different rates for each income category and the abolition of the net wealth tax. Until 2001, all income was added together and the tax was levied on the total using one rate structure.[605]

Income tax is levied on the worldwide income of individuals resident in the Netherlands. There is no clear definition of residence in the Dutch tax law. Under section 4 of the General Tax Act of 1959 (*Algemene wet inzake rijksbelastingen*, AWR), residence is to be determined "according to the circumstances", such as the availability of a permanent home, the place where the spouse and under-aged children live and the place of personal and economic relations (for example, the place of employment).[606] In general, an individual is deemed to reside in a country if he is physically present there.

Under the schedular tax system effective as from 1 January 2001, taxable income is divided into three categories known as "boxes". A different method of income calculation and a different tax rate apply to each box. Income that does not fall under any of the boxes is not taxable. Among financial benefits that are not covered by the list are gifts, bequests and lottery winnings. The three categories (boxes) are:

- Box 1: income from labour and owner-occupied dwelling (*belastbaar inkomen uit werk en woning*), which includes income from the following sources: present and past employment, business activities, other activities, periodical payments and owner-occupied dwellings;
- Box 2: capital gains and other income from a substantial shareholding in a company (*belastbaar inkomen uit aanmerkelijk belang*);
- Box 3: income from savings and investments / net wealth income (*belastbaar inkomen uit sparen en beleggen*).

The net results of the various income sources of Box 1 are aggregated and then personal deductions (*persoonsgbonden aftrek*)[607] and progressive rates are applied.

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605 P. Siekman & N. Luijsterburg, *Personal Income Taxation in the Netherlands*, 60 Bull. Intl. Taxn. 8, p. 316 (2006).

606 R. Offermanns, *The Netherlands,* sec. 1.1 in: *Global Individual Tax Handbook* (IBFD 2012).

607 *Persoonsgebonden aftrek* (sec. 6.1 of the IB) consist of expenses that reduce a person's ability to pay (for example, educational expenses, medical expenses). The personal deduction is first subtracted from income from Box 1. Any reminder can be deducted from the income from Box 3. If there is still a portion left, it can be deducted from income from Box 2.

Income from Box 2 is taxed at the flat rate of 25%. A substantial shareholding exists if the taxpayer owns alone or together with his spouse, directly or indirectly, at least 5% of the issued share capital in a company with a capital divided into shares.

Income from Box 3 includes all types of income from capital other than income derived from a dwelling, dividends and capital gains from substantial shareholding (which are taxed in Box 1 and 2). The worldwide value of a taxpayer's assets (minus debts) is deemed to produce a 4% net yield. This net yield is taxed at a flat rate of 30%, resulting in a tax of 1.2% on the yearly average value of the net assets. The assets and debts are valued at the market value that they have on 1 January. A personal tax exemption applies to income from Box 3. It depends on the age of the person and on the fact whether he has underage children in his custody. The exempt standard amount for 2013 was EUR 21,139.[608]

There is an order of priority where the sources of income overlap: an item of income is considered to belong to the category of income first mentioned in the Income Tax Act 2001. The order of priority applies not only among the boxes but also within a particular box.[609] Thus, if income qualifies both as income from business (Box 1) and from a substantial shareholding (Box 2), it is deemed business income. If income qualifies as both income from business and income from employment, it is deemed business income. Furthermore, net assets (whether or not exempt) which generate taxable income in Box 1 or 2 are not included when determining the deemed yield for the purposes of Box 3.[610]

Income from all boxes is treated separately and not aggregated; a negative result of one box cannot be set off against a positive result of another. Only income from Box 1 and 2 may be negative, i.e. it may result in a loss. The income tax due is calculated on the sum of income from all three boxes (*verzamelinkomen*).[611] A tax credit is granted against the total amount of tax due. It is comprised of a general rebate (*algemene heffingskorting*) and supplementary ones (for example, for single parents, the handicapped and the elderly).[612]

Capital gains are not taxed in the hands of private individuals with the exception of capital gains from a substantial shareholding in a company (Box 2). Gains derived in the course of business are taxed as a part of ordinary business income.[613] Before the Income Tax Act 2001 came into force, the

608 Sec. 5.5. of the IB.
609 Sec. 2.14 of the IB.
610 Sec. 2.14 of the IB.
611 Sec. 2.18 of the IB.
612 R.E.C.M. Niessen et al., *De Wet inkomstenbelasting 2001 met hoofdzaken loonbelasting*, sec. 3.0.3 (Sdu 2012); L.G.M. Stevens, *Elementair belastingrecht voor economen en bedrijfsjuristen – Theorieboek,* sec. 4.4.a, 28th ed., (Kluwer 2012).
613 A.J. van Soest et al., *Belastingen : inkomstenbelasting, vennootschapsbelasting, besluit voorkoming dubbele belasting 2001,* p. 54, 23rd ed. (Kluwer 2007).

absence of capital gains taxation and the relatively high tax rates applicable to ordinary income constituted a strong incentive for taxpayers to try to convert ordinary income into a tax–fee capital gain or into a substantial interest gain (that was taxed at 20%). The new statute eliminated such avoidance tactics by the introduction of deemed taxation of capital income and by subjecting both current income and capital gains to the same 25% rate in substantial interest cases.[614]

Taxable income is computed on a cash basis (*kasstelsel*), except for business income and income other activities that is usually determined on an accrual basis (*vorderingenstelsel*). Under the former, revenue and expenses are recognized when they are received or paid, whereas under the latter economic events are recognized irrespective of when the cash transaction occurs.[615] Income is received when it has been put at the disposal of the taxpayer or when it can be claimed and collected without any further difficulty. Income in kind is taken into account at the market value. If the benefit cannot be exchanged for cash or it is unusual to do so, the value is estimated or based on the amount saved by the taxpayer (for example, in the case of free living).[616]

The taxable period is the calendar year. For an entrepreneur, a deviating book year may be applied.[617] The latter applies as long as the taxpayer keeps accounts on a regular basis and the nature of business justifies a deviating financial year.

5.5.2 Taxation of income from virtual trade

5.5.2.1 Initial comments

Before going into detail of the Dutch income taxation, it is useful to take a look at activities that may be relevant for income tax purposes. These are:
- the creation and possession of virtual currency;
- exchanges of goods and services for virtual currency; and
- exchanges of virtual currency and items for traditional currency.

