Revisiting Selected Issues in the Draft Protocol to the Cape Town Convention on Matters Specific to Space Assets

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REVISITING SELECTED ISSUES IN THE DRAFT PROTOCOL TO THE CAPE TOWN CONVENTION ON MATTERS SPECIFIC TO SPACE ASSETS

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ABSTRACT

Space financing, whereby a satellite operator uses a space asset as collateral or security, is one typical means of providing assurance to prospective creditors. While there are currently no clear rules to define the rights and obligations of debtors and creditors in space financing, the United Nations International Institute for the Unification of Private Law (UNIDROIT) rightly picked up the initiative to draft a uniform regulatory regime for the recognition and protection of security interests in space assets. This article examines the ongoing drafting process and offers a critical analysis of the main difficulties in this process.

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The project itself can be seen as a breakthrough in space legislation history. In this regard, this article argues that the project has shown a unique approach for international legislation in the field of space commercialization.

I. INTRODUCTION

In view of the high risks and large amount of investment needed for space activities, outer space once exclusively belonged to the national governments. However, this situation drastically changed with rapid technological development and an increasingly mature financial market. Through the years, more and more private entities have shown an interest in outer space and space activities.\(^1\) Indeed, space commercialization and privatization is an irreversible trend in the space industry.

Until recently, the government sector, huge multinational corporations, and a consortium of companies were the major parties seeking financing for space projects.\(^2\) Today, though still stranded by the legal and economic uncertainty in space activities, private space players have been able to move creatively ahead to secure the investment needed for space projects.\(^3\) Asset-based financing, using the space asset as collateral or security, is the typical means for private entities, particularly satellite operators, to provide assurances to prospective creditors.\(^4\) This format has been essential to the development of the commercial space industry. One scholar has correctly stated that this not only benefits start-up companies but also developing countries, or "economies in transition"... that have great difficulty in financing space-based systems for... telecommunications, meteorological services, telemedicine, environmental monitoring, and disaster forecasting.\(^5\)

Unfortunately, no clear rules are in place at the current stage to define the rights and obligations of debtors and creditors in international space financing.\(^6\) General financing principles

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3 See id. at 457; see, e.g., Ben Parr, *How the Private Space Race Has Taken Off*, MASHABLE (July 6, 2011), http://mashable.com/2011/07/06/private-space-race/.
4 Davis, supra note 2, at 458.
5 Ribbelink, supra note 1.
6 See Davis, supra note 2, at 455-56.
and rules do not easily transition to the space industry because of its sensitivity and fundamental importance to national economy and security.\(^7\) In spite of this legal vacuum, space financing continues to move ahead, with participants expecting potentially high profits, similar to other ongoing space exploration and exploitation activities, which also lack clear guiding rules. Nevertheless, this legal loophole left unaddressed will likely thwart the healthy development of space financing participants in the end.

Efforts to formulate principles and rules for space financing are on the right track. To encourage space commercialization by means of asset-based financing, UNIDROIT rightly picked up the initiative to draft a uniform regulatory regime for the recognition and protection of security interests in space assets.\(^8\)

This initiative, not only vital to space financing, is also meaningful to the development of space law as a whole in the following aspects. First, international space legislation has been dormant since the enactment of the Moon Agreement in 1979 under the auspices of the United Nations (U.N.).\(^9\) This initiative can be seen as the revival of space legislation in the international arena. Second, previous international space legislation under the aegis of the U.N. touches on public aspects of the matters related to outer space and fails to address commercial or private aspects of space activities.\(^10\) UNIDROIT, as an independent intergovernmental organization with the purpose of harmonizing private and, in particular, commercial law,\(^11\) is one appropriate body to play a leading role in drafting uniform rules on certain aspects of space commercialization.

The legal uncertainty in space commercialization has been one major concern among space lawyers and practitioners, and this uncertainty will seriously deter actual space activities.\(^12\) Space lawyers have reached a general consensus that clear rules

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\(^7\) See id.


should be in place to guide space commercialization, but diverse views exist as to how to make those rules.13 At this important juncture, only the UNIDROIT has taken the initiative to enact uniform rules for secured transactions in space assets.14

This Article examines the ongoing drafting process of the space protocol and offers a critical analysis of the main difficulties in the drafting process. While it is too early to assess the actual significance of the space protocol at the present stage, it would be cautious to say that this project has so far brought about more nominal sense for space legislation than the substance itself. The project itself can be seen as a breakthrough in space legislation history, this time in the private law field. This Article argues that the project employs a unique approach for international legislation in the field of space commercialization and that this approach can be used as a testing ground for other bodies to play a role in making uniform laws for space commercialization, a field largely left out in the five extant U.N. space treaties.

