The CISG's scope of application ratione materiae with regard to software transactions

Nataša Vujinović*

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A. Introduction

The United Nations Convention on Contracts for International Sale of Goods (hereinafter the "CISG" or "the Convention") is a treaty developed by the United Nations Commission on International Trade Law (UNCITRAL) and signed in Vienna in 1980. The primary purpose behind developing the CISG was to provide a uniform legal regime for international contracts concerning the sale of goods and thereby create legal certainty in international trade.[1] This pursued objective can be considered as largely attained as the Convention has been ratified by 83 countries until 1 October 2014.[2]

The CISG's sphere of application *ratione materiae* is limited to contracts for the sale of goods according to Article 1(1). However, the Convention neither defines the notion of

* Nataša Vujinović, LL.B. Faculty of Law, University of Banjaluka, Bosnia and Herzegovina, LL.M. in Europäischen Wirtschaftsrecht/Business Law, Foreign Trade and Investment and International Dispute Resolution, Europa-Institut, Saarland University, Germany. Research Associate at the Europa-Institut of Saarland University, Germany.

1 UNCITRAL, UNCITRAL Digest of Case Law on the United Nations Convention on Contracts for the International Sale of Goods, 2012, Introduction, Note by the Secretariat, § 1.

2 The list of parties to the CISG is available at www.uncitral.org/uncitral/en/uncitral_texts/sale_goods/1980CISG_status.html (1/10/2014).

goods nor does it provide a definition of a sales contract.[3] Yet again, both terms should be determined by means of autonomous interpretation of the Convention itself, without referring to national legal systems.[4] Regarding the notion of a sales contract, it can be deduced from the obligations of the parties to such a contract, regulated in Articles 30 and 53 CISG.[5] Those provisions imply that under the Convention, a sales contract is a reciprocal contract, where the seller is obliged to deliver the goods and transfer the property in the goods and the buyer has the obligation to accept the goods and pay the agreed price. Yet again, explicit definitions are not provided by the Convention. Nonetheless, Articles 2 and 3 CISG help to further determine the notion of contracts for the sale of goods under the Convention by excluding certain types of sales contracts as well as certain items from its substantive scope of application. Thus, consumer sales, sales by auction, sales on execution or otherwise by authority of law, sales of stocks, shares, investment securities, negotiable instruments or money, sales of ships, vessels, hovercraft or aircraft, sales of electricity (Article 2 CISG), sales of goods to be manufactured or produced where the buyer supplies the substantial part of the materials necessary for such production (Article 3(1) CISG) and contracts in which the preponderant part of the obligations of the party furnishing the goods consists in the supply of services (Article 3(2) CISG) are not governed by the Convention.

However, the exclusions provided by the Convention do not completely solve the question of its application. Instead, some other types of contracts, such as licenses, as well as goods that in certain aspects differ from the traditional understanding of the characteristics of goods raise doubts regarding the CISG's applicability. Perhaps the most disputed question concerning the material scope of application of the Convention is whether it is applicable to software transactions, as at the time of drafting the Convention, due to the stage

3 See *Schwenzer/Hachem*, in: Schlechtriem/Schwenzer (eds.), Commentary on the UN Convention on the international sale of goods (CISG), 3rd ed. 2010, Article 1, para. 8; *Ferrari/Flechtner/Brand*, The Draft UNCITRAL Digest and Beyond: Cases, Analysis and Unresolved Issues in the U.N. Sales Convention, 2004, p. 58; *Westermann*, in: Säcker/Rixecker (eds.), Münchener Kommentar zum BGB, Vol. 3, Wiener Übereinkommen über Verträge über den internationalen Warenverkauf (CISG), 6th ed. 2012, Article 1, para. 6; *Mistelis*, in: Kröll/Mistelis/Perales Viscasillas (eds.), UN Convention on Contracts for the International Sale of Goods (CISG), 1st ed. 2011, Article 1, para. 2; *Magnus*, in: Staudingers Kommentar zum BGB, Wiener UN-Kaufrecht (CISG), 1999, Article 1, para. 4. Also acknowledged in case law e.g. Appellate Court Vaud of 11/3/1996, 01 93 1061, *Aluminum Granules Case*; District Court Padova of 11/1/2005, *Ostroznik Savo v. La Faraona soc. coop. a.r.l.*; Austrian Supreme Court of 10/11/1994, 2 Ob 547/93, *Chinchilla Furs Case*.

4 Accord *Magnus*, (fn. 3), Article 1, para. 4; *Reinhart*, UN-Kaufrecht, Kommentar zum Übereinkommen der Vereinten Nationen vom 11. April 1980 über Verträge über den internationalen Warenkauf, 1991, Article 1, para. 1.

5 See UNCITRAL, (fn. 1), Article 1, para. 21; *Calvo Caravaca*, in: Diez-Picazo y Ponce de Leon (ed.), La compraventa internacional de mercaderias, Comentario de la convencion de Viena, 1998, Article 1, p. 47; *Neumayer/Ming*, in: Dessemontet (ed.), Convention de Veinne sur les contracts de vente international de marchandises, Commentaire, 1993, Article 1, para. 1; *Westermann*, (fn. 3), Article 1, para. 6; *Mistelis*, (fn. 3), Article 1, para. 25; District Court Forli of 16/2/2009, *Cisterns and Accessories Case*; District Court Rimini of 26/11/2002, 3095, *Al Palazzo S.r.l. Case*; Appellate Court Jura of 03/11/2004, Ap 91/04, *Building Materials Case*.

of technological progress, the applicability of the CISG to such transactions was not discussed.[6]

The aim of this paper is to analyze the CISG's scope of application *ratione materiae* to software transactions. The first part elaborates on whether software could be seen as a good in terms of the CISG, shedding some light on notions of movability and tangibility as well as the differentiation between standard and customized software. The second part of this paper analyzes the question whether software transactions may be considered sales contracts by addressing Articles 1(1), 2(a) and 3 CISG as well as licensing agreements.

B. Software under the CISG

Software in the sense of this paper should be understood as the combination of data and machine-readable instructions to operate the computer-processor, enabling it to perform certain functions;[7] thus this paper will not address the software at the stage of a mere idea before being translated in a computer-readable language. As already mentioned, at the time of drafting, the applicability of the CISG to software transactions was not discussed. Nowadays, software transactions are very common − yet, there is no international contract law specifically intended for software transactions. Since software includes the features of goods, services and intellectual property, the CISG's applicability to such transactions is to be examined.[8]

I. Software as a good in terms of the CISG

Both legal doctrine and jurisprudence have already considered some software transactions to be governed by the CISG. However, the question is not answered unanimously. Some are of the opinion that only standard software incorporated on a tangible medium is subject to the CISG.[9] Others however either do not regard the incorporation on a tangible medium

6 Accord *Diedrich*, The CISG and Computer Software Revisited, Vindobona Journal of International Commercial Law and Arbitration 6 (2002), Supplement, p. 55; *Sono*, The Applicability and Non-Applicability of the CISG to Software Transactions, in: Andersen/Schroeter (eds.), Sharing International Commercial Law across National Boundaries: Festschrift for Albert H. Kritzer, 2008, p. 512.