A detailed description of these activities can be found in section 4.1 (*see* Table 1).

The Dutch tax law does not contain a definition of the term "income". The notion of income was influenced by several income theories, the most im-

614 K. van Raad, *The Netherlands*, sec. 5.1 in: H.J. Ault & B.J. Arnold, *Comparative Taxation: A Structural Analysis* (Kluwer Law International 2010).
615 Niessen, *supra* n. 612, at sec. 2.0.7; Stevens, *supra* n. 612, at sec. 4.3.e.
616 Sec. 144 of the IB.
617 Sec. 3.66 of the IB.

portant of which was the source theory (*Bronnentheorie*).[618] Under this concept, a benefit may be regarded as income if it comes from a permanent source (*bron*).[619] The disposition of the source itself is not taxable.[620] A "source of income" exists in situations where the taxpayer engages in an economic activity with the intention to derive a benefit therefrom and where such benefit can be reasonably expected to materialize. Thus, the following three requirements must be met:

- participation in economic life (*deelname aan het economische verkeer*);
- intention to obtain income (*voordeel beogen*) (subjective criterion);
- a reasonable income expectation (*voordeel verwachten*) (objective criterion).[621]

The first criterion (participation in economic life) implies that an individual has to offer goods or services on the market for consideration. He has to make it visible to others that he is willing to exchange them.[622] There must be a reciprocal relationship between the parties engaged in the transaction.[623] Illegal activities are also a form of participation in the economic life. Under the principle of fiscal neutrality, it is irrelevant for income tax purposes whether income is generated in a lawful or unlawful manner.[624] According to some decisions of the Dutch Supreme Court (*Hoge Raad*), the first criterion is decisive for establishing whether a source of income exists as neither subjective intention nor expectations influence the ability to pay. A benefit obtained from participation in economic life should be subject to tax, irrespectively of whether it was intended or not.[625] However, the second and third criterion is only relevant in cases where no profit has been generated yet, transactions may have speculative nature or they may be performed in a private capacity. The function of the profit-related criteria is to prevent deductions of expenses in situations that are not likely to produce any income.[626]

All profits derived from virtual exchanges are generated through market participation. Both real and virtual goods are offered to all other Internet users potentially interested in purchasing them. It does not matter that at least one part of the transaction consists of virtual money or items. In the case of self-

618 Van Raad, *supra* n. 614, at sec. 5.1.

619 The *Bronnentheorie* is reflected in the structure of Box 1, which names five sources of income.

620 Kavelaars et al., *Inkomstenbelasting : inclusief hoofdzaken loonbelasting en premieheffing*, sec. 0.12b, 8th ed. (Kluwer 2012); Niessen, *supra* n. 611, at sec. 2.0.7.

621 Niessen, *supra* n. 612, at sec. 2.0.7; Stevens, *supra* n. 612, at sec. 4.3.b; HR, 23 Oct. 1923, B. 3307; HR, 25 Jan. 1933, B. 5365; HR, 26 Nov. 1930, B. 4857.

622 Kavelaars, *supra* n. 620, at sec. 0.12b.

623 J.E.A.M. van Dijk, *Vermogensbeheer*, WFR 1976/5258.

624 HR, 20 June 1951, B. 9055; HR, 24 June 1992, 27327, BNB 1993/18; HR, 24 June 1992, 28156, BNB 1993/19.

625 HR, 3 Oct. 1990, BNB 1990/329; HR, 4 Apr. 1993, 28 847, BNB 1993/203.

626 HR, 14 Apr. 1993, 28847, BNB 1993/203; R.E.C.M. Niessen, *Algemene en bijzondere bronkenmerken*, Weekblad voor Fiscaal Recht 3, p. 4 (1997).

generated currency (for example, through mining or game achievements), no income can be assumed as there is no reciprocal relationship and therefore no market participation.[627] Those objects can be considered as investment or part of the gaming experience.

The second and third criterion is related to each other. Although subjective in nature, profit intention must be deduced from objective facts and not from statements by the taxpayer.[628] The profit expectation is reasonable when it is supported by factual circumstances and the profit occurrence is viable form the point of view of a rational person.[629] The judicial interpretation of this requirement is very broad. For example, the Supreme Court ruled that the collector of mammoth bones who created a complete mammoth skeleton and sold it to a museum may be considered as having a reasonable profit expectation. Income may arise if the taxpayer does not expect any profits, but the objective facts imply that such profits can be realized.[630]

Profit expectations and motives are of vital relevance in cases concerning activities mainly regarded as hobbies. In general, incidental benefits from a hobby or amateur sport are not taxable and the related expenses are not deductible.[631] A comparison of costs and benefits is frequently used to distinguish commercial activities from non-taxable pastimes. A hobby is deemed to exist if the expenses are likely to exceed the revenue in the long run.[632]

Thus, to determine whether virtual trade is an income-generating activity or a non-taxable hobby, it is necessary to consider the amount of revenue and losses (together with the prospect of their recovery), time devoted to the activity and the number of transactions engaged into. In the case of a seller whose costs continuously exceed the revenue obtained, it is clear that no reasonable profit expectation can be assumed.[633] The same applies if profits are realized occasionally, due to a lucky occurrence rather than the efforts of the participant.

No profit expectations can be assumed in the case of speculative dealings where the outcome of the transaction depends exclusively on circumstances

627 An explanation why under German law there is no market participation when virtual currency is generated is provided in section 5.4.2.2. *Business income*. The same reasoning applies in the case of the Netherlands.

628 HR, 22 Feb. 1978, BNB 1978/194.

629 Kavelaars, *supra* n. 620, at sec. 3.4.2a; Stevens, *supra* n. 612, at sec. 4.3.c.

630 HR, 27 Feb. 2009, V-N 2009/18.27.

631 Hof Arnhem, 27 June 1983, no. 645/1982, BNB 1985/9.

632 H. Mobach, *Cursus belastingrecht: Inkomstenbelasting*, sec. 3.4.3.B.b5.I (Deventer Gouda Quint 2011). *See also* Hof 's-Gravenhage, 21 Nov. 1996, no. 95/1035, FED 1997/117. The case concerned an accountant who also played in an amateur music band. As amounts earned from incidental performances did not exceed the costs, the court concluded that the activity was outside the scope of income tax law.

