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Editorial Office
230 Park Ave., 7th Floor, New York, NY 10169 (800) 543-6862
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Digital Mortgage Assets: A Closer Look

By David A. K. Linley, Paul A. Jorissen and Barbara M. Goodstein*

In this article, the authors review some key considerations when financing digital mortgage assets, review the status of a financing party of electronic versions of home equity lines of credit as opposed to electronic versions of traditional home mortgage loans, and review some of the opportunities presented by the 2022 Uniform Commercial Code amendments as they relate to the financing of digital mortgage assets.

MORTGAGE LENDING AND THE DIGITAL TRANSFORMATION

For reasons going back to 17th Century English law and the Statute of Frauds, mortgage lending in the United States traditionally has been a business transacted and recorded on paper. Financing of mortgage assets therefore has been premised in part upon the existence and content of those papers: what do they say, who signed them, and where are they now? This has been important both for traditional home mortgage loans (comprised of a promissory note and a mortgage[1]) and for home equity lines of credits, or HELOCs (comprised of a line of credit agreement and a mortgage). To maintain focus on the largest portion of originations, this article will focus on these traditional home mortgage loans and HELOCs, and leave for another day a discussion of the interesting variants that have emerged, including home equity investment contracts of various types.

More recently, mortgage lending – and therefore financing of mortgage assets – has been undergoing a digital transformation as more lenders and borrowers opt for electronic versions of mortgage loan documents. An earlier article by two of the authors[2] looked at the background of these developments, but to recap briefly they are grounded in the statutory enforceability of electronic contracts provided by the laws[3] on electronic transactions known as UETA[4]

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* The authors, partners in Mayer Brown, may be contacted at dlinley@mayerbrown.com, pjorissen@mayerbrown.com and bgoodstein@mayerbrown.com, respectively.

[1] In some states, a deed of trust rather than a mortgage is used to perfect an interest in real estate. Although there are differences in form between the two approaches, in substance they have the same effect and accordingly for the sake of simplicity we will use the term "mortgage" to indicate the applicable state law security instrument, regardless of whether it is in the form of a mortgage or a deed of trust.

[2] The Promise and Potential of Blockchain and New UCC Article 12, 141 BANKING L.J. (Apr. 2024).

[3] New York has its own law relating to electronic transactions, known as the Electronic Signatures and Records Act or "ESRA." ESRA, and the published regulations thereunder, work differently from the mechanisms in UETA and ESIGN that are the subject of this article, but under New York Law 9 CRR-NY 540.5 "[a]n electronic record used by a person shall have the

and ESIGN.[5] No mortgage lender would extend credit to a mortgagor if they were not certain that the contract memorializing that loan, or the instrument recording the lender's interest in the real estate, was enforceable. The statutory basis for enforceability therefore is the most fundamental requirement for this digital transformation. For convenience, this article refers to the electronic version of a traditional home mortgage loan as an "eNote" and the electronic version of a HELOC as an "eHELOC."

eNOTES AND eHELOCS: WHAT ARE THEY AND HOW ARE THEY CREATED?

Traditionally, homeowners in the United States have signed their mortgage documents at an attorney's or title agent's office. And while many readers will be generally familiar with the process of closing a home mortgage loan, a closer look at what happens at a closing is worthwhile as it informs an understanding of digital mortgage assets. For a traditional home mortgage loan, the homeowner will sign a promissory note that memorializes key terms of the loan including the names of the borrower and the lender, how much was borrowed, what the borrower's obligations are for payments of interest and principal, and details of the property that is to secure the loan. The homeowner will also sign a mortgage, the effect of which is to grant the lender a lien on the homeowner's land and improvements (i.e., the home), and which typically contains other agreements by the mortgagor such as those relating to obligations to pay property taxes and maintain hazard insurance for the benefit of the lender, and to ensure the lender's lien priority on the real estate. The mortgage must be notarized – that is, a notary public confirms the identity of the person signing the document, and seals the document accordingly with his or her stamp and attesting to the due notarization. After the closing, the promissory note is shipped to the lender's document custodian by the closing agent, along with a copy of the mortgage, and the mortgage is submitted by the closing agent for recordation in the local land registry. Once the mortgage has been recorded, the original or a copy of the document showing the title office's stamp or other evidence of recordation is returned to the lender's document custodian.

Note the role of the closing agent and the benefit of having all parties in the same office at the same time: all of the documents are signed, the notary public

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same force and effect as those records not produced by electronic means." Therefore, with some exceptions that are outside the scope of this article, New York has a statutory basis of enforceability for electronic contracts that mirrors UETA and ESIGN.

[4] Published in Official Text by the Uniform Law Commission in 1999, and subsequently adopted in 49 of the 50 states (with variations in some cases).

[5] The Electronic Signatures in Global and National Commerce Transactions Act (codified at 15 U.S.C. §§ 7001-31).

is present and able to undertake his or her role, and the documents can be collected and managed by the closing agent on behalf of the mortgage lender.

