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**Fintech in Housing Finance: Request for Information** ...........................................................................................

**General Questions on Fintech and Innovation**

**Question A.1: How do primary and secondary mortgage market participants define fintech in the housing finance sector?**

*Financial technology, or "fintech," companies are companies that are entering the marketspace by replacing and automating traditional manual mortgage processes. Residential and commercial real estate projects might be funded by alternative lenders either directly by fintech companies or through firms acting as intermediaries.*

*By 2016, modern fintech lenders represented 8% of the*[*total origination market*](https://www.newyorkfed.org/research/staff_reports/sr836)*a 30% increase in market share between 2010 and 2016, according to the Federal Research Bank of New York's 2018 report, The Role of Technology in Mortgage Lending.*

*Quicken Loans (Rocket Mortgage) is one leading example of how a Tubo-tax company applied their consumer wizard approach and streamlined many of the traditional linear assembly lined approached to manufacturing mortgages and became the largest online lender in the county in doing so.*

**What key factors should be considered?**

***Real world experience*** *- Many VC players have entered the marketplace but rather than being a disrupter are basically paving the cow path. Most have not been around long enough to have a deep enough understanding and appreciation on how the mortgage market works today much less on how to go about fixing it. A lot of initial capital is spent on “learning as you go”.*

***Takes longer than you think -*** *UETA/ESIGN were enacted over twenty years ago, but it has taken that long for people to adopt and accept eSign and paperless processes. Most will automate pieces of the problem but that in of itself is not enough to move the ROI needle and as long as people are making money the old fashion way they don’t think the process is broke enough to fundamentally change.*

***Having a long term vision, a viable roadmap on how to get there and unwavering executive commitment to drive and implement****. Many second guess and chase after the next shining object. So the scope keeps changing and they never achieve their end goal.*

**Question A.2: How could FHFA facilitate adoption of “responsible innovation”**

***Ensuring better loan quality and compliance***

*The FHFA is in a unique position to drive innovation thru their secondary market role and position. If you look at the opportunity to sell a loan, the investors, (GSE’s, Private Conduits) prescribe to the originators what are the manufacturing requirements to create and deliver a loan to them. The ability to implement technology and automated processes to reduce time, cost and risk is key to delivering “responsible innovation” to the marketplace.*

*Like the center of a nucleus (nuclear fusion) the farther you get outside of the core the more energy and inefficiencies you lost. Today there are still too many parties with disparate systems and with each hand-off you introduce the potential for risk, data integrity, errors, and omissions into the process. At each juncture there should be a risk factor score that says if you could validate critical information to the original source, (IRS, SS, credit, property, underwriting, closing, etc.) those with the highest score factor (assurance rating) should get a better value for their loans on the secondary market. If you were really able to develop a better borrower profile and risk factors you should be able to expand market options and opportunities even to the underserved that currently do not fit the traditional profile.*

*So in essence we are creating a better, fungible electronic asset that is worth more than dumb paper based processes and images.*

*OCR is not the answer either because this process is like tail wagging the dog. Taking “dumb” documents and making them smart introduces additional steps and second and third generation of dirty data each time documents are scanned and then missing data keyed. With each instance the original source of truth and chain of custody is lost and because of that, nobody reps and warrants the accuracy or legal compliance.*

**Question A.3: What factors currently inhibit the adoption of fintech and innovation in the primary and secondary housing finance sector?** *Kind of touched on it above.*

*Especially in the last few years of record loan volume if they don’t believe the system is broke why fix it. They were making way too much money the old inefficient way so really did not have any incentive or time to implement change.*

***Siloed experience and perspectives*** *- Many executives come from the origination side of the business and most lack any kind of technical background so they default evaluation of tech projects and initiatives to their IT/Dev departments who really do not have much “business” experience or expertise. Many want to protect their jobs and budgets so they prefer to recommend a build Vs buy approach.*

***Lack of well defined specs and measurements to keep on track***

***Limited scope/vision –*** *Many only throw resources at treating the symptom and not addressing/healing the real cause or root of the problem*