633 However, the user must have an opportunity to provide evidence of objective facts that imply that profits may be realized.

beyond the taxpayer's control.[634] This does not apply if speculative transactions are carried out as a part of business activities of an entrepreneur.[635] The Supreme Court applied this reasoning in the case concerning pyramid schemes.[636] It ruled that participants of such schemes could not have had any reasonable profit expectations due to the speculative character of their dealings. This did not apply to the organizers who were held to derive business income. Virtual trade cannot be regarded as speculative activity. Although it is true that some transactions are very risky (in the case of illegal sales and exchanges, the player may lose his entire game account, whereas in the case of Bitcoin, the bitcoin value may drop significantly), the risk relates to events that take place after the transaction occurs. Thus, it cannot be considered as equivalent to the risk embodied in games of chance, such as roulette.

The next sections focus on income from Box 1 and 3 as these categories are most likely to cover income from virtual trade.

5.5.2.2 Business income

Section 3.2 of the IB stipulates that "taxable business profits are the total amount of profits which the taxpayer as an entrepreneur derives from one or more enterprises less the entrepreneur deduction". The IB defines the term "entrepreneur" (*ondernemer*) as the person for whose account a business is carried on and who is directly liable for the obligations entered into with respect to the business.[637] The IB does not provide a definition of the term "business" (*onderneming*), but the jurisprudence of the Supreme Court indicates that a business is an organization of capital and labour with certain degree of permanence, which participates in the market with the intention of making a profit.[638] Points of particular interest are: the way the activities are organized, their extent, the period in which the activities are performed, the amount of the profits, and the level of investment made by an individual.

A series of unrelated transactions cannot be classified as durable even if all of them generate profits.[639] The Supreme Court decided that a freelance journalist working for various principals cannot be considered as maintaining a durable organization of labour and capital.[640] The required degree of permanence does not mean that transactions have to be performed on a continuous basis. For example, permanence is assumed if transactions are

634 HR, 18 Jan. 1967, BNB 1967/71.
635 Stevens, *supra* n. 612, at sec. 4.3.c.
636 HR, 1 Feb. 2002, no. 35848, 36238 and 36668, BNB 2002/127-129. A pyramid scheme is a business model that involves promising participants payments for enrolling other people into the scheme.
637 Sec. 3.4 of the IB.
638 HR, 11 Jan. 1989, BNB 1989/63.
639 H. Mobach, *Cursus belastingrecht, Inkomstenbelasting*, *supra* n.632, at sec. 3.2.2.B.b.
640 HR, 6 Sep. 1995, no. 30237, BNB 1995/298.

repeated seven times over a three-and-a-half-year period.[641] There are no precise statutory limits on how much time must be spend on business activity per week; however, according to Niessen (2012), it can be deduced from the case law that at least ten hours a week and 2/3 of the minimum salary should be generated from business activities.[642] The case law of the Supreme Court on the permanence of business activities is not always consistent. In a case involving a candidate notary who took care of a notary office for a period of one year after the death of a notary, the Supreme Court ruled that no business activity was carried out because of the short period of the activities (despite the fact that the notary practice was carried out for the account and risk of the candidate notary).[643]

An individual who carries on an independent profession also qualifies as a person for whose account a business is carried on.[644] The rules for taxation of professional income are the same as for taxation of business income. A definition of the term "profession" is not included in Dutch statutory tax law. According to the case law, one of the main characteristics of a profession is that considerable time is spent carrying out the activities; the use of one's skills, personal qualities and labour are decisive while capital input is not required.[645]

The most important requirement for entrepreneurship that distinguishes it from employment is independence. This criterion is met if an individual carries out activities in his own name and assumes any responsibility and risk.[646] The main difference between wealth management (Box 3) and business is that in the case of the latter, the taxpayer must perform work to make his property profitable. There must be a causal connection between the profit and this work.[647]

Virtual exchanges may give rise to business income if the trader maintains a durable organization of labour and capital. The Dutch tax law sets high requirements to assume the presence of an enterprise since it offers various incentives for entrepreneurs.[648] Only those for whom trade in virtual items have become a major source of income could fall under the scope of the entrepreneurship rules. Their entrepreneur status must be proved by the

641 Hof Arnhem, 29 Mar. 2004, NTFR 2004/649.
642 Niessen, *supra* n. 612, at sec. 5.2.
643 HR, 5 Dec. 1990, BNB 1991/38.
644 Sec. 3.5 of the IB.
645 HR, 20 Nov. 1968, BNB 1969/13.
646 Niessen, *supra* n. 612, at sec. 5.2.
647 H. Mobach, *Cursus belastingrecht: Inkomstenbelasting, supra* n. 632, at sec. 3.2.2.B.d.d1.
648 These are: self-employed allowance (*zelfstandigenaftrek*), research and development deduction (*aftrek voor speur- en ontwikkelingswerk*), and cooperation deduction (*meewerkaftrek)*. Under section 3.6 of the IB, some of those deductions are not allowed if entrepreneurs do not work for a sufficient number of hours (*urencriterium*).

amount of investment they make in virtual worlds (both in terms of time and money), the risk borne and the revenue obtained.