II. BACKGROUND

As early as 1988, the Canadian government proposed that UNIDROIT design a set of uniform rules for secured transactions in mobile equipment.15 This proposal was later elaborated on in a report entitled International Regulation of Aspects of Security Interests in Mobile Equipment in 1992.16 These earlier efforts finally led to the Preliminary Draft UNIDROIT Convention on International Interests in Mobile Equipment (Convention) in 1997.17 The Convention was opened for signature on

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14 See, e.g., Davis, supra note 2, at 459-62.
17 United Nations International Institute for the Unification of Private Law [UNIDROIT], Preliminary Draft UNIDROIT Convention on International Interests in
November 16, 2001, at a diplomatic conference held in Cape Town.\footnote{18}

The Convention, not equipment-specific per se, applies to a range of high-value mobile equipment, such as airframes, aircraft engines and helicopters, railway rolling stock, and space assets, such as satellites.\footnote{19} To better deal with the unique needs of different types of mobile equipment, the Convention employs an innovative two-instrument approach; namely, the Convention establishes core principles which can be modified by equipment-specific protocols.\footnote{20}

The first protocol, fully titled Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment, was successfully drafted and put forward for signature together with the Convention on November 16, 2001.\footnote{21} The second protocol, Luxembourg Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Railway Rolling Stock, was signed on February 23, 2007.\footnote{22}

The third protocol deals with space assets. The Preliminary Draft Protocol on Matters Specific to Space Assets (Preliminary Draft Protocol) was transmitted to the member governments of UNIDROIT after September 2001 for the preparation of the


\footnote{19} Id. art. 2(3). See also Martin J. Stanford, A Broader or Narrower Band of Beneficiaries for the Proposed New International Regimen?: Some Reflections on the Merits of the Convention/Protocol Structure in Facilitating the Former, 2 Unif. L. Rev. 242, 244 (1999).

\footnote{20} See UNIDROIT Convention, supra note 18, art. 51(1). The approach was heralded as the convention’s most striking innovation. Goode, supra note 15, at 54.


Draft Protocol. Early on, it was made clear that the new regimen will be most helpful to start-up companies and smaller operators, which are “all too often deprived of access to the capital markets without which their chances of mounting a commercial venture [are] extremely limited.” The main purposes of the Draft Protocol are as follows: (1) to expand the private market for financing; (2) to reduce the cost of financing; and (3) to streamline the entire financing process by establishing a set of uniform principles.

The above purposes are made possible by the following three most important mechanisms created by the Draft Protocol:

(a) the creation of a new international interest in such assets, corresponding to the classic security interest, the conditional seller’s interest under a title reservation agreement and the lessee’s interest under a leasing agreement, coupled with (b) the granting to the creditor of a range of basic default and insolvency-related remedies and, where there is evidence of default, a means of obtaining prompt interim relief pending final determination of its claim on the merits and (c) the introduction of an electronic international registry for the registration of international interests, giving notice of the existence of such interests to third parties and enabling a creditor to preserve its priority against subsequently registered interests and against unregistered interests and the debtor’s insolvency administrator, thus providing the creditor with the enhanced degree of legal certainty necessary to persuade it to grant asset-based financing facilities in respect of assets that it might otherwise have difficulty in repossessing or taking control of: the lex rei sitae (the law of the place where the asset is situated), the law generally recognized as applicable to proprietary rights, is particularly ill-suited to assets that are regularly moving across frontiers or, in the case of satellites and the like, are not on earth at all.

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A Committee of Governmental Experts convened and has so far held five sessions to consider key outstanding policy issues in the Draft Protocol. The fifth session was held in February 2011. The Draft Protocol is currently under consideration by an inter-governmental negotiation process, which includes representation from private-sector financiers and the space industry.

The UNIDROIT General Assembly set up a Steering Committee in November 2007 to build consensus on certain issues of the Draft Protocol. The Steering Committee set up two sub-committees to consider two outstanding issues: default remedies in relation to components and the issue related to public service. The Steering Committee held its most recent meeting in Paris in May 2009 to consider relevant recommendations made by its subcommittees and to determine whether the time was ripe for the Committee of Governmental Experts to reconvene.

Compared with the other two protocols, this third protocol proved to be the most difficult one, not only because of the special needs from the commercial space sector, but also because of the special features of the industry and the roles the space industry plays in a country.

III. THE DRAFT PROTOCOL AND MAJOR DIFFICULTIES

As generally acknowledged, an international regime governing asset-based financing should satisfy at least three legal
requirements: (1) transparent priority rules to determine the right priority over a given asset between creditors; (2) prompt enforcement rules in case of a debtor’s default; and (3) the availability of prompt enforcement rules even after the opening of insolvency proceedings. The Draft Protocol has been able to incorporate these requirements into the text by creating a fully computerized international registration system and providing basic and interim remedies as prompt enforcement mechanisms.

The Preliminary Draft Protocol was completed in December 2003. The first alternative version, largely reflecting policy-based changes concerning the definition of space assets and the incorporation of provisions on debtor’s rights and related rights, circulated in July 2008. The second alternative version, circulated in March 2009, incorporated additional provisions and amendments of a technical nature. Later revisions were based on this second alternative text.