**Are there specific challenges related to privacy laws, industry standards, or current practices?**

*As more of the business goes digital and full online cybersecurity is going to be an even bigger concern.*

*The United States has no comprehensive federal data protection framework. Instead, sector-specific privacy and data security laws and regulations apply—such as the*Gramm-Leach-Bliley Act*, the*Health Insurance Portability and Accountability Act*(HIPAA), and the*California Consumer Privacy Act*(CCPA). The United States’ existing privacy and data security laws and regulations do not address the privacy concerns that have arisen due to*[*blockchain*](https://freemanlaw.com/cryptocurrency/)*technology. For example,*[*blockchain*](https://freemanlaw.com/cryptocurrency/)*technology’s distributed peer-to-peer network architecture is widely considered to contradict the CCPA’s traditional notion of a centralized, controller-based data processing system. In other words, the CCPA’s assumption of centralized controller-based processing is inapplicable to cryptocurrencies because it disregards the decentralized nature of the new technology.*

*I always encounter the usual questions about hacking risk and tell them there are a lot more controls to prevent this in the digital world Vs. paper which has no controls. Totally accept mailing documents thru the mail or email as attachments and printing them out everywhere with no security controls on who gets it or sees it. Just eliminating much of the paper doc fraud justifies going digital by itself.*

**Questions on Fintech Opportunities**

**Question B1: What kind of fintech activities have the greatest potential to positively impact the housing finance sector?**

*The GSE’s could pay a premium or better MSR for digitally originated loans Vs paper. Other than reduced risk against buybacks, implementing an automated verification process like Day One Certainty & Loan Advisor and keeping the process digital by eClosing the GSE’s should incent/reward those with paying a better price or MSR to reduce their risk.*

*I was trying to educate and promote this when the GSE’s were building their Common Securitization Platform (CSP) but it never got implemented.*

*eApplication - eClosing – Not just at time of closing but start e and stay e from application to closing to investor delivery.*

*RON - Centralized customer service and collaboration of all parties in the process. Especially if you engage the customer Pre-Closing to review and execute all their non-notary documents in advance of closing. We call it the Two Step Close. This was the intent and promise of TRID when we were an early participant in the CFPB’s eMortgage Pilot. To allow borrowers to not only ask questions before closing but can e execute over 90% of the closing package in advance meaning executing the actual title/notary documents even in a paper would went from a traditional fifty to fifteen minute process!*

*The other intent/promise of the CFPB eMortgage Pilot program was to create a “machine readable” document that could be auto verified for compliance electronically. This was before MISMO created the new URLA and UCD data format but that is now possible and should be a SMARTDocument® like any document where the originator needs to show proof of compliance and investor needs to “trust the data on the document”*

*We do not need to wait for Blockchain and SmartContracts to support this. Any document that can be auto verified and needs to retain electronic proof of compliance can be SMART® and the electronic evidence, (date and time stamp audit trail) is stored in the eVault for as long as the loan is active. MISMO is in the final stages of approving Version 3.x “Verifiable” SMARTDoc eNote and we can generate SMARTDocs today that retrain the original source data and audit trail of everything that was changed on those documents from app to close and if the loan is ever contested can be securely accessed for those authorized to do so.*

**Describe several situations in which a product or service has been or could be used, the factors considered in determining importance, and associated impacts.**

*eCorrepondent – For documents we offer a total SMARTDoc® library that encompasses both origination and closing documents. Since all the documents are SMART® for any system of record that can electronically verify compliance of the data, (credit, employment, assets, income, property) once the data is verified it can be contained within the documents for initial LE, eDisclosure, CD and final disclosures with a record, (date and time stamp) of what and when the data was last verified and by whom and retain in the eVault for electronic evidence of compliance. As long as the loan is eClosed and wrapped with a tamper evident seal , (retaining the most current version of the verified data) to ensure compliance, we wrap with an addition Lloyds of London repurchase rep and warrant and we certify compliance, investors should be able to, “Fund Next Day with Certainty” Thus eliminating the traditional post closing QC process of OCR’ing and verifying only 10 – 20% of the loans prior to funding. With our process 100% of the data and documents are ensured for compliance and the investor receives the most complete, current and compliant package possible. Eliminating friction, risk, time, and cost to fund.*