How to translate those integrated processes into a digital closing? Amid all the misery and instability it caused, the COVID 19 pandemic fueled a strong move towards transacting business in ways that minimized personal contact and, specifically in the context of mortgage lending, a movement by 49 of the 50 states to allow for remote online notarization, or RON.[6] This move to RON in particular, combined with the availability of vendor platforms with easy to follow user interfaces and back end integration to data vaults, has allowed for a wider adoption of digital closings. An eNote closing now mimics a traditional closing, as shown in Table 1.

Table 1

Traditional Paper Closing	Electronic Closing
All parties go to the office of the lender's closing agent	All parties use an online closing platform arranged by the lender
Borrowers sign an original promissory note	Borrowers electronically sign a promissory note
Borrowers sign an original mortgage	Borrowers electronically sign a mortgage
The mortgage is notarized by inspecting the borrowers' ID and the notary applying a seal to the mortgage	The mortgage is notarized by RON, which requires inspecting the borrowers' ID and the notary electronically applying a seal to the mortgage
Documents are collected by the closing agent. The original promissory note is shipped to the lender's custodian. The mortgage is submitted by the closing agent for recordation, either electronically or in person, depending on the jurisdiction	Documents are automatically encrypted and uploaded to a data vault. The promissory note is available for inspection by the lender's custodian but remains in the data vault. The mortgage is submitted by the closing agent for recordation, either electronically or in person, depending on the jurisdiction

An eHELOC closing is essentially the same, except that instead of a promissory note being electronically signed, the line of credit agreement is electronically signed. There are, however, key differences between eNotes and eHELOCs, and some of these will be identified and discussed in more detail below.

[6] A review of RON is beyond the scope of this article, but as of the time of writing, only Georgia had no provision for RON.

eVAULTS, REGISTRIES AND THEIR RESPECTIVE ROLES

A foundation of digital mortgage assets is the use of electronic data vaults, or "eVaults." An eVault is an electronic repository for the contracts, but there is much more required here than simply storing a PDF on a local hard drive.

Both ESIGN and UETA apply to "transferable records" and both are premised on the notion that there exists a single "authoritative copy" of that transferable record. At base, a transferable record is an electronic record that would be a note under the Uniform Commercial Code (UCC) if it were in paper form.[7] Because the traditional mortgage promissory note is treated as a note that is a negotiable instrument under UCC §3 104, the electronically signed promissory note is treated as a transferable record under ESIGN and UETA.[8] To control a transferable record under both ESIGN and UETA, among other requirements, a person must be able to access it and effect transactions in that record via a system the requirements for which include that the transferable record is created, stored and assigned in such a manner that a single authoritative copy of the transferable record exists which is unique, identifiable and, with certain exceptions, unalterable. Going back to the electronic closing, the promissory note is electronically signed. The data representing that note is digitally encrypted and a hash value assigned to it[9] at the time it is submitted by the mortgagor and uploaded to the data vault. That encryption or hashing process is designed to meet the requirements for establishing the electronically signed promissory note as being unique (no two hashes can be identical), identifiable (the hash value remains digitally associated with the data that was encrypted) and unalterable (the data cannot be changed without the requirement for a new hash value); i.e., it is the authoritative copy of that electronically signed promissory note.

This encrypted data is stored in an eVault. Every eVault requires certain basic functions both for utility and to meet the systems requirements of ESIGN and

[7] Both ESIGN and UETA also set technical requirements for the creation, storage and transfer of transferable records.

[8] The corollary is that, because the line of credit agreement for a HELOC is not treated as a note under UCC Article 3, an eHELOC is not eligible to be treated as a transferable record under ESIGN or UETA. Accordingly, although eHELOCs are also encrypted and stored in eVaults as will be described in this section, the reason for doing so is not to do with ESIGN and UETA as it is with eNotes. This distinction will be explored in more detail below.

[9] There are a number of published industry standards for this process, and the technological requirements for hashing of data are beyond the scope of this article. For purposes of understanding the context of digital mortgage assets, "hashing" is a process whereby data is digitally encrypted and identified such that either no change to the data is possible, or any change (if made) automatically is identifiable as being an alteration.

UETA. From a utility standpoint, there must be a method for obtaining a visible copy of the promissory note, i.e., the ability to obtain a PDF or physically printed copy. Usually the eVault system will automatically mark such a copy as a copy: the authoritative copy remains held in the eVault, and what is printed is just a copy. The systems requirements of ESIGN and UETA, in order to establish control of the transferable record, include that the system employed for evidencing the transfer of interests in the transferable record reliably establishes the person to whom the transferable record was issued or transferred. To do this, every eVault will need an associated registry that shows the various interests in the transferable records held in the eVault. The original lender is typically shown as the "Controller" of the eNote. If the original lender sold the eNote to a purchaser, part of the closing of that sale would include instructions to identify the purchaser as the new Controller of the eNote.

