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**Civil asset tracing and recovery tools used in insolvency
proceedings**

Note by the Secretariat

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Introduction

1. The provisional agenda of the sixty-first session of the Working Group ([A/CN.9/WG.V/WP.185](#)) provides background information about the project on civil asset tracing and recovery in insolvency proceedings (ATR) referred to the Working Group by the Commission at its fifty-fourth session.¹ This note contains in an annex the first draft of a descriptive, informational and educational text on civil asset tracing and recovery in insolvency proceedings that builds on the inventory that was before the Working Group at its sixty-first session ([A/CN.9/WG.V/WP.182](#)). As requested by the Working Group,² the inventory was revised in the light of the comments made in the Working Group and expanded with the discussion of:

(a) ATR enabling provisions and other provisions from the UNCITRAL insolvency texts of a more general nature as applicable to ATR (e.g. on jurisdiction, applicable law and the constitution and the scope of the insolvency estate). The Working Group may wish to recall that those materials had originally been summarized in document [A/CN.9/WG.V/WP.178](#), table 2, that was before the Working Group at its sixtieth session. The materials were revised in the light of comments made at that session;

(b) ATR terms, explained in the draft text either in footnotes or in the main part. Their explanations drew from document [A/CN.9/WG.V/WP.178](#), table 1 that was before the Working Group at its sixtieth session, and reflect comments made in the Working Group and by consulted experts;

(c) Specific ATR tools. Their explanations drew from the materials mentioned in paragraph 1 of [A/CN.9/WG.V/WP.182](#), including document [A/CN.9/WG.V/WP.178](#), tables 2 and 3 that were before the Working Group at its sixtieth session, and reflect comments made thereto at that session;

(d) ATR aspects in jurisdictions that were not included in the original inventory. Their description reflects results of further expert consultations by the secretariat and inputs of Mr. Tomislav Šunjka, ATR specialist and current Chair of the Asset Recovery Subcommittee of the International Bar Association (IBA), whom the Secretariat engaged as a consultant for the project to address practical aspects of ATR;

(e) Digital aspects of ATR, reflecting related deliberations in other international forums, the relevant case law and inputs of consulted experts.

2. Because of the limited time available for preparing the working paper and the forecasted word limit, the secretariat was unable to cover all points related to the above listed items. The secretariat identified what it considered outstanding points in the draft text. The Working Group may wish to supplement them or amend them otherwise.

3. The Working Group may also wish to consider next steps to be taken with respect to the draft text. For example, the draft text could be supplemented by annexes providing additional information to policy makers, legislators, judges and practitioners, respectively:

(a) Recommendations may be formulated for policy makers and legislators on, among others, access by the insolvency representative and the foreign representative, as the case may be, to centralized systems, databases and registers that have proved to be indispensable for ATR, and extension of statutory limits for bringing avoidance and other actions where the debtor did not comply with its disclosure obligations under insolvency law;³

¹ *Official Records of the General Assembly, Seventy-sixth Session, Supplement No. 17 (A/76/17)*, paras. 215–217.

² [A/CN.9/1126](#), para. 36.

³ [A/CN.9/1126](#), paras. 23–25, 27, 30 and 32–33.

(b) Judges may find the compilation of ATR-related landmark case law useful;⁴

(c) In addition to materials suggested for inclusion in (b) above, practitioners may find useful illustration of how ATR tools and their various combinations work in practice.⁵

⁴ See e.g. annex I of the UNCITRAL Practice Guide on Cross-border Insolvency Cooperation (the “Practice Guide”). United Nations publication, Sales No. E.10.V.6. Available at: [UNCITRAL Practice Guide on Cross-Border Insolvency Cooperation](#).

⁵ See e.g. “Recognizing and Preventing Commercial Fraud: Indicators of Commercial Fraud”. Available at: [Recognizing and Preventing Commercial Fraud: \(un.org\)](#).

Annex

A draft text on civil asset tracing and recovery in insolvency proceedings

I. Introduction

A. Origin, scope and purpose of the text

1. This text addresses civil asset tracing and recovery in insolvency proceedings (ATR). UNCITRAL insolvency texts set out a cumulative list of requisites that a proceeding must meet in order to be considered an “insolvency proceeding”:¹ (a) collective proceeding (judicial or administrative);² (b) pursuant to a law relating to insolvency;³ (c) under control or supervision by a court (which includes debtor-in-possession⁴);⁵ (d) with respect to a debtor (natural or legal person) that is in severe financial distress or insolvent;⁶ and (e) with the goal of liquidating or reorganizing that debtor as a commercial entity.⁷ In the light of those cumulative requisites, insolvency proceedings that may be commenced in some jurisdictions as a corporate governance or fraud remediation action are excluded from the scope of this text.

2. “Insolvency proceedings” under UNCITRAL insolvency texts encompass: (a) “liquidation” defined as proceedings to sell and dispose of assets for distribution to creditors in accordance with the insolvency law;⁸ (b) “reorganization” defined as the process by which the financial well-being and viability of a debtor’s business can be restored and the business can continue to operate, using various means possibly including debt forgiveness, debt rescheduling, debt-equity conversions and sale of the business (or part of it) as a going concern;⁹ (c) “expedited reorganization proceedings” that combine voluntary restructuring negotiations and acceptance of a plan with an expedited procedure conducted under the insolvency law for court confirmation of that plan;¹⁰ (d) proceedings commenced by a micro- or small enterprise (MSE) debtor at an early stage of financial distress;¹¹ and (e) interim, restructuring and any other proceeding that the court may ascertain on a case-by-case basis as meeting the cumulative list of the requisites set out in paragraph 1 above.¹²

¹ See the main Glossary of the UNCITRAL Legislative Guide on Insolvency Law (the “Guide” and the “Glossary”), term (u); and article 2 (a) of the UNCITRAL Model Law on Recognition and Enforcement of Insolvency-related Judgments (2018) (MLIJ) and article 2 (h) of the UNCITRAL Model Law on Enterprise Group Insolvency (2019) (MLEGI); the definition of “foreign proceeding” in article 2 (a) of the UNCITRAL Model Law on Cross-Border Insolvency (1997) (MLCBI) is substantively the same.

² The Guide to Enactment and Interpretation of MLCBI (GEI), paras. 69–72.

³ GEI, para. 73.

⁴ “Debtor-in-possession”: a debtor that by the decision of the court retains full control over the business after commencement of insolvency proceedings, with the consequence that the court does not appoint an insolvency representative (the Glossary, term (l)) or appoints it for limited functions specified by the court (e.g. to assist or supervise the debtor-in-possession). The term does not intend to capture self-appointed debtors-in-possession.

⁵ Recommendation 112 of the Guide, and GEI, paras. 71, 74–76, and 86.

⁶ GEI, paras. 1, 48, 49, 65 and 67, cross-referring to recommendations 15 and 16 of the Guide that sets out standards for commencement of insolvency proceedings by the debtor (the debtor is or will be generally unable to pay its debts as they mature or its liabilities exceed the value of its assets) and creditors (the debtor is generally unable to pay its debts as they mature or the debtor’s liabilities exceed the value of its assets).

⁷ GEI, paras. 77–78.

⁸ The Glossary, term (w).

⁹ Ibid., term (kk).

¹⁰ The text on the Purpose of legislative provisions preceding recommendation 160 of the Guide. See also GEI, para. 75.

¹¹ The Guide, recommendation 294.

¹² As regards interim proceedings, see GEI, paras. 79–80. As regards restructuring proceedings, see the Digest of Case Law on the UNCITRAL Model Law on Cross-Border Insolvency, para. 11, under article 2.

3. Being non-prescriptive, the text aims at increasing awareness of ATR tools and related matters among policy makers, legislators, judges and practitioners. States may find the text informative when they assess availability, accessibility, effectiveness and efficiency of their domestic ATR framework. Judges and practitioners may find the text helpful with reference to ATR tools used in other jurisdictions, including legal requirements for their use, issues that arise from their use and possible solutions for addressing them.

4. The text has originated from the proposals to UNCITRAL to provide States with a set of options to choose from for enactment in their jurisdictions with a view to improving, if necessary, the domestic ATR framework, including as regards cross-border cooperation on ATR.¹³ The proposals were discussed at the International Colloquium (Vienna, 6 December 2019)¹⁴ and in the Commission¹⁵ before being assigned to UNCITRAL Working Group V (Insolvency Law) in 2021. During those discussions, it was acknowledged that adequate ATR tools might not be available in all jurisdictions, while access to existing ATR tools, in particular by foreign parties, might not be effective and efficient. While the Commission agreed to refer the subject to the Working Group with the scope of work limited to ATR, it also acknowledged that asset tracing and recovery took place in various contexts, and thus the results of its work on ATR might turn out to be helpful in other areas of law where asset tracing and recovery is relevant.¹⁶

5. The consideration of the text in the Working Group¹⁷ proceeded on the understanding that enhanced awareness about ATR tools and related matters would contribute to the effectiveness and efficiency of domestic and cross-border ATR, which was indispensable for achieving the objectives of an insolvency law, such as transparency, predictability, certainty, preservation and maximization of the value of the insolvency estate¹⁸ and protection of the legitimate interests of creditors,¹⁹ the debtor and other parties in interest.²⁰ The absence of such a framework, on the other hand, substantially increases risks of commercial fraud and dissipation of assets and diminishes the opportunity for reinstating the integrity of the insolvency estate for the benefit of all parties in interest. As a result, chances of successful reorganization of viable businesses and orderly and speedy liquidation of non-viable businesses are decreased. In addition, the weak ATR framework jeopardizes the ability to effectively realize value on assets, which may discourage foreign direct investment flows since investors need certainty and assurance that they will be able to recover their investments. Therefore, an effective and efficient ATR framework contributes not only to the objectives of insolvency law and broader objectives of the rule of law and

¹³ The proposals by the United States of America for possible future work by UNCITRAL on civil asset tracing and recovery ([A/CN.9/WG.V/WP.154](#) and [A/CN.9/996](#)).

¹⁴ The report of the Colloquium may be found in document [A/CN.9/1008](#), available at Commission Sessions | United Nations Commission On International Trade Law.

¹⁵ *Official Records of the General Assembly, Seventy-third Session, Supplement No. 17 (A/73/17)*, paras. 250 and 253 (d); *ibid.*, *Seventy-fourth Session, Supplement No. 17 (A/74/17)*, paras. 200–203; *ibid.*, *Seventy-fifth Session, Supplement No. 17 (A/75/17)*, part two, paras. 62–65; and *ibid.*, *Seventy-sixth Session, Supplement No. 17 (A/76/17)*, paras. 215–217.

¹⁶ *Ibid.*, *Seventy-sixth Session, Supplement No. 17 (A/76/17)*, para. 217.

¹⁷ For the reports of the Working Group on the sessions at which the topic was considered, see documents [A/CN.9/1088](#), [A/CN.9/1094](#), [A/CN.9/1126](#), [to be completed], available at Working Group V: Insolvency Law | United Nations Commission On International Trade Law.

¹⁸ “Insolvency estate”: assets of the debtor that are subject to the insolvency proceedings (the Glossary, term (t)).

¹⁹ “Creditor”: a natural or legal person that has a claim against the debtor that arose on or before the commencement of the insolvency proceedings (the Glossary, term (j)). As a general rule, the term includes the creditors in the forum State and foreign creditors (the Glossary, para. 10).

²⁰ “Party in interest”: any party whose rights, obligations or interests are affected by insolvency proceedings or particular matters in the insolvency proceedings, including the debtor, the insolvency representative, a creditor, an equity holder, a creditor committee, a government authority or any other person so affected. It is not intended that persons with remote or diffuse interests affected by the insolvency proceedings would be considered to be a party in interest (the Glossary, term (dd)).

good governance but also to an enabling environment for trade, business, investment, access to credit and sustainable development.²¹

6. The objectives cited in the preceding paragraph underpin UNCITRAL work and instruments in the area of insolvency law, including its Model Law on Cross-Border Insolvency (1997) (MLCBI), Legislative Guide on Insolvency Law (the Guide), Model Law on Recognition and Enforcement of Insolvency-related Judgments (2018) (MLIJ), Model Law on Enterprise Group Insolvency (2019) (MLEGI) and guidance materials related thereto.²² The text builds on and supplements that work and those instruments, by focusing on provisions commonly found in international, regional and domestic insolvency and other law that enable and facilitate ATR, by describing main ATR and supplementary tools found there (their purpose, conditions for use and safeguards against abuses), and by highlighting issues arising from the use of those tools, including in the digital context and across borders.

B. Asset tracing and recovery generally

7. While there is no common definition of asset tracing and recovery, “asset tracing” generally refers to a process of identifying and locating assets or their proceeds. “Asset recovery” follows the asset tracing process and can be understood as the process of returning the assets or their proceeds to their legitimate claimant(s). “Assets” being traced and recovered may encompass anything of value to its legitimate claimant(s).

8. In commercial relationships, asset tracing and recovery usually takes place: (a) for due diligence (e.g. before a business transaction, such as merger or acquisition); (b) in anticipation of a dispute (litigation or arbitration); (c) during litigation or arbitration; (d) for enforcement of a security interest, judgment or arbitral award; and (e) before the commencement²³ of, and during, insolvency proceedings. In other contexts, asset tracing and recovery is relevant to, for example, tax collection, settlement of insurance claims, resolution of family, inheritance and succession matters, protection of consumers and deposits and, at the pre-investigation, investigation, sentence, and post-sentence stages of criminal proceedings. In the latter context, asset tracing and recovery has been in the focus of international instruments and activities on combating transnational organized crime (e.g. money-laundering and corruption).²⁴

9. Irrespective of the context in which asset tracing and recovery takes place, practitioners: (a) use similar techniques (e.g. consulting the same sources of information for tracing assets, such as registers, witnesses, government files and court records as well as Internet and other public sources of information); (b) have to meet similar requirements and take into account similar considerations (e.g. international obligations, safety and security, due process, probable cause, no speculative requests (“fishing expedition”), privacy, data protection, bank secrecy laws and the attorney-client privilege); and (c) face similar challenges, such as bureaucratic hurdles and inertia, deficiencies in the enabling environment and unresolved issues of law (e.g. as regards competing, including intermingled public and private, claims on the same asset; the rights of bona fide transferees; and third-party funding of asset tracing and recovery actions).

10. Additional challenges arise in the cross-border context, in particular because of differences in jurisdictional, procedural and substantive rules and tools relevant to

²¹ The Guide, part one and <https://sustainabledevelopment.un.org>.

²² The guides to enactment to the Model Laws, the Practice Guide, the Digest and the Judicial Perspective. All texts cited in the paragraph are available at [Insolvency | United Nations Commission On International Trade Law](#).

²³ “Commencement of [insolvency] proceedings”: the effective date of insolvency proceedings whether established by statute or a judicial decision (the Glossary, term (h)).

²⁴ See, e.g. United Nations Convention against Corruption (UNCAC), articles 52–59.

asset tracing and recovery. For example, different regimes for traceability of assets²⁵ and different rules on standing and limitation periods may apply. Concepts known in some jurisdictions (“constructive trust”, “actio pauliana”; see para. 98 below) may be unknown in others. Tools used in some jurisdictions (e.g. discovery, “gag and seal” orders and interception of correspondence) may create tension with public policies in other jurisdictions. The extraterritorial effect of some tools recognized in some countries may be questioned in others. As a result, some asset tracing and recovery tools might be effective in the domestic context or across jurisdictions sharing the same legal tradition but less effective in other settings. In addition, practical issues of varying complexity often arise in cross-border asset tracing and recovery: from the need to deal with complex corporate and trust structures that are often used to obfuscate true ownership of assets to the need to overcome difficulties with access to local registers, which may be hindered by their set-up (e.g. a foreign language or local identification requirements).

11. Digital means, open sources of information (such as online registers, databases and social networks) as well as modern investigative methods (dynamic, smart and multifactorial) and forensic technology considerably facilitate the tracing of both physical and digital assets, including across jurisdictions, in particular, by alleviating the need to deal with administrative barriers and bureaucratic hurdles and inertia. However, they cannot eliminate all obstacles to effective and efficient asset tracing and recovery, such as those arising from unresolved matters of law or deliberate restrictive policy choices made, or the need to involve intermediaries in asset tracing and recovery, for example, cloud service providers or digital platform operators that are often in possession of digital assets being traced (e.g. cryptocurrencies, air miles, virtual online game items, non-fungible tokens (NFTs)) or data necessary to gain access and control over the digital assets (e.g. passwords or control codes). The use of digital means has given rise to other challenges, such as possible loss of data, which may be a digital asset or evidence, as a result of a cybersecurity attack or cybercrime (see further chapter IV below).

C. Specifics of ATR

12. While sharing the features and challenges described in section B above and relying on asset tracing and recovery tools available also in other areas of law, ATR has its specifics, which arise from the nature and objectives of insolvency proceedings as collective enforcement proceedings. Those proceedings pursue, among others, the goals of recognition of existing creditor rights, equitable treatment of similarly situated creditors, and preservation, protection and maximization of the value of the insolvency estate to allow equitable distribution to creditors. ATR is the means to achieve those objectives, including by verifying assertions of no assets in the insolvency estate for distribution among creditors, of creditors’ claims²⁶ that may turn out to be fictitious and of dealings by the debtor-in-possession, directors²⁷ or the

²⁵ For example, in some jurisdictions, the creditor may be able to claim the misappropriated property and any subsequent assets into which the original property was converted while in other jurisdictions, only the original asset may be claimed via a proprietary claim, while any subsequent assets into which the original property was converted may only be recovered through personal claims.

²⁶ “Claim”: a right to payment from the estate of the debtor, whether arising from a debt, a contract or other type of legal obligation, whether liquidated or unliquidated, matured or unmatured, disputed or undisputed, secured or unsecured, fixed or contingent. Some jurisdictions recognize the ability or right, where permitted by applicable law, to recover assets from the debtor as a claim (see the Glossary, item (g)).

²⁷ The Guide, part four refers to directors broadly as persons who exercise factual control over the debtor in the period approaching insolvency, including formally appointed directors as well as de facto and shadow directors.

insolvency representative²⁸ that may turn out to be self-dealings. Together with an effective sanctions regime to prevent abuse or improper use of the insolvency regime and to impose appropriate penalties for misconduct, ATR plays an important preventive role against dissipation of assets before and during insolvency proceedings. Moreover, where such dissipation occurs, ATR is the means to reconstitute the integrity of the insolvency estate for the benefit of all creditors and other parties in interest.

13. In the specific context of insolvency proceedings, asset tracing is a process of identifying and locating the assets of the debtor. Under the Guide, assets of the debtor are defined broadly to include property, rights and interests of the debtor, including rights and interests in property, whether or not in the possession of the debtor, tangible or intangible, movable or immovable, including the debtor's interests in encumbered assets²⁹ or in third-party-owned assets (the Glossary, term (b)).

14. Asset recovery follows asset tracing for the purpose of returning to the insolvency estate those assets of the debtor that under the applicable law are to be made subject to the insolvency proceedings. The Guide recommends that the insolvency law should specify that the insolvency estate should include: (a) assets of the debtor, including the debtor's interest in encumbered assets and in third-party-owned assets; (b) assets acquired after commencement of the insolvency proceedings; and (c) assets recovered through avoidance³⁰ and other actions (rec. 35). In addition, the Guide recommends stating in insolvency law that any undisclosed or concealed assets of the debtor form part of the insolvency estate (rec. 314).