7 Compare *Green/Saidov*, Software as goods, Journal of Business Law 2007, p. 161; *Lookofsky*, Undertanding the CISG, 4th ed. 2012, p. 19; *Larson*, Applying Uniform Sales Law to International Software Transactions: The Use of the CISG, its Shortcomings, and a Comparative Look at how the proposed UCC Article 2B would remedy them, Tul. J. Int'l & Comp. Law 5 (1997), p. 453.

8 Accord ibid.

9 See *Ferrari*, in: Schlechtriem/Schwenzer (eds.), Kommentar zum einheitlichen UN-Kaufrecht, CISG, 6th ed. 2013, Article 1, para. 38.

as a requirement,[10] do not distinguish between standard and customized software[11] or even consider both characteristics irrelevant.[12]

1. Software as a movable and tangible item

Regarding the traditional definition of goods as tangible and movable objects, it is the tangibility characteristic that is far more disputed in the case of software. As far as movability is concerned, all indicators of a matter's movability are present:[13] it is possible to move software from one to another hardware, it can be deleted from its source and no material damage to the host object occurs when moving it from one piece of hardware to another.

As far as tangibility is concerned, completely contradicting opinions are present. Some claim that the CISG poses no tangibility requirement;[14] whereas the majority advocates the opposite. The existence of the tangibility requirement is based on the fact that a number of Convention's provisions, despite the CISG not explicitly stating, clearly envisage goods as being tangible. Expressions such as "handing over" in Article 31(a) CISG or "passing of risk" in Article 36 CISG suggest such interpretation.[15]

It is the author's opinion that the term tangible should be "updated" and understood in a broader way to accommodate the digital era. Software fulfills the tangibility requirement in any case. Namely, it is well-established that software delivered in conjunction with hardware, a clearly tangible and moveable object, is categorized as a good.[16] Technological progress has led to the unbundling of hardware and software, making the software no more an incidental part of hardware but a separate item obtainable on its own. Nonetheless, no distinction should be made between hardware and software, since both are corporeal, different only in terms of size.[17] Furthermore, software which is downloaded, it is a good in

10 See *Magnus*, (fn. 3), Article 1, para. 44 advocating the applicability of the CISG to standard software irrespective whether on a tangible medium or downloaded.

11 See *Piltz*, Internationales Kaufrecht, Das UN-Kaufrecht in praxisorientierter Darstellung, 2nd ed. 2008, p. 32, para. 2-31; *Diedrich*, Maintaining Uniformity in International Uniform Law via Autonomous Interpretation: Software Contracts and the CISG, Pace International L. Rev. 8 (1996), p. 335; *Schwenzer/Hachem*, (fn. 3), Article 3, para. 3.

12 E.g. *Lookofsky*, (fn. 7), p. 20; *Schmitt*, Intangible Goods als Leistungsgegenstand internationaler Online-Kaufverträge, 2003, p. 61.

13 *Green/Saidov*, (fn. 7), p. 167 et seq. See *Zohur*, Acknowledging information technology under the Civil Code: Why software transactions should not be treated as sales, Loy. L. Rev 50 (2004), p. 469 et seq. considering software as neither movable nor immovable.

14 *Diedrich*, (fn. 6), p. 64; *Lookofsky*, In Dubio pro Conventione?, Some Thoughts about opt-outs, Computer Programs and Preemption under the 1980 Vienna Sales Convention (CISG), Duke Journal of Comparative & International Law 13 (2003), p. 274; *Schmitt*, (fn. 12), p. 49.

15 See *Schlechtriem/Butler*, UN Law on International Sales, The UN Convention on the International Sale of Goods, 2009, p. 31, para. 32a.

16 See e.g. Commercial Court Zurich of 17/2/2000, HG 980472, *Computer Software and Hardware Case*; District Court Munich of 29/5/1995, 21 O 23363/94, *Computer Hardware Case*; District Court Heidelberg of 3/7/1991, O 42/92 KfH I, *Computer Components Case*.

17 *Green/Saidov*, (fn. 7), p. 165.

terms of the CISG[18] as it is tangible in the sense that even in the case of an electronic download, it still has a corporeal form because it exists as a series of electrical pulses.[19] The fact that these electrical pulses are in miniscule form proves irrelevant, for "[i]n defining tangible, 'seen' is not limited to the unaided eye, 'weighed' is not limited to the butcher or bathroom scale, and 'measured' is not limited to a yardstick".[20]

2. The irrelevance of the mode of delivery of software

Regardless of the mode in which the software is delivered, this author supports the view that software should be classed as a good in terms of the CISG.[21] Such a conclusion is underlined by the fact that no reasonable person would expect software delivered on a tangible medium and software downloaded online to be treated any differently. It could be counter-argued that the legal scope of the Convention cannot be disregarded for the sake of parties' intentions; however, such an argument could not stand as the CISG does not define the goods with regards to the mode in which the buyer obtains them.[22] Thus, the legal scope of the Convention would not be disregarded and the expectations of the parties would be acknowledged. Moreover, both contracts are contracts for the same purpose, i.e. delivery of software;[23] the computer user not being interested in the tangible medium but in the software itself.[24] Furthermore, downloaded software can subsequently be transferred to a tangible medium and even the software incorporated on a tangible medium is commonly not used while on a tangible medium but loaded onto a computer.[25] Thus, it would be nothing short of absurd to allow the chosen method of delivery to bear significant consequences for the parties' legal rights.[26]

However, the existence of an opposing opinion has to be pointed out. Namely, one author describes software as information and makes a differentiation of the type of contract in question due to the mode of the delivery of software. Namely, "software supplied online is a transaction of 'information' per se and can therefore only be a 'license', whereas soft-

18 See *Lookofsky*, (fn. 14), p. 277 et seq.; *Honnold*, Uniform Law for International Sales under the 1980 United Nations Convention, 3rd ed. 1999, p. 55.

19 *Green/Saidov*, (fn. 7), p. 166. For more detailed deliberations about the tangibility of software see *Green*, Can a digitized product be the subject of conversion?, Lloyd's Maritime and Commercial Law Quarterly 4 (2006), pp. 573-576.