The treatment of the documentation for an eHELOC closing is essentially the same, but because it is a line of credit agreement and not a promissory note that is being electronically signed, the rationale for managing the data in the above manner is different. For purposes of both ESIGN and UETA, an eHELOC is not a transferable record and accordingly there is no need to try and control the "authoritative copy" of the line of credit agreement (since there is no such thing) in order to perfect an interest in it. There are sound evidentiary reasons, however, for wanting to ensure that there is an accurate record of the line of credit agreement. Upon enforcement or in the event of a dispute, the court would want the best evidence of the contract that is available, and having a copy that is demonstrably (via the encryption and hashing process described above) a printout of the line of credit agreement that was signed at the closing is likely to be the best evidence of its terms.[10] These same evidentiary considerations apply equally to eNotes.

eNOTES AND eHELOCS: HOW IS A FINANCIER'S INTEREST PERFECTED?

As with the section above dealing with the creation of eNotes and eHELOCs, a brief review of current practices in financing traditional paper home mortgage loans and HELOCs helps inform the move to financing digital mortgage assets.

For financiers secured by a traditional home mortgage loan, the promissory note is the key item of collateral (the mortgage is the document by which the originating lender perfects its security interest in real estate under state law). As

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[10] Although what is commonly known as the "Best Evidence Rule" is codified in the Federal Rules of Evidence, foreclosures are conducted under state law and equivalent state rules of procedure would apply. The description here is intended only to point to the relevant considerations rather than conduct a survey of the specific rules for each state.

noted, the promissory note is delivered to the lender's custodian. In most cases, the promissory note is indorsed in blank either on the note itself or on an allonge.[11] By holding the promissory note via a custodian, who stores the document in a fire resistant vault, the financier achieves several aims.

First, it ensures that the document itself is preserved for evidentiary purposes.

Second, it ensures that the instrument cannot wind up in the hands of a third party who could potentially assert competing claims to it.[12]

Third, and perhaps most important for a financier, holding the original note (via a custodian or otherwise) is a predicate to the financier being able to assert that it is entitled to the powerful rights of a holder in due course of the instrument.[13]

Because the financier is committed to having a folder of paper documents for the mortgage loan in order to hold at least the original promissory note, in most cases they will also have the custodian hold the original or a copy of the mortgage with evidence of recordation (to establish that it was properly recorded) and an assignment of mortgage executed in blank by the mortgagee of record (to assist in future transfers). For financiers of a traditional HELOC, the paper line of credit agreement itself is not a collateral instrument under the UCC, nor is the mortgage. In fact the only paper document that the financier would generally require is an assignment of mortgage in blank. However, given that the financier would need to have assignments of mortgage in blank, then it will usually have these stored at a custodian and will also have in the file a copy of the executed line of credit agreement (for evidentiary purposes) and the original or a copy of the mortgage with evidence of recordation (to establish that it was properly recorded). Because HELOCs are generally treated as payment intangibles, a type of general intangible, perfecting a financier's interest in HELOCs is usually accomplished via a financing statement.[14]

For a financier of an eNote, the key collateral is the electronic promissory note, i.e., the transferable record. For an eHELOC, the key collateral is the payment intangible, which is a type of general intangible under the UCC. Here

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[11] See UCC §§3 202 and 3 204.

[12] See UCC §9 313(a) and 9 330(e).

[13] See UCC §§3 302 and 3 305.

[14] See UCC §9 310. Note that under UCC §9 309(3) there is automatic perfection upon a sale of a payment intangible. A full review of the ambit of UCC §9 309(3) is beyond the scope of this article, but best practice in financing HELOCs by purchase is to file a financing statement notwithstanding that UCC §9 310(b)(2) provides that filing a financing statement is not necessary to perfect a security interest that is perfected under UCC §9 309(3) when it attaches.

the paths of eNotes and eHELOCs again diverge. Whereas the change from paper HELOC to eHELOC does not change the perfection analysis, the change from traditional home mortgage loan to eNote does change the perfection analysis.

Briefly, eHELOCs are payment intangibles, i.e., a type of general intangible, the same as their paper equivalents, and accordingly, perfecting a financing of eHELOCs is undertaken in the same way: by filing a financing statement. As noted above, the eVault will generally contain the evidentiary records, and a financing party only needs to solve for the assignment of mortgage in blank.[15]

For an eNote, the financier needs to obtain "control" of the transferable record, as prescribed by ESIGN and UETA, in order to be treated as the "holder" of the eNote and to have the same rights and defenses as a holder of an equivalent paper note, including the rights and defenses of a holder in due course. Control of a transferable record under both ESIGN and UETA involves six technical requirements, including possessing the single authoritative copy of the record that is unique, identifiable and unalterable. If the financier has control of the transferable record then, under both ESIGN and UETA, except as otherwise agreed, the financier will be treated as the "holder" (as defined in UCC §1 201(21)) of the transferable record, and to have the same rights and defenses as a holder of an equivalent record under the UCC including – if the applicable requirements are met – the rights and defenses of a holder in due course. Delivery, possession and indorsement are not required to obtain or exercise any of these rights; they arise under the statute.[16] The crucial analysis then for a financier of eNotes is of the entire end to end process for originating, hashing, eVaulting and managing the eNotes via the associated registry, all to ensure that it can be treated as the controller for purposes of ESIGN and UETA. If it can do so, then, as noted, the financier will have the same rights and defenses as a holder of an equivalent record under the UCC.