15. Some jurisdictions include in the insolvency estate all assets of the debtor regardless of their location. Other jurisdictions include in the insolvency estate only those assets of the debtor that are located within the boundaries of that jurisdiction unless there are treaties or other inter-State or inter-court cooperation agreements that facilitate including the assets of the debtor located abroad in the insolvency estate. Yet other jurisdictions follow an intermediate approach; for example, that the insolvency estate in the main proceeding³¹ should include all assets of the debtor wherever located. Some laws envisage, like the MLCBI, that certain assets of the debtor can be reserved for administration in a particular proceeding (main, non-main,³² or proceeding at the place of the location of the assets). They may also restrict removal of the local assets of the debtor abroad before local creditors' interests

²⁸ "Insolvency representative": a person or body, including one appointed on an interim basis, authorized in insolvency proceedings to administer the reorganization or the liquidation of the insolvency estate (see the Glossary, item (v)). For convenience, depending on the context, the term "insolvency representative" may also refer to an "independent professional": an individual or entity of appropriate qualifications, independent from the debtor, creditors and other parties in interest, appointed by the competent authority to perform one or more tasks related to a simplified insolvency proceeding, subject to appropriate clearances as regards ethical, professional and other requirements and the absence of conflicts of interest. In the performance of any tasks assigned to it by the competent authority, the independent professional remains accountable to the competent authority and is expected to adhere to any applicable instructions or guidance that may be issued by the competent authority with respect to a task assigned to the independent professional (see the Guide, part five, section two, para. 25 (d)). Where the context so required, those separate terms were used.

²⁹ "Encumbered asset": an asset in respect of which a creditor has a security interest (the Glossary, term (o)).

³⁰ "Avoidance": provisions of the insolvency law that permit transactions for the transfer of assets or the undertaking of obligations prior to insolvency proceedings to be cancelled or otherwise rendered ineffective and any assets transferred, or their value, to be recovered in the collective interest of creditors (the Glossary, term (c); the Guide, part five, section two, term (a)).

³¹ "Main proceeding": an insolvency proceeding taking place in the State where the debtor has the centre of its main interests (the Guide, part four, section two, term (d); art. 2 (j) MLEGI; the definition of "foreign main proceeding" in art. 2 (b) MLCBI is substantively the same). See footnote 33 for the explanation of the term the centre of main interests (COMI).

³² "Non-main proceeding": an insolvency proceeding, other than a main proceeding, taking place in a State where the debtor has the establishment (defined as any place of operations where the debtor carries out a non-transitory economic activity with human means and goods or services) (art. 2 (k and l) MLEGI; the definition of "foreign non-main proceeding" in art. 2 (c) MLCBI is substantively the same).

are satisfied. The Guide recommends that in the case of insolvency proceedings commenced where the debtor has the centre of its main interests (COMI),³³ the insolvency law should specify that the insolvency estate should include all assets of the debtor wherever located (rec. 36) and, where the insolvency law adopts a universal approach, as recommended in the Guide,³⁴ the law should also address the issue of recognition of foreign proceedings.³⁵ The Guide recommends MLCBI for enactment (rec. 5).

16. The date from which the insolvency estate is to be constituted could be either the date of application for commencement or the effective date of commencement of insolvency proceedings (rec. 37); for a simplified insolvency proceeding, the Guide recommends that the effective date of commencement should be the date from which the insolvency estate is to be constituted (rec. 315). The significance of the difference between the dates relates to the treatment and the protection of the debtor's assets in the interim period between application and commencement (see chapter III below, under "Provisional measures").

17. Not all assets of the debtor would be part of the insolvency estate. The types of assets that are usually excluded in respect of natural persons include assets that are necessary for the debtor to earn a living, post-application earnings from the provision of personal services, and personal and household items necessary to satisfy the basic domestic needs of the debtor and his or her family. Further exemptions may apply to joint assets such as matrimonial property. Tort claims of personal nature (e.g. arising from bodily injury, defamation, damage to reputation) are also usually excluded from the insolvency estate of the natural person debtor.³⁶ International treaty obligations may apply to this type of exclusions. In comparison, insolvency laws adopt different approaches to exclusion of assets from the insolvency estate where the debtor is a legal person. Some laws may exclude trust assets and assets subject to contractual or other arrangement that does not involve a transfer of title but rather use of the assets and return to the owner once the purpose for which they were in the possession of the debtor has been fulfilled (such an arrangement may be known as a bailment or depositum). Some laws may also exclude assets subject to reclamation, such as goods supplied to the debtor before commencement but not paid for and recoverable by the supplier (subject to identification and other applicable conditions).³⁷ There are also different approaches to treating encumbered assets: some jurisdictions make them part of the insolvency estate, others do not. In addition, different approaches may be taken to the manner of constituting the insolvency estate in simplified insolvency proceedings. In particular, all assets may be included in the insolvency estate, and the MSE debtor may be allowed to request exclusion of some assets up to a specified value limit. Alternatively, assets could be excluded subject to specific ceilings or categories, or across-the-board exclusion of all assets of the MSE debtor could be permitted subject to challenge by creditors.

18. Because of those exclusions, not all assets of the debtor would be traceable and recoverable. With respect to traceable and recoverable assets, practicable considerations (e.g. availability of funds in the insolvency estate, costs of ATR and probability of success) may influence which of the assets of the debtor would be traced and which of the traced assets would be attempted to be recovered for the insolvency estate. For example, traceability and recoverability of some assets of the debtor may be hindered by special protections (e.g. those that are usually accorded to the bona fide transferees). Special regimes, including those under international

³³ COMI is the location (a) where the central administration of the debtor takes place and (b) which is readily ascertainable by creditors (see GEI, para. 145).

³⁴ Footnote n. 7 in the published version of the Guide, part two, chap. II.

³⁵ "Foreign proceeding": a collective judicial or administrative proceeding in a foreign State, including an interim proceeding, pursuant to a law relating to insolvency in which proceeding the assets and affairs of the debtor are subject to control or supervision by a foreign court, for the purpose of reorganization or liquidation (art. 2 (a) of MLCBI).

³⁶ Footnote n. 8 in the published version of the Guide, part two, chap. II.

³⁷ The Guide, part two, chap. II, section A.3, paras. 17–21 and part five, paras. 173–175 and 197.

instruments, may complicate tracing and recovery of some assets. Some assets may need to be substituted by their cash value or the value of an avoided transaction.

19. ATR is enabled and facilitated by the entire insolvency law framework, including broad administrative and investigative powers of the court³⁸ and of the insolvency representative. Those provisions, powers and prerogatives are unavailable outside insolvency proceedings, including in individual enforcement proceedings that the insolvency representative may decide to initiate or join.

20. At the same time, ATR faces specific challenges. For example, cooperation by the debtor and third parties that have had dealings with the debtor is often crucial for timely ATR actions, including avoidance. The latter, although a powerful ATR tool, may be unpredictable or ineffective if slow, complex or possible only on very narrow grounds. In addition, the lack of, or insufficient, funds in the insolvency estate may hinder ATR unless alternative funding or other arrangements (e.g. contingency fees) are put in place. However, if the usual safeguards (e.g. oversight over actions and expenses, assessment of their reasonableness and necessity, mitigation of risks of any influence on the conduct of proceedings) would not be able to resolve tensions that such alternative solutions may create with other considerations in insolvency proceedings, the court may refuse to authorize those solutions.

21. In cross-border insolvencies, in addition to the usual jurisdictional, standing and limitation period issues, specific challenges may arise from application of different rules, in the State of opening insolvency proceedings and in a State where an ATR action is taken, to insolvency law matters, such as the composition of the insolvency estate, treatment of certain assets, rights or claims, and avoidance. Non-recognition of effects of the opened insolvency proceeding on those matters as well as measures that the State may take for protection of its local interests may create additional challenges to the recovery of insolvency estate assets.

22. UNCITRAL insolvency texts recommend mechanisms that would allow courts to address those issues. Such mechanisms include: (a) direct and expeditious access of the foreign representative and foreign creditors to courts in enacting States; (b) different types of assistance and relief, including provisional relief, that domestic courts can provide to the foreign proceeding and the foreign representative;³⁹ (c) expeditious procedures for recognition of the foreign proceeding, recognition and enforcement of insolvency-related judgments⁴⁰ and granting relief; (d) direct communication and cooperation of courts and insolvency representatives; (e) coordination of concurrent proceedings; and (f) [*uniform rules on the governing law in insolvency proceedings*]. What has proved to be also of assistance to ATR in cross-border insolvency cases is specialization of domestic courts in cross-border insolvency matters and procedural rules designed specifically for cross-border insolvency cases to ensure that they are handled expeditiously and in a coordinated manner.

³⁸ “Court”: a judicial or other authority competent to control or supervise an insolvency proceeding (the Glossary, term (i)). In this text, the term “court”, depending on the context, is used also to refer to a judicial or other authority, other than the one competent to control or supervise an insolvency proceeding, that may have adjudicative functions with respect to proceedings related to ATR (e.g. adjudication of disputed claims or administration of avoidance proceedings). For convenience, the term “court” also refers to the “competent authority”: an administrative or judicial authority that is responsible for conduct or oversight of simplified insolvency proceedings or both (the Guide, part five, section two, para. 25 (b)). Where the context so required, those separate terms were used.

³⁹ “Foreign representative”: a person or body, including one appointed on an interim basis, authorized in a foreign proceeding to administer the reorganization or the liquidation of the debtor’s assets or affairs or to act as a representative of the foreign proceeding (art. 2 (d) of MLCBI).

⁴⁰ “Insolvency-related judgment”: a judgment that arises as a consequence of or is materially associated with an insolvency proceeding, whether or not that insolvency proceeding has closed (art. 2 (d) of MLII). “Judgment”: any decision, whatever it may be called, issued by a court or administrative authority, provided an administrative decision has the same effect as a court decision. For the purposes of this definition, a decision includes a decree or order, and a determination of costs and expenses (art. 2 (c) of MLII).

23. At the same time, ATR closely interacts with other provisions of insolvency and other laws, in particular those that ensure accountability and transparency for ATR actions and those that aim at achieving appropriate balance between effective and efficient ATR and provision of certainty in the market to promote economic stability and growth.⁴¹ In addition, effectiveness of ATR depends on a general enabling environment, such as good governance, the rule of law and institutional support (including, as noted above, the speed with which courts can handle ATR actions), professionalism of insolvency representatives and other practitioners involved in ATR, and quality of enforcement mechanisms. (See paras. 45–49 below.)

D. Organization of the text

24. The subsequent parts of the text are organized as follows:

- (a) Chapter II discusses ATR in the broader insolvency law context and an enabling framework for an effective and efficient ATR;
- (b) Subsequent chapters survey ATR tools; and
- (c) The last chapter highlights digital aspects.

25. The glossary of terms is provided either in accompanying footnotes or in the text. The usual rules of interpretation apply: “or” is not intended to be exclusive; use of singular also includes the plural; and “include”, “including”, “such as” and “for example” are not intended to indicate an exhaustive list. References to “person” should be interpreted as including both natural and legal persons unless the context suggests otherwise.

II. ATR in the broader context

A. ATR and the key objectives of insolvency law

26. When a debtor is or will generally be unable to pay its debts as they become due or when its liabilities exceed the value of its assets, an effective and efficient insolvency law provides legal mechanisms for addressing claims against the insolvency estate collectively, either through liquidation of failed businesses or reorganization of viable businesses. Creditors and other parties in interest, including the debtor, its owners and employees, have strong incentives to achieve maximum value for the insolvency estate since this will ensure higher distributions and reduce the burden of insolvency for the debtor. One of the key objectives of insolvency law, therefore, is to preserve, protect, and maximize the value of the insolvency estate.⁴² This objective is furthered by ATR since its primary goal is to identify, collect and recover as many insolvency estate assets as fast and with as low costs as possible.

27. Another common key objective of an insolvency regime is to ensure equitable treatment of similarly situated creditors.⁴³ It is based on the principle that in collective proceedings creditors with similar legal rights should be treated fairly, receiving a distribution on their claims in accordance with their relative ranking and interests. This means that any adjustments made by insolvency law to the priority accorded to the claims of a similar class affects all members of that class in the same manner. This objective is closely linked to other objectives of an effective and efficient insolvency law – to ensure a transparent and predictable insolvency law and to recognize existing creditor rights.⁴⁴ ATR furthers the achievement of those objectives by addressing

⁴¹ The Guide, recommendation 1 (a).

⁴² Ibid., recommendation 1 (b) and (f).

⁴³ Ibid., recommendation 1 (d) and (f).

⁴⁴ Ibid., recommendations 1 (h), 3 and 4.

fraud, favouritism, preferences⁴⁵ and other acts or transactions detrimental to equitable treatment of similarly situated creditors.

28. ATR is also relevant to the achievement of other objectives of an effective and efficient insolvency law since they are interconnected and reinforce each other. For example, identification, collection and recovery of insolvency estate assets without delay and with as low costs and disruptions as possible contribute to achieving the objective of efficient and impartial resolution of insolvency.⁴⁶ This, in turn, contributes to achieving the objectives of the maximization of the value of the insolvency and of equitable treatment of similarly situated creditors.

B. Enabling environment for ATR: insolvency law framework

29. The sections below explain how an insolvency law framework recommended by UNCITRAL insolvency texts can facilitate ATR.

1. Comprehensive scope of an insolvency law

30. The Guide recommends that insolvency laws govern insolvency proceedings against all debtors that engage in economic activities, whether natural or legal persons, including state-owned enterprises. According to the Guide, exclusions from the application of the insolvency law should be limited and clearly identified.⁴⁷ The Guide recommends establishing mechanisms for covering the costs of administering insolvency proceedings where assets and sources of revenue of the debtor are insufficient to meet those costs (recs. 26 and 280). Such mechanisms could address, in addition to other concerns, a particular challenge arising in those jurisdictions where an application for insolvency proceedings is denied because there are no assets in the insolvency estate. Potentially dissipated assets will not be found and recovered through ATR for distribution among the creditors if no insolvency proceeding is commenced. Some insolvency laws do provide for the possibility that a creditor or a group of creditors may advance the approximate costs of insolvency proceedings. Indeed, there may be an incentive for creditors to do so if they believe that there are avoidable transactions or hidden assets that can be found. In most cases, however, creditors are unwilling to throw good money after bad just for the hope of recovering a portion of their debt. In such cases, alternative modes of funding the commencement of insolvency proceedings may be a solution.⁴⁸

2. Mechanisms for protection, preservation and maximization of the value of the insolvency estate

31. UNCITRAL insolvency texts recommend mechanisms for protection, preservation and maximization of the value of the insolvency estate that support ATR in several ways. They recommend making available urgent provisional relief to avoid dissipation of assets before commencement or recognition of insolvency proceedings. Such relief may include a stay of execution against the assets of the debtor and entrusting the administration and supervision of the debtor's business, or the realization of all or part of the debtor's assets, to the insolvency representative.

32. Upon commencement of insolvency proceedings, mechanisms for protection, preservation and maximization of the value of the insolvency estate are primarily aimed at: (a) reinstating the integrity of the insolvency estate, including through avoidance; and (b) preserving and maximizing the value of the estate, including

⁴⁵ "Preference": a transaction which results in a creditor obtaining an advantage or irregular payment (the Glossary, term (ff)).

⁴⁶ The Guide, recommendation 1 (e).

⁴⁷ Ibid., recommendations 8 and 9.

⁴⁸ See discussion of possible alternative solutions in parts two and five of the Guide, in the context of recommendations 26, 125 and 280.

through a stay of proceedings.⁴⁹ The latter prevents premature dismemberment of the insolvency estate by individual creditor actions to collect individual debts. By preserving the status quo, it allows some breathing space for more orderly and efficient ATR than would be the case if separate individual enforcement and other proceedings against the insolvency estate were allowed to proceed.

33. Mechanisms for protection, preservation and maximization of the value of the insolvency estate imposed upon commencement of insolvency proceedings often also include those that aim at putting in place an appropriate regime for control over the debtor's assets and affairs. They may be different depending on whether the debtor retains full control of the business (debtor-in-possession), or whether the debtor is totally or partially displaced from the administration of the business. The Guide recommends achieving clarity as regards rights and obligations between the debtor and an insolvency representative appointed as a provisional measure and of all participants in insolvency proceedings with respect to the use, disposal⁵⁰ or realization of the debtor's assets and management of its affairs.⁵¹

3. Convenient means for identifying, collecting, preserving and recovering insolvency estate assets

34. An effective and efficient ATR is also facilitated by provisions of an insolvency law that provide a convenient means for identifying, collecting, preserving and recovering insolvency estate assets. For example, such a common measure as the notice of the decision to commence insolvency proceedings, among other things, advises creditors or third parties against entering into transactions with the debtor that will be considered invalid, unenforceable or avoidable under insolvency law. The notice also advises the debtor's debtors against making payment to the debtor and instead to make payment to the insolvency representative. In some jurisdictions, such a notice obligates all who has custody of any of the debtor's assets, business records and other documentary evidence to make, under penalty of law, those assets and materials available to the insolvency court or the insolvency representative, as the case may be. The Guide also recommends imposing a specific obligation on the debtor as regards disclosure of complete, reliable and accurate information about the debtor's situation and the location of the debtor's assets and business records.

4. Incentives and deterrents

35. The Guide recognizes the importance of both: (a) building appropriate incentives to induce compliance with the obligations under insolvency law (for example, it specifically lists, among objectives of an insolvency law, provision of incentives for gathering and dispensing information); and (b) providing effective remedies to deter non-compliance (e.g. a penalty could be imposed on any person in control or possession of business records of the debtor for each day of delay with delivering those records to the insolvency representative). At the same time, the Guide stresses the importance of prevention, including through awareness-raising, education, early alerts and red flags.

36. Although incentives and remedies related to compliance in insolvency proceedings are often found not only in insolvency law but also non-insolvency law, for example company law, administrative law and criminal law, for creditors and other parties in interest, insolvency law incentives and remedies may be preferable than the imposition of criminal or administrative sanctions that have different objectives and

⁴⁹ "Stay of proceedings": a measure that prevents the commencement, or suspends the continuation, of judicial, administrative or other individual actions concerning the debtor's assets, rights, obligations or liabilities, including actions to make security interests effective against third parties or to enforce a security interest; and prevents execution against the assets of the insolvency estate, the termination of a contract with the debtor, and the transfer, encumbrance or other disposition of any assets or rights of the insolvency estate (the Glossary, term (rr)).

⁵⁰ "Disposal": every means of transferring or parting with an asset or an interest in an asset, whether in whole or in part (the Glossary, term (n)).