20 Supreme Court of Louisiana of 17/10/1994, 94-C-0499, *South Central Bell Telephone Company*.

21 Accord *Schmitt*, (fn. 12), p. 61; *Lookofsky*, (fn. 14), p. 277 et seq.; *Magnus*, (fn. 3), Article 1, para. 44.

22 See ibid. The same approach with regard to software programs in particular, equating downloaded software with the one incorporated on a tangible medium, has been adopted by other legal provisions as well – the European Court of Justice has come to the same conclusion when interpreting the Directive 2009/24/EC; see ECJ, case C-128/11, *UsedSoft*, ECLI:EU:C:2012:407, para. 55 et seq.

23 See *Green/Saidov*, (fn. 7), p. 166.

24 Accord *Horovitz*, Computer Software as a Good under the Uniform Commercial Code: Taking a Byte out of the Intangibility Myth, B.U.L. Rev 65 (1985), p. 133.

25 See *Cox*, Chaos versus uniformity: the divergent views of software in the International Community, Business Law International 2000, p. 361; *Horovitz*, (fn. 24), p. 133.

26 Accord *Green/Saidov*, (fn. 7), p. 167.

ware supplied by physical copies can be either a 'sale' or a 'license'".[27] If one supports the view that software traded on a physical copy and that delivered online should receive the same treatment this would only hold true in case when both are licenses.[28] The same author contests the argument that, since the information can be recorded on a tangible medium, online software transactions are no different from transactions using physical copies. He further underlines that such a view does not only confuse the tangible media with intangible information but also overlooks the "most crucial point that the media is not transferred from one party to the other in online transactions. Neither is the information transferred from one party to the other. It is only 'copied', and no property (ownership) passes from the seller to the buyer",[29] leaving in his opinion no room for application of the Convention.

3. The same treatment for standard and customized software

Coming to the issue of standard and customized software, it should be pointed out that the Convention does not differentiate between standardized goods, produced for a broad pool of customers and obtainable off-the-shelf and customized goods, tailored to fit the needs of a specific buyer.[30]

Such a distinction does not marry with the principle set out in the only provision in the CISG dealing with made-to-order goods – Article 3(1) – and was improperly made by German courts which were influenced by their national law.[31] Article 3(1) CISG requires that the substantial part of the materials necessary for the production is provided by the seller in order for the Convention to be applicable. Therefore, it is in no point claiming that such goods cannot be tailor-made for the buyer. Furthermore, customized goods cannot be excluded from the Convention's scope of application by means of Article 3(2) CISG either, on reasons that a contract for purchase of customized goods involves preponderantly rendering services.[32] This is the case because any service-like element that goes into the

27 *Sono*, (fn. 6), p. 521. Considering software as information has been highly criticized by *Lookofsky*, (fn. 14), p. 276 on the grounds that it "fails to see the essential nature of the program as a 'machine' – a highly *functional* thing with complex parts that make it 'work'".

28 *Sono*, (fn. 6), p. 521.

29 Ibid.

30 See CISG Advisory Council Opinion No. 4, Contracts for the Sale of Goods to Be Manufactured or Produced and Mixed Contracts (Article 3 CISG) of 24/10/2004, Rapporteur *Perales Viscasillas*, No. 4.2; *Piltz*, (fn. 9), p. 32, para. 2-31; *Diedrich*, (fn. 11), p. 335; *Mistelis/Raymond*, in: Kröll/Mistelis/Parales Visacsillas, (fn. 3), Article 3, para. 5; *Schwenzer/Hachem*, (fn. 3), Article 3, para. 3; *Benicke*, in: Schmidt (ed.), Münchener Kommentar zum HGB, Vol. 5, book 4, CISG, 3rd ed. 2013, Article 3, para. 2.

31 See *Diedrich*, (fn. 11), p. 326 et seq. As case law examples see Appellate Court Cologne of 26/8/1994, 19 U 282/93, *Market Study Case*; District Court Munich of 8/2/1995, 8 HKO 24667/93, *Standard Software Case*.

32 Unfortunately, such examples are present. See e.g. District Court Munich of 16/11/2000, 12 HKO 3804/00, *Pizzaria Restaurant Equipment Case*; Austrian Supreme Court of 27/10/1994, 8 Ob 509/93, *Brushes and Brooms Case*; Appellate Court Cologne of 26/8/1994, 19 U 282/93, *Market Study Case*; *Piltz*, (fn. 11), p. 36, para. 2-42; *Fakes*, The Application of the United Nations Convention on Contracts for the International Sale of Goods to Computer, Software, and Database Transactions, Software L.J. 3 (1989-1990), p. 582.

manufacture or production of the good has to be considered under Article 3(1) and does not constitute a service in the sense of Article 3(2) CISG.[33]

As the Convention makes no differentiation between standardized and customized goods in general, such a distinction is irrelevant for software, too.[34] Despite the courts and scholars unfortunately making this distinction,[35] the right path has already been taken and customized software classed as a good.[36] Indeed, although "these days a tailor-made software transaction is likely to involve the adaptation of standard software to individual needs, [...] the value of the (intangible) creativity, technology, information and/or man-hours needed to produce a thing is irrelevant when considering whether or not that 'thing' is CISG 'good'".[37]

To conclude, standard software incorporated on a tangible medium is indisputably classed as a good in terms of the CISG and since no justifiable reason exists either for distinguishing between the modes of the delivery of software or between standard and customized software, there should be no obstacle to classing software in general as a good in terms of the CISG. It is in this author's opinion more problematic whether and in which circumstances software transactions can be considered sales contracts.

II. Software transactions as sales contracts

Software transactions should neither be *a priori* excluded from nor subjected to the CISG. Every transaction and all the accompanying circumstances should be analyzed on a case-by-case basis[38] under Articles 1, 2 and 3 CISG. Furthermore, the existence of a licensing agreement in lieu of a sales contract has to be taken into consideration since software is typically licensed to users to protect its value by controlling its use.[39]

33 For a detailed study see *Flechtner*, Issues Relating to the Applicability of the United Nations Convention on Contracts for the International Sale of Goods (CISG), U. of Pittsburgh Legal Studies Research Paper No. 2008-07, para. 60.6. See also UNCITRAL, (fn. 1), Article 3, para. 4; CISG Advisory Council Opinion No. 4, (fn. 30), No. 4.2; *Lookofsky*, (fn. 14), p. 275; *Schwenzer/Hachem*, (fn. 3), Article 3, paras. 3 and 5; *Huber*, in: Huber/Mullis, The CISG: a new textbook for students and practitioners, 2007, p. 48; *Schlechtriem/Butler*, (fn. 15), p. 26, para. 27a; *Benicke*, (fn. 30), Article 3, para. 10.