PERFECTION CONSIDERATIONS

One of the key differences between financing a traditional mortgage loan and a HELOC is the nature of the contract that evidences the borrower's obligation to repay the loan. A mortgage loan's promissory note is a negotiable instrument under the UCC, while a HELOC's line of credit agreement is not. This

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[15] Some financiers will require paper assignments of mortgage, some will rely upon a servicer/originator to prepare them upon demand, others will seek and obtain a limited power of attorney to prepare assignments of mortgage, and some financiers will seek a combination of these approaches.

[16] See UETA Section 16(d) and 15 U.S.C. § 7021(d).

distinction has important implications for the rights and defenses of the parties involved in the financing, especially in the context of electronic versions of these documents (i.e., eNotes and eHELOCs).[17] The advent of electronic mortgage loan and HELOC closings has introduced new challenges and opportunities for financiers, and this section of the article focuses on one important consideration: whether and how a financier to a mortgage lender can be a "holder in due course"[18] and what implications that may have for it as a secured lender.

HOLDER IN DUE COURSE

The UCC creates the concept of a holder in due course relating to negotiable instruments. A holder in due course is a person who takes a negotiable instrument for value, in good faith, and without notice of any claim or defense against the instrument. A holder in due course has powerful rights under the UCC, as the holder in due course takes the instrument free from all claims to it on the part of any person, and all but a limited set of defenses (such as fraud, duress, or illegality) that could be raised by the maker or a prior party.[19] In other words, a holder in due course generally has the most powerful standing from which to enforce the instrument against the maker. For home mortgages, that means being able to enforce the mortgage loan documents against the mortgagor including, if necessary, through foreclosure action.

Taking each of these requirements in turn, a holder in due course is:

- *a holder*[20]

  In order to be a holder in due course, a financier needs literally to be a holder. UCC §1 201(21) defines what it means to be a holder of a negotiable instrument, which in the mortgage context usually means having the promissory note, indorsed in blank, held by a document custodian who agrees to hold the document for the benefit of the financier.

- *who takes an instrument*[21]

  It is axiomatic that a person is a holder in due course with respect to an instrument. A person holding collateral that is not an instrument

[17] As to this characterization, and other related matters, see above.

[18] Because this article will provide analysis and context around the concept of a holder in due course, for readability we will not be including it in quotation marks hereafter, notwithstanding that it is a term with a specific legal meaning.

[19] See UCC §3 305.

[20] See UCC §3 302(1).

[21] See UCC §3 302(1).

will not meet this threshold requirement.

- *for value*[22]

In this context, "value" is distinct from the consideration required for the enforceability for the underlying obligation. The details of value are beyond the scope of this article, but generally require that the agreed consideration shall have been given, i.e., a merely executory promise to give value will not suffice.

- *in good faith*[23]

A discussion of taking in good faith, or in the absence of bad faith, is beyond the scope of this article, but the ordinary meaning of the term is sufficient to convey the substance.

- *without notice . . . of any defense against or claim to it on the part of any person.*[24]

This requirement requires a factual analysis for each instance. Note that UCC §3 304 gives clarity as to both what constitutes such notice, and what does not, of itself, give a purchaser notice of a claim or defense.

Holder in Due Course Analysis for eNotes

In the context of an eNote, financiers generally would look to statutory rights in order to meet the requirements noted above. As described above, if the financier has control of the transferable record[25] then under both ESIGN and UETA, except as otherwise agreed, the financier will[26] be treated as the "holder" (as defined in UCC §1 201(21)) of the transferable record, and will be treated as having the same rights and defenses as a holder of an equivalent record under the UCC, including the rights and defenses of a holder in due course to the extent available.[27] Accordingly, the key for a financier is to obtain "control" of the transferable record, as prescribed by ESIGN and UETA. Control of a transferable record involves six technical requirements, including possessing the

[22] See UCC §3 302(1)(a) and UCC §3 303.

[23] See UCC §3 302(1)(b).

[24] See UCC §3 302(1)(c) and UCC §3 304.

[25] The "transferable record" here is the electronic promissory note. For ease of reading, the authors are using the technical term without recapping the specific requirements that allow an electronic promissory note to be treated as a transferable record.

[26] See UETA Section 16(d) and 15 U.S.C. § 7021(d).