As defined in the Convention, the Draft Protocol provides special rules adapting the rules of the Convention to the specific characteristics of space assets. The Draft Protocol also clearly states in the Preamble “the need to adapt the Convention to meet particular demand for and the utility of space assets and the need to finance their acquisition and use as efficiently as possible.”

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33 See Preliminary Draft Protocol, supra note 23, arts. VII, IX–XI.

34 The Draft Protocol was revised by the UNIDROIT Committee of Governmental Experts during its first session held in Rome from December 15–19, 2003. Draft Protocol to the Convention on International Issues in Mobile Equipment on Matters Specific to Space Assets – Background Information, supra note 29.


37 Text of the Draft Protocol, supra note 27, at i.
The Convention applies "when, at the time of the conclusion of the agreement creating or providing for the international interest in space assets, the debtor is situated in a Contracting State." An international interest is defined as an interest that is (a) granted by the chargor under a security agreement; (b) vested in a person who is the conditional seller under a title reservation agreement; or (c) vested in a person who is the lessor under a leasing agreement. Such a definition "accommodates both the traditional civil law and the functional common law systems of property law" by encompassing the three important national legal devices: security agreements, title reservation agreements, and leasing agreements. Nevertheless, several definitional issues arose and were discussed during the drafting process when further determining the exact scope of application for the Draft Protocol.

The first definitional challenge facing the Draft Protocol is the term "space asset." The new regimen, established under the Draft Protocol, is designed to be an asset-based registration system; therefore, it is vital that an object be "uniquely identifiable" for the purpose of interest registration. One precondition for such space assets is that they shall be of high value or particular economic significance, as identified in the Chapeau of the Convention itself.

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38 UNIDROIT Convention, supra note 18, art. 3(1).
40 UNIDROIT Convention, supra note 18, art. 2(2).
42 Draft Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets – Background Information, supra note 29.
45 The Chapeau of the Convention states that the Convention is "aware of the need to acquire and use mobile equipment of high value or particular economic
The Preliminary Draft Protocol provides a broad definition for space asset, meaning

(i) any identifiable asset that is intended to be launched and placed in space or that is in space; (ii) any identifiable asset assembled or manufactured in space; (iii) any identifiable launch vehicle that is expendable or can be reused to transport persons or goods to and from space; and (iv) any separately identifiable component forming a part of an asset referred to above or attached to or contained within such asset.

This meaning raised concerns as to the possibility of registering interests in an indeterminate number of components.

It was later agreed that "the categories of space asset to be covered by the preliminary draft Protocol should be defined on the basis of both an enumerated list of 'principal objects' and the additional requirement that a space asset to be capable of coverage must be 'uniquely identifiable' and 'capable of independent control.'" After serious consideration, however, the latest draft removes components as items capable of independent registration.

Three reasons were put forward for the removal:

(1) Neither of the other protocols provided for the separate registration of interests in components, and there seems little reason to adopt a different treatment for components of satellites. (2) While components are on earth, dealings in them can be adequately regulated [by] domestic law. Once they are in space and incapable of independent control they cannot be reached by the creditor financing them and cease to be of value to that creditor. (3) To allow separate registration of interests in components opens the way for a very large number of registrations and raises considerable problems in distinguishing satellite components from other components and in prescribing workable identification criteria.
After long deliberation, it was recommended that “space asset” means:

any man-made uniquely identifiable asset in space or intended to be launched into space, and comprising (i) any spacecraft, that is any satellite, space station, space module, space capsule, space vehicle or other vehicle designed to operate in space, or a reusable launch vehicle, whether or not including a space asset falling within (ii) or (iii) below; (ii) any payload (whether telecommunications, navigation, observation, scientific or otherwise) in respect of which a separate registration may be effected in accordance with regulations from time to time made by the Supervisory Authority; or (iii) any part of a spacecraft or payload such as a transponder [capable of independent use], in respect of which a separate registration may be effected as in (ii) above, together with all installed, incorporated or attached accessories, parts and equipment and all data, manuals and records relating thereto.50

Early discussions have also touched on the relationship between “space asset” and “space object” as defined in the U.N. space treaties. There is a question as to whether the application of the above two terms should be consistent.51 The U.N. space treaties introduce a very bland definition for “space object.” According to the Convention on International Liability for Damage Caused by Space Objects (Liability Convention) and the Convention on Registration of Objects Launched into Outer Space (Registration Convention), “‘space object’ includes [the] component parts of a space object as well as its launch vehicle and parts thereof.”52 The exact scope of space objects has not been identified; however, through academic discussions, it can be assumed that space objects refer to those “launched or attempted to be launched into outer space” (and possibly those launched in outer space).53 In this sense, the term “space asset” is much broader, because it includes not only space objects, but also “intangible rights to control satellites, contractual rights,

proceeds and revenues, and other rights yet to be established."\textsuperscript{54} As such, with the term "space object" generally used in the public aspects of space law, it appears reasonable to refer to the term "space asset" in the private field of space activities.