34 For further information see *Green/Saidov*, (fn. 7), p. 171 et seq.

35 See *Magnus*, (fn. 3), Article 1, para. 44; *Mowbray*, The Application of the United Nations Convention on Contracts for the International Sale of Goods to E-Commerce Transactions: The Implications for Asia, Vindobona Journal of International Commercial Law & Arbitration 7 (2003), p. 128; Appellate Court Cologne of 26/8/1994, 19 U 282/93, *Market Study Case*; District Court Munich of 8/2/1995, 8 HKO 24667/93, *Standard Software Case*. In case of interest, a detailed study of the treatment of software under the German law, which inappropriately transported such a differentiation into the CISG, is provided by *Diedrich*, Autonome Auslegung von Internationalem Einheitsrecht: Computersoftware im Wiener Kaufrecht, 1994, pp. 198-222.

36 See Appellate Court Koblenz of 17/9/1993, 2 U 1230/91, *Computer Chip Case*; Austrian Supreme Court of 21/6/2005, 5 Ob 45/05m, *Software Case*.

37 *Lookofsky*, (fn. 7), p. 20, fn. 71. Accord *Mistelis/Raymond*, (fn. 30), Article 3, para. 24.

38 Accord *Fakes*, (fn. 32), p. 586.

39 See *Beckerman-Rodau*, Computer Software: Does Article 2 of the Uniform Commercial Code Apply?, Emory Law Journal 35 (1986), p. 862.

1. Analysis under Article 2(a) CISG

To begin with, any kind of software transaction falls outside of the scope of the CISG by virtue of Article 2(a) if it occurred for purposes of personal, family or household use, unless the seller, at any time before or at the conclusion of the contract, neither knew nor ought to have known about any such use.[40]

When determining the application of the CISG the only criteria to be taken into account are the intention with which the goods are bought and the other party's knowledge of such an intention. Evidently, the intended use at the moment of the conclusion of the contract is decisive, not the actual use, which could later potentially change.[41] As a consequence and for the sake of legal certainty at the moment of the conclusion of the contract, the Convention will not apply to the goods intended for personal use even in the case they are later used for commercial purposes.[42] Furthermore, the objects must be exclusively intended for personal, private use.[43] Thus, the CISG would be applicable e.g. when the personal use is a primarily purpose of the purchase, but not the only and exclusive one.[44]

Article 2(a) CISG furthermore, for reasons of legal certainty regarding seller's knowledge of the applicable law at the moment of the conclusion of the contract, requires that the intention of personal use must be discernible at any time before or at the conclusion of the contract, rendering any subsequent awareness of the personal use pointless.[45] The perception requirement is a counter-exception,[46] as for when the seller neither knew nor ought to have known that the goods were bought for personal use, the intention to acquire them

40 For examples of software encompassed by Article 2(a) CISG see *Fakes*, (fn. 32), p. 583. Due to the limited scope of this paper, it will not elaborate in detail on the prerequisites of Article 2(a) CISG. For further analysis see *Spohnheimer*, in: Kröll/Mistelis/Parales Viscasillas, (fn. 3), Article 2, para. 6-20; *Westermann*, (fn. 3), para. 4-6; *Schwenzer/Hachem*, (fn. 3), Article 2.

41 Accord *Magnus*, (fn. 3), Article 2, para. 11; *Spohnheimer*, (fn. 40), Article 2, para. 10.

42 See *Hilberg*, Die autonome Anwendbarkeit des UN-Kaufrechts auf moderne Geschäftsfelder, Methodik und Weiterentwicklung nach Art. 7 Abs. 1 CISG, 2007, p. 111 on why the intention criterion enables more legal certainty than the actual use.

43 *Schwenzer/Hachem*, (fn. 3), Article 2, para. 7; *Westermann*, (fn. 3), Article 2, para. 4; *Magnus*, (fn. 3), Article 2, para. 17; Supreme Court of Finland of 14/10/2005, KKO 2005:114, *Log House Case*; District Court Copenhagen of 19/10/2007, *Pony Case*.

44 Acknowledged by the fact that "during the drafting process a proposal was rejected to exclude even those sales of goods bought 'primarily' for personal use". *Ferrari/Flechtner/Brand*, (fn. 3), p. 85.

45 See UNCITRAL Secretariat, Guide to CISG Article 2, No. 4; *Spohnheimer*, (fn. 40), Article 2, paras. 16 and 20; *Ferrari/Flechtner/Brand*, (fn. 3), p. 86; *Magnus*, (fn. 3), Article 2, para. 26; *Hilberg*, (fn. 42), p. 113.

46 See *Schwenzer/Hachem*, (fn. 3), Article 2, para. 8; *Spohnheimer*, (fn. 40), Article 2, para. 15; *Ferrari*, (fn. 9), Article 2, para. 15.

for such a use proves irrelevant;[47] thus, the CISG is in such cases applicable even to consumer sales.[48]

It is very difficult to estimate whether the seller could have been aware of the buyer's intention regarding the use of goods or not. Such an intention of personal use is to be considered discernible and evident if a reasonable third person under the same circumstances would have recognized it (Article 8 CISG).[49] Regarding the burden of proof, when invoking the applicability of the Convention it is up to the party claiming the applicability of the CISG to prove that the seller neither knew nor ought to have known about the purpose of the purchase.[50]

Determining that a transaction in question is made for consumption purposes and proving the discernibility may be considerably difficult in any case and regarding downloaded software additional difficulties may arise. Namely, downloaded software can be unilaterally downloaded by the buyer agreeing to previously prescribed terms, not individually negotiated and without giving the seller even the possibility of having at least an indication of the intended use.[51] To avoid the legal uncertainty connected with being unable to determine buyer's intended use, the seller could expressly exclude the Convention. If that is not the case and the examination under Article 2(a) CISG is futile, further analysis of the whole transaction is necessary.

2. Analysis under Article 3(1) CISG

Regarding the analysis under Article 3 CISG, first, paragraph (1) should be applied.[52] Article 3(1), dealing with made-to-order goods, excludes the application of the CISG in cases of the buyer supplying the substantial part of the materials necessary for the production.

Thus, the CISG does not require the goods to be ready-made nor does it exclude the sale of future goods *per se*; it sets up a condition of buyer supplying the "substantial part" of the "necessary materials" to exclude the contracts which are more similar to contracts for the supply of services than to contracts for the sale of goods.[53]

The first question one is confronted with when analyzing contracts for the sale of goods to be manufactured or produced is what actually qualifies as a substantial part. Regarding

47 See e.g. German Federal Supreme Court of 31/10/2001, VIII ZR 60/01, *Machinery Case*; German Federal Supreme Court of 9/1/2002, VIII ZR 304/00, *Powdered Milk Case*; Appellate Court Stuttgart of 31/3/2008, 6 U 220/07, *Automobile Case*, where the court applied the CISG to the contract stating that the seller was "entitled to assume that the buyer intended to purchase the car for professional purposes (Article 2(a) CISG). Even though the seller did not know the legal form of the buyer at this point in time, it was obvious that the buyer acted as a business company".