[27] While UETA and ESIGN contain powerful rights to be treated as a "holder," they of course do not remove the other UCC requirements such as good faith, value and the lack of notice. Those are factual matters that would be determined on a case-by-case basis.

single authoritative copy of the record that is unique, identifiable and unalterable. The first part of this article reviewed some of these factors, especially as it relates to the authoritative copy of the eNote. A full review of the technical requirements is beyond the scope of this article, but suffice it to note that the development of the MERS® eRegistry was undertaken by MERS in consultation with major mortgage market participants, such as Fannie Mae, Freddie Mac, and Ginnie Mae, and is the only system as of the time of writing that is approved by Fannie Mae, Freddie Mac, Ginnie Mae and the Federal Home Loan banks (among others) for the control and transfer of eNotes. The authors do not express a conclusion on whether or not the MERS® eRegistry as a technical matter meets all of the requirements prescribed by ESIGN and UETA for the control of transferable records and are not aware of whether the question has been litigated. For practical purposes, however, the industry has accepted the MERS® eRegistry as being sufficient to meet these requirements.

Holder in Due Course Analysis for eHELOCs

A financier of an eHELOC generally[28] cannot be a holder in due course; however, it is worthwhile reviewing and understanding why that is the case and what implications arise as a result of that fact.

Answering the question why a financier of an eHELOC cannot be a holder in due course is straightforward. The UCC concept of a holder in due course is by definition a holder of an instrument.[29] Under UCC §3-104(b), an "instrument" means a "negotiable instrument." Under UCC §3-104(a), among the requirements to be a "negotiable instrument," there must be an unconditional promise or order to pay a fixed sum of money. Because an eHELOC is a contract to lend and borrow amounts that can be drawn, repaid and redrawn, it generally would fail to be treated as a promise to pay a fixed sum.[30] As such, an eHELOC would not be treated as a negotiable instrument, or as an instrument, and therefore is not able to give the financier holder in due course status under the UCC.

Notably, the conclusion in the prior paragraph for eHELOCs is equally applicable to traditional paper HELOCs. Accordingly, when assessing the effect

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[28] See below for some views on how eHELOCs could be adapted to give a financier holder in due course rights.

[29] See UCC §3 302.

[30] Although it is beyond the scope of this article, there are important disclosure and consumer regulatory requirements that depend upon whether a particular mortgage loan represents open-end or closed-end credit. Because the products marketed as HELOCs or eHELOCs are all originated to be open-end credit, the conclusion that they do not represent a promise to pay a fixed sum rests on such a characterization.

of not being able to be a holder in due course of an eHELOC, financiers should also be asking themselves whether there is a difference for them on this point between paper HELOCs and eHELOCs.

As a preliminary consideration, one important benefit of being a holder in due course is that the UCC confers on that holder the right to take the instrument free of certain claims, including a claim in recoupment against persons other than the holder.[31] However, not being a holder in due course is not fatal, and a financier can be fully secured and perfected even without holder in due course status. For example, under UCC §3-302, in order to be a holder in due course of an instrument, the holder must take it "without notice that it is overdue." There is an active market for traditional mortgage loans that are past due, and they are bought and sold every day notwithstanding that the purchaser could not be a holder in due course of the related note.

If Not a Holder in Due Course, Then What?

For financiers of eHELOCs (and paper HELOCs), then, their initial concern should be to ensure that they have a fully perfected security interest in the eHELOC, even if they cannot be a holder in due course of it. As described in more detail above, the primary method of perfection is the same for eHELOCs and paper HELOCs: filing a financing statement.[32] The second consideration should be to ensure that claims that would otherwise be applicable to an eHELOC (or paper HELOC) are appropriately addressed. Some claims under the UCC cannot be avoided, even by a holder in due course. These include infancy, duress, lack of legal capacity, fraud in the inducement, and discharge in insolvency proceedings.[33] For both eNotes and eHELOCs, these types of claims are typically addressed via representations and warranties in the purchase and sale agreement, and recourse against the seller for breach. Some other claims, however, may be harder to discern, such as forgery.[34]

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[31] See UCC §3 305(b).

[32] See UCC §9 310. Note that under UCC §9 309(3) there is automatic perfection upon a sale of a payment intangible. A full review of the ambit of UCC §9 309(3) is beyond the scope of this article, but best practice in financing of HELOCs by purchase is to file a financing statement notwithstanding that UCC §9 310(b)(2) provides that filing a financing statement is not necessary to perfect a security interest that is perfected under UCC §9 309(3) when it attaches.

[33] See UCC §3 305(a)(1) and 3-305(b).

[34] See however UCC §3 304(1)(a) "The purchase has notice of a claim or defense if . . . the instrument is so incomplete, *bears such visible evidence of forgery* or alteration, or is otherwise so irregular as to call into question its validity, terms or ownership or to create an ambiguity as to the party to pay." [emphasis added].

The line of credit agreement for an eHELOC or paper HELOC is a payment intangible, a type of general intangible under the UCC. Since it is not an instrument, a financier does not need to obtain an indorsement or possession of the line of credit agreement in order to have a perfected security interest in it, however both indorsements and especially possession are routine in the industry. In both cases this would be done primarily for evidentiary purposes: an indorsement would support the conveyance of the line of credit agreement, and possession would be useful as evidence if the financier had foreclosed on the mortgage and sought to enforce it against the mortgagor.