**Question B.2 What are the typical time requirements of each process within the mortgage lifecycle?** *Deliver a ten minute approval, a ten day close and a ten minute closing. Provide same day delivery and next day funding virtually eliminating weeks in the traditional process and providing more certainty and compliance to the process.*

**What are the “critical path” activities that drive the mortgage timeline and borrower expense?**  *Streamlined loan app, automated verifications, Two Step Close, RON eClosing, same day MERS eRegistry and eDelivery to investor. Taking the traditional 30 – 45 day origination to close process down to ten days.*

**How could fintech be applied to improve efficiency, reduce costs, reduce time requirements, or facilitate equitable outcomes for borrowers?** *(Already mentioned above) Don’t need a lot of players to execute. Just need data integration to system of record, (LOS) automated verification platform and a full eClosing platform that support SMARTDocuments (eSign, eDisclosure, eClosing, RON eNotary, eVault with MERS eRegistry and retention)*

**Question B.3 What are the typical drivers of repetitive requests to borrowers or reevaluation of underwriting information by the lender in the mortgage process, and what opportunities exist to automate processes?** *I cannot locate the study that was done a few years ago but a consulting firm evaluated how many times in the loan process the lender had to go outside the system to update and validate information from third parties and how just how many hand off It took to go from a loan app to close. I believe it was something like it went thru an average 40 different people and eleven different systems (pricing, lock, credit, income, assets, appraisal, fees, underwriting, settlement, secondary marketing, servicing, etc.) to get to closing, secondary marketing and finally servicing and at least three different times for decisioning. Initial approval at time of app, underwriting and closing approval and post funding approval. Most of the time from app up to closing the data and compliance history is maintained electronically and then you paper it out at closing and lose control over the entire process and must basically set-up and replicate the loan prior to funding. I often used the simple children’s analogy to talk about the process. All the way up to closing Humpy Dumpty sat on the wall (everything was electronic) and when he went to closing Humpy Dumpty had a great fall (printed everything out to paper) and all the kings horses and all the kings men couldn’t put Humpy Dumpty back to together again, (post-closing trailing doc issues).*

**Question B.4 What are the existing data challenges that most prevent data-driven decision-making in the mortgage lifecycle?** *Too many hands off between different disparate systems updating data and documents outside of the system of record that introduce potential errors and omissions at each step so nobody can really rep and warrant compliance of the data and documents, (versions). With our platform we are the single system/source of truth and maintain full electronic (date and time stamp) audit trail of what was updated all along the mortgage origination and closing process.*

**Question B.5 What are the existing regulatory and policy barriers to adopting and implementing fintech within the mortgage lifecycle?**

*Things like lack of policy clarity by GinnieMae to allow co-mingling of eNotes in loan pools with regular paper notes. Treating e as something unique and separate.*

*Lack of uniform standards around RON for states. The Secure Act should be welcomed like UETA & ESIGN to support consistent application of standards across all states.*

*Unproven tech like blockchain and SmartContracts maybe future state but SMARTDocs® and eVaults are proven solutions backed with legal precedent that exist today.*

*Far over reaching privacy laws like California and lack of understanding of the security controls that are in place with digital mortgages may prevent a lot of information that is required to transact eMortgages. This has been the case and major issue with getting California to pass Remote Online Notary laws.*

**Questions on Equitable Access Question**

**Question C.1 What new fintech tools and techniques are emerging that could further equitable access to mortgage credit and sustainable homeownership?** *Greater data analysis of calculations on additional variables on what constitutes ability to pay and payment history. Not be so dependent on FICO scores to determine. There are a lot of people that do not fit the current Fannie/Freddie profile like self employed or cash rich buyers that don’t rely on credit***.**