⁵¹ See e.g. recommendations 41, 112 and 284–287.

may not allow for a level of flexibility required in insolvency proceedings. The Guide recommends that insolvency law preserve flexibility for courts to impose targeted and tailored incentives and remedies on a case-by-case basis depending on the circumstances and case at hand.⁵² In particular, the courts in insolvency proceedings may need to take a broader look at persons who might need to be made subject to incentives and remedies provided for in insolvency law. In addition, from the insolvency law perspectives, the main purpose of ATR is to facilitate recovery of the insolvency estate assets for the benefit of all creditors, not just the few that, for example, may be the victims of the crime and hence benefit from compensation orders in criminal proceedings.

37. Insolvency law incentives and remedies may be implemented through discharge⁵³ (e.g. granting an earlier discharge or conversely denying discharge or revoking a discharge already granted), denial of an application for commencement of insolvency proceedings, dismissal or conversion of proceedings and orders for compensation of costs and damages. Of direct relevance to ATR are provisions on the composition of the insolvency estate that, *inter alia*, may provide, as recommended by the Guide (rec. 314), that any concealed or undisclosed assets form part of the insolvency estate.

38. A deterrent against dissipation of assets and, at the same time, an important factor for timely ATR are the provisions of the Guide that recommend allowing both debtors and creditors to apply for commencement of insolvency proceedings and ensuring speedy, efficient and cost-effective procedures for processing of applications and commencement of insolvency proceedings, subject to safeguards against improper use of the insolvency law (see recs. 14–29 and 292–301).

39. For example, the Guide provides a special commencement regime for individual entrepreneurs and other MSEs, eliminating the need for them to prove insolvency.⁵⁴ At the same time, in the light of the ease with which MSEs may enter a simplified insolvency regime and obtain a discharge, part five of the Guide recommends building special protections against abuses, including against possible pre-commencement dissipation of assets. Such protections include creditor objections to commencement of simplified insolvency proceedings or a particular type thereof, or to the court's decision to close insolvency proceedings and to grant a discharge where the insolvency estate lacks assets. Creditor objections may lead to additional verifications of the debtor and its business and assets. Following those verifications, the need to commence avoidance proceedings or take other ATR actions may arise, which, in turn, may require conversion of simplified insolvency proceedings to standard ones.

40. For larger enterprises, between the two sets of commencement criteria and standards, the Guide gives priority to the cessation of payments test over the balance sheet test. Prioritizing the cessation of payments test puts the defining factors within the reach of creditors and is designed to activate insolvency proceedings sufficiently early in the period of the debtor's financial distress to minimize dissipation of assets and avoid a race by creditors to grab assets. Allowing commencement of proceedings to take place only when the debtor can demonstrate balance sheet insolvency may diminish recoveries.

41. Where the application for commencement of insolvency proceedings does not automatically trigger the commencement of insolvency proceedings, the Guide recommends mechanisms to make eligibility assessment less complex, since delay between application and commencement may lead to dissipation of assets by the actions of both the debtor and creditors. For example, to streamline the assessment, the UNCITRAL insolvency texts recommend including provisions on presumption of insolvency (see e.g. rec. 17 of the Guide and article 31 of the MLCBI). A presumption of insolvency based on recognition of a foreign main proceeding is significant in the

⁵² See e.g. recommendations 20, 28, 301 and 309 and their accompanying commentary.

⁵³ "Discharge": release in accordance with applicable law of a debtor from claims addressed in the insolvency proceedings.

⁵⁴ The Guide, recommendations 272, 275 and 292.

cross-border insolvency context when commencement of a local insolvency proceeding in the recognizing State may urgently be needed for access by the foreign representative to local remedies. In some jurisdictions, additional presumptions of insolvency exist. They include the closure of the business (the administrative headquarters or other place where the debtor carries out its main business activity) or hiding or absence by the members of the administrative body or legal representatives from the registered office or principal place of business for more than the established number of days without leaving legal representatives with sufficient powers and assets or means to comply with their obligations. In addition, the failure to present (audited) annual financial reports for a number of subsequent years fixed in the law may lead to the presumption that the business is unable to meet its due obligations and be a legal ground for opening the insolvency proceeding.

5. Clarity and certainty

42. The Guide's provisions on eligibility and commencement are supplemented by provisions on jurisdiction and applicable law. Depending on ATR actions, different courts may be involved domestically and abroad, and different jurisdiction rules may apply to ATR under insolvency law and to ATR under other law. In particular, there could be different connecting factors (e.g. the location of the debtor, related or other persons to whom assets might have been transferred or conveyed, the location of a third party subject to the court's order or the location of the evidence or the assets).

43. The Guide recommends that the insolvency law should clearly identify the court that has jurisdiction over the commencement and conduct of insolvency proceedings, including matters arising in the course of the proceedings,⁵⁵ and should also determine which debtors have sufficient connections to the State to be subject to its insolvency law. According to the Guide, these grounds should include the location of the COMI or the establishment in the State.⁵⁶ The UNCITRAL insolvency texts implicitly acknowledge the coordinating role of the court commencing the insolvency proceeding in the COMI jurisdiction (or the planning proceeding in the enterprise group insolvency context). Nevertheless, they also recognize that other tests, such as presence of assets, are used to commence local proceedings to deal with local assets.

44. Because of the different tests of debtor eligibility or different interpretations of the same test, a debtor that has assets in more than one State may find itself satisfying the requirements to be subject to the insolvency law of more than one State, resulting in the possibility of separate insolvency proceedings in those States. Predictability and clarity on issues such as where insolvency proceedings or ATR actions could be initiated, or where an urgent relief can be obtained and which law would apply are thus important especially in cross-border insolvency cases. UNCITRAL insolvency texts recommend a framework to address those instances (see para. 22 above). [*To be elaborated: governing law aspects.*]

C. Enabling environment for ATR: other areas of law and institutional framework

45. The success of ATR depends on many factors, including the adequacy of the court infrastructure. If the court infrastructure is not able to respond to the demands for swift action, the inclusion of ATR tools in the law will not achieve the ATR goals.

46. In addition to courts, professionals involved in ATR (insolvency representatives, legal advisers, accountants, forensic specialists or other professional advisers) play an important role in ensuring that ATR is handled timely, transparently and at the required level of accountability and integrity. They usually must comply with professional standards by which their performance is assessed. Non-compliance may lead to disqualification. They may be required to undertake regular training to keep

⁵⁵ The Guide, recommendation 13.

⁵⁶ Ibid., recommendation 10.

their license to practice or to be certified against applicable standards, including those relevant to ATR.

47. ATR is also affected by several parallel processes at the national, regional and international levels, including those that support international efforts against illicit financial flows and financing of terrorism, to end safe havens for corrupt funds, to prevent the laundering of the proceeds of corruption, and to facilitate more systematic and timely return of stolen assets for public use. Those processes require States, among others, to cooperate and better coordinate their assets tracing and recovery efforts,⁵⁷ and they led, in particular, to: (a) enactment in many jurisdictions of ultimate beneficial ownership (UBO) legislation, involving also know-your-customer (KYC) checks;⁵⁸ (b) establishment of registers of relevance to ATR, such as registers of directors and beneficial owners;⁵⁹ and (c) implementation of whistle-blowing management policies and systems.⁶⁰

48. In addition, many generally accepted standards for company organization and management (e.g. accounting standards and asset management systems) are based on the concepts and principles that help to prevent or minimize loss of assets and recover lost assets. Those concepts and principles include: (a) the double entry system where, for every business transaction, an entry is recorded in at least two accounts as a debit or credit; (b) a first entry journal where all transactions are initially recorded and a central ledger that keeps track of all transactions; (c) proper documented information, including information relating to the assets (in an asset register and inventories), financial position, earnings, transactions with affiliated companies and any other information significant for the assessment of the future development of the business (in financial reports and statements); and (d) prompt corrective actions to eliminate non-conforming practices. Those requirements are supplemented by audit, reporting and public disclosure requirements to ensure that information presented in business records is accurate, complete, transparent, available and accessible, as appropriate, by State authorities (e.g. tax, social security), equity holders,⁶¹ creditors, potential investors and the public. In many jurisdictions, it is a criminal offence to misrepresent or provide incomplete information in financial statements or audit opinions or conceal those facts. It is also a criminal offence in many jurisdictions not to report to competent authorities or disclose otherwise as required by law: fraud and other economic crimes; the imminent threat to the continuation of the business as a going concern; and other facts that may cause significant damage to the business, equity holders, creditors or investors, or suspicion thereof.

49. Some of those standards as well as those specifically designed for information technology (IT) applications, are relevant to identification and traceability of products

⁵⁷ See e.g. relevant provisions of UNCAC, where the return of assets is a fundamental principle of the Convention, and guidance materials on asset tracing and recovery related thereto.

⁵⁸ A “beneficial owner” is the natural person(s) who ultimately owns or controls a legal person or arrangement even when the ownership or control is exercised through a chain of ownership or by means of control other than direct control. Both UBO and KYC standards aim at facilitating identification of ultimate beneficiaries of funds and protect businesses and financial institutions against fraud, corruption, money-laundering and terrorist financing. They usually require, apart from the verification of beneficial ownership, client identification, politically exposed persons and sanctions checks, the sourcing of funds and wealth checks, enhanced due diligence in the case of high risks or red flags within the client relationship, documentation and notification duties and the freezing of assets. Furthermore, the “Travel Rule” applies which requires financial institutions to pass on certain information related to transfers of funds to the next financial institution during wire transfers or similar transmittal of funds.

⁵⁹ UBO standards encourage States, among others, to conduct comprehensive risk assessments of legal persons, including by registering them in a publicly available company register indicating their company name, proof of incorporation, legal form and status, the address of the registered office, basic regulating powers and a list of directors. Companies are required to keep track of their equity holders. (See e.g. recommendation 24 at <https://www.fatf-gafi.org/content/dam/recommendations/pdf/FATF%20Recommendations%202012.pdf.coredownload.inlin.e.pdf>).

⁶⁰ See e.g. article 33 of UNCAC related to the protection of reporting persons. [Focus areas - whistleblower protection \(unodc.org\)](#).

⁶¹ “Equity holder”: the holder of issued stock or a similar interest that represents an ownership claim to a proportion of the capital of a corporation or other enterprise (the Glossary, term (p)).

and transactions (e.g. in transport and financial sectors), identification of the chain of possession as well as the tracing and tracking of goods throughout the supply chain. Standards that have been designed specifically for transactions with digital assets include those on the appropriate security management, responsibilities of the custodian and monitoring in the integrated platforms (e.g. Internet of Things (IoT)). Some other standards set out specific requirements for identity management and for smart contracts in DLT systems.

III. Survey of ATR tools

A. Tools specifically designed for insolvency proceedings: domestic context

1. Preventive measures

50. An effective preventive measure against dissipation of insolvency estate assets is to impose obligations on the debtor and persons exercising factual control⁶² over the debtor's business in the period approaching insolvency to have due regard to the interests of creditors and other stakeholders and to take reasonable steps to avoid insolvency, and, where it is unavoidable, to minimize the extent of insolvency.⁶³ Reasonable steps listed in the Guide include: (a) ensuring that proper accounts are being maintained and that they are up to date; (b) protecting the assets so as to maximize their value and avoid loss of key assets; (c) not committing the business to the types of transaction that might be subject to avoidance unless there is an appropriate business justification; and (d) ensuring that management practices take into account the interests of creditors and other stakeholders. The Guide recommends the adoption of similar requirements for MSEs, including individual entrepreneurs.⁶⁴ Breach of those obligations may lead to liability (civil, administrative and criminal) of the debtor and persons in control of the debtor who would be obliged to compensate for losses and damages (see below under "Actions against directors, equity holders and other persons").

51. These obligations go beyond the obligations of a company or an individual entrepreneur and persons exercising factual control over the business under normal business conditions (i.e. not in the period approaching insolvency). An example of an obligation arising in the period approaching insolvency would be to maintain a detailed list of preferential transfers and justifications for making them. The purpose of imposing these obligations is to minimize potential losses to creditors or to avoid insolvency.⁶⁵ At the same time, these obligations also facilitate ATR, in particular by obligating persons in charge to keep track of assets, to maintain transparency within the debtor's books and to avoid preferential and other transfers of assets that may be detrimental to creditors. In case of an insolvency, these measures, if adhered to, provide the court and the insolvency representative with a speedy and accurate overview of the insolvency estate assets and eliminate the need to commence avoidance proceedings and other ATR actions. Similar obligations may be imposed on a debtor's representatives, such as an attorney-at-law, in particular to preserve the existing status of the debtor's property until the voluntary petition for commencement of insolvency proceedings is filed.

⁶² "Control": the capacity to determine, directly or indirectly, the operating and financial policies of an enterprise (the Guide, part three, term (c); and art. 2 (c) MLEGI). "Controlled enterprise group member": those enterprise group members controlled by the parent, irrespective of their legal structure (the Guide, part three, para. 5). In the ATR context, the term "parent" and "control" should be understood broadly, as encompassing the capacity to determine, directly or indirectly, not only the operating and financial policies of a person, natural or legal, the debtor or otherwise, but also, for example, their assets.

⁶³ The Guide, part four and recommendation 372.

⁶⁴ Ibid., recommendation 372.

⁶⁵ Ibid., part four, p. 11 et seq.

52. In addition, the Guide envisages, in the context of a simplified insolvency regime, that the competent authority may appoint an independent professional at the very early stages, before an application for commencement of a simplified insolvency proceeding, for example to assist the debtor to prepare such an application.⁶⁶ The functions assigned to an independent professional may include those with respect to reinstating the integrity of what will eventually become the insolvency estate in an insolvency proceeding once it is commenced.

2. Provisional measures

53. The Guide recommends that, in jurisdictions where an application does not automatically commence insolvency proceedings, the court should be able to grant provisional measures, at the request of the debtor, creditors, or third parties, between the time of application for commencement of insolvency proceedings and commencement of the proceedings. In some jurisdictions, provisional measures are imposed by courts *ex officio*.

54. The purpose of provisional measures is to protect the assets of the debtor that potentially will comprise the insolvency estate from dissipation. Therefore, requests for provisional measures should be dealt with expeditiously, especially where fraud is suspected. Otherwise, upon learning of the application, the debtor, creditors and other parties may be tempted to transfer assets out of reach of creditors and take other actions that would make subsequent ATR considerably more difficult.

55. The Guide provides a non-exhaustive list of provisional measures, noting that any other, non-listed, provisional relief under insolvency law would be of the type applicable or available on commencement of insolvency proceedings. Among those specifically listed are: (a) staying execution against the assets of the debtor; (b) entrusting the administration or supervision of the debtor's business to an insolvency representative or other person designated by the court; and (c) entrusting the realization of all or part of the assets of the debtor to an insolvency representative or other person designated by the court. Other relief may include discovery, judicial inspections, examination of witnesses, the taking and securing of evidence and ordering the delivery of information concerning the debtor's assets, affairs, rights, obligations or liabilities.

56. In some jurisdictions, upon application for commencement of insolvency proceedings, an automatic stay is imposed on the realization of movable or immovable property of the debtor. In other jurisdictions, courts, upon petition of an interested person, an insolvency representative appointed as a provisional measure (if any), or by its own authority, are required or authorized to conserve the value of the debtor's assets and, can for such purpose: (a) order the immediate drawing-up of a detailed inventory of the debtor's assets and site visits, search of premises or other similar measures by an insolvency representative appointed as a provisional measure; (b) issue a temporary restraining order against the debtor, its assets or third parties (e.g. provisional freeze, seizure, sealing, preventive attachments and embargoes), including for the purpose of securing the right of avoidance; and (c) limit the powers of the debtor as regards its assets (e.g. require the permission of an insolvency representative appointed as a provisional measure for transfers or encumbrances as regards all or certain assets). In some jurisdictions, a judicial overseer may be appointed whose role is to analyse and report on the economic and financial situation of the debtor. That limited intervention may eventually merit a more rigorous intervention, such as displacing the debtor from operation of its business.

57. Some jurisdictions allow their courts, upon receipt of an application for commencement of insolvency proceedings, to request information relating to the debtor from the debtor, different registers and other third parties, including information on the debtor's bank accounts, contracts entered into and moveable and immovable property. These measures are aimed at assisting the court to decide

⁶⁶ Ibid., recommendations 275–279 and their accompanying commentary.

whether to commence an insolvency proceeding or deny the application and, if to commence, which type of proceeding to commence. In some jurisdictions, the right to request that information is given also to an insolvency representative appointed as a provisional measure and to creditors.

58. Provisional measures are usually accompanied by safeguards against their misuse. The Guide refers to the following: (a) to require the applicant to demonstrate that relief is urgent and outweighs any potential harm resulting from the measures, and to inform the court of all material changes that may require modification or termination of the provisional measure;⁶⁷ (b) to require the applicant to provide indemnification for provisional measures, and, if appropriate to pay costs or fees;⁶⁸ and (c) to impose sanctions in connection with an application for provisional measures, including on the applicant where the provisional measure was improperly obtained.⁶⁹

59. Additional safeguards may be imposed, especially upon appointment of an insolvency representative as a provisional measure, which in some jurisdictions is considered a drastic intrusion in the debtor's affairs and for that reason is not easily granted particularly if other measures are adequate to preserve the status quo. The categories of cases in which an insolvency representative may be appointed as a provisional measure include whether directors are removing or dissipating assets (for example, through illegal phoenixing activity), directors conducting the management of the business without appropriate care of diligence and in case of disputes between equity holders and directors.

60. The Guide recommends that the insolvency law should clearly specify the balance of rights and obligations between the debtor and any insolvency representative appointed as a provisional measure. According to the Guide, between the time of an application for commencement of insolvency proceedings and the commencement of those proceedings, the debtor is entitled to continue to operate its business and to use and dispose of assets in the ordinary course of business,⁷⁰ except to the extent restricted by the court.⁷¹

61. Any affected persons have the right to challenge the imposition of provisional measures and to seek relief from them. Consequently, there are requirements to provide affected persons with the appropriate notice and an opportunity to be heard, with some restrictions. In particular, provisional measures may be ordered without advance notice on an ex parte basis, meaning that the right to be heard would be given ex post. In such case, the debtor or other party in interest affected by the provisional measure may be entitled under law to be heard promptly on whether the measure should be continued.

62. Provisional measures may be made subject to periodic review by law, or they may be reviewed and modified or terminated upon the court's own motion or at the request of the applicant or an affected person. The circumstances that justify their termination usually include when: (a) an application for commencement is denied; (b) an order for provisional measures is successfully challenged; and (c) the measures applicable on commencement take effect, unless the court continues the effect of the provisional measures. Some jurisdictions limit the duration of provisional measures to a specified time period, or to steps to be fulfilled by the applicant or other persons.

63. While addressing the provisional measures, the Guide acknowledges that ideally there should be a very short gap between the application and commencement of insolvency proceedings.⁷²

⁶⁷ Ibid., part two, p. 90.

⁶⁸ Ibid, recommendation 40.

⁶⁹ Ibid.

⁷⁰ "Ordinary course of business": transactions consistent with both: (i) the operation of the debtor's business prior to insolvency proceedings; and (ii) ordinary business terms (the Glossary, term (bb)).

⁷¹ The Guide, recommendation 41.

⁷² Ibid., recommendations 18 and 296 and their accompanying commentary.