The second definitional ambiguity that exists in applying the Convention and the Draft Protocol concerns the treatment of components, which is closely related to the concept of "space assets." In the early stage, some delegations pointed out that the term "components" was too abstract.\textsuperscript{55} It was proposed that Article IX include language stating that "[w]hen two space assets, one of which is a separately identifiable component of the other . . . are subject to two separate registered interests, both registered interests shall be valid and have priority."\textsuperscript{56}

This provision appears quite reasonable; however, problems arise once different creditors seek to exercise their respective default remedies in respect to a space asset and a component attached to that space asset. Two types of attachments have been differentiated: physical linkage and functional linkage.\textsuperscript{57} While the physical links are outwardly obvious for space assets and components, functional links, while not visible, are comparable to physical links because they are required for synchronized assets to function normally.\textsuperscript{58}

Certain measures against one space asset or component by creditors will necessarily influence the normal function of the other linked parts. While the Draft Protocol has defined the validity and priority of both registered interests in the linked independent space assets, it is important to put in place a mechanism that equally protects the interests of different creditors. Some restrictions should be set for the creditor who claims remedies against one space asset so that the other protected creditor has the chance to take actions to offset possible impairments sustained by the first creditor.


\textsuperscript{58} Id.
This notion is represented by one proposal to add the following provision to the original draft: "recourse shall be permitted where (a) the person impaired by recourse consents to the recourse or (b) the creditor offsets the impairment of the use of the international interest or of the other right in the space asset by taking equivalent technical measures."59 With different views in place, Article IX(4) was removed from the Draft Protocol at the Fifth Session of the Committee of Governmental Experts.60

The third definitional issue facing the application of the Convention and draft protocol concerns the differing views as to whether debtor’s rights and related rights should be included in the sphere of application. The term “space assets” is broadly defined in the Draft Protocol, and therefore its protection also applies to “debtor’s rights to payments or performance under agreements secured by or associated with space assets.”61 "Debtor’s rights" include payments due to an operator, such as the future stream of rentals or any other right to performance.62 The revenue generated from the operation and control of a space asset is a major source of financial profit and thus is the main right enjoyed by the debtor.63 The debtor can pay off his debt through revenue generated from the use of the space asset; at the same time, the creditor can similarly have this revenue as a guarantee to carry out his risk analysis on the transaction. "Associated rights," different from debtor’s rights, are rights to payment or other performance due by the debtor to the creditor.64

“Related rights” refer to those special permits and licenses granted to a debtor by a government for the manufacture, launch, and operation of a space asset.65 As such, the related rights include permits, licenses, authorizations or equivalent in-

59 Id. § 16.
61 Larsen, supra note 54, at 1087.
64 UNIDROIT Convention, supra note 18, art. 1(c).
Instruments granted or issued by government bodies.\textsuperscript{66} Unlike other mobile assets, assets in the space field are difficult to repossess\textsuperscript{67} and, even if repossessed physically, these assets will be substantially devaluated. Thus, constructive possession through the control and use of command codes, instead of physical control of a space asset, is normally the feasible means for the creditor to insure his interest. Such related rights are, therefore, one practical means for the creditor to recover the control of, and the benefit from, a space asset.

Such a broad applicable scope of the Draft Protocol toward debtor’s rights is in line with the provision of possible remedies (such as transfer of licenses) in the latter provisions. There have been earlier discussions on whether debtor’s rights should be excluded from the protocol and whether such detailed listings of space assets and associated rights should be left to the provisions relating to remedies.\textsuperscript{68} The issue does not seem to be a major obstacle in the drafting process.\textsuperscript{69} Debtor’s rights and related rights were originally considered to be registerable as international interests and thus were included in the Draft Protocol.\textsuperscript{70} Consensus was quickly reached that debtor’s rights are closely connected with space assets and that the exclusion of debtor’s rights would cause significant delays in obtaining relief in the event of default.\textsuperscript{71} The early elaboration of space assets in the Draft Protocol also helps to clarify confusion and forms a solid basis for better understanding possible remedies later in the protocol.

Nevertheless, it was further noted that the consent of a third party shall be required for the registration and assignment of debtor’s rights and related rights.\textsuperscript{72} Questions were raised as to whether it is appropriate to register an international interest in a related right in the absence of consent to that registration by a relevant third party.\textsuperscript{73}

\textsuperscript{66} Id.
\textsuperscript{67} The maximum altitude which a space shuttle can reach at the current stage is about 600 km; the most desirable orbit for telecommunications satellites is the geostationary orbit (GSO) at an altitude of around 36,000 km.
\textsuperscript{68} Ribbelink, supra note 1, at 40–41.
\textsuperscript{69} See Summary Report of the Sub-Committee of the Steering Committee, supra note 57, app. IV, art. III(b)(i)–(iii).
\textsuperscript{71} Summary Report 2008, supra note 46, art. III(c)(i).
\textsuperscript{72} Id. app. VI, at vii.
\textsuperscript{73} Id.
After lengthy discussions, it was finally determined that these rights could be recorded in the future International Registry, but only if they are inextricably linked to the physical space asset. If the rights are separated from the physical space asset, then the Draft Protocol will cease to apply to that particular asset.\footnote{Id.}

