Fannie Mae and Freddie Mac
Purchases of eMortgages

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Executive Summary

Presently, modern residential home loans are largely memorialized and enforced by written documents that create the legal obligations of both the lender and borrower. Two primary documents in every home mortgage loan are the promissory note and a security instrument (e.g., mortgage or deed of trust). The promissory note legally obligates the borrower to repay the loan to the lender. That obligation exists independent of the mortgage, which serves as security for the loan in the event the borrower doesn’t repay the loan as required under the promissory note.

Traditionally, promissory notes and mortgages are printed on paper and contain the borrowers’ “wet-ink” signatures. In 1999, states began adopting the Uniform Electronic Transactions Act (UETA), which gives legal validity under state law to electronic contracts used for commercial and consumer loans. In 2000, Congress passed the Electronic Signatures in Global and National Commerce Act (ESIGN Act) to help ensure the validity of electronic contracts and the defensibility of electronic signatures.

Fannie Mac and Freddie Mac (the Enterprises) define an eMortgage as a mortgage loan where the promissory note is created, executed, registered, transferred, and ultimately stored electronically, rather than by traditional paper documentation with a pen and ink signature. Other documents, such as the mortgage, can be paper or electronic records.

Enterprise officials told us that the enactment of UETA and the ESIGN Act prompted industry actions toward executing electronic mortgage documents. Fannie Mae worked with a couple of lenders on pilot programs and purchased its first eMortgage in 2003. Freddie Mac also developed a pilot program and purchased its first eMortgage in December 2005.

Historically, the Enterprises’ eMortgage purchases constituted a minimal portion of their overall business and did not start to grow rapidly until 2019 and 2020. The eMortgage share of the Enterprises’ total single-family purchases averaged just 1% between 2008 and 2013, dropped to nearly 0% from 2014 to 2018, and climbed to about 3% in 2019 and 4.25% through June 2020. Both Enterprises told us that they expect their eMortgage purchases to increase in the second half of 2020 and in 2021.

Use of eMortgages carries both risk management benefits and potentially heightened risks. eMortgages offer borrower convenience, minimize post-closing review delays, eliminate the need to physically transfer a note, and make closings easier while allowing social distancing, an attractive feature during the COVID-19 pandemic. Risks include counterparty, third-party, and cyber and information security.
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## ABBREVIATIONS

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<th>Abbreviation</th>
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<tr>
<td>Enterprises</td>
<td>Fannie Mae and Freddie Mac</td>
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<td>ESIGN Act</td>
<td>Electronic Signatures in Global and National Commerce Act</td>
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<td>FHFA or Agency</td>
<td>Federal Housing Finance Agency</td>
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<td>MERS</td>
<td>Mortgage Electronic Registration Systems</td>
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<td>UETA</td>
<td>Uniform Electronic Transactions Act</td>
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Presently, modern residential home loans are largely memorialized and enforced by written documents that create the legal obligations of both the lender and borrower. Two primary documents in every home mortgage loan are the promissory note and a security instrument, which is typically referred to as a mortgage or deed of trust. The promissory note legally obligates the borrower to repay the loan to the lender. That obligation exists independent of the mortgage, which serves as security for the loan in the event the borrower doesn’t repay the loan as required under the promissory note. Depending on state law, a residential mortgage that accompanies the promissory note acts as either a lien or legal title to the home, and gives lenders the legal right to foreclose on the mortgaged property for failure to pay under the promissory note.

Traditionally, real estate promissory notes and mortgages are printed on paper and contain the borrowers’ “wet-ink” signatures. Mortgages have certain requirements. The borrower’s signatures must be notarized, the mortgage must contain the legal description of the property securing the mortgage, and the mortgage must be recorded in the local county or municipal land evidence records (recorder’s office).

In 1999, states began adopting UETA, which gives legal validity under state law to electronic contracts used for commercial and consumer loans such as home loans. Approximately 47 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands have adopted UETA. In 2000, Congress passed the ESIGN Act to help ensure the validity of electronic contracts and the defensibility of electronic signatures.