3. Measures upon commencement

64. The Guide envisages the following measures upon commencement of insolvency proceedings: (a) a stay of proceedings,⁷³ and a special treatment of continued contracts and ipso facto clauses;⁷⁴ (b) identification of the assets of the debtor that will be subject to the insolvency proceedings, and the constitution of the insolvency estate;⁷⁵ and (c) imposition of control over the use and disposal of assets of the insolvency estate⁷⁶ and over the debtor's business.⁷⁷ It also addresses treatment of unauthorized transactions.⁷⁸ Similar measures are found in many jurisdictions.

(a) Stay of proceedings and treatment of continued contracts and ipso facto clauses

65. It is common to impose a stay of: (i) individual actions or proceedings; (ii) actions to make security interests effective against third parties and to enforce security interests; and (iii) execution or other enforcement against the assets of the estate. In some jurisdictions, the stay is imposed by operation of law (i.e. automatic) on all or certain actions for a period fixed by the law or by the court while in other jurisdictions the stay is ordered by the court upon application of interested persons, the insolvency representative or ex officio (the duration and scope of the stay may vary).

66. In addition, by operation of the insolvency law, the rights of a counterparty to terminate a contract with the debtor may be unenforceable. Exceptions to this rule exist. Special rules usually apply also to the treatment of continued contracts, in particular their rejection, continuation or assignment.

67. Imposition of those measures have many objectives. As relevant to ATR, they are to protect the insolvency estate against the actions of creditors and the debtor, including persons exercising factual control over the debtor, to preserve the status quo and to provide breathing space for a fair and orderly administration of the insolvency proceedings and maximization of the value of the insolvency estate, including through ATR.

68. Since those measures prejudice legitimate interests of affected persons, they are usually accompanied by safeguards. In particular, the duration of the stay may be limited. In addition, there may be exceptions from the stay. For example, UNCITRAL insolvency texts provide that the right to commence or continue the individual action or the proceeding necessary to preserve a claim against the debtor is not affected by the stay (rec. 47). In some jurisdictions, any action that intends to increase the value of the estate, *actio pauliana* or actions against the insolvency representative are also excluded from the scope of the stay. The Guide also refers to the possibility to request relief from the stay, and to the protection from diminution of the value of encumbered assets or third-party-owned assets affected by the stay.

(b) Identification of the insolvency estate assets and constitution of the insolvency estate

69. Many insolvency laws require the court or, immediately upon appointment, the insolvency representative to establish which assets belong to the insolvency estate, to draw up a detailed inventory of the insolvency estate assets, to estimate the value of each asset, and to take books, records and other evidence into custody. Insolvency laws differ as regards requirements to seize, seal, or simply mark the assets over which the debtor no longer has control. This may depend on the type of an asset, on the probability of dissipation in the absence of such a measure as well as on whether liquidation or reorganization of the business is involved and whether the full or partial debtor-in-possession regime or full displacement of the debtor is in place. In

⁷³ Ibid., recommendations 46–51 and 317–318 and accompanying commentary.

⁷⁴ Ibid., recommendations 69–86 and accompanying commentary.

⁷⁵ Ibid., recommendations 35–38 and 313–315 and accompanying commentary.

⁷⁶ Ibid., recommendation 46 (e).

⁷⁷ Ibid., recommendations 112–114 and 284–287.

⁷⁸ Ibid., part two, chapter II, para. 16, and chapter III, paras. 2, 12, 33.

liquidation, the complete closure of warehouses or the entire business and sequestration of fungible assets, such as cash, usually take place.

70. An inventory of assets is a detailed list, broken down into groups and line items with all the supporting documents itemized. Different rules may apply to the inventory of different assets, for example: (i) for movable assets, their kind, quantity, quality, condition and any other background information or specification required for their proper itemization are identified; (ii) for cash, the quantity, amount and currency are indicated; (iii) for money held in bank accounts, the name of the bank, the account number and the balance are specified; (iv) for motor vehicles, details of registration with a relevant register are included; and (v) for immovable assets, their location, property registration number and other details from the relevant immovable property register are noted. The supervision by the court or a public certifying officer may be required for drawing up an inventory by the insolvency representative. In addition, the presence of the debtor may be required in all cases. Site visits may take place under similar safeguards. Special rules may apply to handling business records, for example, in liquidation, in addition to their itemization, they may be required to be closed for further entries.

71. In some jurisdictions, the court or, upon appointment and if authorized, the insolvency representative may put out a search or tracking order if, upon inspection of the debtor's business records, it discovers that the insolvency estate asset exists but has disappeared. Some insolvency laws provide for reopening of the insolvency proceedings if the assets that should have become part of the insolvency estate are discovered, or if the fact of concealment or illegal transfer of such assets is revealed, after the closure of the insolvency proceedings.

(c) Control over the use and disposal of the assets of the insolvency estate and operation of the debtor's business

72. Where no debtor-in-possession regime is in place, which is usually the case in liquidation, upon completion and certification of the inventory, the court or the insolvency representative, as the case may be, assumes control and responsibility over all assets, records and documents in the inventory, including their preservation and realization of the assets that by their nature or because of other circumstances are perishable, susceptible to devaluation or otherwise in jeopardy. They are usually assisted by the law enforcement agencies for obtaining control over the assets. Safeguards, such as court authorization and review of objections, apply if rights of third parties are affected by those measures. Experts may be appointed for estimating the value of the assets.

73. In reorganization, the insolvency representative may be appointed to displace the debtor partly or fully from operation of business. Where the debtor-in-possession regime is in place, the insolvency representative may be appointed to supervise the debtor-in-possession in the day-to-day operation of business. The court's authorization may be required for disposal of certain assets or conclusion of certain transactions. The insolvency representative may be appointed also for specific functions (e.g. avoidance since conflicts of interest may arise: the debtor-in-possession that concluded undervalued or preferential transactions would most likely not question them). For example, a business mediator is appointed in some jurisdictions, whose functions may include the transfer, under court supervision, of some of the debtor's assets to one or more third parties to prevent their concealment by the debtor-in-possession and to ensure their preservation.

74. Some insolvency laws treat transactions by the debtor involving assets over which the debtor has lost control as invalid and unenforceable against the insolvency estate if they are not authorized by the insolvency representative or the court. They enable assets transferred to be reclaimed and returned to the insolvency estate and any obligations created *ultra vires* to be declared unenforceable against the insolvency estate, except, in some jurisdictions, where the counterparty entered into the transaction in good faith and gave value or can prove that the transaction did not

impair creditor rights. In other jurisdictions, depending on the facts of the case, some unauthorized transactions may be automatically void while others may be subject to avoidance by the insolvency representative. Examples of unauthorized transactions include transfer of ownership or encumbrance of significant insolvency estate assets by the debtor and acceptance by the debtor of payment that can only validly be accepted by the insolvency representative. In some jurisdictions, the insolvency representative may authorize any transaction that has led to an effective increase in the value of the debtor's assets or has a positive effect on creditors.

75. Without prejudice to retaining the possibility for adjustments, the Guide recommends ensuring in each insolvency case clarity as regards permissible disposals of assets by the debtor or the insolvency representative. A distinction is usually drawn between the use or disposal of assets of the insolvency estate in the ordinary course of conducting the debtor's business and the use or disposal in other circumstances ("outside the ordinary course of business") in terms of who may make decisions as to use or disposal and the protections that are required. The use and disposal outside the ordinary course of business usually require the approval of the court or of the creditors.

76. The "ordinary course of business" is not understood uniformly across jurisdictions. In defining the "ordinary course of business", States put a varying emphasis on the different elements. In most jurisdictions, a common purpose of the definition is to determine what constitutes routine conduct of business and allow a business to make routine payments and enter into routine contracts, without subjecting those transactions to possible avoidance in insolvency. Those routine payments might include the payment of rent, utilities such as electricity, and possibly also payment for trade supplies. The dimension and frequency of transactions would, in some jurisdictions, be considered when assessing which of them would fall under the ordinary course of business. Nevertheless, illegal and inappropriate transactions, such as Ponzi schemes, would be excluded.

77. The Guide considers transactions consistent with both the operation of the debtor's business prior to insolvency proceedings and with ordinary business terms as transactions in the ordinary course of business. It recommends permitting the use and disposal of insolvency estate assets (including encumbered assets) in the ordinary course of business, except for cash proceeds which is subject to a special regime designed to protect interests of secured creditors⁷⁹ in those cash proceeds. The Guide also provides that: (i) the use and disposal of insolvency estate assets outside the ordinary course of business may occur only with a notice to creditors, except for urgent sales; (ii) creditors should have the opportunity to be heard by the court; (iii) methods of sale should ensure maximization of the price obtained for the assets being sold; (iv) special protection, including protection of value,⁸⁰ is accorded to third-party owners of an asset in possession of the debtor, as well as to secured creditors and holders of other interest in an asset, in case of the sale of that asset free and clear of that encumbrance and other interest; (v) disposal of assets to related persons⁸¹ is subject to scrutiny before it is allowed to proceed; and (vi) relinquishing

⁷⁹ "Secured creditor": a creditor holding a secured claim. "Secured claim": a claim assisted by a security interest taken as a guarantee for a debt enforceable in case of the debtor's default.

"Security interest": a right in an asset to secure payment or other performance of one or more obligations (the Glossary, terms (nn), (oo) and (pp)).

⁸⁰ "Protection of value": measures directed at maintaining the economic value of encumbered assets and third-party-owned assets during the insolvency proceedings (in some jurisdictions referred to as "adequate protection"). Protection may be provided by way of cash payments, provision of security interests over alternative or additional assets or by other means as determined by a court to provide the necessary protection (the Glossary, term (ii)).

⁸¹ "Related persons": as to a debtor that is a legal entity, a related person would include: (a) a person who is or has been in a position of effective control of the debtor; and (b) a parent, subsidiary, partner or affiliate of the debtor. As to a debtor that is a natural person, a related person would include persons who are related to the debtor by consanguinity or affinity. In the ATR context, the scope of the term "related persons" may be open-ended and decided by the court by a case-by-case basis. Related persons may in particular be any accomplice in concealing assets. The term should also be interpreted in the ATR context as referring not only to a separate

burdensome assets is permitted subject to notice to creditors and the opportunity for them to object, except for encumbered assets whose value is lower than the value of a secured claim and where the encumbered asset is not required for reorganization.

(d) Other measures

78. Other measures may be set out in a statute or, within limits established by law, authorized by the court. For example, in some jurisdictions, the court may order, including *ex parte*, interception of the debtor's mail under some conditions and, subject to certain safeguards, such as the right to be heard. In other jurisdictions, that measure is automatic (i.e. no court order is needed). Some measures may be directed against assets of the current and former administrators, liquidators or directors.

79. Many jurisdictions require the court decision on commencement of insolvency proceedings to be swiftly forwarded to all relevant authorities such as those that register property rights (e.g. land registries). They may be required by law to immediately place a note on the register entries related to the debtor, or its assets, to prevent unauthorized transactions with the assets of the insolvency estate.

4. Obligations of the debtor⁸² and third parties, including government agencies

(a) Obligations of the debtor

80. The debtor is usually required, among others:

(i) To cooperate with the court, the insolvency representative and any other officer appointed by the court, as the case may be, and assist them to perform their functions in connection with insolvency proceedings, including taking effective control of business records and of the insolvency estate. That obligation may encompass a duty to deliver documents necessary to effectively claim or access an asset;

(ii) To provide accurate, reliable and complete information relating to its financial position and business affairs, including lists of transactions occurring prior to commencement that involved the debtor or its assets; ongoing court, arbitration or administrative proceedings, including enforcement proceedings; assets, liabilities, income and disbursements, including the estimated value of its assets and liabilities; debtors and their obligations; and creditors and their claims. That obligation may refer not only to the current knowledge but also to the need to perform all preparatory work necessary to provide the relevant information. In some jurisdictions, the debtor may be required to provide that information by sworn statement (affidavit);

(iii) To provide the means to make the contents of all information supplied legible within a reasonable period of time;

(iv) To give a necessary explanation concerning insolvency to the court, the insolvency representative or creditors acting through the creditor committee⁸³ or otherwise, upon their demand;

(v) To hand over all assets and documents of the company to the court or the insolvency representative, as the case may be, within a time limit set by the court;

(vi) To facilitate or cooperate in the recovery of the assets, or control of the insolvency estate and business records, wherever located; and

(vii) Immediately upon commencement of the insolvency proceedings, to permit access to its premises and to open containers, warehouses and other relevant places for review and inventorizing their content.

natural or legal person but also to a group of such persons in any combination.

⁸² The Guide, recommendations 110, 111, 284–286 and 290 and accompanying commentary.

⁸³ "Creditor committee": representative body of creditors appointed in accordance with the insolvency law, having consultative and other powers as specified in the insolvency law (the Glossary, term (k)).

81. As noted in the preceding section, additional obligations and varying measures of control may be imposed on the debtor-in-possession.

82. Many jurisdictions require the debtor or some of its officers or directors to remain at the disposal of the court and the insolvency representative, if any, for the duration of the insolvency proceedings. Consequently, the debtor who is a natural person may be required to give notice to the court before changing his or her habitual residence while the debtor that is a legal person is usually required to obtain consent of the court before moving its headquarters. In some jurisdictions, this obligation may only be imposed on the debtor by a court order. In other jurisdictions, it is a statutory duty that can automatically be enforced against a non-cooperative debtor.

83. The debtor may be made subject to judicial compulsion as well as sanctions (including criminal sanctions such as fines and confiscation of the property) in case it does not comply with its insolvency law obligations or there are grounds to believe that it will attempt to escape its obligations under the insolvency law. Displacement of the debtor-in-possession by the insolvency representative, conversion of reorganization to liquidation and denial of discharge or revocation of a discharge already granted may be envisaged as a sanction under insolvency law for violation by the debtor of its obligations. In addition to the debtor itself, the person in control of the debtor and their accomplices may be held liable and subjected to a fine, disqualification and the order to compensate for the damages caused by non-performance or improper performance of the obligations imposed on the debtor upon commencement of insolvency proceedings. In serious cases, criminal sanctions may be applied, including imprisonment. In some jurisdictions, lack of collaboration by the debtor or persons in control, including by concealment, disinformation or misrepresentation, is taken as presumption of guilt. Adverse inferences may also be drawn in related civil or criminal proceedings. Cooperation with the insolvency court and the insolvency representative, on the other hand, may lead to a reduced sentence for the persons concerned in case of their conviction for insolvency-related crimes.

84. Safeguards are usually provided to the debtor against abuses. In particular, the information to be provided by the debtor or about the debtor may belong to the debtor or be under its control, or it may belong to or be under control of a third party. The information can be commercially sensitive, confidential, protected by personal data standards, or subject to obligations owed to other persons (e.g. trade secrets, lists of customers and suppliers, research and development information, professional secrets or privileged information). Special rules may apply to handling different types of information to prevent its inappropriate disclosure or use.

(b) Obligations of third parties and government agencies

85. In some jurisdictions, third parties (e.g. those that have had dealings with the debtor or who have knowledge about the debtor or its assets), including government agencies, such as tax authorities and social insurance agencies, may have obligations under insolvency law: (i) to provide information and documents about the debtor's assets, accounts and counterparties (within a short period of time and free of charge); (ii) to open rooms and containers for inspection; and (iii) to turn over assets of the debtor and, in the case of crypto currencies, to turn over the relevant information and access keys. Persons who have leased, borrowed, kept under custody or otherwise used or possessed the debtor's assets may be prohibited from entering into transactions with third parties in respect of those assets.

86. In some jurisdictions, these obligations are statutory and arise upon the public notice of the commencement of the insolvency proceedings that, inter alia, may alert that anyone who has custody of any of the debtor's assets is obligated, under penalty of law, to make those assets available to the court or the insolvency representative, as the case may be. This permits the insolvency representative to demand the performance of those obligations without first obtaining a court disclosure or search order. In other jurisdictions, court orders are required.

87. Limitations include: (i) certain privileges and rules, such as the attorney-client privilege and banking secrecy rules, that may prevent full disclosure of certain information, although they do not usually apply where the insolvency representative replaces the debtor (see para. 91 below); (ii) depending on the type of information obtained, the restrictions on its subsequent disclosure and use; and (iii) restriction of the surrender of the debtor's assets used for public purposes (e.g. for the purpose of impoundment in a criminal proceeding).

5. Duties and powers of the insolvency representative

88. The general obligation of the insolvency representative is to protect and preserve the assets of the insolvency estate (rec. 120). A number of duties and functions flow from that general obligation, including those of relevance to ATR. The Guide emphasizes that it is important for the insolvency law to empower the insolvency representative to fulfil those duties and functions efficiently and effectively.

89. The insolvency representative's ATR-related powers would be derived from insolvency and other law, court orders and terms of appointment and depend on the type of insolvency proceeding to which the insolvency representative has been appointed (liquidation or reorganization) and whether the insolvency representative displaces the debtor fully or partly from control of the insolvency estate and the day-to-day operation of the business. Where limited displacement is in place, the Guide recommends that the law should specify the division of responsibilities between the debtor and the insolvency representative (rec. 112). The powers, duties and functions of the insolvency representative are thus expected to be aligned with the rights and obligations of the debtor, for example, to provide information to and cooperate otherwise with the insolvency representative.

90. The powers, duties and functions of the insolvency representative of relevance to ATR may be grouped as follows:

(a) Preparing a detailed inventory (including by taking images such as forensic images of electronic records), and taking immediate control, of the assets comprising the insolvency estate and the debtor's business records;

(b) Obtaining information concerning the debtor, its assets, liabilities and past transactions (especially those taking place during the suspect period) from various sources (e.g. registers, government files, court and investigation records) and by different means (e.g. examination of the debtor and any third person having had dealings with the debtor; inspection of premises, containers, safes and boxes; inquiries and other investigative steps). Limits may be imposed on how some of those tools could be used. For example, special court orders may be required for (public) examination generally or of only some persons. Limits may be imposed on the matters that could be covered in examination of the debtor and third parties (i.e. "examinable affairs"). For example, in some jurisdictions, the debtor would not be obliged to provide information that is not related to insolvency and would not be expected to obtain documents in the hands of third parties. There could also be limits on methods that could be used in examination and how results of examination could subsequently be used. Special safeguards may be imposed on examination of some persons, such as employees. The violation of those requirements may trigger charges against the insolvency representative for abuse of power or abuse of process;

(c) Taking all steps necessary to protect and preserve the assets of the insolvency estate and the debtor's business, including preventing unauthorized disposal of those assets. For such purpose, the insolvency representative may close warehouses or the entire business, sequester certain fungible assets, such as cash, register rights of the estate (where registration is necessary to perfect the rights of the estate against other persons) and ensure other appropriate entries in the registers to prevent unauthorized transactions with the assets of the insolvency estate. It may request freezing or securing orders from the court. In some jurisdictions, the insolvency representative can issue "stop notices" independently of a statutory stay

or court orders, to prevent, for a short period of time (e.g. 14 days), persons to whom such notices are addressed from taking actions (e.g. transferring shares);

(d) Taking all steps necessary to restore the integrity of the insolvency estate, including by (i) investigating whereabouts of any missing assets and records, (ii) tracing and recovering them, (iii) requesting, where necessary, tracing, tracking, searching or seizing orders from the court, (iv) initiating individual enforcement and other actions, including avoidance actions, actions against directors, partners and other persons personally liable for the debtor's obligations, (v) representing the insolvency estate in all acts and proceedings related to the debtor, its assets or claims against the insolvency estate (e.g. commercial litigation, arbitral, administrative and other proceedings), (vi) demanding payments due to the debtor and the return of the insolvency estate assets, (vii) submitting enforcement orders to a bailiff (e.g. on the basis of promissory notes, the final judgments and settlement agreements), (viii) claiming tax refunds, and (ix) pursuing other potential claims for recovery of assets of the insolvency estate;

(e) Taking other steps allowed under applicable law to protect, preserve and maximize the value of the insolvency estate, including (i) verifying and admitting claims and objecting to claims or their amounts, (ii) handling debt settlement, set-offs and similar actions, (iii) assigning claims, liabilities or debt, (iv) examining contracts that are not fully performed with a view to deciding whether to assume, reject or continue them;

(f) Appointing and renumeraling accountants, attorneys and other professionals that may be necessary to assist the insolvency representative in performing its functions (e.g. for valuation of assets or forensic investigations). In some jurisdictions, court authorization may be required for involving third parties;

(g) Periodically providing information to the court and to creditors detailing the conduct of the proceedings; and

(h) Submitting a final report and accounting of the insolvency estate's administration to the court or the creditors, as required.