\section*{B. Limitations on Default Remedies: Public Services}

As previously mentioned, actual possession of a space asset is often not the best remedy for the creditor in the space arena because the removal to the earth will largely depreciate the actual value of the space assets. Consensus has been reached that constructive possession, or control of the access and command codes, is more feasible.\footnote{Oyekunle, supra note 32, at 523.}

Nevertheless, there have been heated discussions on the necessity of exempting "public services" from relevant creditors' remedies.\footnote{See, e.g., UNIDROIT, Report of the Intersessional Consultations with Representatives of the International Commercial Space and Financial Communities, ¶¶ 24–27, UNIDROIT Doc. C.G.E./Space Pr./5/W.P.4 (Oct. 18, 2010) [hereinafter Report of Intersessional Consultations].} Governments are increasingly concerned about the continuity of certain public services, which depend largely on the use of space assets.\footnote{See, e.g., UNIDROIT, Revised Preliminary Draft Protocol to the Cape Town Convention on Matters Specific to Space Assets, at 2, UNIDROIT Doc. C.G.E./Space Pr./5/W.P.7 (Jan. 2011).} Examples include telecommunications and air navigation services.\footnote{Report of Intersessional Consultations, supra note 76, ¶¶ 24–26.} With space privatization well on the way, many space assets employed for public services are now operated or financed by private entities.\footnote{Id.} Therefore, the question becomes whether there should be limits on the right of a creditor to exercise on a space asset. While the majority of delegations in the preparatory meetings acknowledged "that the protection of public services from interruption was a matter of critical national importance," diverse views exist among different states as to what approach shall be adopted to deal with the matter.\footnote{Report of the Committee of Governmental Experts 2004, supra note 43, ¶¶ 30–40.} Three possible solutions were put forward for consideration: (1) "a general affirmation of the sovereign duty to protect public services and explicit referral to national laws for the protection of private property," (2) the concept of public service
should be defined more narrowly so as not to defeat the eco-
nomic benefits that the Draft Protocol was intended to confer
and a unified compensation regimen shall be introduced; and
(3) "giving the State in question a priority lien or right of first refus-
al."\textsuperscript{81} While no consensus could be reached, a subcommit-
tee was set up to carry out a thorough study on the issue.\textsuperscript{82}

As far as this issue is concerned, this author believes that the
answer lies in striking a good balance between the continu-
ation of public services and the protection of creditor's rights. It has
been noted that any right reserved by governments to protect
the public from a service interruption carries with it a "corre-
spanding duty to protect the [creditor's] fundamental right of
ownership."\textsuperscript{83}

Finding a good balance will involve a two-step analysis. First,
the types of public services covered must be considered and de-
termined to be vital to a state and the continuation of such ser-
VICES should be secured. Second, once it is confirmed that the
continuation of certain public services is vital to a state, the in-
terests of creditors must be ensured. As observed by some gov-
ernment representatives, "it is reasonable that the creditor
should be provided with safeguards against economic loss, par-
ticularly since suspension of the creditor's right to enforce its
security could constitute direct or indirect expropriation in in-
ternational law."\textsuperscript{84}

When it comes to national background, it is very difficult to
find a clear definition for the term "public services." What types
of services can be considered public services? The borderline
has been quite obscure. From the responses from the govern-
ments to a subcommittee, only one state reported to have a clear
definition in its national laws on the term "public services;" most
states acknowledged the difficulty in finding an appropriate def-
inition for the term.\textsuperscript{85}

Even more difficult is how to define the importance of certain
public services to a state. Theoretical discussions may lead no-

\textsuperscript{81} Summary Report 2008, supra note 46, at 22.
\textsuperscript{82} "[T]he Sub-committee should seek [to develop options] most likely to gen-
erate consensus and thus bring about the timeous completion of the preliminary
draft Protocol." Id. at 25.
\textsuperscript{83} See id. at 21.
\textsuperscript{84} Id. app. III, § 17.
\textsuperscript{85} See, e.g., UNIDROIT, Steering Committee to Build Consensus Around the Provi-
sional Conclusions Reached by the Government/Industry Meeting, at 6, UNIDROIT Doc.
Study LXXIIJ/14 (June 2009) (Summary Report).
where, so it may be necessary to adopt a pragmatic approach. This attitude was shared by some representatives of the international commercial space and financial communities at the New York meeting who emphasized that “the overall objective of the Space Protocol is to make it possible to finance the commercial use of space in a rational way that will keep a fair balance between all interests concerned.”\textsuperscript{86} Some financial bodies have further confirmed the position that “the benefits of the Protocol to creditors of private parties or Governments which choose to seek financing on commercial terms should not be undermined by application of vague and overly broad ‘public service’ concepts.”\textsuperscript{87}

As such, in view of the difficulty in defining the term “public service,” one option is simply to avoid the task of the definition in the protocol by leaving the issue to individual states. The state concerned is in a better position to assess the importance of a certain public service under its specific national circumstances. The avoidance of the difficulty in defining the term “public service” does not affect the resolution of the issue in the end.