48 Accord *Ferrari*, (fn. 9), Article 2, para. 15; *Magnus*, (fn. 3), Article 2, para. 20.

49 *Spohnheimer*, (fn. 40), Article 2, para. 17.

50 Accord *Ferrari/Flechtner/Brand*, (fn. 3), p. 87.

51 See *Mowbray*, (fn. 35), p. 133 et seq.

52 *Larson*, (fn. 7), p. 450.

53 See e. g. Austrian Supreme Court of 22/11/2011, 4 O 159/11b, *Video Surveillance System Case*. For how the European Court of Justice dealt with the differentiation between contracts for the sale of goods and contracts for the supply of services as well as how it considered contracts for the sale of goods to be manufactured or produced under the community legislation and following the solutions offered by the CISG see ECJ, case C-381/08, *Car Trim*, Rec. 2010, I-1255.

its determination, there are opinions based on economic value approach;[54] the essence criterion[55] and the case-by-case determination.[56] Those criteria are used both in doctrine and in jurisprudence either on their own or cumulatively or successively;[57] depending on personal preferences.

As far as the economic value criterion is concerned, there have been different attempts to determine a percentage of material's value contributed by the buyer in relation to the total materials used. This percentage criterion would be required to be fulfilled in order for the Convention to become inapplicable. It is to be emphasized that the value of the materials contributed by the buyer should be compared with the value of the ones from the seller[58] – both taken at the moment of the conclusion of the contract[59] – not with the value of the end product.[60] The advocated percentages vary from 15 % to 50 % or even more.[61] However, it is supported here that there should be no fixed percentage established.[62] In this author's opinion establishing a fixed percentage would lead to inflexibility, forcing certain outcomes in case of certain percentages, instead of taking all the circumstances of the case into account for determining the "substantial part".

It is also advocated that the substantial part should be determined on the grounds of the essential nature of the contributed materials for the end products.[63]

Considering the relationship between the two approaches, the CISG Advisory Council Opinion suggests that the economic value approach should prevail. The essentiality one should be acknowledged in case of the economic criterion being "impossible or inappro-

54 See *Honnold*, (fn. 18), p. 57; *Westermann*, (fn. 3), Article 3, para. 4; *Benicke*, (fn. 30), Article 3, para. 4.

55 See Appellate Court Frankfurt of 17/9/1991, 5 U 164/90, *Shoes Case*; Appellate Court Munich of 3/12/1999, 23 U 4446/99, *Window Production Plant Case*; Appellate Court Grenoble of 21/10/1999, 97/03974, *Calzados Magnanni v. Shoes General International*.

56 So *Huber*, (fn. 33), p. 45; *Ferrari*, (fn. 9), Article 3, para. 8.

57 For more information see *Schwenzer/Hachem*, (fn. 3), Article 3, para. 6. See also *Mistelis/Raymond*, (fn. 30), Article 3, para. 8.

58 See *Magnus*, (fn. 3), Article 3, para. 14; *Neumayer/Ming*, (fn. 5), Article 3, para. 3; *Schwenzer/Hachem*, (fn. 3), Article 3, para. 7; *Benicke*, (fn. 30), Article 3, para. 4; *Caffarena Laporta*, in: Diez-Picazo y Ponce de Leon, (fn. 5), Article 3, p. 69; *Westermann*, (fn. 3), Article 3, para. 3.

59 See *Magnus*, (fn. 3), Article 3, para. 18; *Caffarena Laporta*, (fn. 58), Article 3, p. 69; *Westermann*, (fn. 3), Article 3, para. 4; *Benicke*, (fn. 30), Article 3, para. 6.

60 As suggested by e.g. *Lorenz*, in: Witz/Salger/Lorenz, International Einheitliches Kaufrecht, Praktiker-Kommentar und Vertragsgestaltung zum CISG, 2000, Article 3, para. 3; *Siehr*, in: Honsell, Kommentar zum UN-Kaufrecht, Übereinkommen der Verinten Nationen über die Verträge über den Internationalen Warenkauf (CISG), 1997, Article 3, para. 3 or Commercial Court Zurich of 8/4/1999, HG 980280.1, *Windmill Drives Case*. The value of the end product is not to be considered because it encompasses also the value of services provided by the seller.

61 *Honnold*, (fn. 18), p. 57 stating that "[i]t seems that a tribunal might well conclude that 15 % is 'substantial'". *Benicke*, (fn. 30), Article 3, para. 4a advocating at least around 33.3 %. However, the majority considers approximately 50 % to be the threshold, e.g. *Magnus*, (fn. 3), Article 3, para. 16; *Lorenz*, (fn. 60), Article 3, para. 3. Still, CISG Advisory Council Opinion No. 4, (fn. 30), No. 2.10 states that even "the 50 % figure may be too low".

62 Accord ibid., No. 2.9; *Huber*, (fn. 33), p. 45.

63 See *Ferrari*, (fn. 9), Article 3, para. 8; Appellate Court Munich of 3/12/1999, 23 U 4446/99, *Window Production Plant Case*; Appellate Court Grenoble of 21/10/1999, 97/03974, *Calzados Magnanni v. Shoes General International*.

priate to apply".[64] This author would instead suggest analyzing both economic value of the contributed materials and their essential and necessary nature for the production of the good for determining whether the contributed materials form the substantial part or not; thus, supporting the cumulative approach, which would take into account all the relevant circumstances and enable a comprehensive case-by-case analysis and decision.

However, the question of substantial part is not the only one to answer with regard to Article 3(1) CISG. Concerning the meaning of the "necessary materials", they have to be the materials required for the manufacture or production of the good itself, not the materials serving some subsidiary purposes, such as the packaging of the good.[65]

It is furthermore highly disputed which interpretation of the term "materials" is to be followed when one is concerned with software. Many are of the opinion that materials are only traditional tangible raw materials.[66] However, in this author's opinion such an approach cannot be followed. Software is not a traditional item made only out of the traditional raw materials. When Article 1(1) CISG is correctly interpreted broadly and software is considered a good in terms of the CISG, the notion of materials in the sense of Article 3(1) CISG is to be understood in a broad way as well and cannot be restricted to traditional raw materials only.[67] Production of software involves performance of the programmer which can be influenced by buyer's know-how, data, plans and instructions. In that case, such know-how, data, plans and instructions when provided by the buyer should be considered as materials,[68] as the materials in the sense of Article 3(1) CISG do not necessarily have to be of physical nature.[69] As pointed out by one author, in software transactions materials could consist of "supplying data in respect to the buyer's business […] or supplying a specific source-code that is the essential starting point for producing or adapting a new computer-program or even hardware".[70]

In the case of buyer supplying the substantial part of them, the application of the Convention is excluded by virtue of Article 3(1) CISG. However, the fact that the "materials" provided by the seller for the production of the software are predominantly consisting of the know-how and overvaluing the raw materials incorporated does not prevent the application of the Convention.[71]

64 CISG Advisory Council Opinion No. 4, (fn. 30), No. 2.6 and 2.7.

65 Accord *Schroeter*, Vienna Sales Convention: Applicability to "Mixed Contracts" and Interaction with the 1968 Brussels Convention, Vindobona Journal of International Commercial Law and Arbitration 5 (2001), p. 76; *Ferrari/Flechtner/Brand*, (fn. 3), p. 68; See also *Magnus*, (fn. 3), Article 3, para. 20; *Schwenzer/Hachem*, (fn. 3), Article 3, para. 4.