91. In jurisdictions where the insolvency representative not only displaces the debtor in operation of the business but also becomes the debtor's representative, many insolvency representative's ATR-related powers are exercised without court orders. In that capacity, the insolvency representative can exercise the rights that the debtor would have exercised but for insolvency, including placing demands for information to the debtor's debtors or creditors, participating or intervening in commercial litigation, arbitral, administrative and other proceedings, communicating with government agencies and so on. Where the insolvency representative acts in that capacity, third parties (e.g. insurance companies, banks, cryptocurrency wallet providers) are required, upon request, to provide it with the same information that they would have to provide to the debtor. This often obviates the need for any court orders, for example, in order to obtain disclosure of otherwise privileged or protected information or avail itself of the help of the law enforcement bodies to compel a non-cooperative debtor to implement its insolvency law obligations. Where the insolvency representative acts in more restricted capacity, it may need to obtain court orders to compel third parties to cooperate with the insolvency representative. Sanctions in the form of a fine or imprisonment may be imposed on non-compliant persons.

92. Practical considerations may influence insolvency representative's ATR strategies and steps. They include availability of funds in the insolvency estate or, alternatively, of third-party funding or a litigation trust, chances of success, expected benefits for all creditors, possible pursuit of ATR actions by creditors or third parties, and general requirements for the insolvency representative to act with due care and diligence of a prudent businessperson. For example, traceability and recovery of certain assets, such as disputed assets, may be hindered, while holding multijurisdictional forensic investigations, although desirable, may be unfeasible due

to restrictions applicable in the jurisdictions involved, costs or other considerations. In addition, some insolvency representative's powers may be time bound (e.g. time limits may apply for bringing certain actions), while others may cease upon commencement of legal proceedings. The latter may trigger the formal process of discovery and legal protection for the person in question, for instance, against self-incrimination.

93. Safeguards usually apply to ensure that the insolvency representative's powers are balanced against their possible implications on the insolvency estate, the debtor, creditors and third parties. Achieving an appropriate balance is required, for example, when the insolvency representative is provided with the right of access to, and use of, confidential or classified information. The Guide recommends also safeguards to ensure that the insolvency representative performs its duties and exercises its powers with the required integrity and quality (e.g. to avoid collusion or undue pressure from creditors or third parties, such as providers of funding for ATR actions). The usual safeguards include qualification requirements, disclosure of a conflict of interest, oversight over appointment, remuneration and performance and special procedures for removal and replacement (see recs. 115–125). In addition, the usual standards of transparency apply to the insolvency representative's ATR actions (e.g. timely disclosure of planned and taken ATR actions to the court and the creditors).

94. The insolvency representative is accountable and personally liable for fulfilling its duties. The insolvency representative may face liability (fines, displacement, compensation for damages caused to a creditor, the debtor or a third party) and disqualification for not performing ATR or not performing it properly. Where insolvency representatives claim payment for their services from public funds, the law may require them to demonstrate that they have taken all the necessary steps to trace, seize and dispose of the debtor's assets. They may be expected to submit to the relevant authority information that would allow it to verify that steps were taken to trace the insolvency estate assets. Such information may include the record of the seizure (and of the inventory made), minutes of meetings of creditors attesting to any decisions taken not to trace and recover certain assets, information on vehicle searches, tax information and copies of title deeds.

6. Avoidance and similar actions

95. The Guide recommends including in the insolvency law provisions that would preserve the integrity of the insolvency estate and facilitate the recovery of money or assets from persons involved in transactions, including secured transactions, concluded before the commencement of insolvency proceedings that should be avoided (avoidance provisions).⁸⁴ The rationale for including avoidance provisions is to support the collective goals of the insolvency proceedings, to ensure that creditors receive a fair allocation of the insolvency estate assets consistent with the established priorities, and to deter actions in the period approaching insolvency that would be detrimental to the collective interests of the creditors.

96. Provisions on avoidance are found in insolvency law of many jurisdictions. They usually address: (a) criteria for determining which transactions are avoidable; (b) duration of the suspect period;⁸⁵ (c) persons who may bring avoidance actions; (d) time limits for bringing those actions; (e) consequences of avoidance; and (f) available defences and other safeguards.

97. Some jurisdictions also address the fate of avoidance actions continued after the closure of insolvency proceedings, allowing to establish in such cases special purpose companies that handle the outcomes of those actions (i.e. distribution of any additional proceeds among creditors, etc.). This measure alleviates the need to keep

⁸⁴ Ibid., recommendations 87–99, 217–218, 228 and 316 and accompanying commentary.

⁸⁵ "Suspect period": the period of time by reference to which certain transactions may be subject to avoidance. The period is generally calculated retroactively from the date of the application for commencement of insolvency proceedings or from the date of commencement (the Glossary, term (ss)).

insolvency proceedings open (or to reopen them if the outcomes of avoidance so require) and the insolvency representative engaged for the duration of avoidance proceedings, which in some jurisdictions may be lengthy. Perspectives of long engagement with no or insufficient remuneration made insolvency representatives in some jurisdictions reluctant to bring avoidance actions.

98. Avoidance actions are differentiated from similar actions available to creditors or the insolvency representative under non-insolvency laws. For example, many jurisdictions provide for actions that creditors may take under the law of obligations to protect themselves from fraudulent legal transactions intended to reduce a debtor's estate by transfers to third parties in bad faith (*actio pauliana*). In some jurisdictions, those actions may be stayed or discontinued upon commencement of insolvency proceedings, and the insolvency representative may take them over or initiate instead avoidance proceedings under insolvency law. In other jurisdictions, commencement of insolvency proceedings does not have such effect, meaning creditor actions would be allowed to proceed until their resolution and the results are integrated in insolvency proceedings when and as appropriate. In some jurisdictions, the constructive trust can be used as an effective and efficient proprietary remedy to pursue a tracing claim and to recover misappropriated or misapplied property, or property gained from "wrongdoing". Constructive trusts arise by operation of law where it would be inequitable to allow the recipient of the asset to assert full beneficial ownership over that asset. The purpose is to protect the rights of ownership if the asset has been wrongfully transferred. Those alternative tools may lead to faster recoveries for the insolvency estate than avoidance.

(a) Avoidable transactions

99. The criteria for determining which transactions are avoidable vary considerably across jurisdictions and may include objective and subjective aspects and different presumptions, including with regard to detriment to creditors. The Guide lists the following: (i) transactions intended to defeat, delay or hinder the ability of creditors to collect claims where the effect of the transaction was to put assets beyond the reach of creditors or potential creditors, or to otherwise prejudice the interests of creditors; (ii) transactions where a transfer of an interest in property or the undertaking of an obligation by the debtor was a gift or was made in exchange for a nominal or less than equivalent value, or for inadequate value that occurred at a time when the debtor was insolvent or as a result of which the debtor became insolvent (undervalued transactions); (iii) transactions that occurred at a time when the debtor was insolvent where a creditor obtained, or received the benefit of, more than its pro rata share of the debtor's assets (preferential transactions). Examples include payment or set-off of debts not yet due or granting a security interest to secure existing unsecured debts. Filing or registration of security interests beyond the deadline established by law may also be avoided.

100. In some jurisdictions, there is no concept of transactions at an undervalue. Instead directors are pursued for disposal of assets below market value or, more commonly, for breach of their fiduciary duties in executing such a transaction. In other jurisdictions, criteria for avoidance are specified in law or construed by courts very narrowly. In yet other jurisdictions, other or additional criteria to those listed in the Guide may apply, for example, the following transactions may be void or voidable: (i) any payments made by the debtor for debts owed, and any other transactions carried out by the debtor for valuable consideration after the cessation of payments but before the declaration of insolvency is made if those who received payment from or dealt with the debtor were aware of the cessation of payments; and (ii) the lawful exercise of the right to divide property during the suspect period that damaged the interests of all or some of the creditors.

(b) Suspect period

101. The duration of the suspect period also varies across jurisdictions. Within a single jurisdiction, it may vary depending on the type of transaction and with whom

it was concluded. For example, where transactions subject to avoidance involve related persons, insolvency laws usually provide a longer duration of the suspect period. The date from which the suspect period is calculated retroactively is either the date of application for or the commencement of the insolvency proceedings. Special rules may apply for calculating the suspect period retroactively in cases of substantive consolidation.⁸⁶

(c) The right to bring avoidance actions

102. Depending on jurisdictions, the insolvency representative may have the principal or sole responsibility to commence avoidance proceedings. Where avoidance is the sole responsibility of the insolvency representative, any creditor action commenced before the time of the commencement of the proceedings may have to be discontinued and the insolvency representative may take over that action. The costs of avoidance actions are paid as administrative expenses, but alternative approaches to address the pursuit and funding of such actions may also exist. Creditors are able to pursue avoidance in some jurisdictions only with the agreement of the insolvency representative or, if it does not agree, with leave of the court. The Guide recommends that approach. Some laws permit one or more creditors who wish to do so to pursue avoidance proceedings in cases in which the insolvency representative, based on the balance of considerations, decides not to commence such proceedings.

103. Where creditors are permitted to commence avoidance proceedings, either on an equal basis with the insolvency representative or because the insolvency representative decides not to commence such proceedings, insolvency laws adopt different approaches to the assets or value recovered. The most common approach (and the one reflected in the Guide) is to treat the assets or value recovered as part of the estate on the basis that the purpose of avoidance is to return assets or value to the estate for the benefit of all the creditors. In such case, only expenses and costs of creditors' avoidance actions may be reimbursed on a priority basis as administrative expenses in case of successful avoidance proceedings, up to any limit that may be established by law. Other laws may require that the creditors who want to pursue avoidance must do so at their own risk and cost, i.e. they are not reimbursed. Other laws provide that whatever is recovered can be used to cover the costs and satisfy the claim of the suing creditors, with only the remainder going to the insolvency estate, subject to a duty of the suing creditors to detailed accounting.

(d) Time limits for commencement of avoidance actions

104. Time limits may or may not be imposed for commencement of avoidance actions. Where they are imposed, they usually start running from the commencement of the insolvency proceedings. In the case of concealed transactions that the insolvency representative could not be expected to discover, the time limit may run from the time of discovery. No time limit may be imposed for bringing avoidance actions against fraudulent transactions.

(e) Elements to be proved and burden of proof

105. There could be different presumptions in relation to avoidance, including as regards detriment to creditors. For example, relative or rebuttable presumption of detriment to creditors may exist where transactions are with related persons or involve new security for pre-existing debt or payment of unmatured secured claims. In particular, in relation to transactions with related persons, the law may dispense with requirements that the debtor was insolvent at the time of the transaction, or was rendered insolvent as a result of the transaction. Irrebuttable presumption of detriment to creditors may exist where gratuitous acts of disposition, except for gifts of use, and payment of unmatured unsecured claims are involved.

⁸⁶ "Substantive consolidation": the treatment of the assets and liabilities of two or more enterprise group members as if they were part of a single insolvency estate (the Guide, part three, term (e)).

106. Insolvency laws adopt different approaches to establishing the elements that must be proven in order to avoid a particular transaction. In some laws, the onus is on the debtor to prove that the transaction did not fall into any category of avoidable transactions. Other insolvency laws provide that the insolvency representative is required to prove that the transaction satisfies the requirements for avoidance. In some laws, the onus is on the beneficiary of the transaction to disprove at least some of the elements, such as knowledge of the debtor's insolvency at the time of the transaction, or knowledge of the fact that the transaction was undervalued. Others allow the burden of proof to be shifted to the counterparty where it is difficult for the insolvency representative to establish that the debtor's actual intent was to defraud creditors, or with regard to those elements that may be difficult to prove for the insolvency representative as an outsider to the transaction.

107. In the enterprise group context, the court may have regard to the circumstances in which the transaction took place, including the relationship between the parties to the transaction, the degree of integration between enterprise group members⁸⁷ that are parties to the transaction, the purpose of the transaction, whether the transaction contributed to the operations of the group as a whole and whether the transaction granted advantages to enterprise group members or other related persons that would not normally be granted between unrelated parties.

(f) Consequences of avoidance

108. The counterparty to a transaction that has been avoided is usually required to return to the estate the assets obtained or, if the court so orders, make a cash payment to the estate for the value of the transaction. The counterparty may have an ordinary unsecured claim against the estate. In cases of bad faith on the part of the counterparty, its claim may be subordinated. If the counterparty does not comply with the court order, its claim may be disallowed. Some jurisdictions require that the claims must be settled at the same time as the assets and rights that are the subject of the avoidance are restored.

(g) Safeguards

109. The avoidance powers are limited by the law. Commonly found limitations, in addition to those already listed above, are exempting certain transactions from avoidance and providing certain defences to avoidance, such as that the transaction was entered into in the ordinary course of business.

7. Actions against directors, equity holders and other persons⁸⁸

(a) Pursuing actions against directors for breach of their obligations to creditors in the period approaching insolvency

110. As noted above under "Preventive measures" and "Obligations of the debtor and third parties, including government agencies", under certain conditions, personal liability of directors may arise for their conduct during the period when the debtor was insolvent or in the period approaching insolvency. What is being sought in the pursuit of actions against directors is not the recovery of assets of the debtor (or a cash payment to the estate for the value of the transaction) like in avoidance but recovery of the damages suffered by the creditors due to the actions of directors, assessed by the court on a case-by-case basis. Those actions may be in addition to actions that could be pursued to avoid transactions that could have taken place between the debtor and directors and in addition to other remedies that may be available under insolvency law against directors, such as deferral of payments owed

⁸⁷ "Enterprise group member": an enterprise that forms part of an enterprise group; "Enterprise group": two or more enterprises that are interconnected by control or significant ownership; "Enterprise": any entity, regardless of its legal form, that is engaged in economic activities and may be governed by the insolvency law (the Guide, part three, terms (a) and (b); part four, section two, term (a); art. 2 (a), (b) and (d) of MLEGI).

⁸⁸ The Guide, part four.

to them by the debtor or subordination or denial of their claims. For example, in some jurisdictions, directors may face subsidiary liability and be ordered to pay part or all of the liabilities of the insolvency estate where there is a grave and characterised misconduct of the directors (e.g. the failure to apply for commencement of insolvency proceedings when required to do so). In other jurisdictions, under certain limited conditions, the insolvency proceedings may be extended to directors and they may face joint and several liability with the debtor. In addition, in some jurisdictions actions may be brought against former directors for employee poaching, business and assets transfer to their new business (illegal phoenixing) and the use of trade secrets, know-how and other protected or unprotected intellectual property of the debtor in the directors' new position.

111. Actions against directors share many features of avoidance. A number of insolvency laws provide that all claims against directors for breach of their fiduciary duty form part of the insolvency estate. The cause of action thus belongs to the insolvency estate and the insolvency representative has the principal responsibility to pursue an action for breach of those obligations. The costs of an action are paid as administrative expenses, but alternative approaches to their pursuit and funding may also exist. In particular, creditors or any other party in interest may pursue actions against directors with the agreement of the insolvency representative or, where the insolvency representative does not agree, with leave of the court.

112. The proceedings against directors may continue after the closure of insolvency proceedings and their outcomes may or may not necessitate reopening of the insolvency proceeding. In addition to remedies under insolvency law, directors may face disqualification from being a director, or from taking part in the running and management of a company. Some laws contemplate other sanctions against directors depending on how their behaviour impacted the insolvency and insolvency proceedings.

113. An action against directors can be a significant asset of the insolvency estate and increase returns to creditors. In addition, holding directors accountable for their conduct in the period approaching insolvency may prevent the need for ATR or ensure effectiveness of ATR.

114. At the same time, the Guide notes concerns over negative implications that excessive measures against directors may produce on business management, in particular during the time when the business faces financial difficulties. For those reasons, it recommends taking a careful approach to regulating obligations of directors in the period approaching insolvency and liability of directors for the breach of those obligations. It defers some issues related to the nature and standards of liability and available defences to States. Some jurisdictions establish a higher threshold for establishing directors' liability in the period approaching insolvency, for example, that fault and incompetence would need to be proved. Other jurisdictions specify the expected conduct by directors in the period approaching insolvency, violation of which may lead to personal liability. They stress the need to raise awareness among directors about their obligations arising in the period approaching insolvency as compared to directors' obligations under normal business circumstances.

(b) Verification and admission of claims

115. Mechanisms for verification and admission of claims perform an important function of identifying falsification and similar acts that may result in the submission of fraudulent or non-existent claims. They aim at preventing the admission of fraudulent or non-existent claims in the insolvency proceedings and eliminate the need for subsequent ATR if such claims were admitted.

116. Certain claims, such as claims of related persons, may be made subject to extra scrutiny and special treatment, such as reduction of their amount or subordination.⁸⁹

(c) Extension of liability (piercing the corporate veil)

117. Some jurisdictions envisage possibility of piercing the corporate veil and extending liability to equity holders, directors and other persons, for example to a person that controls or significantly owns the debtor (e.g. a parent in an enterprise group context).⁹⁰ The circumstances that may justify those measures include exploitation or abuse of the debtor by the equity holder or a controlling entity as well as fraudulent conduct, including artificial fragmentation and using the enterprise structure as a sham or facade.⁹¹

(d) Contribution orders

118. In the context of enterprise group insolvency, under some circumstances, a solvent group member may be ordered by the court to contribute specific funds to cover all or some of the debts of other group members subject to insolvency proceedings. Those circumstances may include where the solvent group member has acted inappropriately towards the insolvency group member (e.g. transferred the assets of a failing group member to another group member for an inadequate price or took the benefit of tax advantages accruing to a failing group member and leaving the creditors of the failing member a reduced pay-out in a subsequent insolvency). Contribution orders may be ordered also outside the enterprise group insolvency context, for example, where a person conceals its commercial activity through the debtor.

119. The Guide notes that contribution orders are used sparingly because they touch upon many different interests that may be difficult to reconcile.

