#### JOINT STUDY COMMITTEE ON THE UNIFORM COMMERCIAL CODE AND EMERGING TECHNOLOGIES

Suggested Approach to the Study Committee's Work Significant Issues that the Study Committee Might Consider

General approach

For each relevant transaction:

Does the UCC apply?

If so, does it yield the desired outcome?

If not, should it apply? With what outcome?

### General principles

The outcomes for all media and technology should be the same

When the existing text, fairly construed, yields the desired outcome, any amendments should be made only to the comments

#### Article 1

Reconsider the definition of "bank" (related primarily to Articles 4, 4A, and 9), including whether the same definition is appropriate for all UCC articles

Consider the extent to which the definition of "money" should include digital payment mechanisms, including fiat currency and private currency, throughout the UCC

Reconsider various definitions (e.g., "agreement," "contract," "conspicuous," "delivery," "genuine," "record," "sign," "notice," "knowledge") as used throughout the UCC, in light of emerging technologies, new kinds of electronic assets, and increased reliance on electronic contracting and electronic agents

Reconsider the use of "writing" v. "record" throughout the UCC

### Article 2

Expand Article 2:

- To cover contract formation through electronic agents/autonomous algorithms
- To cover sales of digital assets
- To cover transfer of digital currency
- To integrate UETA and E-SIGN, or variations thereon
- To address ownership and transfer of goods that are subject to blockchain or other distributed ledger registration or can be identified using electronic means

Clarify the scope of Article 2 with respect to a single contract for goods, services, and data

## Article 2A

Expand Article 2A:

- To cover contract formation through electronic agents/autonomous algorithms
- To cover electronic leases
- To integrate UETA and E-SIGN, or variations thereon
- To address ownership and transfer of goods that are subject to blockchain or other distributed ledger registration or can be identified using electronic means

Expand Article 2A's hell-or-high-water concept in the context of bundled leasing/services

Consider whether Article 2A should address a lessor's right to track, disable, and recover leased goods electronically and, if so, how

## Article 3

Consider whether the provisions of Article 3 are satisfactory in an environment in which treatment of written instruments is increasingly automated

Extend Article 3 concepts (e.g., transfer, negotiation, holder in due course) to apply to promises to pay (notes) that are evidenced by an electronic record

Extend Article 3 concepts to apply to orders to pay (drafts) that are evidenced by an electronic record

Extend Article 3 concepts to apply to written obligations to pay in private currency

Add a choice-of-law provision to Article 3

## Article 4

Consider whether the provisions of Article 4 are satisfactory in an environment in which treatment of written instruments is increasingly automated and in which payments of non-items (e.g., ACH transactions) may be more frequent than payments of items (e.g., checks)

Expand Article 4:

- To cover collection by non-bank payment-service providers
- To cover collection of electronically created items

Prune back Article 4 so that it covers only those matters not covered by federal law

Consider the impact of remote deposit capture on the allocation of double payment risk beyond the recent Reg. CC amendments

### Article 4A

Consider whether the provisions of Article 4A are satisfactory given new and emerging AI/processing applications

Consider whether the provisions of Article 4A, including the discharge provisions (§§ 4A-404 and 4A-406) and definitions of "funds transfer" and "funds-transfer system," can accommodate the use of distributed-ledger-based token transactions to clear and settle funds transfers

Consider whether the security-procedure and loss-allocation provisions (§§ 4A-201 through 4A-203) are satisfactory given cybersecurity and increasing interloper fraud risks

Expand Article 4A:

- To address funds transfers that convert to other currencies, including the implications for the "money-back guarantee" (§ 4A-402(c)) if a funds transfer is not completed
- To cover those aspects of consumer funds transfers that are not covered by the EFTA/Regulation E
- To apply, in whole or in part, to non-bank payment-service providers

### Article 5

Consider whether the provisions of Article 5, including §§ 5-108(e) (referring to standard practice of financial institutions) and 5-116(c) (referring to rules of custom or practice), are satisfactory to accommodate electronic presentation of electronic drafts and other electronic documents

### Article 7

Consider whether the provisions of Article 7, including § 7-106 (stating when a person has control of an electronic document), are satisfactory to accommodate electronic documents created using new and emerging technologies

## Article 8

Consider whether the provisions of Article 8 are sufficient to accommodate an increasingly paperless world

Consider whether the provisions of Article 8 are sufficient to allow for issuance and transfer of securities or tokenized on a distributed ledger

Consider whether the provisions of Article 8 are sufficient to allow for any disintermediation of securities issuance, ownership and transfer that may become feasible and desirable because of new and emerging technologies

Consider whether the provisions of Article 8 apply to issuance and transfer of crypto-assets, including virtual currency

### Article 9

### Scope:

Consider whether enforcement rights under a smart contract constitute a "security interest"

### Security interests in digital assets:

Consider whether the existing Article 9 classification of the following assets is clear and appropriate:

- Electronic negotiable instruments
- Digital assets used to make payments

- Bulk data
- Other digital assets, including electronic chattel paper

Consider what method(s) of perfection should be available for digital assets:

- Filing
- Other method of public notice (e.g., annotation on the blockchain or other distributed ledger)
- Secured party's access to collateral for enforcement purposes (cf. possession; control)
  - Consider whether § 9-105 ("control" of electronic chattel paper) is satisfactory
  - Consider whether § 7-106 ("control" of electronic documents of title) is satisfactory

Consider whether non-temporal priority ("superpriority") should be available for digital assets other than electronic chattel paper and electronic documents of title and, if so, how superpriority could be achieved

Consider what choice-of-law rules for perfection other than by filing would be appropriate for digital assets other than electronic chattel paper and electronic documents of title

Consider whether special treatment for third-party rights is appropriate with respect to digital assets other than electronic chattel paper and electronic documents of title

- Account debtors and other non-debtors who are not secured parties and have an interest in, or rights with respect to, the collateral
- Persons who take free of security interests, cf. BIOCOBs, HDCs, HTWANDOTHBDNs, protected purchasers, etc.)

#### Filing offices:

Consider whether the provisions of Article 9 allow for a record of a possible Article 9 transaction (financing statement) to be stored and made publicly available on a distributed ledger

#### Enforcement:

Consider whether Article 9 should address a secured party's right to track, disable, and recover collateral electronically and, if so, how

# Consumer debtors:

Consider whether Article 9 should include provisions protecting a consumer's privacy

Consider whether Article 9 should restrict a consumer's ability to create security interests in digital assets (cf. §§ 9-108(e)(2); 9-109(d)(13))