Under state specific UETA laws and the ESIGN Act, electronically signed promissory notes (eNotes), and electronically signed mortgages are enforceable to the same extent as paper notes and mortgages. With some differences given specific state law, electronically signed promissory notes and electronically signed mortgages may be created, executed, notarized, recorded, stored, and transferred electronically, as applicable. Consistent with state law mortgage notarization requirements, electronically signed mortgages can be notarized in person or in the virtual presence of a notary. In a virtual or remote online notarization, the notary and borrower meet over a secure audio/video two-way live connection. The signer is authenticated through multiple methods leveraging technologies, such as knowledge-based

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1 Security instruments on residential real property differ state by state based upon whether the jurisdiction is a title theory state or a lien theory state. In each case, the mortgage/deed of trust serves as collateral for the underlying loan.

2 The ESIGN Act is federal law, which means it affects people who do business electronically in all 50 states. While state law may modify the exact requirements of the ESIGN Act in some circumstances, the state law generally must provide equivalent protection for electronic contracts and electronic signatures.
authentication, the notarial documents are electronically signed, and the notarial seal is applied electronically.

In certain jurisdictions, lenders may record electronically signed mortgages with the recorder’s office. The accompanying electronically signed note is stored and maintained electronically (known as eVault storage), and its location is identified in the Mortgage Electronic Registration Systems (MERS) eRegistry. Because there can be multiple copies of an electronic note (as opposed to a wet-signed note that has one original paper copy), the MERS eRegistry identifies which eVault is the location of the “authoritative copy” of the eNote, which is tamper sealed to restrict changes from being made to the note after it is signed.

**Overview of the Enterprises’ Purchases of eMortgages from 2003 to 2020**

A Fannie Mae official told us that the passage of the ESIGN Act in 2000 prompted a few of its sellers to consider executing electronic mortgage documents. A Freddie Mac official similarly stated that the enactment of UETA and the ESIGN Act prompted discussions within the mortgage industry about establishing eMortgages and electronically signed promissory notes. According to a Freddie Mac official, the industry thought that the digitization of the mortgage process would provide more efficiency for lenders. Fannie Mae worked with a couple lenders on pilot programs for electronic mortgage documents and purchased its first eMortgage in 2003. Freddie Mac also developed a pilot program with a few lenders and purchased its first eMortgage in December 2005.

Historically, the Enterprises’ eMortgage purchases constituted a minimal portion of their overall business and did not start to grow rapidly until 2019 and 2020. Figure 1 below shows their eMortgage purchase data as a percentage of the Enterprises’ total single-family purchases for 2008 through June 2020. As the figure indicates, the eMortgage share of the Enterprises’ total single-family purchases averaged just 1% between 2008 and 2013, dropped to nearly 0% from 2014 to 2018, and climbed to about 3% in 2019 and 4.25% through June 2020.

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3 Fannie Mae and Freddie Mac define an eMortgage as a mortgage loan where the promissory note is created, executed, registered, transferred, and ultimately stored electronically, rather than by traditional paper documentation with a pen and ink signature. Other documents, such as the mortgage, can be paper or electronic records. If some documents are electronic and some paper, it is considered a hybrid eClosing. If all loan documents are signed electronically, it is a full eClosing.
The following summarizes the Enterprises’ historic eMortgage purchases along with factors the Federal Housing Finance Agency (FHFA) and the Enterprises told us influenced those purchases.

**2008-2013: Enterprise eMortgage Purchases Average 1%**

A Fannie Mae official said that almost all of the Enterprise’s eMortgage purchases from 2008 through 2013 were driven by two lender customers. However, both lenders permanently withdrew from the eMortgage market in 2013 and 2014 for varying business reasons, driving a substantial decline in Fannie Mae’s purchases of eMortgages at the time.

A Freddie Mac official also said that the majority of its eMortgage purchases were accounted for by two lender customers during this timeframe. In 2014, one of these lenders switched to a new technology and suspended origination of eMortgages: it never returned to the business. Consequently, Freddie Mac’s eMortgage purchase business started losing momentum in 2014.

**2014-2018: Enterprise eMortgage Purchases Fall to Nearly 0%**

After the Enterprises’ primary eMortgage customers exited the market, their eMortgage purchases fell to essentially 0% of their single-family purchases. In 2016, FHFA’s Enterprise Conservatorship Scorecards included a performance goal for the Enterprises to “assess and, as
appropriate, implement strategies to improve the lending industry’s ability to originate and deliver e-mortgages to the Enterprises.” In response, in August 2016, the Enterprises published a survey of stakeholders (lenders, warehouse lenders, servicers, title agents) about perceived barriers/obstacles to broader industry adoption of eMortgages. The Enterprises indicated that barriers generally fell into the broad categories of stakeholder readiness and process complexity, with common concerns including acceptance by a limited number of investors, warehouse line availability, inadequate return on investment based on volume, lack of uniform adoption of eNotarization and eRecording, resource/financial constraints, and GSE policy alignment.