*Ability to create a token profile of a borrower that contains all their employment, banking, assets, payment history, credit with an evaluation of how much they can afford and provide it a credit/risk score that can be shopped to lenders seeking those profiles and ability to provide an automated loan program that best matches their profile. I call this a “customized mortgage” so that almost everyone should qualify for a loan that they can afford and a loan program, (payment options) that fits their criteria and preferences.*

*This was another concept that the CFPB was thinking about was a borrower powered/enabled process that creates a fungible asset that lenders would bid on or at least provide a best match capability.*

*With our eClosing process the same could be accomplished at time of closing and get investors to bid or match the closed loan to ones they want to auto securitize.*

**Which offer the most promise?**

*I never like the bidding model as currently there is not enough margin in loans and because of this most don’t want to participate in bidding wars to effectively lose more money/margin.*

***Reducing time, cost and risk and promoting certainty in the marketplace***

*The ability to create an electronic conduit for investors and an electronic mortgage asset, (SMARTDoc® package) that is fungible. Where all the data and documents are electronically verified for compliance and that proof of compliance travels with the documents and because of this can deliver a rep and warrant to investors that if they find any defect with the loans will get bought back is a solid one.*

**What risks do the new technologies present?**

*Nobody wants to be first and lack of solid commitment. Safety in numbers. Most will not participate until they have a demonstratable market proven solution with referenceable clients. Some (mostly larger entities with the resources to engage) may dip their toe in the water and enter into a pilot proof of concept, (POC) which takes little initial investment but few are willing to make a real commitment to affect or drive real change.*

*This market is notorious about implementing change. If they cannot show enough real ROI for them to change they won’t.*

*Going out of business – many of the VC start-up companies are burning thru a lot of cash underestimating the time it takes to market and deliver anything of scale where they will achieve profitability.*

**Question C.2 What emerging techniques are available to facilitate or evaluate fintech compliance with fair lending laws?** *This is outside my area of expertise*

**What documentation, archiving, and explainability requirements are needed to monitor compliance and to facilitate understanding of algorithmic decision-making?**

*The best suggestion I can recommend is implementing an eVault has all the date and time stamp audit trail of tracking who did what and when along with retaining every version (before and after). Many only think an eVault is to store an XML SMARTDoc® eNote but again referencing the CFPB there is a requirement to implement a Compliance Management System, (CMS) and since nobody thought about the utility of an eVault to capture this, they only implemented training and education guides which is not a system but only documentation. The eVault when combined with the new MISMO “verifiable” SMARTDoc® provides full electronic proof of compliance “with in the document itself” so it’s self-verifiable and all the history can be accessed thru the eVault if originator gives them authorization/permission.*

**Question C.3 Are there effective ways to identify and reduce the risk of discrimination, whether during development, validation, revision, and/or use fintech models or algorithms? Please provide examples if available.** *This is outside our area of expertise*

**Questions on Fintech Risk**

**Question D.1 What risks do fintech and fintech firms present to the economy and the financial sector?**

* Recent examples on the lack of security (51% attack) around crypto-currencies have surfaced
* Lack of accepted standards and no central authority to administer and support
* Market volatility because of this
* Anonymous transaction with proxy fraud ID’s created
* Lack of financial stability Most probably would not pass third party financial requirements and could go out of business
* Lack of sustainable revenue model to reduce above risk
* Usually understaffed to implement any large scale project
* Lack of real world experience/expertise to understand current issues/process much less best way/path forward to improve upon it
* Anybody can have a great idea, constantly underestimate amount of time and effort required to effectively deliver on it

**To the housing finance sector?** *Unproven technology and Lack of accepted standards*

**To FHFA-regulated entities?** *Potential fraud and reputational risk with rolling out unproven technology. Creating lack of confidence in institution for backing, promoting*