Possession of a paper HELOC is usually achieved by a document custodian holding the original, if it is available, or a copy of the HELOC along with a copy of the recorded mortgage and an assignment of mortgage executed in blank. Possession for eHELOCs can be a more complex undertaking. As noted above, the control requirements under ESIGN do not need to apply to eHELOCs in order for a financier to achieve perfection; however, the growth of eNotes has fueled an industry for electronic vaulting, or eVaulting, of digital mortgage assets.[35] As of the time of writing, there is no single standardized system to track the ownership and other interests in eHELOCs. Readers and participants active in the space may have seen eHELOCs tracked in the MERS® eRegistry, via the Provenance Blockchain originally begun by Figure Technologies, or in a private eRegistry run by the operator of the eVault where the eHELOCs are stored. Each of these approaches has as its aim the same base requirement: to provide evidence of the eHELOC and its original terms (and any modifications), and to be able to render a legible, human-perceivable version, such as a PDF or printed copy. Complexity can arise when financiers are discussing with document custodians what their duties will be. Traditional document custody functions include not only holding the physical documents in fire-proof and secure facilities, but also providing a review and verification process with document exceptions identified. How should document custodians perform these tasks in a digital mortgage asset environment? Are the "documents" that they are holding in custody purely electronic records, or are there paper documents, such as an assignment of mortgage, executed in blank, also being held? If they are electronic records, how are they controlled in the eVault and what ability does the financier have to assert its security interest in them? Can any of the data review tasks be automated, and if so, can the financier get comfortable with the execution of code (and the reliability of the

[35] The eVaulting of other UCC collateral, such as electronic chattel paper, has been long-established and in many ways its use for digital mortgage assets is an adaptation of the technological build for these other asset types.

function as delivering a true check or review) versus traditional "stare and compare" approaches (with the possibility of human error)?

There is no one-size-fits-all answer to these questions, and financiers should discuss these issues with their legal counsel and risk management function to ensure that they are appropriately protected and in a manner that bears logical consistency with other business lines, such as the financing of paper HELOCs.

THE DEVELOPING LAW

This article has reviewed some of the important differences between eNotes and eHELOCs and, in particular, that eHELOCs in the market currently are generally treated as payment intangibles, a type of general intangible, for purposes of the UCC. Unlike eNotes, then, eHELOCs are not eligible to be treated as "transferable records" under ESIGN, and thus a financier cannot be treated as a holder in due course, with the powerful rights attendant to that status.

However, that difference may be changing. Under the UCC amendments described below, an eHELOC could be originated that is eligible to be treated as a controllable payment intangible, and the associated controllable electronic record susceptible of both perfection and tradability similar to that currently enjoyed by eNotes. The remainder of this article introduces the key terms and basic concepts of the UCC amendments as they would relate to such an eHELOC, and describes some of the benefits and opportunities for market participants who are engaged in this transition.

CONTROLLABLE ELECTRONIC RECORDS AND CONTROLLABLE PAYMENT INTANGIBLES

In July 2022, the Uniform Law Commission at its meeting in Philadelphia approved and recommended for enactment in all states a set of amendments to the UCC.[36] For purposes of this article, the key proposed amendments[37] were those that relate to a new Article 12 and companion amendments to Article 9 in particular. Relevant to those interested in eHELOC opportunities, the proposed new Article 12 creates a class of digital assets defined as "controllable electronic records" (CERs) and the proposed amendments to Article 9 create a new concept of "controllable payment intangibles." The purpose of this article

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[36] Adopted by the Uniform Law Commission at its meeting in July 2022 in Philadelphia, PA. Official text can be found at www.uniformlaws.com. Quotations here are from the official text rather than a particular State enactment. References herein to the "UCC Amendments" are to the official text.

[37] For convenience, this article describes the UCC Amendments as "proposed" because, as of this writing, they have not been adopted by all of the states.

is not to provide a full introduction to the proposed UCC Article 12; rather, it is to focus narrowly on how these new statutory provisions could be adopted for eHELOCs.

A CER is a "record stored in an electronic medium that can be subjected to control under Section 12 105."[38] A "controllable payment intangible" is a "payment intangible evidenced by a controllable electronic record that provides that the account debtor undertakes to pay the person that has control under Section 12 105 of the controllable electronic record."[39] Official Comment 6 to proposed Section 12 104 helpfully describes the relationship between controllable payment intangibles and controllable electronic records as one where the payment intangible is "tethered" to the electronic record by virtue of the relevant account debtor's obligation to pay the person in control of the controllable electronic record. This is not to say that a secured party or purchaser should assume that having an interest in the one necessarily means having an interest in the other. To the contrary, the details matter and Official Comment 6 points out that there is a trap for the unwary acquiring an interest in the payment intangible (which is the asset that has stand-alone value) and assuming incorrectly that this would also result in acquisition of an interest in the related CER. A detailed analysis of the perfection mechanisms and best practices for acquirers and financiers of controllable payment intangibles is beyond the scope of this article, which is intended as an introduction and guidepost as the industry generally moves toward adoption of these innovations.