The pragmatic approach exemplifies that the essence of the issue lies in what measures are available for the creditor to ensure his rights over the space asset or how to protect creditor’s rights. Once creditor’s rights are well protected, the issue of the continuation of public services can be easily resolved. It is thus meaningful to invite the relevant state to come into play once the creditor’s rights are in danger. An appropriate mechanism could be to offer opportunities for the relevant state to provide guarantees to certain creditors in exchange for the continuation of certain public services. For example, once a private entity fails to honor its obligation, the creditor can notify the relevant state and leave a certain period of time for the state concerned to provide a sufficient guarantee to secure the creditor’s interests. Actually, Sir Roy Goode, in his explanatory memorandum

\textsuperscript{86} Jacques Bertran de Balanda, Comments Made at a Meeting Held in New York: Public Service Interruption Limitation on Remedies: Possible Solutions, at 1 (June 19–20, 2007) (on file with author).

\textsuperscript{87} Questionnaire Submitted at the Meeting of the Steering Committee Held in Berlin for Financial Institutions and Their Advisors on the Extent to which the Exercising of Default Remedies Under the Cape Town Convention as Implemented by the Preliminary Draft Space Protocol Should be Limited in Respect of Space Assets Performing a Public Service—Response of the Export-Import Bank of the United States of America, at 3 (May 7–9, 2008) (on file with author).
prepared for the Berlin meeting, made it clear that "there is no protection for creditors in the shape of either the assumption of the defaulting debtor's obligations by a government or other authority taking control of the space asset or the payment of compensation."88

Whether the action of taking control of the space asset by the government can be considered as state expropriation is open to argument. But once a decision is made to provide a guarantee in exchange for the continuation of certain services, the state shall act in a manner similar to paying compensation in state expropriation.

If the state fails to provide a sufficient guarantee, then the creditor should be authorized to take appropriate actions, including discontinuation of relevant public services. But it is important to make it clear that the action of discontinuing public services should only be taken when no other measures are available to provide sufficient protection to the creditor's interests. Discontinuation of public services should be the last resort for the creditor.

This suggestion is well represented by the proposal of a state's priority lien or right of first refusal. As proposed,

[A] creditor intending to [execute default] remedies in respect of a [given] space asset . . . [might be] required to [file] notice . . . of [such] intentions with the international body responsible for managing the command code escrow account (the "escrow manager"). When this is done, States would be on constructive notice of the pending repossession of the space asset and could be granted a set period of time (perhaps a matter of days) in which to file an emergency intervention for public services. If an emergency intervention is filed (with the escrow manager), then the State that filed the intervention would have an established time period (a matter of days) in which to assume the debtor's contractual obligations. If the State did not assume the debtor's obligations within the established period, then the escrow manager would automatically transfer the asset's command codes to the appropriate creditor consistent with the creditor's default remedies.89

Some might argue that certain public services are vitally important to a state and that the sovereign duty to protect public services should not be compromised. Indeed no state parties

and representatives have denied the views above. While protection of public services relates to sovereign right, protection of creditors’ rights relates to private economic interests. These interests are not irreconcilable: By satisfying private economic interests, the sovereign interests can be well protected. This is exactly the rationale behind the above proposal.

As such, a consensus has been reached that “[c]ontractual obligations for the provision[s] of public services should be maintained.” To achieve this goal, two technical approaches have been put forward for further discussion. The rights approach emphasizes the importance of registering a lease of a space asset for the provision of public services; “[a]ny transfer of ownership of a space asset . . . is subject to the previously registered lease notice.” The remedies approach directly limits the exercise of remedies in respect to a space asset that is used for the provision or maintenance of a public service. Both approaches acknowledge the importance of maintenance of the provision of public services. The former approach stresses the protection of the rights obtained through registration. The latter approach limits the remedies in a direct manner. Either approach should be able to satisfy the needs of the continued provision of public services. The problem now lies in how to satisfy private economic interests.

C. Registration Arrangement

Registration is not a prerequisite for the creation of an international interest, but a registered international interest shall have priority effect over competing interests. As identified in the preamble to the Convention, an international registration system is essential to the protection of international interests in

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92 Id. at 2.
93 Id.
94 Id.
95 See id.
96 See id.
97 See id.
98 UNIDROIT Convention, supra note 18, art. 29.
mobile equipment. This has been further elaborated in the text of the Draft Protocol, which says, “the holder of a registered prospective international interest or a registered prospective assignment of an international interest shall take such steps as are within its power to procure the discharge of the registration no later than five working days after the receipt of the demand.”

It is important to have an appropriate body to oversee the registration work for the successful operation of the Draft Protocol. The Convention provides clear rules on the international registration system, which applies to all the three categories of mobile equipment. A registry for each of the three categories of equipment “may be established.”