Business profits have to be calculated in accordance with the principles of sound business practice (*goed koopmansgebruik*), including a consistent policy, independent of its possible fiscal consequences. The taxpayer can use any calculation method that is in accordance with the business practice, unless it contravenes a tax regulation.[649] In calculating the annual profit, the principle of prudence has to be taken into account. This principle implies that profits which have not been realized yet should be excluded, whereas losses may be included at the moment they are expected but not realized.[650] In the Netherlands, the rules on tax and commercial accounting diverge substantially to reflect different aims of these two sets of provisions. Commercial accounting rules are to provide information necessary to judge the financial policy and operations of a business undertaking, while tax accounting rules aim to determine the basis for tax payable to the government.[651]

The total profit is usually calculated according to the wealth comparison method (*vermogensvergelijking*), under which the balance sheet value at the end of a taxable period must be reduced by its value at the beginning of the period and adjusted for any contributions (*stortingen*) and withdrawals (*onttrekkingen*).[652] The cash method is only allowed for small businesses that cannot be reasonably expected to have a bookkeeping system[653] and for freelancers with activities on a limited scale.[654] It is more commonly applied by taxpayers having income from other activities, which is calculated in the same way as business profit.[655]

All expenses incurred in the course of business are deductible, irrespective of whether they were necessary in the view of the tax authorities. In other words, the tax authorities may not interfere in business policy: they are not allowed to make a judgment as to whether the expenses were reasonable.[656] Expenses incurred in respect of the acquisition of the income source itself are

649 HR, 8 May 1957, BNB 1957/208.
650 R. Offermanns, *The Entrepreneurship Concept in a European Comparative Law Perspective* p. 41 (Kluwer Law International 2002).
651 Van Raad, *supra* n. 614, at sec. 9.1.
652 Kavelaars, *supra* n. 620, at sec. 3.2.8c; Stevens, *supra* n. 612, at sec. 6.4d.
653 HR, 24 Feb. 1960, no. 14197, BNB 1960/84.
654 HR, 7 Dec. 1966, no. 15657, BNB 1967/37.
655 H. Mobach, *Cursus belastingrecht: Inkomstenbelasting, supra* n. 632, at sec. 3.2.17.A.a.
656 Stevens, *supra* n. 612, at sec. 6.4a.

not deductible.[657] Other limitations on expenses deductibility are contained in sections 3.14-3.17 of the IB.[658]

5.5.2.3 Income from other activities

Under section 3.90 of the IB, income derived from other activities (*belastbaar resultaat uit overige werkzaamheden*) is subject to tax. The aim of this provision is to capture all benefits derived from one's labour exercised outside the framework of an employment contract or business enterprise.[659]

As the term "*werkzaamheid*" is not defined in the Income Tax Act 2011, it is necessary to revert to the general source criteria. Thus, other activities are activities carried out in economic life and aimed at deriving profits which cannot be qualified as business or employment.[660] In order to obtain other income, labour must be performed although its scope and frequency is irrelevant.[661] A one-time insignificant activity is sufficient.[662] Moreover, there must be a causal connection between one's labour and the benefit obtained.[663] Examples of other activities include: income from: incidental lecturing, writing articles for a magazine, operating a lodging house, patents and copyrights (but in case of heirs, such intangible rights become an asset taxable under Box 3), consultancy work or any other freelance activity.[664] A "*werkzaamheid*" can also exist if a taxpayer tolerates or refrains from an activity.[665]

The criteria used to distinguish business from other activities are: permanence of the activities, extent of investments, time involved, scope of advertising, proceed- or debtor risk, and work for more than one principal.[666] The Supreme Court decided that business activities must have a minimum

657 G. Spenke & M. de Vries, *Taxation in the Netherlands,* sec. 3.3.13 (Kluwer Law International 2011).

658 These are, inter alia, fines, representation expenses, entertainment costs, home office (which cannot be separated from the rest of the house) and telephone fees for a telephone connection at home.

659 Stevens, *supra* n. 612, at sec. 11.1a

660 Kavelaars, *supra* n. 620, at sec. 3.4.2a; Stevens, *supra* n. 612, at sec. 11.1.a.

661 Kavelaars, *supra* n. 620, at sec. 3.4.2d.

662 Rechtbank Zwolle, 30 Jan. 1953, BNB 1953/116 (the case concerned a lawyer who wrote a note for his colleague and received remuneration for it); HR, 20 June 2003, 37974, BNB 2003/306 (the case involved the sale of a horse by a private individual).

663 H. Mobach, *Cursus belastingrecht: Inkomstenbelasting, supra* n. 632, at sec. 3.4.3.B.b2. There is no causal connection in the case of a money transfer to the bank account of a taxpayer (without an underlying business reason). The benefit cannot be considered as an outcome of his own work (Hof 's-Hertogenbosch, 8 Apr.2008, no. 06/00160, V-N 2008/51.15).

664 H. Mobach, *Cursus belastingrecht: Inkomstenbelasting, supra* n. 632, at sec. 3.4.1.A.

665 HR, 3 Oct. 1990, no. 26142, BNB 1990/329. The case concerned a person who took part in a medical experiment where the participants were obliged to abstain from eating certain food and to undergo regular medical checks.

666 Stevens *supra* n. 612, at sec. 6.3.a.

scope and substance.[667] However, no precise time and monetary thresholds are set in the statutory income tax law and case law, and it has to be determined on the basis of the facts of an individual case whether business income or (at least) income from other activities can be assumed.

Trade in virtual items (unless it is a loss-making hobby) meets all the general source criteria.[668] It requires one's labour consisting in the creation or acquisition of the item to be sold and arranging the sales transaction. As income from other activities has less strict substance and scope requirements than income from business activities, income from virtual trade is likely to fall into this category.

5.5.2.4 Savings income / net wealth income

Wealth is taxed in the Netherlands for two reasons. The first one is that wealth improves one's position in society by increasing his ability to pay (*draagkracht*). The other is that accumulated resources can be used to finance future expenses.[669] From 1892 to 2001, a separate wealth tax was levied on net assets of individuals. The legislator chose a global approach: all wealth (with a few explicitly mentioned exceptions) was subject to tax and not only its certain categories.[670] The tax was estimated to generate around 1% of the total tax revenue and to affect 600,000 taxpayers.[671]

As from 2001, wealth taxation is partially integrated into the income tax system (although officially wealth tax has been abolished). Under Box 3, income tax is levied on net wealth, i.e. the value of tangible or intangible assets (*bezittingen*) reduced by the value of associated liabilities (*schulden*). Net assets of a taxpayer are deemed to produce a 4% yield which is taxed at a flat rate of 30%. The deemed yield cannot be negative. The main flaw of the current taxation system is its incompatibility with the ability-to-pay principle: taxing fictitious income leaves the real income untaxed.