(e) Substantive consolidation

120. Substantive consolidation may be ordered as an equitable remedy or otherwise when the court is satisfied that: (i) the assets or liabilities of separate legal entities are intermingled to such an extent that the ownership of assets and responsibility for liabilities cannot be identified without disproportionate expense or delay; and (ii) separate legal entities are engaged in a fraudulent scheme or activity with no legitimate business purpose and that substantive consolidation is essential to rectify that scheme or activity. In such cases, the assets and liabilities of the substantively consolidated entities are treated as though they were part of a single estate and claims and debts between the substantively consolidated entities, including the secured indebtedness, are extinguished and claims against individual entities are treated as if they were claims against the single insolvency estate. Some case law indicates that substantive consolidation may concern not all but only some assets and liabilities of the substantively consolidated entities.

121. The Guide acknowledges that substantive consolidation should be treated cautiously since it raises sensitive issues, including the need to respect the principle of separate legal identity. Consequently, it refers to commonly found safeguards for imposing such an extraordinary measure, including: (i) a court order and the ability of the court to modify the order, where appropriate; (ii) notice of the hearing for a possible court order to parties in interest; (iii) exclusion of some assets and claims from an order for substantive consolidation under certain conditions; (iv) respect, as a general rule, of the rights and priorities of a creditor holding a security interest over an asset; and (v) recognition of priorities established under insolvency law and applicable with respect to an individual entity prior to an order for substantive consolidation. Nevertheless, the Guide emphasizes the need not to overlook creditor perceptions and acknowledges that, where an insolvent member of an enterprise group

⁸⁹ Ibid., recommendations 169–184, 319–325 and part three.

⁹⁰ See e.g. part three, para. 5.

⁹¹ Ibid., part three.

transfers assets to the solvent member in the group, the substantive consolidation of assets and liabilities of those insolvent and solvent members should be made possible if the test for the substantive consolidation is otherwise met.⁹²

(f) Procedural coordination⁹³ and other forms of consolidation

122. In some jurisdictions, the law provides for the possibility of procedural coordination or consolidation (or joint administration) of related insolvency proceedings (e.g. against the debtor and its affiliates). The consolidated case usually receives the same case file, is assigned to the same insolvency judge, and a single insolvency representative is appointed. However, unlike in substantive consolidation, the assets and liabilities of each debtor involved remain separate and distinct.

123. The Guide addresses procedural coordination in the context of enterprise group insolvency and simplified insolvency proceedings.⁹⁴ In the latter context, it refers to procedural consolidation and coordination of linked business, consumer and personal insolvency proceedings in order to address comprehensively intertwined business, consumer and personal debts of individual entrepreneurs, owners of limited liability MSEs and their family members (see recs. 364–366). For ATR purposes, procedural consolidation may reveal transactions between the related debtors or assets of one in the possession of the other that the debtor would otherwise have been able to keep hidden.

[Other suggested points for elaboration include: specifics of ATR (e.g. avoidance actions) in reorganization proceedings, including during and after implementation of a reorganization plan; and upwards variation (i.e. compensation of losses caused by subsequent changes in the value of the asset transferred under the avoided transaction where the return of the asset in kind is impossible).]

B. Tools specifically designed for insolvency proceedings: cross-border context

1. General

124. Some laws authorize the insolvency representative to exercise ATR powers across borders; others limit them to the domestic context. The insolvency representative may be required to involve a competent State authority (e.g. a bankruptcy ombudsman) in a request for assistance from a foreign authority, for example if the debtor, the insolvency estate assets or directors are located abroad. In some jurisdictions, cross-border ATR actions that involve extra costs for the insolvency proceeding must be authorized by the court and be justified.

125. In exercising its ATR powers abroad, the insolvency representative is required to comply with the law of the State within the territory of which it intends to take ATR actions (see e.g. article 5 of MLCBI). Those actions do not usually include coercive measures unless ordered by a court of the receiving State. A representative of a foreign non-main proceeding may have fewer powers than a representative of a foreign main proceeding.

126. The exercise of ATR powers across borders is facilitated by some international instruments and domestic law provisions, including those enacting UNCITRAL insolvency model laws, as discussed below. Those instruments, among other benefits, alleviate the need for the foreign representative to meet formal requirements, such as licenses, diplomatic or consular actions (e.g. legalization or letters rogatory), in order

⁹² Ibid., recommendations 219–231 and accompanying commentary.

⁹³ “Procedural coordination”: coordination of the administration of two or more insolvency proceedings in respect of enterprise group members. Each of those members, including its assets and liabilities, remains separate and distinct (the Guide, part three, term (d)).

⁹⁴ The Guide, recommendations 202–210 and 364–366 and accompanying commentary.

to gain access to foreign courts or to obtain assistance and relief needed in connection with ATR actions.

2. Access to ATR tools in a foreign State irrespective of recognition

127. ATR-related assistance may be provided by foreign States irrespective of recognition (see e.g. article 7 of MLCBI). In some jurisdictions, assistance is not limited to the one available under the domestic law of the recognizing State.

128. In addition, access to ATR tools in a foreign State may be obtained through commencement of local proceedings, which could be insolvency or other proceedings (see e.g. article 7 or 9 of MLCBI). For example, under article 11 of MLCBI, the foreign representative (of both main and non-main insolvency proceedings) may request commencement of an insolvency proceeding in a foreign State without prior recognition of the foreign proceeding by that State.

3. Recognition

(a) Provisional measures ordered by a foreign court

129. In some jurisdictions, provisional measures in the context of pending insolvency proceedings may be recognized and enforced via exequatur. Other jurisdictions do not recognize provisional measures or recognize only those provisional measures that emanate from the court with the jurisdiction to open the foreign main proceeding. The decision recognizing those measures usually condition continuation of those measures upon the filing of the request for recognition of the foreign main proceeding (e.g. within 20 days).

(b) Foreign proceedings

130. In many States, recognition of the foreign proceeding may be a pre-condition for obtaining local relief. In addition, applications for recognition are often submitted in circumstances of imminent danger of dissipation or concealment of the insolvency estate assets. For those reasons, jurisdictions that enacted relevant provisions of MLCBI require their courts to decide the application for recognition “at the earliest possible time”. They also provide for a simple and expeditious structure to enable courts to conclude the recognition process within a short period of time.

131. In many non-MLCBI jurisdictions that are not bound by recognition regimes similar or stricter to those envisaged in MLCBI, only a foreign main proceeding may be recognized. Some jurisdictions recognize those proceedings via exequatur. Other jurisdictions impose a requirement that the insolvency regime of the requesting State should be comparable to the domestic insolvency regime, in particular as regards the treatment of creditors. Other States proceed with recognition of a foreign main proceeding only on the basis of the principle of reciprocity or an international treaty. In some jurisdictions, only foreign main proceedings from designated countries may be recognized.

(c) Foreign insolvency-related judgments

132. Avoidance judgments and other insolvency-related judgments, such as on actions against third parties claiming to be the owner of a particular asset, often have no effect in a foreign jurisdiction without prior recognition of the foreign proceeding or the judgement itself. In many countries, the recognition and enforcement of foreign judgments is not automatic and may be available only on narrow grounds or not at all. Where recognition and enforcement of foreign judgments is generally available, insolvency-related judgments, such as judgments in avoidance actions, may be excluded from recognition and enforcement.

133. Some jurisdictions envisage recognition of foreign avoidance and other insolvency-related judgments and provide appropriate relief where requested, subject to certain conditions (e.g. the foreign proceeding to which the judgment relates must be eligible for recognition locally or the defendant should not have had its local

domicile at the time when the claim was filed). They also allow for recognition and enforcement of orders outside insolvency proceedings, for example, asset freezing or seizure orders related to a claim that has been assigned to a third party (and is not related to the insolvency estate anymore), or where a claim is not based on insolvency law (e.g. directors' misconduct) and is not being pursued by the insolvency representative. The usual conditions apply, such as presentation of a title (e.g. a foreign judgment) and compliance with due process requirements (e.g. the defendant should have had the right to be heard).

134. MLII enables the recognition and enforcement of foreign insolvency-related judgments, including judgments that originate in jurisdictions that are neither the place of the main nor of the non-main proceeding (article 14 (h)) or in courts that are not administering the foreign insolvency proceeding (e.g. civil courts hearing avoidance proceedings). Those provisions facilitate the recovery of additional assets for the insolvency estate, as well as the resolution of disputes relating to those assets.

4. Relief

(a) Provisional relief

135. Unless otherwise provided in domestic law,⁹⁵ the foreign representative may need to apply for provisional measures in the relevant jurisdiction. Jurisdictions that have enacted article 19 of MLCBI⁹⁶ grant provisional measures to the foreign representative, including to the one appointed on an interim basis, from the time of application for recognition of a foreign proceeding until a decision on the application is made. Some jurisdictions allow the foreign representative to apply for provisional measures *ex parte*.

136. Usual measures sought and granted include:

(i) Suspension of enforcement with respect to any part of the debtor's local property;

(ii) Termination or limitation of the debtor's administration of its assets in the receiving State, together with the appointment of one or more local insolvency representatives or allowing the foreign representative to administer, fully or partly, the debtor's assets in the receiving State;

(iii) Urgent realization of the debtor's assets due to the nature of such assets or for any other reason; and

(iv) Examination of witnesses under jurisdiction of the receiving State, the taking of evidence located in the receiving State or the delivery to the foreign representative of information concerning the assets, affairs, rights, obligations or liabilities of the debtor.

137. In granting or denying any of these measures, the court is usually required to ensure adequate protection of the interests of the creditors and other interested persons, including the debtor. Where requests are made for an order to seal, freeze or seize local debtor assets, the existence and the location of those assets and the fact that the debtor is their legal or beneficial owner may be required to be demonstrated by *prima facie* evidence when requesting the order.

(b) Relief upon recognition

138. Many jurisdictions that have enacted relevant provisions of the MLCBI grant:

(i) an automatic stay of proceedings, including the suspension of the debtor's right to

⁹⁵ For example, the European Union (EU) instruments binding and directly applicable in the EU member States provide for the automatic recognition of judgments originating in the member States of the region, including those relating to preservation measures. In addition, they empower a temporary administrator appointed in the EU main insolvency proceeding to request any measures available under the law of the EU member State where the debtor's assets are situated to secure and preserve those assets.

⁹⁶ See also articles 12 of MLII and articles 20 and 22 of MLEGI.

transfer, encumber, or otherwise dispose of its assets, upon recognition of the foreign main proceeding; and (ii) a discretionary stay if requested by the foreign representative upon recognition of the foreign non-main proceeding. The scope, modification, termination, and effect of the stay is subject to the law of the recognizing jurisdiction. Other types of relief may encompass those mentioned under “Provisional measures” above and any additional relief that courts may be authorized to grant. Some jurisdictions do not limit relief to that available under domestic law.

139. In some jurisdictions, the recognized proceedings have the effects similar to those of a local insolvency proceeding but without a retroactive effect (e.g. the already undertaken liquidation cannot be revoked). In most jurisdictions, once the foreign main proceeding is recognized, any decision issued in such proceeding is recognized without the need for any further procedure. In other jurisdictions, recognition of a foreign proceeding may lead to the opening of local ancillary proceedings, which are administered according to the domestic insolvency law. Some laws give discretion to a foreign representative to request that no ancillary proceedings should be opened upon recognition. Such an option would not exist if, for example, local privileged creditors (e.g. local employees) have filed claims in the call for claims following recognition. In such cases, ancillary proceedings must be opened.

140. In some jurisdictions, upon recognition, the foreign representative obtains the same rights and obligations as a locally appointed one or may exercise its powers under the law of the State of commencement of the foreign main proceeding unless exercising them would contradict public policy or domestic laws of the recognizing State or would be incompatible with the effects of a domestic insolvency proceeding opened or with the provisional measures put in place there.

141. In jurisdictions where, upon recognition of the foreign proceeding, local ancillary proceedings are opened (always or only in certain circumstances), the locally appointed insolvency representative of the ancillary proceedings may be primarily responsible for ATR actions. In addition to requesting any kind of information from any party, it may take cautionary measures to secure the relevant assets. The foreign representative of the main proceeding may commence local avoidance or other actions against a third party (e.g. liability, restitution and compensation claims) only if the locally appointed insolvency representative renounces to do so. Where no local ancillary proceeding has been opened, the foreign representative can request any protective measure available under local law and file claims for recovery of the insolvency estate assets against third parties. The foreign representative can also request information on the basis of the laws of the foreign main proceeding, excluding the exercise of public powers.

142. Under MLCBI, upon recognition, the foreign representative (of both main and non-main insolvency proceedings) may make petitions, requests or submissions in an insolvency proceeding concerning the debtor in the recognizing State (see e.g., article 12 of MLCBI). They may concern issues of protection of insolvency estate assets. In addition, upon recognition, the foreign representative (of both main and non-main insolvency proceedings) may intervene in any individual proceedings by the debtor, or against the debtor that have not been stayed in the recognizing State as a result of recognition of the foreign proceeding (see e.g. article 24 of MLCBI). Furthermore, upon recognition, the foreign representative has standing to initiate local avoidance actions (article 23 of MLCBI). This is without prejudice to other provisions of domestic law related to such actions and on the condition that, in case of a foreign non-main proceeding, the action relates to assets that, under the law of the recognizing jurisdiction, should be administered in the foreign non-main proceeding.

143. Debtor and other obligations set out in the domestic insolvency context would arise vis-à-vis the locally appointed insolvency representative or the foreign representative, as the case may be, upon recognition of the foreign proceeding. This may be the only way to reach out to the debtor, directors or witnesses residing outside the forum jurisdiction since they cannot be compelled to submit to an order for

examination by a foreign court or the foreign representative unless they have submitted to the foreign court's jurisdiction, are present in that foreign jurisdiction at the time of the order or the court has granted leave to serve them abroad. Various grounds and mechanisms exist for service outside the jurisdiction, including under the Hague Convention of 15 November 1965 on the Service Abroad of Judicial and Extrajudicial Documents in Civil or Commercial Matters⁹⁷ (the Hague Service Convention) and the Hague Convention of 18 March 1970 on the Taking of Evidence Abroad in Civil or Commercial Matters⁹⁸ (the Hague Evidence Convention), mutual legal assistance treaties (MLATs) and regional instruments.

5. Direct communication and cooperation among courts and insolvency representatives

144. The General Assembly, when noting the adoption of MLCBI and MLIJ by the Commission, acknowledged that inadequate coordination and cooperation in cases of cross-border insolvency make it more likely that the debtor's assets would be concealed or dissipated.⁹⁹ Under the cross-border insolvency framework suggested by UNCITRAL, direct communication and cooperation among courts and insolvency representatives may occur at an early stage, before an application for recognition. They are not dependent upon the existence, recognition or a specific type of a foreign proceeding (main, non-main, or proceedings based on the presence of assets in the State).¹⁰⁰ In addition, they do not require involvement of designated authorities and other means traditionally used in court-to-court communications (e.g. via higher courts or diplomatic or consular channels, using letters rogatory), which is critical in the ATR context when the courts or insolvency representatives should act with urgency. For example, courts can request information or assistance related to ATR actions directly from foreign courts or foreign representatives. Insolvency representatives have the same abilities subject to supervision by the court.

145. Jurisdictions that have enacted relevant provisions of UNCITRAL insolvency texts empower courts to directly communicate and cooperate to the maximum extent possible with their foreign counterparts and foreign representatives and enable different forms of cooperation, including: (a) appointment of a person or body to act at the direction of the court, including coordination in the appointment of the insolvency representative; (b) communication of information by any means considered appropriate by the court; (c) coordination of the administration and supervision of the debtor's assets and affairs; (d) approval or implementation by courts of agreements concerning the coordination of proceedings and coordination of the conduct of hearings; and (e) coordination of concurrent proceedings regarding the same debtor. In comparison, in non-MLCBI enacting States not bound by regimes similar or stricter to those envisaged in MLCBI, a general duty of cooperation between and among foreign courts and foreign representatives may arise only after recognition and only in relation to the foreign main proceeding.

146. *[To be elaborated: provisions of the Practice Guide and court-to-court communication and cooperation guidelines (e.g. JIN Guidelines).]*

6. Other tools

147. Some jurisdictions allow or require publication in the domestic official gazette of certain information relating to cross-border insolvency proceedings. Such publication aims, among others, at implementing the requirement for exchange of information between and among courts and insolvency representatives across borders and coordination of concurrent proceedings.

⁹⁷ For the status of the Convention and declarations and reservations made thereto, see www.hcch.net/en/instruments/conventions/status-table/?cid=17.

⁹⁸ For the status of the Convention and declarations and reservations made thereto, see www.hcch.net/en/instruments/conventions/status-table/?cid=82.

⁹⁹ General Assembly resolutions 52/158, the fourth preambular paragraph, and 73/200, the fifth preambular paragraph.

¹⁰⁰ GEI, paras. 211 and 212.

148. Digitalization of insolvency proceedings may be helpful for ATR in both domestic and cross-border contexts. For example, there may be publicly available online registers of insolvency and other proceedings that consolidate in one place information about the debtor, its assets, the assets of the insolvency estate, creditor claims and proceedings against the debtor, which may be used for ATR in linked or related insolvency proceedings.

C. Tools of general application

149. As was noted above, in exercising its investigative powers, the insolvency representative uses different sources of information. Access to them may be subject to varying requirements. Some sources may be public (e.g. social media, newspapers, etc.), while others may be restricted for access by the public, or special conditions may be imposed for access. Those restrictions may be set out in the relevant non-insolvency laws or terms of operation of the holder of relevant information (e.g. trading platforms of precious metals, commodities or digital assets). They may or may not apply, or be applied differently, to the insolvency representative in the light of its special status. For example, the insolvency representative may obtain access to restricted sources of information directly or through the court that handles the insolvency case. In many jurisdictions, courts, including civil, commercial and insolvency, may have direct access to all sources of information required for fulfilling their functions (with some exceptions, which would require a special court order and justifications (e.g. access to some classified information)).

150. The sections below describe sources commonly used for ATR, access to which is regulated by law. Many of them perform other functions, such as prevention of unauthorized transactions with the insolvency estate assets and registration of rights and priority against third parties.

1. Registers

151. Across jurisdictions, there are multiple registers useful for ATR. They include land and other immovable and movable, tangible and intangible property registers, including motor vehicle, ship, aircraft, intellectual property registers and central registers of bank accounts, bonds and other securities. Those registers serve various purposes, such as: (a) establishing proof of title; (b) providing information on security and third-party interests in property and establishing effectiveness and priority of rights and interests in the same property; and (c) identifying businesses, their beneficial owners as well as directors, officers and other persons authorized to bind the business. Some registers come with a presumption of correctness of the information they contain.

152. Those registers are used for ATR purposes in many ways. For example, they may inform the insolvency representative about: the assets of the debtor; transactions concluded during the suspect period that may be void or voidable; actions to be initiated against business owners, directors and other persons; and proceedings affecting the insolvency estate. Regular checks may lead to discovery of information appearing later or for a limited period of time. The registers are also means of enforcing the provisional measures, the stay of proceedings and other effects of insolvency proceedings: relevant entries (e.g. the tag “in insolvency” is added to the business name of the debtor) warn third parties against entering into the unauthorized transactions with the assets affected by those measures, prevent recording outcomes of any unauthorized transactions (e.g. transfers of the assets of the debtor, creating encumbrances) and making them effective against third parties. At the same time, the registers record the outcomes of the transactions authorized during the insolvency proceedings and confirm the title and priority of the insolvency estate against third parties. The records of the registers may be used in civil litigation or other proceedings commenced or joined by the insolvency representative.