66 See *Ferrari/Flechtner/Brand*, (fn. 3), p. 70; *Mistelis/Raymond*, (fn. 30), Article 3, para. 14; *Schwenzer/Hachem*, (fn. 3), Article 3, para. 8; *Benicke*, (fn. 30), Article 3, para. 4; *Westermann*, (fn. 3), Article 3, para. 4; Appellate Court Frankfurt of 17/9/1991, 5 U 164/90, *Shoes Case*. Contrary: Appellate Court Chambéry of 25/5/1993, 93-648, *A.M.D. Electronique v. Rosenberger Case*.

67 Accord *Diedrich*, (fn. 6), p. 65; *Hilberg*, (fn. 42), p. 59.

68 Accord *Schmitt*, (fn. 12), p. 63.

69 *Diedrich*, (fn. 6), p. 65. Highly criticized by *Sono*, (fn. 6), p. 522 on grounds that the whole concept of the materials under Article 3(1) CISG is "property based" and therefore cannot include data.

70 *Diedrich*, (fn. 6), p. 65.

71 Accord *Lookofsky*, (fn. 14), p. 275.

3. Analysis under Article 3(2) CISG

Now, software transactions usually involve considerable services elements as well, such as installation of the software, maintenance services, training of buyer's personnel to operate the software or other additional services.[72] When determining whether such software transactions are governed by the CISG, the "preponderant part" tests under Article 3(2) CISG are to be taken. Namely, Article 3(2) CISG stipulates that the Convention is inapplicable to contracts in which "the preponderant part of the obligations of the party who furnishes the goods consists in the supply of labour or other services".

The inevitable question to answer is the determination of the "preponderant" part. Such determination is in this author's opinion to be made primarily on grounds of comparison of the economic value of the services rendered to the value of the whole contract,[73] both values taken at the moment of the conclusion of the contract as that moment is relevant for the parties in order to be aware of the applicable law.[74] When the services make more than 50 % of the value of the whole contract, they are to be understood as preponderant part;[75] thus, rendering the Convention inapplicable. Some authors and courts go even further and require that the services classing as preponderant part make up "significantly" more than 50 % of the value of the contract in order to "facilitate the prognosis on the applicability and non-applicability of the CISG".[76] In this author's opinion such an interpretation has no basis in the text of the Convention, as the word preponderant itself indicates more than a half and not "significantly" more than a half. Moreover, requiring "significantly" more than 50 % would in this author's opinion create exactly the opposite: serious legal insecurity as to what would then class as "significantly" more than 50 %. Therefore, the preponderant part should be understood as more than 50 % of the value of the contract.

Still, this author suggests following the approach which, apart from taking into account the values of the services and the sales parts and their proportion, bears in mind all the other relevant circumstances of the case, especially parties' intentions.[77] Economic value should

72 Accord *Green/Saidov*, (fn. 7), p. 172 et seq.

73 Accord *Perović*, Selected Critical Issues Regarding the Sphere of Application of the CISG, Belgrade Law Review 3/2011, p. 187; *Huber*, (fn. 33), p. 46. However *Schwenzer/Hachem*, (fn. 3), Article 3, para. 18; *Magnus*, (fn. 3), Article 3, para. 21; *Mistelis/Raymond*, (fn. 30), Article 3, para. 18 advocate the comparison between the value of the goods and the value of the services, not the whole contract. Nonetheless, such wording would lead to the same outcome regarding the determination of the preponderant part.

74 Accord *Schwenzer/Hachem*, (fn. 3), Article 3, para. 19; *Caffarena Laporta*, (fn. 58), Article 3, p. 70. *Magnus*, (fn. 3), Article 3, para. 25; *Ferrari*, (fn. 9), Article 3, para. 13.

75 Accord *Huber*, (fn. 33), p. 46; *Ferrari*, (fn. 9), Article 3, para. 15, *Magnus*, (fn. 3), Article 3, para. 22; *Benicke*, (fn. 30), Article 3, para. 9; *Mistelis/Raymond*, (fn. 30), Article 3, para. 18.

76 See *Schwenzer/Hachem*, (fn. 3), Article 3, para. 20; District Court Zug of 25/2/1999, A3 1998 153, *Roofing Materials Case*; *Schroeter*, (fn. 65), p. 77 requiring services to be "clearly" in excess of 50 %.

77 Accord UNCITRAL, (fn. 3), Article 3, para. 6; *Huber*, (fn. 33), p. 47; *Benicke*, (fn. 30), Article 3, para. 9; *Piltz*, (fn. 11), p. 34, para. 2-37; *Ferrari*, (fn. 9), Article 3, para. 14. For case law see e.g. District Court Mainz of 26/11/1998, 12 HKO 70/97, *Cylinder Case*; Austrian Supreme Court of 8/11/2005, 4 Ob 179/05k, *Recycling Machine Case*; Appellate Court Munich of 3/12/1999, 23 U 4446/99, *Window Production Plant Case*; Appellate Court Innsbruck of 18/12/2007, 1 R 273/07t, *Steel bars case*.

definitely be the primary criterion. Nevertheless, the analysis should not finish at that point but an overall assessment should be made.[78] Such an approach is based on the drafting history of the Convention. Namely, the United Kingdom proposed the use of the wording "major part in value", which was rejected.[79] Furthermore, it is possible that the value of the services element of the contract cannot be identified. Thus, the economic value criterion may not be applicable after all. In such a case, all the other relevant circumstances of the case, mainly the intentions of the parties and the circumstances of the formation of the contract, could be the only criteria available for the determination of the "preponderant" part.[80] Indeed, the broader circumstances could not only help the assessment but in certain circumstances be crucial for the determination of the preponderant part under Article 3(2) CISG.

Looking back at the issue of mixed contracts with services elements regarding software transactions in particular such services may include installation of the software, maintenance services, training of buyer's personnel to operate the software or other additional services. Unless such services constitute the preponderant part of the obligations of the party furnishing the goods, the software transaction is governed by the Convention.