CONTROL OF CONTROLLABLE ELECTRONIC RECORDS

For purchasers and financiers, having "control" of a CER matters for the following primary reasons:

- An electronic record, in order to be a controllable electronic record under the UCC, must be susceptible of control. Therefore, a person having control (as defined in the UCC and summarized below) of the electronic record has not merely a record,[40] but a controllable electronic record;

[38] See Proposed UCC §12 102(a)(1).

[39] See Proposed UCC §9 102(a)(27B) and note that the terms of the eHELOC would need to include this undertaking by the account debtor (mortgagor) if it is to be treated as a CER.

[40] See Proposed UCC §12 102(a)(1). In this context it is worth noting that the UCC Amendments do not create or alter the term "record" which is already defined in UCC §1 201(b)(31), although they do create a new definition of "electronic" in proposed UCC §1 201(b)(16A) as meaning "relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities."

- A person can be a "qualifying purchaser"[41] and benefit from the very important "take free" rule (which is discussed below) with respect to controllable electronic records but not, by definition, other records; and
- Under the proposed amendments to Article 9:[42]
    - Obtaining control of a controllable electronic record is a method to perfect a security interest in not only the controllable electronic record but also in any controllable payment intangible evidenced by the controllable electronic record; and
    - A security interest perfected by control has priority over a conflicting security interest that was perfected by a method other than control.

Turning now to how to obtain control, the general rule is that a person has control of a controllable electronic record if the electronic record, a record attached to or logically associated with the electronic record, or a system in which the electronic record is recorded:

(1) Gives the person:

(A) The non-exclusive power to avail itself of substantially all the benefit from the electronic record; and

(B) The exclusive power to:

(i) Prevent others from availing themselves of substantially all the benefit from the electronic record; and

(ii) Transfer control of the electronic record to another person or cause another person to obtain control of another controllable electronic record as a result of the transfer of the electronic record; and

(2) Enables the person readily to identify itself in any way, including by name, identifying number, cryptographic key, office, or account number, as having the powers specified in paragraph (1).[43]

The official Prefatory Note to Article 12 is very helpful in contextualizing Article 12, the rise of digital assets, and how the amendments are aiming to promote commerce. Specifically, the Prefatory Note contains a discussion of distributed ledger technology and other registry approaches to digital assets, and while the above "control" definition does not require a registry, certainly a

[41] See Proposed UCC §12 104.

[42] See Proposed UCC §9 107A and 9-326A.

[43] See Proposed UCC §12 105(a).

registry approach ("a system in which the electronic record is recorded") provides a natural and familiar way to understand and arrange for the rights that would support having "control" as defined. By way of analogy to eNotes, the MERS® eRegistry does not store eNotes. eNotes are stored in electronic vaults (eVaults) and the eRegistry is the system by which control[44] of an eNote is both established and managed. A similar registry could be established for eHELOCs, whether as an adjunct to the MERS® eRegistry, on a private blockchain such as the Provenance Blockchain originally launched by Figure Technologies, or via another solution. While the proposed UCC Article 12 is agnostic as to the specific technology used to meet its requirements, because of the benefits described in more detail below, it is anticipated that there will be a great deal of effort put into the technological build for one or more registries that would support eHELOCs as controllable payment intangibles and CERs.

A KEY DIFFERENCE

A reader familiar with the requirements of UETA and ESIGN as they relate to eNotes could be forgiven for thinking that the UCC amendments are a translation: different terms and perhaps a different scope, but much the same. And while superficially there are similarities to UETA and ESIGN, the architecture of the UCC amendments differs in at least one material respect that residential mortgage loan market participants should bear in mind: UETA and ESIGN depend upon the notion of an "authoritative copy" of the eNote, whereas proposed Article 12 dispenses with this notion and relies instead on the control concepts summarized above. Part of the premise of CERs is that there does not need to be a single, unalterable and unique statement of the controllable payment intangible. So long as the representation of the controllable payment intangible is accurate, each copy is equivalent and there is no inherent collateral in the record itself.[45]

A "QUALIFYING PURCHASER" OF A CER

The UCC amendments create a definition of a "qualifying purchaser" which is "a purchaser of a controllable electronic record or an interest in a controllable electronic record that obtains control of the controllable electronic record for

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[44] That is, "control" for purposes of ESIGN, not control under UCC Article 9 concepts or proposed UCC Article 12. ESIGN uses a "control" concept for "transferable records" and the MERS® eRegistry was designed to meet and fulfil those statutory requirements.