153. Most of the mentioned registers are public. Some may not be easily accessible or searchable (e.g. local paper-based registers, requiring in-person and manual searches in each place where the debtor's immovable property may be located; some may be searchable by an asset or other criteria rather than the name of the debtor). Access to other registers may be granted only to persons who can demonstrate a legitimate interest. Yet others may be consulted only by specific persons (e.g. about one's own information listed in the register) or by government agencies, usually because the information contained in the register is (commercially) sensitive or confidential. For example, in some countries, certain registers, such as the bank account registers, can be consulted only by prosecutors and courts in criminal cases or in certain criminal cases, such as those involving money-laundering. A special court order may be needed to obtain information from such registers. In comparison, in other jurisdictions, all courts have direct access to centralized systems that collect information on transactions with bank accounts, and access to those systems is also granted in the context of MLAT. Some jurisdictions also enable and facilitate the telematic search of assets of the debtor by the insolvency representative, in the context of both insolvency and other proceedings (e.g. civil litigation), without the need for the insolvency representative to demonstrate an enforceable title.

154. Standards for access to registers may evolve. For example, materials about the financial situation of a beneficial owner included in registers of beneficial ownership and made previously public have been found in several jurisdictions to be protected information on the grounds that unhindered access and the possibility to retain and further disseminate such information interferes with fundamental human rights (such as privacy).

[This section may be expanded with references to other types of registers (e.g. of intermediated securities) and discussion of the impact of the tokenization of units on the register keeping and transfer agency services.]

2. Files of government agencies

155. Files of government agencies, such as tax and social insurance authorities and authorities in charge of granting licenses for certain types of activities (e.g. mining), may contain important information on the assets and affairs of the debtor, including the names of the debtor's counterparties in transactions that may be void or voidable. In some jurisdictions, government agencies have an obligation under insolvency law to provide the insolvency representative with information from their files that pertain to the debtor's assets and affairs. Access to certain data may be restricted (e.g. because privacy protection considerations prevail) or made conditional (e.g. the insolvency representative may be able to obtain only information that is directly relevant and important for the identification of the debtor's assets). Limits may be imposed on subsequent use of the obtained information (e.g. the insolvency representative may be obligated not to reveal the obtained information to other persons or to make sure that the information is not used for purposes outside the insolvency proceeding).

156. In other jurisdictions, while courts may have direct access to government files (e.g. tax and social security databases), the court order is required for the insolvency representative to obtain access to the government or any third-party files.

3. Information disclosure obligations

157. Information disclosure obligations may apply to certain persons, for example politically exposed persons as regards their assets and income. While often protected under personal data law and not accessible in civil proceedings, the disclosed information may be made accessible to the insolvency representative through court orders or through the insolvency representative's participation in criminal proceedings (see the relevant section below) and could subsequently be used in insolvency proceedings. Other information emanating from disclosure obligations may be publicly available, such as information that must be disclosed by listed companies to investors or the public at large.

D. Civil litigation tools

158. As was noted in the preceding sections, there could be many reasons for the insolvency representative to commence, intervene or join domestic or foreign civil proceedings affecting the debtor and its assets or affairs. For example, those steps may be required for avoidance, adjudication of disputed claims or pursuing actions against directors (e.g. for compensation of damages), debtor's debtors (e.g. for outstanding payments to the insolvency estate), related persons (e.g. for refusal to surrender assets that comprise the insolvency estate) or other third parties (e.g. for failure to assist the insolvency representative to take control of assets of the insolvency estate). Depending on jurisdictional rules, those proceedings may be handled domestically or abroad by civil or commercial courts, in parallel with insolvency proceedings. In those cases, outside the insolvency proceedings, usual civil procedure rules apply, including for gathering evidence and imposing interim measures of protection or preliminary orders. They are discussed below. However, they do not displace special rules applicable to the insolvency representative discussed in the preceding sections (e.g. a waiver of a requirement to demonstrate an enforceable title in order to be able to perform the telematic search of the debtor's assets).

1. Evidence gathering

(a) Types of measures

159. Almost all jurisdictions provide for gathering of evidence in some form at the pre-litigation, litigation and post-litigation stages although not all evidence-gathering tools available during litigation may be available at pre- and post-litigation stages. In addition, stricter requirements may apply at those other stages.

160. Evidence gathering tools include the party-centred discovery or disclosure of evidence in some countries and the court-centred evidence gathering in other countries, both of which provide for the gathering of evidence that cannot otherwise be readily obtained, from both parties and non-parties.¹⁰¹ In some jurisdictions, the competent court may question parties and witnesses, view things or review documents, or appoint an expert and may order parties and witnesses to appear for questioning and order persons in possession of certain documents to produce those documents. In other jurisdictions, on the other hand, the evidence gathering proceeds in the form of disclosure or discovery, including obligations to appear for a deposition and to produce documents and other materials, where applicable.

(b) Conditions for use

161. In most jurisdictions, the pre-litigation gathering of evidence is available to secure evidence in anticipation of litigation, planned or pending, when time is of the essence and there is a danger that the evidence in question will disappear or be lost or significantly changed before litigation is commenced or before litigation has moved to the evidence-gathering stage. In some jurisdictions, the pre-litigation gathering of evidence is also available, at least to some extent, if there is some other interest of the applicant, most prominently the interest in evaluating the evidence to determine the chances of successful litigation, which, in turn, is intended to promote just settlements. The applicant is required to show the likelihood of success of its claim on the merits and the need to obtain or preserve evidence or evaluate it.

¹⁰¹ Where bank account information is to be disclosed, the information to be disclosed may include: (i) the signature card to the account; (ii) the account opening information; (iii) copies of deposits or wire transfer receipts; (iv) copies of checks or outgoing wire transfer details; (v) the current balance in the account; and (vi) e-mails or correspondence involving the account and other relevant information.

Additional requirements may be imposed on the applicant depending on a specific order.¹⁰²

162. In comparison, since the purpose of litigation is to evaluate the claims, evidence gathering is part of the process and needs no additional justification. For the same reason, certain interests, such as the interest in privacy and data protection, may weigh less at the litigation stage.

163. Some jurisdictions permit the judgment creditor to obtain discovery after litigation, in aid of the enforcement of the judgment, from the judgment debtor or third parties. This allows the judgment creditor to obtain information about the debtor's assets, including hidden and concealed assets. Discovery of this kind is broad if requested from the debtor. Discovery from third persons is ordinarily limited to the assets of the debtor and cannot be expanded to the assets of the third person. However, when a third party has close ties to the debtor, more extensive discovery is permissible.

(c) Limitations

164. In most jurisdictions, evidence gathering is only available with regard to evidence that is relevant to the claims of the parties in the litigation on the merits. In some jurisdictions, the relevancy requirement is sometimes interpreted broadly, so that it may, under certain circumstances, include evidence of the assets of one of the parties. Other jurisdictions understand relevancy to mean that the evidence to be gathered must relate only to the facts that are necessary to prove an element of the cause of action claimed. This will rarely include evidence of the other party's assets, unless the cause of action is one of civil fraud. At the post-litigation stage, the measure must be relevant to the finding of the judgment creditor's assets.

165. In jurisdictions where there is a strict rule against fishing for evidence, the parties are expected to identify the evidence that they intend to collect with some specificity. In those jurisdictions, the courts may get hold of considerably broader evidence (e.g. via orders to bailiffs) than will be disclosed to the parties and used in the case if the parties fail to prove the relevancy of each specific evidence to their case.

166. In addition to relevancy, requirements of necessity and proportionality are imposed, which may particularly concern sensitive information (e.g. information covered by bank secrecy or attorney-client privilege). This information may be treated differently across jurisdictions. In some jurisdictions, sensitive information is generally protected by privilege and may be revealed only if parties agree to reveal it. In other jurisdictions, the decision whether a litigant or a third person with such information should be ordered to reveal it is made by the court upon balancing the interests involved or a proportionality analysis. In yet another group of jurisdictions, such information is less protected, or must be made available on the basis of applicable law.

167. Limits may be imposed on the subsequent use of the documents or information obtained through the evidence gathering measures. It is usually required to use it only for the purpose identified in the application for a given measure (e.g. to trace the assets or their proceeds). If the above limits are not met, the evidence may not be admissible in the proceedings.

¹⁰² See e.g. *Anton Piller KG v. Manufacturing Processes Ltd.* [1975] EWCA Civ 12, requiring to show a wrongdoing by the respondent; provide strong evidence that the damage to the applicant arising from the respondent's conduct is serious; present clear evidence that the respondent has in its possession incriminating documents or evidence; and show that there is a real possibility that the respondent may destroy such material before discovery or before all parties can be heard.

2. Interim measures of protection and preliminary orders

(a) Types of measures and orders

168. There are various measures and orders available to protect assets or secure performance. They include: attachment or garnishment orders;¹⁰³ sequestration;¹⁰⁴ embargoes;¹⁰⁵ freezing orders;¹⁰⁶ judicially ordered security interest or liens;¹⁰⁷ and seizures.¹⁰⁸ In addition, the court may order the defendant or a third person to do or not to do something. This includes, among others, orders not to remove a particular thing from a certain place; not to transfer property to a particular person or to any person or to encumber it with a security interest; not to pay a debt or receive payment on a debt; to return a thing to a particular place; to place the thing into the custody of a trusted third person or the court. Orders may be issued to operators of certain registers or to register authorities, such as the land, commercial, or company register.

169. Some jurisdictions distinguish between attachment and garnishment and other orders. Where the plaintiff's claim is a claim to pay money, it is secured by attachment or garnishment. Where it is a claim to do or not to do something else, an order is issued. Where this distinction is made, there may be slight differences in the requirements for using these measures and applicable safeguards.

170. Depending on their effect, interim measures of protection and preliminary orders may be characterized as in personam or as in rem although the line between the two may be blurred. For example, an attachment order may entail both (i) an obligation of the defendant not to dispose of the attached asset at the risk of facing criminal sanctions and (ii) upon execution of the order, the effective freezing of the asset by rendering any transaction or encumbrance ineffective, including for the involved third party.

(b) Conditions for use

171. The interim measures of protection and preliminary orders may be granted on different grounds depending on whether they are sought before, during, and after litigation and whether they are directed against the defendant (e.g. seizure of passports or orders limiting freedom of movement, including arrests), its assets or a third party who holds or controls assets of the debtor or assets beneficially owned by the debtor, such as a trustee, a bank, or the operator of a cryptocurrency exchange (e.g. account freeze orders).

¹⁰³ Whereby the assets identified in the court order are attached or garnished by a public authority. (Pre-judgment) attachment typically does not cause a change in legal ownership, but it does cause the debtor to lose the ability to transfer or encumber the assets. In some jurisdictions, the creditor does not need to specify assets of the debtor that might be subject to attachment or garnishment. In these jurisdictions, it is the task of the attaching or garnishing authority to find assets for this purpose. Banks and other third parties may be required to provide information on assets that the debtor might hold with them. In other jurisdictions, the creditor is required to identify the assets to be seized and their location before an attachment or garnishment can be obtained, which presupposes the creditor's knowledge of assets that the debtor owns within the jurisdiction, although in some jurisdictions, a general description, such as "all machines in warehouse X" or "all business accounts with bank Y," may suffice. In the case of property subject to registration, the attachment operates through the registration of the measure in public records, which has the effect of publicity before third parties.

¹⁰⁴ Whereby the assets are taken away from the debtor or third person.

¹⁰⁵ Whereby the debtor may use the embargoed assets but must refrain from alienating them and must ensure their diligent preservation. In the event that there are no known assets, a generic attachment of assets may be requested.

¹⁰⁶ Known as Mareva injunctions in some jurisdictions. *Mareva Compania Naviera S.A. v. International Bulk Carriers S.A.* [1975] 2 Lloyd's Rep. 509. If ordered with regard to all assets of the defendant anywhere in the world, they are known as "worldwide freezing orders" (WFOs) and usually granted, in addition to the usual requirements applied for freezing orders, where the domestic assets of the defendant within the jurisdiction will not suffice to cover a potential judgment.

¹⁰⁷ E.g. a judgment lien on immovable property whereby a right to enforce the immovable property in question is established irrespective of whether a third person has since obtained, through transfer or encumbrance, a property right in that property.

¹⁰⁸ Whereby the seized assets are placed at the disposal of the court.

172. Where measures are sought before or during litigation, when it is not yet clear that the claim made by the plaintiff exists and because the request can be filed with a court other than the one adjudicating the plaintiff's claim, the plaintiff must, in most jurisdictions, provide some evidence of the claim. However, since the purpose of requesting those measures is to obtain relief quickly and thus without having to wait for a judgment on the merits, the standard of proof on the cause of action for granting those measures cannot be as high as that required to prevail on the merits. Thus, a lower standard of proof, such as a good arguable case or a particularly defined minimum probability is usually sufficient. It is sometimes said that what is required is *fumus boni iuris* or the appearance of a legitimate right (freely translated, "the smoke of good right").

173. Most jurisdictions also require the plaintiff to establish a particular need for the measure. What is usually required is that, without the measure, enforcement of the judgment would be impossible or significantly impaired. In some jurisdictions, the plaintiff must show that without the measure, it is likely to suffer an injury not reparable by a claim for damages or other remedy against the defendant, or that the probability of the plaintiff's suffering an irreparable injury is high without the measure while the probability of the defendant's suffering an irreparable injury with the measure in place is low. The need for the measure can be established in various ways, including by showing that there is reason to fear dissipation of the debtor's assets. In other jurisdictions, the reasons for such measures may be more narrowly circumscribed, for instance in an exhaustive list of the specific possible grounds for obtaining a measure (e.g. the danger that the debtor might flee or remove its assets from the jurisdiction). In such cases, ancillary measures may also be imposed.

174. Where the claim has already been recognized in a judgment, the judgment serves as the evidence of the claim. Once the judgment is enforceable, interim measures and preliminary orders may not be available in some jurisdictions because the creditor can immediately commence enforcement proceedings. In some jurisdictions, enforcement is effectuated by the bailiff, without the need for an additional attachment or garnishment order of the court. In other jurisdictions, interim protection may be made available between application for enforcement and the actual enforcement to secure the enforcement of the judgment.

(c) Limitations

175. Certain assets of the defendant, such as personal items or wages to the extent necessary for a basic level of income may not be subject to attachment or garnishment. There may be other restrictions on the assets that could be subject to those measures, or the asset in question may dictate the nature of the measure issued.

176. Measures affecting human dignity and human rights (e.g. freedom of movement, privacy) are usually subject to stricter safeguards. They include that the measure must be proportional. For example, if it is sufficient to secure enforcement of a judgment to order the defendant to report regularly to a local government agency or to turn over its documents of identification until the defendant has identified its assets or made them available for attachment or garnishment, that order must be chosen over any more restrictive measure, including in the worst case, an arrest of the debtor. In addition, those orders are usually for a short duration, which may be extended only in extraordinary circumstances to achieve the purpose for which they were ordered.

3. Safeguards

177. As noted above, the requirements of a (good or strong) *prima facie* case, necessity, relevancy and proportionality usually apply. As a result, the scope of the measure is usually limited to what is strictly necessary, and the interests of the applicant in obtaining the measure are balanced against the possible detriment to the applicant in complying with the measure. For example, the applicant may be required to identify the premises that need to be searched or assets that need to be attached. The court may impose measures protecting the person from whom the order is sought

from annoyance, embarrassment, oppression, or undue burden or expense. Additional safeguards may apply in case of especially intrusive measures such as site visits, search of premises, forensic examinations of electronic systems and cell phones, inspections or seizure of evidence or assets. They include stronger justifications for granting a measure (e.g. specific and concrete evidence of concealment, destruction or failure to preserve documents, information or assets), the implementation of a measure during ordinary business hours and, during its implementation, the presence of the respondent, its attorney at law or third-party witnesses, and detailed recording of steps taken and items removed, where applicable.

178. Usually, the applicant is required to file a complaint or an enforcement proceeding in the matter within a particular, usually short, time period in order to sustain the measure if litigation or enforcement proceedings are not already pending. The respondent has the right to be heard before the measure is taken. The defendant may be able to have the measure terminated or to cause a less intrusive measure to be ordered by posting security for the claim. In some jurisdictions, the defendant can have the measure terminated at a later point in time if circumstances have changed, for instance because the defendant has paid the debt or the debt has otherwise been extinguished. The ordered measures may be made subject to the mandatory periodic review by the court, and the applicant for the measure may be required to inform the court about changes that would require termination or modification of the measure.

179. In cases of urgency or risks of dissipation, measures may be ordered *ex parte*. In such case, the respondent has an opportunity to be heard on the measure at a later stage and to have it overturned by the court if the prerequisites are shown to be missing. In some jurisdictions, for an *ex parte* measure to be granted, the applicant must also set forth the arguments the respondent would likely make, would it be heard (full and frank disclosure). In some jurisdictions, some measures are granted *ex parte* as a matter of course on the assumption that once there is a danger of dissipation, speed and surprise are always of the essence. They may be accompanied, under additional safeguards, by ancillary orders (e.g. “gag and seal” orders; see below).

180. The applicant may be required to indemnify the respondent’s costs for implementing the measure, which may be recoverable as damages from the wrongdoer. In many jurisdictions, the applicant is also liable to the respondent for any damages caused by a measure that turns out not to have been justified. In some jurisdictions, this is a no-fault liability, that is, the applicant is liable to the respondent for the wrongful granting of a measure independent of whether the applicant acted with intent or negligence in obtaining the measure. The posting of security may be mandatory in all or most cases in order for a measure to be granted. Alternatively, it may be at the discretion of the court to determine whether there is a particular danger that the respondent will not be able to obtain damages from the applicant if the measure turns out to have been wrongly granted.

181. The person subject to orders is personally obligated to obey the order. Sanctions may be imposed for abuse of the measure and non-compliance.

182. Other safeguards vary across jurisdictions and within the same jurisdiction may depend on the specific order sought, the requesting party and the context. For example, in some jurisdictions, no right to refuse testimony and no protection against self-incrimination may apply but information obtained cannot be used in subsequent criminal proceedings. In other jurisdictions, that may not be the case. In some jurisdictions, the respondent may not be required to permit the search and seizure of any evidence that would expose the respondent to criminal liability or that is protected by privilege. In other jurisdictions, that may not be the case. The same order may be implemented with variations dictated by circumstances. For example, questioning or examination may take place orally or in writing, publicly or privately, on oath, before the court or otherwise, in presence of trusted persons or otherwise.