The eMortgage goal was repeated in the internal guidance to the Enterprises accompanying the 2017 Conservatorship Scorecard. In November 2017, the Enterprises published a follow-up report identifying their efforts to overcome some of the barriers to eMortgage lending identified in the 2016 survey, including outreach and education and updating and aligning policies to facilitate stakeholder readiness and address process complexities.

**2019-June 2020: Enterprise eMortgage Purchases Increase to 4.25%**

As illustrated in Figure 1, in 2019, the eMortgage share of Enterprise purchases grew about seven-fold, from 0.4% ($2.7 billion) in 2018 to 2.8% ($29.3 billion). The growth continued through the first six months of 2020, rising to 4.25% ($38.8 billion) as of June 2020.

Enterprise officials attribute the recent growth in eMortgage purchases in part to their efforts from 2016 to 2018 to address the impediments identified in their 2016 report (discussed above) to eMortgages within the industry. A Freddie Mac official explained that the collaborative efforts to address obstacles made it easier for lenders to enter the eMortgage market. Both Enterprises have added new eMortgage lenders in recent years. Officials explained that it can take time for a lender to build up capabilities and ramp up delivery volume, and the Enterprises are now seeing new lenders deliver volume.

Additionally, officials from both Enterprises explained that the COVID-19 pandemic has contributed to the growth in eMortgage purchases in 2020. They said that many lenders are accelerating their eMortgage implementation plans because of social distancing requirements and borrowers’ desire to conduct business remotely. As a Fannie Mae official explained, the COVID-19 crisis put eMortgages front and center, and lenders began to realize some of the

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4 For more information see Fannie Mae and Freddie Mac, *eMortgages: Joint GSE eMortgage Outreach Survey Findings on the State of Industry Adoption* (Aug. 2016) (online at [www.fanniemae.com/content/fact_sheet/eme-mortgage-outreach-findings-on-the-state-of-industry-adoption.pdf](http://www.fanniemae.com/content/fact_sheet/eme-mortgage-outreach-findings-on-the-state-of-industry-adoption.pdf)).

5 For more information see Fannie Mae and Freddie Mac: *GSE Efforts to Improve eMortgage Adoption: A Follow-up to the 2016 GSE Survey Findings Report* (Nov. 2017) (online at [www.freddiemac.com/singlefamily/images/emortgage_adoption_followup_report.pdf](http://www.freddiemac.com/singlefamily/images/emortgage_adoption_followup_report.pdf)).
benefits, such as speed and efficiency. Further, in the face of the COVID-19 pandemic, a number of jurisdictions have implemented emergency or permanent orders relaxing notarization laws, including allowing remote online notarizations in those areas.

**Enterprise Expectations for Future eMortgage Purchases**

Both Enterprises told us that they expect their eMortgage purchases to increase in the second half of 2020 and in 2021. As noted earlier, the eMortgage share of both Enterprises’ purchases was 4.25% in the first six months of 2020. Fannie Mae estimated to us that eMortgages will represent at least 5% of the total volume in 2020 and further increase in 2021. Freddie Mac projected to us that its share will be up to 5% for 2020 and 2021.

However, Enterprise officials also identified potential impediments to the longer-term expansion of the eMortgage market. A Freddie Mac official explained that as the Enterprises identified in the 2016 eMortgage barriers survey, eNotarization (including remote online notarization) was still not available in all 50 states. Additionally, even with COVID-19 initiatives that permit remote online notarization in more jurisdictions, the official said that the number of notaries certified and available to act as electronic notaries is low. Similarly, a Fannie Mae official highlighted the ongoing challenge from different state and local legal requirements. Both Enterprises indicated the need for further industry participation and a smoother process, with a goal of having the eClosing viewed like any other closing.

**BENEFIT AND RISK CONSIDERATIONS**

Use of eMortgages carries both risk management benefits and potentially heightened risks. We set forth below the benefits and risks highlighted to us by the Enterprises and the Enterprise controls to mitigate those risks.