The Income Tax Act contains a list of assets which are taxable under Box 3. These are: real estate (second home, let property), rights in immovable property (for example, leasehold estate),[672] movable property with the exception personal items (furniture, clothes), savings, securities and other property rights.[673] The last category is a residual one covering all rights not included in the previous groups. Examples of other property rights are: membership

667 HR, 20 Nov. 1968, BNB 1969/13.
668 *See* section 5.5.2.1. *Initial comments*.
669 H. Mobach et al., *Cursus Belastingrecht, Vermogensbelasting*, sec. 0.0.2 (Deventer Gouda Quint May 1999).
670 Id., at sec. 2.4.0.
671 Id., at sec. 0.0.2.
672 Rental rights are considered assets; however, their value is set at nil (sec. 5.19 (4) of the IB).
673 Sec. 5.3 (2) of the IB.

in the homeowner association, interests in trusts, cultivation rights, inherited patents and copyrights.[674] Mere expectations (*verwachtingen*) cannot be considered as taxable assets.[675] Certain assets (nature areas, woods, assets of scientific nature and art collection) are explicitly excluded from Box 3.[676]

To be able to produce deemed investment income, an asset must have an economic value. Assets without any economic value are not subject to tax. The economic value exists if the asset itself or its transfer may yield revenue, or the possession of the asset enables its owner to save expenses that otherwise would be incurred.[677] Assets which cannot be alienated (for example, a cultivation permit) are nonetheless considered to have economic value.[678] The economic value is the price that a third party would be willing to pay for the asset under normal market conditions. Any personal interests that the owner may have in his asset (affection value) are not taken into account.[679] For valuation purposes, it is important whether an asset is transferable, fully owned or subject to any other legal restrictions.[680] The decisive date for establishing whether certain assets and liabilities are to be taken into account is the beginning of a calendar year.

Accumulated virtual currency and items could constitute "other property rights", the value of which is taxable under Box 3. Such currency has economic value[681] and can be used to generate revenue for the taxpayer. The fact that there is no absolute certainty as to whether virtual currency can be converted into real money is irrelevant since Box 3 includes assets that are not able to generate any monetary income at all. Even a conditional claim to an uncertain amount can form a taxable asset.[682] Legal restrictions on alienability do not preclude an item from belonging to one's wealth, but in such a situation, it is necessary to determine whether an asset can actually be disposed of. The factual possibility of doing so prevails over the legal entitlement.[683] Thus, in the Netherlands, not only profits from virtual exchanges but also accumulated virtual currency and virtual items are subject to income tax.

674 Kavelaars, *supra* n. 620, at sec. 5.3.2f.
675 Stevens, *supra* n. 612, at sec. 13.5.a.
676 Sec. 5.7 – 5.12 of the IB.
677 H. Mobach, *Cursus belastingrecht: Inkomstenbelasting, supra* n. 632, at sec. 5.1.4.B.
678 Id., at sec. 5.1.4.B.
679 Id., at sec. 5.1.4.B.
680 HR, 19 Apr. 1967, no. 15714, BNB 1967/135.
681 *See* section 4.2.5.1. *Value*.
682 Hof 's-Gravenhage, 22 Dec. 1976, BNB 1978/161.
683 Hof Amsterdam, 14 Oct. 1992, no. 551/90, V-N 1993, p. 449. The case concerned a Dutch person who inherited some assets abroad. The assets were subsequently taken over by the foreign government, except for a few ones that were rescued by his relatives from nationalization. The court decided that the rescued assets constituted assets within the meaning of the wealth tax (currently: Box 3) and were subject to tax, despite the fact that the taxpayer could not dispose of them.

To calculate the tax liability, the value of the accumulated currency and items as established on 1 January is relevant. Exchange rates from various trading websites could be used as value estimates. In the case of community-related currency and virtual items, any legal restrictions should be taken into account in the valuation process.

5.5.3 Conclusions

The Dutch income tax law has a schedular nature. Income tax is levied on receipts falling within one of the three boxes. There is no all-encompassing provision that would tax income from whatever source derived. Income from virtual trade (both in the real and in a virtual form) may fall within either Box 1 or Box 3.[684] If costs exceed revenues, a non-taxable hobby is assumed.

A common characteristic of income sources in Box 1 is that income must be derived through market participation. This requirement is not met in the case of currency generated by a person (for example, bitcoin mining) or obtained from the virtual world operator. Consequently, those activities do not have any income tax consequences under Box 1. Profits from virtual exchanges may give rise to either business income or other income.[685] The former are assumed if the trader has a permanent organization of capital. An activity that does not meet this requirement (for example, because it is temporary or occasional) may give rise to income from other activities. However, neither the statutory law not the case law provides precise monetary thresholds on the basis of which is can be decided whether income from business activities or income from other activities can be assumed.

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684 The same view is taken by the Dutch Ministry of Finance (*see supra* n. 41). In a letter of 10 April 2013 (answering the questions asked by a member of parliament), the Ministry of Finance refers to the general rules of income taxation and explains that the form in which profits are generated (real or virtual) is irrelevant.

685 The fact that dealings in a non-traditional currency (i.e. currency without legal tender status) may give rise to business or other income is confirmed by the Dutch tax authorities in a ruling of 21 February 2014 (*see* Dutch Tax Authorities (*Belastingdienst*), *Inkomstenbelasting. Belastbaar resultaat uit overige werkzaamheden*, BLKB 2014/286M). The ruling outlines the rules applicable to barter clubs, i.e. organizations whose participants provide services to one another in exchange for local currency that exists only in the form of bookkeeping entries and is not convertible into traditional currency. The central administration of a barter club must keep a register with details of all participants and provide those participants with a questionnaire from the tax authorities. On the basis of the answers in the questionnaire, the tax authorities establish whether a participant derives other income or business income and whether he is liable to charge VAT on his transactions. Income in local currency is taxable when units of local currency are allocated to the account of the participant. The exchange rate of local currency is determined by the central administration and is compared to that used by barter club participants in transactions with one another. Transactions that are performed for both traditional currency and local currency are decisive for the determination of the exchange rate.

Under Box 3, income tax is levied on the net value of assets. It is not relevant whether those assets are able to generate any income. They are deemed to produce a 4% yield that is taxed at a flat rate of 30%. Accumulated virtual currency and virtual items may be regarded as a qualifying asset since they have economic value. Thus, not only profits from virtual exchanges but also accumulated virtual currency is subject to tax.