Discussions have been carried out to find the right body to undertake the task. In the space law arena, a registration regime has been created by the Registration Convention for registering space objects. The purpose of the registration, as stated in the Registration Convention, is “to notify to other States where a launching State’s space objects are located in order to prevent collision” and to make “identifiable the potentially liable launching State for damage caused by a space object.” The Secretary-General of the U.N. is designated to be the body to maintain a register of space objects.

Proposals have been made to similarly designate the U.N. as the registration body for international interests in space assets. Since the late 1950s, the U.N. Committee on the Peace-
FUL USE OF OUTER SPACE (UNCOPUOS) has been the main U.N. body for space-related matters. The rich experience, existing facilities, and human resources are obvious advantages for this body to take over this extra administrative task.

However, concerns were immediately raised as to the private nature of the Draft Protocol and the busy schedule of the UNCOPUOS, which meets only once a year for a couple of weeks. Furthermore, quite different from the Registration Convention regime, private entities, not the states, are the main body to register with the space assets registry. The purpose of the registration under the Draft Protocol is to regulate the relationship between the creditors and debtors and to "facilitate the privatization and commercialization of outer space by protecting private investment" in that sector, not the determination of jurisdiction and control of space objects under the Registration Convention. Consequently, the lack of consensus decided that a separate private body would be more appropriate for the registration of international interests of space assets under the Draft Protocol framework.

Consequently, the International Civil Aviation Organization (ICAO), the International Mobile Satellite Organization (IMSO), and the International Telecommunication Union (ITU) were respectively approached by the Secretary-General of the UNIDROIT for the possibility of being the supervising au-
D. RELATIONSHIP WITH THE U.N. SPACE TREATIES

Five space treaties were drafted under the aegis of the U.N. in view of the urgent need to regulate space activities in the international arena. The special political situation justified a speedy adoption of space treaties in the late 1960s. These space treaties successfully set up a basic legal framework for the period when the states were the sole contributors to space activities. Space legislation stagnated after 1975. Recent developments in outer space, such as diversification of space subjects and space privatization and commercialization, have made the whole picture increasingly complicated. Space lawyers have expressed views on various occasions as to the inadequacy of current space laws in regulating space activities and the need to develop private space laws.

The Draft Protocol can be seen as a breakthrough in this aspect. While the U.N. drafted the previous space treaties, an international organization in the field of private law initiated this

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113 Id. ¶¶ 3–5.
115 Paul G. Dembling & Daniel M. Arons, The Evolution of the Outer Space Treaty, 33 J. AIR LAw & COM. 419, 425–28 (1967). The first treaty was negotiated during the period of space race between the two superpowers with a large number of nuclear weapons pointing at each other; as such, both agreed that there was a "critical need" to have some legal regime to "ban[ ] nuclear weapons and other weapons of mass destruction from outer space." Id. at 427.
117 Id. at 17.
118 See, e.g., id.
Draft Protocol. No doubt, the relationship between these two regimes should be dealt with. During the drafting process, the UNCOPUOS Consultative Group recommended that “appropriate language should be incorporated within the text of the space protocol to the extent necessary to ensure the integrity of and respect for the rights and obligations of States in accordance with those principles.”

Indeed, the preamble of the Draft Protocol takes note of the established principles of space law in the U.N. space treaties. The Draft Protocol reaffirmed that, in case there is any doubt on the issue, the Convention “as applied to space assets does not affect State Party rights and obligations under the existing United Nations Outer Space Treaties or instruments of the [ITU].”

Though it was noted that further consideration shall be taken as to the exact wording of the provision, some delegations noted that the principles of the space treaties form the foundation for the Draft Protocol. Space activities, no matter public or private in nature, shall strictly abide by these fundamental space principles as enshrined in these space treaties. The no-conflicts principle, well-accepted among government experts and space lawyers, further strengthens the basic working rule of the Draft Protocol—“all interested parties must agree on a governing principle of having no conflicts between public law space treaties and the private law Space Protocol.”

The operation of the current Draft Protocol cannot be separated from the existing U.N. space treaties, the 1972 Liability Convention and the 1975 Registration Convention, in particular. Registration of space objects under the Registration Convention is an obligation for the launching state to register and “retain jurisdiction and control over [the space] object”; similarly, this launching state “shall bear international responsibility for national [space activities].”

119 Text of the Draft Proposal, supra note 27, at i.
121 Text of the Draft Proposal, supra note 27, at i.
122 Id. at xvi.
124 Larsen, supra note 54, at 1086.
125 Outer Space Treaty, supra note 114, art. VIII.
126 Id. art. VI; Liability Convention, supra note 52, arts. II–III.
Deficiencies in the current U.N. space treaties in light of the era of space commercialization have been a topic of discussion.\textsuperscript{127} For example, in cases of transfer of control or ownership of space assets to a non-launching state, a dilemma arises regarding the registration and international liability in the public field.\textsuperscript{128} However, the registration of international interests by the creditor and/or the insurance company shall add to the transparency of the entire commercial operation and bypass this dilemma in the commercial/private process. As defined in the U.N. General Assembly resolution, national space legislation shall be in the best position to tackle the matter of the transferability of permits, licenses, and authorizations.\textsuperscript{129}