[45] For eHELOCs, this generally mirrors the status quo: investors and warehouse lenders store a copy of a HELOC with a custodian mainly for evidentiary purposes. A paper HELOC agreement does not need to be held in order to perfect in the HELOC since there is no perfection in a HELOC by possession. Conversely, a paper promissory note does need to be possessed in fact in order to perfect by that method.

value, in good faith, and without notice of a claim of a property right in the controllable electronic record."[46] Readers familiar with the concept of a "holder in due course" of a negotiable instrument will readily see the analog in the concept of a qualifying purchaser, and indeed Official Comment 1 to proposed Section 12-102 explains that the definition of "qualifying purchaser" derives from UCC §3 302(a)(2), which defines "holder in due course" of a negotiable instrument.[47]

This term and concept are important because they are the foundation of proposed Article 12 establishing a "take free" rule. This rule gives the person that perfects in a CER by control a UCC status analogous to a holder in due course of a negotiable instrument. Again, the official Prefatory Note provides context and a rationale, saying that the "proposed Article 12 rules would make controllable electronic records negotiable, in the sense that a qualifying good faith purchaser for value could take a controllable electronic record free of third-party claims of a property interest in the controllable electronic record." As further illustrated in the Prefatory Note, this would include a qualified purchaser being able to acquire the relevant assets from a thief, free of the property interest claims of a rightful owner, which would be the same result if a purchaser acquired a negotiable instrument from a thief in circumstances where the purchaser became a holder in due course. This promotes commerce in digital assets by allowing later purchasers and secured parties to be confident in their ownership and rights in the digital assets.

eVAULTING AND CERs

With context on the negotiability of CERs, we now return to the difference identified above: while eNotes are founded on "transferable records" under ESIGN and possession of the single authoritative copy of the record that is unique, identifiable and unalterable, CERs dispense with that notion. As a base principle noted above, controllable electronic records are records. Transferring a document of title, such as an automobile title, transfers rights in the underlying automobile. For eHELOCs established as controllable payment intangibles evidenced by CERs, the valuable asset is the underlying payment intangible and not the CER.[48] The CER is merely the representation of the controllable payment intangible.

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[46] See Proposed UCC §12 102(a)(2).

[47] See above, where the inapplicability of holder in course concepts to HELOCs and eHELOCs was reviewed in more detail.

[48] Note that this is not necessarily true for all CERs. Proposed Article 12 does not require that all CERs be associated with a controllable account or a controllable payment intangible, and in those cases presumably the CER itself is the valuable asset and the exclusivity rules referenced

From an enforcement point of view, the record must be an accurate representation of the controllable payment intangible. It is worth recalling that these controllable payment intangibles are created electronically, for example by being signed by the mortgagor via an electronic closing platform or a similar arrangement. Owners and servicers will not want to face arguments from a defaulted mortgagor that the eHELOC upon which they are looking to foreclose is not an accurate rendering of the original agreement. To forestall these arguments and to meld with civil procedure rules relating to evidence, we expect that eVaulting will remain the go-to solution for eHELOCs established as CERs. The nature of the eVault ensures data integrity, meeting the accuracy requirement for owners and servicers. eVaulting is well-understood by industry participants and document custodians, and many eVault providers have proven track records and platforms that integrate with existing closing processes for originators. If the data packets – the literal "ones and zeros" – when the eHELOC was originated were stored in an eVault and have remained there ever since, it will be difficult to argue that the data stored there and a record that renders it into a perceivable form are not an accurate representation of the controllable payment intangible. Finally, the eVault and its associated registry can readily serve as the method to establish control of the CER.

Accordingly, while an eVault (as opposed to some kind of database or even a local file storage) is not needed in the CER context for perfection of the CER itself, or to meet the requirements of ESIGN (which relate to transferable records, not CERs), it may nevertheless become the default approach for eHELOCs established as CERs for reasons of familiarity, scalability, reliability and data integrity.

CONCLUSION

The purpose of this article is to review the proposed UCC amendments, including the introduction of UCC Article 12 and associated amendments to UCC Article 9, as they bear on digital mortgage assets. More generally, this article discusses the digital transformation of mortgage assets and some of the present challenges, as well as canvasses some of the opportunities. Underlying these discussions is the theme of efficiency. Using digital technologies, mortgage originations can be made at lower cost and with less friction for consumers, while still enjoying the robust regulatory oversight and consumer protections. In turn, mortgage finance transactions and secondary market transactions can be executed quickly with predictable and well-understood perfection easily achieved for digital mortgage assets.

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above in the definition of "controllable electronic record" will be especially important in order to preserve the nonfungibility of the CER.

Finally, when transactions are processed digitally, there are new opportunities for data mining and automated verification and processing, which are significantly more difficult to achieve using paper records. Consumers will continue to expect lower costs as competition forces efficiencies in origination, and savings can be passed through to mortgagors. Using digital technologies, originators can scale their platform at a lower per-unit cost for originations, and capture productivity gains through digitization and automation. Financiers of digital mortgage assets can expect the same or better perfection status as they have today with paper assets, and specifically in the case of eHELOCs established as CERs, benefiting from a "take free" rule similar to the holder in due course rights attendant to eNotes. The transformation of mortgage origination and finance to the digital environment reflects the world today: online, connected and "easy."