5.6 INTERNATIONAL ASPECTS

5.6.1 Basic principles of international tax law

Two principles are in common use to determine the extent of a country's tax jurisdiction: residence and territoriality (source). Under a residence-based system, a country taxes the worldwide income of its residents. The residents are subject to unlimited tax liability. Under the source principle, a country taxes the income and gains of non-residents arising within its borders.[686] Many countries have adopted a tax system that combines both the source and residence principle. The countries under consideration in this thesis have adopted a residence-based approach with respect to income derived by their residents and a source-based approach with respect to income derived by non-residents.

The policy reason for taxing income that has its source in a particular country stems from the benefit theory of taxation: a country will tax income originating within its jurisdiction since it has provided public goods (for example, infrastructure or legal system) for the benefit of the non-resident taxpayer to enable him to undertake economic activity which generated the income. In this sense, the tax imposed can be regarded as a contribution towards the cost of those public goods.[687] Moreover, countries choose to tax non-residents because they are an "easy prey": since they do not vote, they can be taxed without risking the electoral power.

The application of the source principle is difficult in the context of electronic commerce. The White Paper prepared by the US Treasury in 1996 proposed a shift to residence-based taxation and noted that:[688]

> 'In the world of cyberspace, it is often difficult, if not impossible, to apply traditional source concepts to link an item of income with a specific geographical location. Therefore, source based taxation could lose its rationale and be rendered

686 For more information on the concepts of source, residence and double taxation, *see* K. Holmes, *International Tax Policy and Double Tax Treaties* (IBFD 2007); M. Lang, *Introduction to the Law of Double Taxation Conventions* (IBFD and Linde 2013); L. Oates & A. Miller, *Principles of International Taxation* (Bloomsbury 2012).

687 Holmes, *International Tax Policy and Double Tax Treaties, supra* n. 686, at ch 2.

688 US Treasury, *Selected Tax Policy Implications of Global Electronic Commerce* (22 Nov. 1996).

obsolete by electronic commerce. By contrast, almost all taxpayers are resident somewhere.'

Due to the parallel application of the source and residence principle, taxpayers that engage in cross-border transactions may be taxed more than once on the same amount of income. This phenomenon is known as juridical double taxation. Double taxation occurs in three basic forms of conflicts: (1) residence-residence; (2) residence-source; and (3) source-source. Residence-residence double taxation arises when a taxpayer is deemed a resident of more than one country and each state asserts the right to tax his worldwide income. Residence-source double taxation occurs when one country seeks to tax income on a residence basis and another country asserts the right to tax the same flow of income on a source basis. Finally, source-source double taxation exists when two countries consider a particular flow of income to have a domestic source. Relief from double taxation may be provided by domestic rules or, more frequently, by bilateral tax treaties by granting a credit to resident taxpayers for taxes paid to the foreign jurisdiction or by exempting the foreign source income.

As virtual exchanges frequently take place in a multijurisdictional context, it is necessary to examine whether profits from trade in virtual currencies may be taxed in more than one country. The following sections describe the source rules which may capture income of non-residents from virtual trade in the selected countries: the United States, the United Kingdom, Germany and the Netherlands. If such income is considered to be sourced in those countries, double taxation occurs as the residence country of the taxpayer will consider this income to be part of the taxpayer's unlimited tax liability.

5.6.2 Cross-border virtual trade

5.6.2.1 The United States

Non-residents are subject to US income tax in one of two ways. If they are not engaged in a trade or business within the United States, they are subject to 30% tax on their passive US source fixed or determinable annual or periodic (FDAP) income.[689] Non-resident individuals who are engaged in business activities in the United States are subject to federal income tax on income that is effectively connected with the conduct of a US trade or business.[690]

Dealings in virtual currencies are likely to fall in the second category (trade or business) as they do not generate income of a periodical nature similar to dividends, interest or royalties. Neither the IRC nor the Treasury Regulations

689 Sec. 871(a) of the IRC.
690 Sec. 871(b) of the IRC.

define the term "trade or business". According to the case law, a non-resident individual is deemed to be engaged in a trade or business in the United States if his US activities are conducted on a regular, substantial and continuous basis for the purpose of earning a profit.[691] This determination is to be made on the basis of the facts and circumstances in each case.[692] To determine whether there is a US trade or business, the degree of both quality and quantity of contacts with the United States must be considered. Casual sales of inventory property do not constitute engaging in a trade or business, absent special circumstances.[693] Neither does searching for business opportunities.[694] An important element is the relative importance of the US trade or business activity to taxpayer's other activities.[695]

It should be noted that the trade or business standard differs from the permanent establishment standard defined in article 5 of the US and the OECD Model since a US trade or business does not require an office, place of business or any other physical facility. A foreign taxpayer may be deemed to be engaged in a trade or business in the United States, but such trade or business may not reach the level of a permanent establishment.

To establish the effective connection of a non-resident's income, a different set of rules applies to income from US and foreign sources. Income from US business activities is always regarded as effectively connected income.[696] Income from foreign sources is effectively connected with US trade or business if the taxpayer has office or other "fixed place of business" within the United States and the income is attributable to that office (i.e. the office is a material factor in the production of the income and the type of activity from which the income is derived is regularly carried out at that office).[697]

In view of the different rules for the US and foreign source business income, the key question is to determine the source of income from virtual exchanges – income that exists only in the cyberspace and crosses no physical borders. The US sourcing rules are laid down in sections 861-865 of the IRC. The list includes special provisions for: dividends, interest, royalties, personal services, capital gains, as well as income from transportation, space or ocean activities, international communications, insurance underwriting and social security

691 L. Lokken, *Income Effectively Connected with U.S. Trade or Business: A Survey and Appraisal* sec II.A, Taxes – The Tax Magazine (Mar. 2008).

692 Treas. Reg. 1.864-2(e).

693 *See,* for example, *Linen Thread Co. v. Commissioner*, 14 T.C. 725 (1950) (holding that two unplanned and unsolicited US sales by a foreign corporation resulting in a profit of about USD 150 did not constitute engaging in a trade or business in the United States).

694 F.R. Chilton, *Income Effectively Connected with a United States Trade or Business or Attributable to a Permanent Establishment*, 5 Hastings Intl. & Comp. L. Rev. 497, p. 504 (1981-1982).