**To counterparties of FHFA-regulated entities and other third parties?** *Need to create and ensure best practices, minimum auditing and system standards/requirements for security, uptime, authentication levels, access, etc.*

**To mortgage borrowers and consumers?** *Identity theft, minimum authentication level, how much is enough, too much based on risk factors and $ value of transaction, security of cash transaction*

**Question D.2 What risk management practices do industry participants use to address the risks posed by fintech and innovation in housing finance?**

* Many companies are not SOC level II compliant
* Level of investment in security (firewalls, constant penetration testing, etc.)
* Do they carry any breach insurance
* Do they have written process and procedures in place in case of breach
* Hot and cold disaster back-up sites
* Process and procedures for elevating priorities and risk

**Question D.3 What particular risks to consumer privacy have been associated with fintech?**

* Some allowed to sell consumer data in their contracts
* Need to have ability to cover PFI info/data
* Password controls

**What practices are being used to manage these risks?**

* *Most companies have written process and procedures to enforce consistency and standards and routine hacking and penetration routines to test security*
* *Maintain an in-house system security manager*
* *Invest in security monitoring/detection software*

**Questions on Regtech Question**

**Question E.1 What are the most promising areas for applying technology to regulatory and compliance functions?** *Despite TRID, providing accurate, compliant disclosures is still an issue. The primary issues is getting current and correct closing fee data from the title companies. Fee service companies like Closing Corp and ERNST do provide a solution but due to margin compression, lenders do not like the idea of adding any additional costs to their originations if they feel the risk of being non-compliant is low.*

*The ability to do a final data check, scan on the data contained in closing documents to ensure compliance is another. We use both Compliance Ease and Brooks compliance systems to ensure the closing package meets Federal, State, and local requirements. If after underwriting the data that was approved/blessed can be retained in the closing documents (aka SMART®) and wrapped with a secure tamper evident seal, investors would know that the data and documents could not be changed at closing, (like it could be in a paper world) so would ensure greater confidence that the closing documents are as complete, accurate and compliant as possible.*

**Please describe opportunities for “regtech” to simplify or improve compliance with FHFA, Enterprise, or FHLBank requirements.**

*The newer underwriting systems not only maintain the guidelines of the origination company but if it is known prior to closing who they are going to sell to, (investor) the system can provide a validation scan to ensure the loan package meets their requirements prior to closing.*

*If the investor validates and bless those systems and you immediately eClose once approved the data and documents should be in synch with their requirements and should not have to go thru the traditional post-closing time, cost, and expense to re-underwrite prior to funding.*

*Taking time, cost, and risk out of the process and supporting same day delivery and “next day Funding with Certainty”*

**Questions on Stakeholder Engagement Question**

**Question F.1 What forms of stakeholder engagement are most effective in facilitating open, timely, and continuous discussion on the challenges and opportunities presented by the application of fintech to housing finance?**

*Lender/Investor sponsorship – The engagement that drives the most success is one where all parties each contribute their own IP and have skin in the game.*

**Question F.2 What are some topics for a housing finance-focused “tech sprint” and how could FHFA encourage participation?**

*Affordable housing – look at different systems that have evaluated other risk criteria and have a proven model of ability to pay and payment history streams to establish new loan products and process to expand credit and homeownership to these underserved markets*

*Third party risk reduction – Have investors validate underwriting system to ensure investor guidelines are enforced and utilize a doc prep company to ensure their disclosures are compliant as well*

*Create value prop to investors to promote adoption of the new Version 3.4 “verified” SMARTDoc® eNote as well as other critical documents*

*If above is followed - Investors paying more for secure, verifiable digital loans Vs paper*

*Front-end Digital Origination - Digital end to end buy-back rep and warrant if they follow Day One Certainty and Loan Advisor verification process.*

*Back-end creation of electronic Secondary Marketing conduit for immediate eDelivery and funding to eliminate paper based inefficiencies, risk, friction*

*Engage the Common Securitization Platform in above to begin accepting digital mortgages and providing a greater premium to incent adoption*