As previously elaborated, the services rendered for the production of the software cannot be considered under Article 3(2) CISG; only the services additional to those programming services fall under preponderant part test.[81] However, it has been pointed out that this only holds true where one is concerned with the sale of the software. When one is concerned with a license to use the software, the preponderant part of the obligations would not be the transfer of the software, but the development of the software and licensing, thereby bringing Article 3(2) CISG back into play and excluding the Convention.[82]

4. Licenses

What poses perhaps the most difficult question with regard to software transactions is whether they are licenses or sales contracts, a classification having an impact on the application of the CISG since it is applicable to sales contracts (Article 1(1) CISG). No general conclusion is to be drawn, but a case-by-case analysis. Still, some hints and considerations of a more general nature can be made.

78 See in detail CISG Advisory Council Opinion No. 4, (fn. 30), No. 3.4.

79 See Considerations of the First Committee of the draft Convention on Contracts for the Internationals Sale of Goods, Article 3 in: Honnold (ed.), Documentary History of the Uniform Law for International Sale, The studies, deliberations and decisions that led to the 1980 United Nations Convention with introductions and explanations, 1989, p. 656.

80 See District Court Mainz of 26/11/1998, 12 HKO 70/97, *Cylinder Case*; *Schwenzer/Hachem*, (fn. 3), Article 3, para. 19.

81 *Hilberg*, (fn. 42), p. 61. See supra fn. 33.

82 See *Sono*, (fn. 6), p. 523.

First of all, when dealing with software, the intellectual property transaction and the goods transaction should be distinguished.[83] Those transactions can take the form of a licensing agreement and a sale respectively.[84] Licensing agreement is a contract conferring a right, an authorization by the licensor to the licensee to use the licensed matter. The license therefore does not grant the property to the licensee but only the limited right to use the product, subject to the rights of the copyright holder who still can exploit product's uniqueness.[85] The sales contract would instead provide the "proprietary and possessory interest in the one copy of the software that is transferred […][and the] 'use' right is good against the whole world, including the party who is licensor of the IP corresponding to that product";[86] the intellectual property rights still vesting in the seller. The existence and the retaining of the intellectual property rights by the producer of the software, the same applying to the seller of more traditional goods, do not prevent the software transaction from being a contract for the sale of goods.[87] However, such a fact does not lead to the conclusion that a software transaction must be a sales contract either.

Software transactions are very often labeled "licenses"; however, it is advocated that the use of the expression "license" is never conclusive of an agreement being deemed as such.[88] Still, software is very often licensed to protect the unauthorized exploitation, since the intellectual property rights do not provide the usually desired protection.[89] The licensor has an interest in retaining the exclusivity rights by avoiding a sales contract and granting a license. Under the sales contract the buyer has the right to once resell or destroy even the copyright protected item. A licensing agreement restricts the rights of the user by inserting various limitations such as limiting the number of copies of software that can be made, specifying the computer or person having access to it or requiring return at the termination of the license.[90] Such licensing agreements can be individually negotiated, yet a more usual way, especially in terms of mass produced off-the-shelf software, is an inserted licensing agreement which is considered accepted either by opening the package (shrink-wrap license) or by clicking on the "I agree" button (click-on license).[91]

83 Accord *Green/Saidov*, (fn. 7), p. 174. However, *Sono*, (fn. 6), p. 515 et seq. introduces three categories of sales with regards to software: sale of copyright (never governed by the CISG), sale of tangible medium in which the software is incorporated (when sold subject to the CISG, however when licensed not) and the "sale of information" (considering software as an intangible piece of information, unable to be sold by its nature).

84 For an illustrative example, see *Green/Saidov*, (fn. 7), p. 174 et seq.

85 See ibid., p. 176.

86 Ibid.

87 Accord ibid.; *Diedrich*, (fn. 6), p. 69; *Lookofsky*, (fn. 14), p. 277; *Larson*, (fn. 7), p. 454.

88 Articles 8 and 9 CISG, see *Diedrich*, (fn. 6), p. 67; *Lookofsky*, (fn. 14), p. 277; *Fakes*, (fn. 32), p. 584; Foreign Trade Court of Arbitration attached to the Serbian Chamber of Commerce of 15/7/2008, T-4/05, *Milk packaging equipment case*.

89 See *Primak*, Computer Software: Should the U.N. Convention on Contracts for the International Sale of Goods Apply? A Contextual Approach to the Question, Computer L.J. 11 (1991-1992), p. 218 et seq.

90 See *Beckerman-Rodau*, (fn. 39), p. 888.

91 Ibid., p. 888; *Sono*, (fn. 6), p. 519. Due to the limited scope, this paper will not deal with shrink-wrap licenses. For more about them and their enforceability see *Scott*, Contemporary Issues in Domestic Transactions for Computer Goods and Services, Software L.J. 3 (1989-1990), p. 620 et seq.

To determine the application of the CISG, the license should be analyzed and factors such as whether the duration of using software is indefinite, whether payment is to be made once or periodically and whether the license can be revoked have to be taken into account.[92] It is further advocated that when one has the right to use the software indefinitely, paying one-off fee without having to pay royalties, such a transaction contains "overriding characteristics of a sales transaction"[93] and is to be distinguished from situations where a buyer can only make use of the software for a limited amount of time and has to pay royalties. If the seller has no realistic expectation of the software being returned, meaning the so-called "license" should be treated as the "economic equivalent" of a sale.[94]

Regarding the concept of the Convention, it is argued here that applying the CISG to certain types of transactions without the transfer of the intellectual property rights would not prove inconsequential. Namely, the CISG stipulates the seller's obligation to transfer property in the goods under Article 30 "as required by the contract and this Convention". Moreover, according to Article 4(b) the CISG does not govern the "effects which the contract may have on the property in the goods sold".[95] Thus, parties are allowed to contractually derogate from any obligation to transfer property.[96] Furthermore, Article 42 CISG indicates that the obligation to transfer intellectual property does not extend to cases where "at the time of the conclusion of the contract the buyer knew or could not have been unaware of the right or claim".[97]

Such buyer's knowledge is usually evidenced in the contract itself, displaying the intellectual property rights restrictions. Admittedly, Article 42 CISG addresses only the intellectual property rights of a third person. However, there is no reason not to allow the buyer to agree to accept goods subject to the intellectual property rights of the seller, i.e. to deviate from the obligation of Article 30 CISG, if he can do the same in respect of the intellectual property rights of a third person.[98] Furthermore, applying the Convention to licensing agreements which are equivalent to sales contracts would give prominence to the original

92 Accord *Green/Saidov*, (fn. 7), p. 177.

93 *Fakes*, (fn. 32), p. 584. See District Court Munich of 8/2/1995, 8 HKO 24667/93, *Standard Software Case* stating a sales contract exists when "software is being permanently transferred in exchange for a single payment". The same approach has been implemented with regards to other legal provisions as well – the European Court of Justice has come to the same conclusion when interpreting the Directive 2009/24/EC; see ECJ, case C-128/11, *UsedSoft*, ECLI:EU:C:2012: 407, para. 45 et seq.