695 Id., at p. 498 et seq.

696 Treas. Reg. 1.864-4(b). In contrast, US source FDAP income is effectively connected with a US trade or business if an actual connection under the asset use test or the business activities test is deemed to exist.

697 Sec. 864(c)(5)(B) of the IRC.

benefits. The source rules follow two principles: some trace the economic origin of income and identify the location where the economic benefits are generated,[698] whereas others apply purely formal criteria.[699] These formal rules are applied to specific types of income, the economic sources of which are either difficult to locate or easily manipulated by the taxpayer. The list of source rules in the IRC is not comprehensive. There are many types of income for which there is no specific source rule, such as income from gambling.

As there are no special source rules that would apply explicitly to virtual exchanges, income from such exchanges must be compared to other categories of income and the category it resembles most should be applied. One could argue that such income could be characterized, by analogy, as either income from the provision of services or capital gains. Should non-tax law conclude that virtual items cannot be property, the rule on services will apply. If virtual items are property, the rules on capital gains must be followed.

Income from personal services is sourced where those services are performed.[700] The relevant personal services consist of transferring a virtual item that improves the recipient's position within the online environment. Such services are performed by the seller at his location. The location of the server where the virtual currency or items are stored should not relevant for the application of the sourcing rules. Such location is usually not known both to the seller and to the buyer, and neither does it change the way the transaction is executed. The Treasury Department acknowledged that the use of a server "is not a sufficiently significant element in the creation of (...) income to be taken into account for purposes of determining whether a US trade or business exists."[701]

Gains from sales of personal property for a fixed price are sourced according to the residence of the seller.[702] A special rule exists for income from the sale of inventory property[703] that the taxpayer purchased: such income is sourced where the property is sold.[704] The Treasury Regulations prescribe that a sale of property is "consummated at the time when and the place where,

698 For example, royalties are sourced according to the location of the use of the intangible and gains from disposition of real property interests – according to the location of the property.

699 For example, dividends are sourced according to the payor's place of incorporation.

700 Sec. 862(a)(3) of the IRC.

701 US Treasury, *Selected Tax Policy Implications of Global Electronic Commerce* (22 Nov. 1996).

702 Sec. 865(a) and (d) of the IRC.

703 Inventory property is defined as: "stock in trade of the taxpayer or other property of a kind which would properly be included in the inventory of the taxpayer if on hand at the close of the taxable year, or property held by the taxpayer primarily for sale to customers in the ordinary course of his trade or business". *See* sec. 1221(a)(1) and 865(i) of the IRC.

704 Income from the sale of inventory property that the taxpayer produced in the United States and sold outside the United States (or vice versa) is partly from sources in the United States and partly from sources outside the United States. For income allocation rules, *see* Treas. Reg. 1.863-3.

the rights, title, and interest of the seller in the property are transferred to the buyer. Where bare legal title is retained by the seller, the sale is deemed to have occurred at the time and place of passage to the buyer of beneficial ownership and the risk of loss" (the title passage rule).[705] The place of title passage is determined by the commercial law, absent an agreement between the parties.[706] Under the Uniform Commercial Code (UCC), title passes to the buyer at the place at which the seller completes his performance with reference to the physical delivery of the goods.[707]

In the case of sale of community-related virtual items and currencies by non-residents to US taxpayers, no legal title passes to the customers from a commercial law standpoint as the world operator remains the owner of the items. By analogy, the decisive event could be the transfer of the actual power to dispose of an item. It occurs when the seller sends the item to the buyer. The seller completes the transaction at his location as this is the place where the transaction is arranged and the "send" instruction is given.

As income from virtual exchanges bears unique traits, is characterized by global reach and an expanding market, it is worthwhile to look at the source rule for income from space and certain ocean activities. Under this rule, the source of such income is determined by the residence of the taxpayer deriving it.

As shown above, no matter which source rule is applied, income from virtual exchanges is always sourced at the location of the non-resident seller. Double taxation stemming from the source-residence conflict will not occur. Sourcing the income in the jurisdiction of the seller is also the technically correct solution as it takes into account the place where the primary economic activity giving rise to the income takes place. The human and physical capital that produced the income is located at the place of the seller. This solution also takes into account practical considerations. Due to the anonymous nature of Internet transactions, it is often difficult, or even impossible, to determine the consumer's location. Although in theory it may be possible to trace the path of Internet communications, theory and reality are, unfortunately, not always easily reconciled.

Finally, it is important to note that the problems related to the determination of the jurisdiction to tax business income do not appear if there is a tax treaty in place. Tax treaties concluded by the United States generally provide that industrial or commercial profits of a resident of the other country should be exempt from tax by the United States unless the resident of the other country is engaged in business activity through a permanent establishment situated in the United States and the profits are attributable to such this

705 Treas. Reg. 1.861-7.

706 In 1986, Congress repealed the title passage rule applicable to non-inventory property realizing the ease with which taxpayers could manipulate it.

707 Sec. 2-401 of the UCC.

permanent establishment. Since virtual trade does not give rise to permanent establishments, the state of residence will have the exclusive taxing rights over business profits in treaty situations,

5.6.2.2 The United Kingdom

UK tax law characterizes income from trade in virtual currencies as trading income, miscellaneous income or capital gains. This section examines under what circumstances those categories of income are taxed in the hands of non-residents.