**Benefits**

According to Fannie Mae and Freddie Mac, eMortgages and eClosings offer a number of potential benefits. In their view, borrowers increasingly expect the convenience associated with an eMortgage and eClosing.

Enterprise and industry sources note that eMortgages offer fewer signing errors and ensure that documents, pages, and signatures are not missing from the closing package, which minimizes post-closing review delays. According to Fannie Mae, eMortgages may reduce the need for settlement provider and lender back office teams to perform quality post-closing reviews for missing signatures and unsigned documents and can help minimize efforts associated with trailing documents. Similarly, Enterprise systems can automatically certify
the loan when it is delivered by verifying that all the information in the note, such as loan terms and property information, matches the loan delivery data.

Eliminating the need to physically transfer a note improves efficiency, reduces costs, and eliminates the risk that it will be lost. Without a physical note the expense of a document custodian may be eliminated. Further, a Freddie Mac official told us that eMortgages eliminate the risk of double delivery of the note, in which the same note is delivered to both Enterprises.

Borrowers are able to review and electronically sign some documents before the closing, making the closing faster and easier. They can also social distance or close remotely using eClosing, an attractive feature during the COVID-19 pandemic.

**Risks**

As a Freddie Mac official explained to us, the underwriting parameters—such as debt-to-income ratio, credit score, and loan-to-value ratio—are the same for an eMortgage as a traditional paper-based mortgage: there is no difference in risk from a credit and collateral standpoint. However, eMortgages are unique in terms of the signing process. Process differences give rise to risks.

According to Fitch Ratings, eMortgages can increase risk if counterparties do not have proper controls and remediation plans for their eMortgage systems and platform. For example, Freddie Mac told us that if counterparties do not comply with the ESIGN Act and UETA in the eMortgage and eClosing processes, then the resulting eMortgage may have issues or delays in enforcement. According to Freddie Mac, the potential for enforceability issues with eMortgages is their highest risk. To mitigate the risks related to counterparties, both Enterprises require that a seller/servicer obtain Enterprise approval to become an eMortgage seller/servicer. As a Freddie Mac official noted, the Enterprise can also have the seller repurchase loans if necessary.

The Enterprises also use third-party providers for eClosing and eVault services, as well as MERS’ eRegistry. A Fannie Mae official explained that third-party providers are a risk. For example, if the Enterprise or a servicer could not access an eMortgage because the eVault was down it would create a risk. Lenders would be unable to deliver eNotes and there could be servicing delays associated with loan payoffs, modifications, and foreclosures, according to Fannie Mae. To mitigate this risk both Enterprises told us that they have processes to validate and approve eClosing and eVault vendors, and eMortgage seller/servicers are required to use approved systems. Fannie Mae reported to us that it negotiates service level agreements with vendors to enforce back-up capabilities and down-time expectations, as well as having its own
back-up capabilities for its primary eVault. Additionally, a Freddie Mac official told us that the Enterprise had ensured a key third-party had business continuity plans.

With eMortgages the promissory note exists only in electronic form, making cyber and information security paramount. A Freddie Mac official reported to us that because of cyber and information security concerns, the Enterprise, as part of its vendor approval process, ensures vendor systems are secure and in compliance with applicable laws. As another risk mitigant, system providers must also submit a security scan report on an annual basis for review by Freddie Mac’s information security team. A Fannie Mae official told us that, to mitigate cyber and information security risks, the Enterprise performs due diligence on the security around its eVault and documents are encoded.

CONCLUSION

Historically, the Enterprises’ eMortgage purchases constituted a minimal portion of their overall business and did not start to grow rapidly until 2019 and 2020. Use of eMortgages carries both risk management benefits and potentially heightened risks. Both Enterprises told us that they expect their eMortgage purchases to increase in the second half of 2020 and in 2021.
OBJECTIVE, SCOPE, AND METHODOLOGY

The objective of this white paper was to provide an overview of the Enterprises’ use of eMortgages and eMortgage benefits and risks. To achieve this objective, we reviewed internal and publicly available FHFA and Enterprise documents as well as publicly available documents from other institutions. We also interviewed FHFA and Enterprise officials and analyzed data provided by the Enterprises. We did not independently test the reliability of the data.

We provided FHFA with the opportunity to respond to a draft of this white paper. We appreciate the cooperation of FHFA staff, as well as the assistance of all those who contributed to the preparation of this white paper.
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