94 Accord *Green/Saidov*, (fn. 7), p. 177; *Schlechtriem/Butler*, (fn. 15), p. 31, para. 32b; *Larson*, (fn. 7), p. 465; *Primak,* (fn. 89), p. 221; *Fakes*, (fn. 32), p. 584; Austrian Supreme Court of 21/6/2005, 5 Ob 45/05m, *Software Case*; District Court Munich of 8/2/1995, 8 HKO 24667/93, *Standard Software Case*. The same has been advocated for shrink-wrap licenses by *Beckerman-Rodau*, (fn. 39), p. 908 on the grounds that they are used not to avoid sales contracts but rather for purposes of copyright.

95 However, *Primak*, (fn. 89), p. 223 and *Larson*, (fn. 7), p. 467 point out that Article 4(b) CISG refers to the time at which property passes and not whether it passes at all.

96 *Illescas Ortiz/Parales Viscasillas*, The scope of the Common European Sales Law: B2B, goods, digital content and services, Journal of International Trade Law and Policy 11 (2012), p. 246, fn. 35; *Mowbray*, (fn. 35), p. 123 et seq.

97 *Diedrich*, (fn. 6), p. 70; *Green/Saidov*, (fn. 7), p. 177.

98 Accord *Primak*, (fn. 89), p. 224; *Larson*, (fn. 7), p. 463.

goal behind the CISG, namely unifying and clarifying international commercial law, as well as avoid the "creation of new and unnecessary laws".[99]

However, this approach has been criticized on the grounds that a license is a type of contract on its own and not capable of being categorized as a contract for the supply of services or goods, by means of either sale or lease.[100] The reasoning behind such criticism is that the essence of a sales contract is the transfer of general property in the goods, whereas the essence of a software license contract is the grant of a right of use or access to a software program.[101] Indeed, the seller's primary purpose in using a license is to maintain ownership to the software so that he can control its use during the entire term of the license, regardless of how long the term is. The fact that ownership is never transferred to the licensee and that the subject matter can only be used and not consumed, is understood to prevent any analogy to a sale.[102] Doing so would give insufficient prominence to the special nature of the subject matter, namely the intellectual property rights, to which the license provides access.[103] It has been pointed out that this position is underlined by the trend on the part of software manufacturers to use license agreements to limit the way in which customers may use software. The use of increasingly restrictive conditions in license agreements, such as requirement to register a particular copy of the software in order to restrict its use to a particular piece of hardware only,[104] suggests that the licensee merely acquires limited rights to use the software and that a sale is not the intention of the parties.[105] Nonetheless, the software licenses, as once advocated, even when they involve passing of property in a physical copy, are excluded from the CISG by virtue of Article 3(2) as the preponderant part of the obligations of the licensor is not in the supply of the physical copy, whose economic value is insignificant, but in the non-sales aspect, namely the granting of license with regard to the use of the software.[106] Furthermore, it has also been noted that if one extends the CISG to licenses on the basis that the seller is allowed to deviate from his or her obligation to transfer property, one "would be opening a Pandora's Box"[107] with nothing left to counteract the temptation to apply the CISG to other types of contracts, such as leases. Such application, one may bear in mind, would completely run counter to the wording in Article 1(1) CISG.[108]

This author does not support the generalization of never or always applying the CISG to software transactions labeled licenses. Furthermore, it is supported here that non-transferring the intellectual property rights from the seller to the buyer is not inconsistent with the CISG. Instead, parties are allowed to deviate from such an obligation when analyzing Articles 4, 30 and 42 CISG. Admittedly, software transactions quite commonly involve

99 *Primak*, (fn. 89), p. 218.
100 See *Cox*, (fn. 25); *Carter*, Article 2B: International Perspectives – A key subject of this commentary: Software transactions, Journal of Contract Law 14 (1999), p. 58.
101 Ibid., p. 64 et seq.
102 Accord ibid., p. 66; *Scott*, (fn. 91), p. 619.
103 *Carter*, (fn. 100), p. 58. See also *Primak*, (fn. 89), pp. 218-221.
104 See *Green/Saidov*, (fn. 7), p. 175, fn. 99.
105 See *Mowbray*, (fn. 35), p. 124.
106 See *Sono*, (fn. 6), p. 519.
107 Ibid., p. 526.
108 Ibid.

only the temporary transfer of a very limited right to use the software, e.g. on a particular hardware or several pieces of hardware however not simultaneously, or a longer use against the payment of periodic fees. In such cases the application of the CISG is indeed out of question. Yet again, every single transaction including all its particularities has to be examined and in the case that the "software is permanently transferred to the other party in all respects except for the copyright and restrictions to its use by third parties and becoming part of the other party's property – as opposed to mere agreements on temporary use against payment of royalties",[109] the transaction should be governed by the CISG. Furthermore, applying the CISG to such software transactions provides for the uniformity in their legal treatment since the Convention is ratified by 83 countries, at least until a new and uniform body of contract law, explicitly designed for software transactions is adopted.

C. Conclusion

The CISG's substantive sphere of application is limited to contracts for the sale of goods. As already stated, due to the stage of technological progress at the Convention's drafting, the applicability of the CISG to software transactions was not considered. The fact that the Convention has not explicitly addressed software transactions results in a dispute regarding its applicability.

In this author's opinion software is to be classed as a good in terms of the CISG irrespective of the mode in which it is delivered, as it is movable and tangible in any case. Both standard and customized software should be regarded as goods, since the Convention does not differentiate between standardized and tailor-made goods.

Although software is always to be classed as a good, it still does not mean that the CISG's application is undoubted. Namely, the question whether the software transaction can be seen as a sales contract or its equivalent is more problematic. A case-to-case analysis should be taken examining every single transaction including all its particularities. In case of software being obtained for personal, family and household purposes and those purposes being known or expected to be known by the seller, the Convention is inapplicable by virtue of Article 2(a) CISG. Regarding Article 3(1) CISG and software which is to be produced, the Convention is inapplicable in case of buyer supplying the substantial part of the materials necessary for the production, such materials encompassing data, designs and information. For mixed software transaction contracts including services additional to those considered under Article 3(1), Article 3(2) CISG renders the Convention inapplicable to those contracts where the preponderant part of the obligations of the party furnishing the goods consists in providing services. As far as software transactions labeled licenses are concerned, the Convention should govern the contracts where software is permanently transferred to the other party for a single payment. It can only be reiterated that applying the CISG to software transactions provides for the uniformity in their legal treatment, at least until a new and uniform body of contract law specializing on software transactions is adopted.

109 *Schwenzer/Hachem*, (fn. 3), Article 1, para. 18.