IV. THE WAY AHEAD

The UNIDROIT has been working on a uniform international legal regime for the protection of international interests in space assets for the past decade. Not until 2008 did we see considerable progress in the work of the UNIDROIT Steering Committee\textsuperscript{130} in building consensus over several outstanding issues, such as the issue of default remedies in relation to components and the issue of public services. Two subcommittees were established to study the above two issues respectively.\textsuperscript{131} In May 2009, under the auspices of the European Center of Space Law, the Steering Committee reconvened to consider the recommendations of its two subcommittees and to determine whether it was time to reconvene the Committee of Governmental Experts.\textsuperscript{132} The Committee of Governmental Experts convened in May 2010 and successfully adopted almost all of the provisions of the revised Preliminary Draft Protocol.\textsuperscript{133} The Committee held its

\textsuperscript{127} See, e.g., Beck, supra note 116, at 17.
\textsuperscript{131} Summary Report 2008, supra note 46, at 12, 25.
\textsuperscript{132} Summary Report 2009, supra note 31.
\textsuperscript{133} UNIDROIT, Preparation of a Draft Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets, ¶¶ 61–96, UNIDROIT
fifth session in February 2011. It was agreed that the new text, which reflected all amendments that had been agreed to during the session, would “be submitted to the Governing Council . . . for advice and consent.” Once all the major issues are resolved, the Draft Protocol can be finalized and put forward for adoption at a diplomatic conference. While no results are public yet, there is every reason to be optimistic in view of the efforts made so far and the consensus having been reached concerning the major issues in the Draft Protocol.

V. CONCLUSION

Considered as “one of the most significant conventions ever to have been concluded in the field of private commercial law,” the Cape Town Convention aims to establish “an international legal regime for the creation, perfection, and [prioritization] of security, title-retention, and leasing interests in [mobile] equipment”; “more specific provisions concerning [specific types of mobile] equipment are . . . included in protocols to the convention.”

This legislation model of the base Convention together with supplementary protocols is further meaningful for international space legislation in general. As claimed,

[t]his unique structure provided the flexibility needed to respond to the idiosyncratic needs of the different industries involved in the drafting of the convention . . . such flexibility is a radical departure from traditional approaches to treaty formation because it promotes specialization of the law and speed of implementation while sacrificing, to some degree, the traditional goal of uniformity.

The UNIDROIT rightly took up the initiative to deal with the international interests in space assets in the start of the new cen-
As claimed by one scholar, the Draft Protocol "seeks to ensure that those benefits are made available to the widest range of recipients, from potential investors to enterprising parties, by removing obstacles to the flow of capital from potential investors to enterprising parties" and that "it is crucial that the appropriate legal basis is swiftly adopted in order to adequately realize the full potential of the sector." While the public side of space activities has been well regulated by the U.N. space treaties, no private space laws have been made so far to deal with the ongoing space commercialization process. We urgently need rules to guide private space activities. The vague and unstable legal status will no doubt be detrimental to space commercial activities. In this regard, the UNIDROIT appears to be the right body to make uniform laws for private aspects of space activities. The Draft Protocol represents the efforts in this respect and offers a useful testing ground for future space legislation. As correctly observed by Martin Stanford, the watchword is everywhere privatization. It is now increasingly recognized how important it is to provide opportunities for private finance to contribute to the acquisition of expensive assets, perceived as essential for the development of national wealth and also for the global economy, which previously were financed largely by public funds, notably via State guarantees. It is however at the same time recognized that such private financiers will also require appropriate legal guarantees as to the enforceability of their security rights in the event of default. This is where the future UNIDROIT Convention will be so important.

The general belief is that the Draft Protocol will substantially reduce the costs of space activities, which shall provide a direct stimulus to the use of outer space and space commercialization.

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142 Daniel A. Portas, The Need for Timeous Completion of the Preliminary Draft Protocol to the Cape Town Convention on Matters Specific to Space Assets, EUROPEAN SPACE POLICY INSTITUTE (ESPI) PERSPECTIVES, 5 (2009), http://www.espi.or.at (click on "ESPI Perspectives" under "Publications" and then click on the article link.).

tion. Thus, the Draft Protocol itself is a breakthrough in space legislation.

While hailing the successful work of the UNIDROIT, we should be mindful of the difficulties of legislation in other aspects of space activities. The area of space property, launching activities and related services (insurance, state procurement, etc.) requires urgent action.

From the Explanatory Report and Commentary, one important underlying principle in the Convention is practicality. We should extend the use of this principle and adopt the pragmatic approach in the protocol drafting process. It has been further noted that "[t]he pragmatic . . . model of the . . . Convention not only might work well on a global scale, but also on a regional scale, perhaps even outside the area of security interests."

In this regard, we should keep a close look at the entire legislating process for the Draft Protocol. Legislation for private space activities is a long process, and we should start thinking about the appropriate body for the legislation and seek the support from space industries.