Non-residents are subject to UK tax on profits from trading in the United Kingdom. As there are no statutory provisions on when trade is conducted within the country,[708] it is necessary to search for guidance in the voluminous case law and administrative guidelines. The earliest cases on whether trades were carried out in the United Kingdom were settled in the late 19th century when business methods were far less complex than nowadays. Many of the early tax cases placed great reliance on whether contracts, usually for the sale of goods, were made in the United Kingdom. *Erichsen v. Last* (1881),[709] an important Court of Appeal decision concerning whether trade was exercised in the United Kingdom by reference to the place of contract, stated: "wherever profitable contracts are habitually made in England by or for a foreigner with persons in England, (…) such foreigners are exercising a profitable trade in England, although everything done by or supplied by them in order to fulfil their part of the contract is done abroad." Under contract law, the place of contract is the same as the buyer's location when he receives the seller's acceptance of the offer. This applies irrespective of the medium by means of which the contract is concluded.[710]

In later judgments, the courts began to place less emphasis on the place of contract. In *Smidth & Co v. Greenwood* (1921), Lord Atkin commented that:[711] "The contracts in this case were made abroad. But I am not prepared to hold that this test is decisive. I can imagine cases where a contract of resale is made abroad, and yet the manufacture of the goods, some negotiation of the terms, and complete execution of the contract take place here under such circumstances that the trade was in truth exercised here. I think that the question is, where do the operations take place from which the profits in substance arise?" Thus, trade is exercised in the United Kingdom if a significant economic activity that contributes to the making of profits is performed

708 Brett LJ in *Erichsen v. Last* (1881) 8 QBD 414, 4 TC 422, held that: "I think it would be first of all nearly impossible and second wholly unwise to attempt to give an exhaustive definition of when a trade can be said to be exercised in this country".

709 *Erichsen v. Last* (1881) 8 QBD 414, 4 TC 422.

710 HMRC, *Non-residents trading in the UK: place of contract may not be decisive*, available at: www.hmrc.gov.uk/manuals/intmanual/INTM263050.htm.

711 *Smidth & Co v. Greenwood* (1921) 3 KB 583, 8 TC 193.

there. In order to determine that activity, it is important to identify the precise nature of the trade by the non-resident (a case-by-case determination).[712] The isolated activity of buying goods in the United Kingdom does not necessarily amount to trading in the United Kingdom.[713]

In the case of trade in virtual currencies and items, there are several locations that could be regarded as the place where significant profit-generating business activity takes place. The first one is the location of the buyer since the receipt of virtual items triggers the payment of the consideration which gives rise to profits. Another one is the location of the server on which the items or currency in question are stored. Finally, substantial business activity can take place at the location of the seller who arranges the transaction.

Although the consideration is an important element of the transaction, the act of payment cannot be regarded as its most substantial component. Rather, it should be viewed as a response to the online delivery of the purchased items by the seller. As explained in section 5.6.2.1, the place where the server operates does not affect the way in which the transaction is executed. The parties are usually not aware (and not interested) where the infrastructure supporting online environments is located. Thus, the place from which the non-resident seller operates is the one where substantial business activity is performed.

Gains accruing to non-residents are taxable as miscellaneous income if their source is in the United Kingdom.[714] The interpretation of "source in the United Kingdom" follows the same reasoning as that used to identify "trade in the United Kingdom". Therefore, the source of income from trade in virtual items and currencies is the location of the non-resident seller. Non-residents will not have UK source income from sales of virtual items and currencies to UK residents.

Finally, non-residents are subject to capital gains tax (CGT) only in respect of UK assets used for the purposes of a trade carried on in the United Kingdom through a branch or UK assets held for the purposes of the branch.[715] Due to the requirement of a UK branch, sales of virtual items and currencies by non-residents will have no CGT consequences in the United Kingdom.

5.6.2.3 Germany

Exchanges involving virtual currency can give rise to either business or miscellaneous income (in the form of capital gains from disposal of private assets) in the hands of resident taxpayers. The categories of income which are subject

712 HMRC, *Non-residents trading in the UK: place of contract may not be decisive*, available at: www.hmrc.gov.uk/manuals/intmanual/INTM263050.htm.
713 *Sulley v. Attorney General* (1860) 5 H&N 711, 2 TC 149.
714 Tiley, *UK Tax Guide*, *supra* n. 436, at sec. 18.12.
715 Sec. 10 of the TCGA 1992.

to German tax in the hands of non-resident individuals are listed in section 49 of the EStG. They include: income from a business conducted in Germany through a permanent establishment or permanent representative[716] and capital gains from the disposal of real estate and immovable property rights.[717] As the right to tax non-residents depends on a physical presence or possession of real estate within the country territory, sales of virtual items and currencies by non-residents will have no tax consequences in Germany.[718]

5.6.2.4 The Netherlands

In the Netherlands, virtual activities may result in business income, miscellaneous income or savings income. Non-resident individuals are liable to Dutch income tax on income enumerated in section 7.1 of the IB (*binnenlands inkomen*), which includes income from labour and dwelling (Box 1), income from a substantial shareholding in a company (Box 2) and income from savings and investments (Box 3). Sections 7.2-7.4 of the IB provide details on what type of income of non-residents is taxed within each box.

Business income derived by non-residents is taxable in the Netherlands if the non-resident has a permanent establishment or permanent representative there.[719] The term "permanent establishment" is not defined in statutory law. According to case law, it means: a physical place with a certain degree of permanence at the disposal of a non-resident.[720] Miscellaneous income of non-residents is subject to tax if activities of the taxpayer are carried out mainly in the Netherlands or the assets used to generate income are located there.[721] Under Box 3, non-residents are taxed on their Dutch assets (*Nederlandse bezittingen*), which include Dutch real estate and immovable property rights, and shareholdings in a Dutch company.

As the right to tax non-residents depends on physical presence, performance of activities or possession of real estate within the country territory, sales of virtual currencies and items by non-residents will have no tax consequences in the Netherlands.

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716 Sec. 49 (1) No. 2 of the EStG. The term "permanent establishment" is defined as any fixed place of business or facility serving the business of an enterprise (sec. 12 of the General Tax Code).

717 Sec. 49(1) No. 8 of the EStG.

718 The use of processing capabilities of servers located in Germany by non-residents does not give rise to a permanent establishment. According to paragraph 42.2 of the OECD Model: Commentary on Article 5 (2010), a distinction needs to be made between computer equipment, which may be set up at a location so as to constitute a permanent establishment, and the data and software which is stored on that equipment. As electronic data does not in itself constitute tangible property, it cannot have a location that can constitute a place of business.

719 Sec. 7.2(2a) of the IB.

720 Niessen, *supra* n. 612, at sec. 14.2.2.

721 Id., at sec. 14.2.2; HR, 12 July 2013, BNB 2013/259.

5.6.3 Conclusions

Cross-border virtual activities do not bear any risk of double taxation. The examination of the source rules of the United Stated, the United Kingdom, Germany and the Netherlands showed that those countries do not tax non-residents who engage in virtual trade with residents of those countries.