183. In most jurisdictions, courts retain discretion in deciding whether to apply the measure given all the circumstances of the case. In some jurisdictions, courts may combine and tailor orders to the needs at hand, including safeguards for implementing them.¹⁰⁹

4. Cross-border aspects

184. Many jurisdictions require the diplomatic process to be used for service of process abroad. If the involved countries are parties to the Hague Service Convention, the procedures of that Convention must be used “where there is occasion to transmit a judicial or extrajudicial document for service abroad.”¹¹⁰ The letter-of-request procedure is envisaged in articles 2–7 and the alternative procedures are envisaged in articles 8–9 (service by way of the serving State’s consular or diplomatic representatives) and article 10 of the Convention (service by direct mail or direct communication among courts).

185. If at least part of the evidence to be gathered is located abroad or if the person with control of the evidence to be gathered is located abroad, a letter of request to the competent foreign authority (under MLATs or otherwise) or the use of the procedures of the Hague Evidence Convention, where applicable, may be needed.¹¹¹ Those procedures include the letter of request procedure¹¹² and alternative procedures (through diplomatic officers, consular agents and commissioners).¹¹³ At the regional level, the direct taking of evidence by members of the court of one State in another is permitted if the person from whom evidence is to be taken voluntarily cooperates.¹¹⁴

186. Domestic discovery for use in a foreign litigation, planned or pending, may be ordered by the court in some jurisdictions. A discovery order is discretionary and may depend on a number of factors, including whether the foreign court itself could order the discovery of the evidence sought and whether the applicant attempts to circumvent proof-gathering restrictions imposed by the foreign country.

187. Generally, evidence-gathering measures are available to foreign litigants as well as to domestic ones. However, rules of judicial competence may require that there should be jurisdiction over the defendant in the planned or already pending litigation for the court to be able to order the measure, irrespective of whether the evidence

¹⁰⁹ E.g. the courts have often combined and used with variations *Norwich* and *Bankers Trust* orders, adjusting them most recently to the needs of tracing digital assets. *Norwich Pharmacal Co. v. Customs and Excise Commissioners* [1974] A.C. 133: this is an action filed in court to obtain information possessed by an innocent third party and which is needed in order to trace and recover assets in the possession of a defendant or a third party that does not have a right to retain such assets. There should be strong evidence that the innocent third party was involved in the furtherance of the transaction identified as the relevant wrongdoing (i.e. the order is not available against a person who has no other connection with the wrong other than they were a spectator or have some document relating to it in their possession). The order cannot be: (i) obtained against persons who are likely to be witnesses or are prima facie defendants in any proceeding instituted on the basis of an alleged wrong and vice versa; (ii) used to obtain evidence as opposed to information; and (iii) used to aid a foreign proceeding if the foreign jurisdiction has a statutory regime through which evidence from overseas must be obtained. *Bankers Trust Co. v. Shapira and Others* [1980] 1 WLR 1274: this order requires a financial institution to disclose generally confidential information between a bank and its customer based on strong evidence that the funds about which information is sought belonged to the applicant, the funds were fraudulently dissipated, the information sought will lead to the location or preservation of the funds and that delay in disclosing the information may result in the funds being further dissipated or transferred. It may be requested both prior to and after the institution of any proceedings. If ordered, it will supersede duties of confidentiality. The applicant may be required to undertake that information disclosed would be used only for the purposes of the action to trace the funds.

¹¹⁰ Article 1 (see also the Practical Handbook on the Operation of the Service Convention, paras. 29–51 for more details).

¹¹¹ A similar procedure is found in Regulation (EU) 2020/1783 of the European Parliament and of the Council of 25 November 2020 on cooperation between the courts of the Member States in the taking of evidence in civil or commercial matters (taking of evidence) (recast).

¹¹² Articles 1–14 of the Hague Evidence Convention. See also articles 5–18 of the EU Evidence Regulation.

¹¹³ Articles 15–22 of the Hague Evidence Convention.

¹¹⁴ Article 19 of the EU Evidence Regulation.

involved is located within the country. In other countries, the court also has jurisdiction whenever the evidence to be gathered is located within the country. In others, jurisdiction depends on the reason for evidence gathering. Since evidence gathering measures operate in personam, they can be enforced within the jurisdiction against the person or its assets located within the jurisdiction. For that reason, some courts may be reluctant to grant them against persons located abroad unless those persons have some presence in the jurisdiction. Other courts do so, including against unknown persons and in unknown jurisdictions in the digital context.

188. Jurisdiction to order interim measures and preliminary orders usually lies with the court that has jurisdiction over the defendant or that would have jurisdiction over the defendant in the proceedings on the merits. Preliminary orders directing the defendant or third parties to do or not to do something usually operate in personam. They may be ordered by the court irrespective of the location of assets and whether the activity is to take place within or outside of its jurisdiction. In comparison, jurisdiction to enforce in rem measures, such as attachment and garnishment orders, is usually limited to the jurisdiction where the assets in question are located. Nevertheless, there are jurisdictions in which attachment and similar orders may also be issued by the court that has or would have judicial jurisdiction in the proceedings on the merits.

189. There are different regimes for cross-border recognition and enforcement of interim measures and preliminary orders.¹¹⁵ *[to be elaborated]*

[Suggested additional aspects: ATR issues arising from tracing and recovering specific assets, such as carbon and biodiversity credits, mobile equipment¹¹⁶ and securities held with an intermediary,¹¹⁷ and in the context of arbitration proceedings.¹¹⁸]

E. Ancillary measures

1. Gag and seal orders

190. Courts in some jurisdictions may issue a gag or a seal order or the combination of the two. A gag order is an order barring public disclosure of information about a case. It can be used to order the respondent of a disclosure order, such as a bank, not to reveal to its customer that it has been ordered to disclose information about that customer's assets.

191. A seal order is an order to the court staff to keep the court file or certain records within it under seal, meaning not to disclose information in the file to the public and

¹¹⁵ See e.g. article 3(1)(b) of the Hague Convention on the Recognition and Enforcement of Foreign Judgments in Civil or Commercial Matters of 2 July 2019 and MLIJ that exclude them from the scope of application. In comparison, the OAS Convention on Execution of Preventative Measures, supranational legislation within the EU and the UNCITRAL Model Law on International Commercial Arbitration (MAL), articles 17H–17I, include them.

¹¹⁶ See e.g. the Convention on International Interests in Mobile Equipment (2001) (the Cape Town Convention) and Protocols thereto (the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment (Cape Town, 16 November 2001; the Aircraft Protocol), the Luxembourg Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Railway Rolling Stock (Luxembourg, 23 February 2007; the Railway Protocol), the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets (Berlin, 9 March 2012; the Space Protocol) and the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Mining, Agricultural and Construction Equipment (Pretoria, 2019; the MAC Protocol)). Available as of the date of this paper at [Security interests – UNIDROIT](#).

¹¹⁷ See e.g. the Unidroit Convention in Substantive Rules for Intermediated Securities (the Geneva Convention) (not yet in force; available as of the date of this paper at: [Geneva Convention – UNIDROIT](#)) and the Convention of 5 July 2006 on the Law Applicable to Certain Rights in Respect of Securities held with an Intermediary (HCCH 2006 Securities Convention) (available as of the date of this paper at: [HCCH | #36 – Full text](#)).

¹¹⁸ See the UNCITRAL Model Law on International Commercial Arbitration (MAL), article 17. Available at [International Commercial Arbitration | United Nations Commission On International Trade Law](#).

do not allow the public access to the file. In the context of ATR, the purpose of such orders can be to prevent the (alleged) wrongdoer or other involved persons from learning about ATR actions and thus to prevent those persons from further dissipating assets. A seal order may be particularly important in jurisdictions in which court files are otherwise generally accessible to the public. Typically, these orders require a strong evidentiary basis and are limited in time since they run against the principle of open courts.

2. Criminal proceedings in aid of ATR

192. Insolvency proceedings and criminal proceedings may interact in many different ways. For example, the close interaction would be present where the debtor's business is nothing but fraud (sham, Ponzi schemes). Two proceedings may interact also because some fraudulent transactions involving the debtor took place before commencement of insolvency proceedings (the debtor defrauded third parties or third parties defrauded the debtor). In addition, insolvency-related crimes (e.g. dissipation of assets to the detriment of creditors, the causing of insolvency due to gross negligence, the failure to apply for commencement of insolvency proceedings as required) and other economic crimes (e.g. tax evasion, corruption, money-laundering) may be committed by directors and other persons, impacting the debtor. Those transactions and actions may be the only, primary or marginal reason for the debtor's insolvency but in any event become a sufficient ground for representing and protecting the insolvency estate's interests in criminal proceedings. Furthermore, during the insolvency proceedings, the insolvency representative, the debtor-in-possession or creditor representatives may commit a crime, which may produce different implications on insolvency proceedings and ATR. In case of detection of signs of criminal offences, persons are obliged to report them to the competent authorities.

193. The general body of creditors of the debtor may be recognized as the victim of the crime in case of conviction. In such cases, under any victim compensation orders that may be issued, the confiscated assets and proceeds of the crime may be returned to the insolvency estate (at least to some extent because multiple confiscation and victim compensation orders may be issued and, under applicable international instruments, the interests of the State and other victims may take precedence). In addition, on the basis of conviction, the civil court can determine broader civil liability arising from the committed crime.

194. Criminal proceedings may aid ATR in insolvency proceedings in other respects. For example, in some jurisdictions, a victim of a crime or, sometimes, more generally an interested person, such as the debtor-in-possession or the insolvency representative may have the ability to seek initiation of criminal investigation and criminal proceedings and can participate in those proceedings as a "civil party". In some jurisdictions, the civil party has extensive rights with respect to the collection of evidence and access to all the evidence collected in those proceedings. As a result, it may obtain the evidence that may be very difficult or impossible to obtain in civil proceedings. It may be permitted to use that evidence for ATR in insolvency or civil proceedings. In addition, the civil party may also have the right to seek orders to obtain evidence and freeze assets under MLATs as well as the ability to seek damages under the applicable tort laws in a parallel civil action to be decided by the same court. It may also have a right to appeal certain decisions of the court.

195. In other jurisdictions, the insolvency representative may have access to the records of criminal investigations ex officio or by a special court order. It may be required to demonstrate in such case that the request is intended to seek records for their intrinsic value with the sole purpose to trace the assets and that the need for disclosure outweighs the need for continued secrecy. Other usual safeguards to protect the interest of the criminal investigation and the rights of the accused apply.

IV. Digital aspects

196. The following sections describe digital aspects of ATR, in particular: (a) data as an asset being traced and recovered; (b) data as the evidence; (c) data as a source of information for tracing and recovering physical or digital assets and identifying its holder, owner or beneficiary; (d) data for serving notices in relation to ATR actions and for effectuating recoveries (i.e. obtaining control over the asset); and (e) data for prevention of fraud and other grounds giving rise to the need for ATR. In all those contexts, the role of intermediaries (e.g. cloud computing service providers, platform operators) and developers and operators of AI, IoT and other solutions in online commercial transactions is analysed. Their role may be different but indispensable for ATR, for simple search and provision of information or for more sophisticated actions, such as freezing, seizing and recovering the digital assets or evidence. In particular, centralized exchanges often hold key information for ATR.

197. The sections below also discuss issues arising from vulnerability and volatility of data. In particular, preservation, integrity and subsequent use of data as an asset, evidence or otherwise depend on many factors, including interoperability of technology, systems and processes. The following sections also touch upon issues arising from decentralized, (pseudo)anonymous, autonomous and irrevocable processes involved in distributed ledger technology (DLT), replicability of data (original/copy), change of control over data, reversibility of transactions as well as data protection and localization regulations that may impose limits on extraterritorial access to and use of certain data.

A. Data as an asset (digital assets)

198. Digital assets may have different forms. They may be held directly or via intermediaries that may perform different roles with respect to those assets. Digital assets may or may not be recognized as the object of ownership capable of being part of the insolvency estate. In insolvency proceedings, those aspects will be addressed by applicable law (see recs. 30 and 31 of the Guide). Where they are recognized as the object of ownership capable of being part of the insolvency estate, the type of a digital asset, the way it was created and is held may affect the determination of whether a proprietary claim to the asset itself or a personal claim against the holder or custodian of the asset exists and whether a digital asset in ATR will be identifiable as a separate object or as a proportionate share in the mixed assets held by a custodian for all its clients. These determinations, which are case and fact specific, would ultimately indicate whether a certain digital asset will be part of the insolvency estate of the custodian in case of its insolvency or of the insolvency estate of the custodian's client in case of the client's insolvency. The type of ATR tools to be used with respect to digital assets will depend on those determinations.

199. Where digital assets are recognized as assets belonging to the insolvency estate, different reasons may arise, as with any other assets, for tracing and recovering them. The primary business of the debtor may be trading in digital assets. In such case, the digital assets may be spread around different online places, not necessarily all under the control of the debtor. Alternatively, the debtor might have invested in acquisition of digital assets. In both scenarios, it is conceivable that the debtor may conceal the existence, value and location of any or all digital assets, or the disclosed digital assets may be stolen. For example, exchange wallets, personal wallets or any other method of digital asset storage or transfer may be hacked, or the debtor might have participated, knowingly or not, in fraudulent schemes that prevent the insolvency estate to get hold of digital assets (e.g. when the withdrawal of assets is attempted, the request is rejected by the holder of the assets and the assets are transferred out of the debtor's account). The stolen assets could then be traded using on-ramping (trading between unknown wallet holders, breaking the record of transactions), off-ramping (i.e. selling the stolen digital assets for fiat currency) or both, with an attempt to obfuscate the origin and final destination of the assets. Ring signatures

(i.e. a digital signature that is created by a member of a group which each have their own keys, making it impossible to determine the person in the group who has created the signature), one-time addresses for each transaction (stealth addresses) and tumbler services (i.e. a single trade is split up in a large number of machine-executed random trades, which in turn split up into smaller trades, among various participants) are among techniques used for such purposes.

200. As was noted in the preceding sections, some jurisdictions provide the court with wide discretion to order any measure necessary in the case at hand. They may include those with worldwide effects. Courts have used the ATR tools surveyed in this text for tracing and recovering digital assets, adjusting them to the digital environment and the needs at hand and combining them with the usual coercive measures to force compliance while protecting, where necessary and as appropriate, anonymity of online traders and confidentiality of their online identification credentials. In the light of the nature of digital assets and online trading, world-wide freezing and disclosure orders have been made promptly to protect the prospects of a successful recovery. Where the defendant may be unknown, it has become possible in some jurisdictions to order measures against “persons unknown” (for example, to order the freezing of known digital assets whose owner remains, as of yet, unknown) although those measures have raised tension with the well-established norms of protection of bona fide transferees. The reverse may also be true: the digital platform operators may receive orders to freeze operations with respect to all digital assets of a known user; assets of that user themselves may be unknown.

201. Where digital assets have been traded using DLT and similar technologies, data analytics software and forensic analysis may trace digital assets even where mixing and tumbling services are involved. This is because DLT and similar technologies create a permanent and public record of transactions and represent pseudonymous systems. That is, digital assets and transactions with them, which are visible to any network participant, can each be assigned to a public key that serves as the pseudonym of a particular network participant and are thus visible to anyone. Although the matching private key is (or should be) known only to the relevant network participant, by comparing the public key with known accounts, e-mail addresses or other identifying features, it is possible to assign particular tokens and transactions to a specific account or e-mail. Data analytics software and forensic analysis may thus reveal the transactional history of any given blockchain platform, a server, a digital market operator or wallet service provider, link digital wallets to their owners’ real identities, track transactions to and from digital wallets and prove the existence of the digital asset belonging to the insolvency estate.

202. Where no DLT or similar technologies are used, direct disclosure and other orders may be needed against the relevant entity. Many digital assets operators have adopted strict KYC rules, thus facilitating the identification of the owner of a particular account. Operators of digital platforms that are subject to those rules and similar regulation can thus identify their clients and comply with disclosure and other ATR-related obligations, orders and requests emanating from the court or the insolvency representative. For example, where the stolen digital assets belonging to the insolvency estate have been traced to an account that remains on the platform, the platform operator may be ordered to lock or disable the account to prevent dissipation of its value, reissue the account to the insolvency representative or disclose the identity of the account holder for further actions by the insolvency estate (e.g. avoidance actions). In such case, the situs of the digital asset provider may be an important factor in determining where to seek provisional measures or bring a claim. If the ultimate account holders are identified, avoidance claims can be brought against them to recover digital assets or the value of transactions. In such cases, the situs of those persons may be an important factor in determining where to bring a claim.

203. However, such orders and measures are likely to be fruitful where they are addressed to registered digital asset businesses that are subject to regulation and oversight. In many jurisdictions, digital asset businesses, custodians or exchanges are

not registered and are not subject to any standards for operation of digital platforms. In addition, as noted above, there are always attempts to make transactions with digital assets close to anonymous and obfuscate the origin and final destination of the assets. Private wallets (i.e. held directly by a person without involvement of any custodian) and cold wallets (i.e. physical devices not linked to the web) raise additional challenges for ATR. Legislation and case law is unsettled also with respect to actions against developers of digital assets, AI and other solutions.

204. Particular challenges for ATR of digital assets arise not only from the pseudonymous, and at times close to anonymous, systems but also the speed with which digital assets can be traded without regard to national boundaries and without attachment to national, government-issued currencies or physical assets. Involvement of different jurisdictions may lead not only to the usual complexities around jurisdictional and applicable law issues, race for assets and ringfencing for the protection of local creditors, which UNCITRAL insolvency texts aim to avoid, but also to the clash of regulatory regimes, which, if uncoordinated, may lead to double counting and imposition of excessive fines on the insolvency estate by regulators from different jurisdictions. In addition, the scale and impact of insolvencies involving digital assets and creditors' role in oversight over ATR and other actions in insolvency proceedings may be unpredictable since creditors may prefer staying anonymous and not involved in the proceedings for legitimate or illegitimate reasons. All of that makes insolvency proceedings involving digital assets notoriously complex requiring speedy, effective and creative solutions and close coordination and cooperation of all involved jurisdictions at different stages of proceedings.

205. Other challenges arise from much higher volatility of some types of digital asset (e.g. crypto currencies) and uncertain value of other type of digital assets (e.g. data). This makes the cost-benefit analysis for assessing desirability of ATR with respect to digital assets particularly difficult. The combination of different valuation techniques and engagement of professional services for valuation may be required.

[To be elaborated depending on digital assets to be captured by this section. Although the characterization of a digital asset is case-specific, and the same digital asset may perform several functions (hybrid assets) or change its characteristics in the chain of operations or transactions, digital assets that are clearly used for investment or financing may need to be excluded since they may be regulated by laws and regulations addressing financial services, securities and other financial instruments. Specifics of tracing and recovering such assets may be appropriately and sufficiently addressed in due course in the preceding chapters, e.g. securities held with an intermediary.]

B. Data as evidence

206. *[To be elaborated: issues of admissibility of data as evidence; custody of data as evidence; measures to eliminate or reduce risks of manipulation of data.]*

C. Data as a source of information

207. *[To be elaborated: issues of AI and IoT.]*

D. Data as a means of transmission of information (serving notices and the like)

208. *[To be elaborated: the use of emails, NFT airdrop, Twitter and other social media accounts for serving notices and orders, including service out of the jurisdiction.]*

E. Prevention aspects

209. *[To be elaborated: aspects of combatting cybercrime and ensuring cyber security; segregation, capital and other requirements; and red flag and alert systems.]*
