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Deputy Director Jason Cave
Office of Financial Technology
Federal Housing Finance Agency
400 7th Street SW, 5th Floor
Washington, DC 20219

Deputy Director Cave,

Thank you for the opportunity to respond to the Federal Housing Finance Agency's (FHFA) Request for Information (RFI) regarding Financial Technology (FinTech) in Housing Finance. We applaud FHFA for taking proactive steps to understand the current landscape of potential innovations throughout the mortgage lifecycle, and for engaging with industry participants (through mechanisms such as this RFI) as you craft plans for future action.

At CoreLogic, property data – most notably single family and multifamily residential property data – is our DNA. We provide real estate professionals, mortgage lenders, financial institutions, insurance carriers, government agencies, and other housing market participants with gold-standard-level data, analytics, and platforms that can deliver the most qualified, comprehensive housing information available on the market. We couple this with the country's most extensive network of field researchers, analysts, and data scientists in order to curate, connect, and uniquely enrich this property data with further insightful intelligence.

Due to our position as the industry's most trusted source for property data and analytics – in addition to our ongoing public policy engagements and partnerships at the federal, state, and local levels – we believe that we can offer a distinct perspective into the very technologies that FHFA seeks to identify through this RFI, and that we are uniquely positioned to provide our thoughts to FHFA, the Government-Sponsored Enterprises (GSEs), and the rest of the federal government on the role of financial technology in our nation's housing finance system. We hope the following pages provide you with useful insights on innovative capabilities that already exist today, which can generate efficiencies in the mortgage process that reduce costs to homeowners, while adhering to sound credit risk management principles.

Our team of public policy experts, economists, and scientists would welcome the opportunity to brief FHFA staff on the information contained in this response. We look forward to continued conversations with your office as we work to create a housing finance system that works for all Americans.

Sincerely,

A handwritten signature in blue ink, appearing to read "Pete Carroll", is written over a light blue horizontal line.

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A. Fintech and Innovation

Question A.1

How do primary and secondary mortgage market participants define fintech in the housing finance sector? What key factors should be considered?

Ten to twenty years ago, it was much easier to identify fintech companies and innovations, simply because fewer players were operating in the space, especially in the housing sector. Manual processes were still the norm throughout mortgage origination and servicing, and though technological advancements were shaping many other parts of our economy (e.g., cell phones, mp3 players, gaming consoles, etc.), they were slower to impact the housing industry.

However, the past several decades have seen a rapid expansion of fintech capabilities and usage throughout our housing and financial sectors. So much so, in fact, that it is hard to identify a company that is not using fintech as part of its day-to-day operations. And this progression shows no sign of slowing down anytime soon, with these innovations coming increasingly frequently as technological advancements build upon one another.

As such, the definition of fintech should be a broad one, and we think FHFA has encapsulated it well in its base definition of the term: “the application of new technologies to the production or provision of financial products and services.”¹

Furthermore, we commend FHFA for including note of “digital processes”² in your interpretation, as fintech can be much more than transactional products and services. Fintech also includes big-picture, transformative approaches to tackling broader issues, often by using a combination of technological advancements. For instance, companies can use fintech internally to identify climate risks affecting their portfolios, to better understand which of their clients may be affected by increasing natural hazard risk and offer them assistance in finding mitigative solutions. More broadly, there is much room for the industry as a whole to adapt fintech capabilities to identify and provide assistance to underserved communities, including low-to-moderate income (LMI) communities and communities of color (majority-minority communities). We will speak to both of these issues more thoroughly in our responses to other questions posed throughout this RFI.

We also find FHFA’s categorization of fintech activities into “mortgage tech”, “proptech”, and “regtech” to be helpful for communicating fintech concepts, as these terms give credence to how the fintech product, service, or innovation is being used in the context of the larger housing ecosystem. We only wish to iterate that even though these buckets are useful for conversational purposes, they are by no means exclusive of one another. More often than not, a single fintech product, service, or innovation can fall into all three of these buckets, depending on the entity using it and the purpose for which it is being used.

Question A.2

How could FHFA facilitate adoption of “responsible innovation”?

As stated in the RFI:

“FHFA views responsible innovation as balancing the value of new ideas, products, and operational approaches with the need for effective risk management and corporate governance.

Further, FHFA understands responsible financial innovation to include consideration and mitigation of possible adverse effects of innovation on housing finance system stability, equitable access of consumers to affordable and sustainable mortgage credit, and the competitive environment of the primary or secondary mortgage markets.”³

The definition posed by FHFA – as well as the one posed by the OCC⁴ – focuses primarily on balancing innovation with either internal company processes (e.g., risk management, business strategy, corporate governance) or industry-wide concerns (e.g., housing finance system stability, the competitive environment of the primary and secondary mortgage markets).

Our focus – and our recommended focus for FHFA – is on the second aspect of financial innovation mentioned in the definition above: facilitating responsible innovation on the equitable access of consumers to affordable and sustainable mortgage credit.

Companies can innovate responsibly without innovating equitably.

And that is where FHFA and other federal regulatory agencies have a role to play; by offering incentives for companies that take a concerted effort to utilize new fintech tools and capabilities to provide assistance to underserved communities, specifically LMI and majority-minority communities. This can come in the form of expanded access to credit, as mentioned above, or through other mechanisms such as improved fair lending models.

In the broader context of responsible innovation, we recommend that FHFA focus specifically on facilitating adoption of ‘equitable innovation’ for underserved communities across the country.

Question A.3

What factors currently inhibit the adoption of fintech and innovation in the primary and secondary housing finance sector? Are there specific challenges related to privacy laws, industry standards, or current practices?

While the usage of fintech continues to expand throughout the industry, there are still a number of factors that have inhibited even further adoption, including business model factors, industry standards, current best practices, a lack of transparency surrounding new innovations, and the state-by-state network of privacy legislation.

Business Model Factors

As noted in an August 2021 publication from the Federal Reserve Bank of San Francisco:

“Business model factors also play an important role in individual firms’ decisions about whether they are willing to purchase specialty scores or data or make other investments to change current procedures and practices. Investors’ and secondary market actors’ demand for consistent benchmarks that can be used across companies and portfolios can also complicate the adoption of innovations; in mortgage markets, it has slowed the adoption even of conventional scoring model updates.”⁵

The same publication went on to note that “smaller banks often face challenges in adopting technology changes due to resource constraints and other factors. Fintech lenders are often first adopters of data and technology innovations but face business model constraints on their access to capital that affect their pricing and ability to withstand economic downturns.”⁶

Industry Standards & Best Practices

Certain industry standards and best practices have also slowed the adoption of fintech throughout the housing ecosystem. For instance:

- Automated appraisals oftentimes still require manual reviews for several reasons, even if they receive rep & warranty relief.
- If a GSE issues a property inspection waiver (PIW), and the lender orders a 1004 full appraisal, the GSE does not ensure rep & warrant relief, even though the loan file actually contains more information available as a result.
- The property inspection data set required by both GSEs is not standardized, yet the valuation they are used in falls under a reviewed standard.

FHFA can play a crucial role by ensuring that fintech innovations adopted by the GSEs are based on industry standards and best practices that balance efficiencies with risk management, while also ensuring a level playing field for fintech adoption by all lenders, guarantors, and investors.

Lack of Transparency

Additionally, a general lack of transparency can inhibit the spread of successful innovations throughout the broader housing finance landscape. When new programs or models are created, their developers are often quick to tout their effectiveness without providing much detail regarding the veracity of their claims. While this is understandable from the viewpoint that a company doesn't want to give away the 'secret sauce' of a new fintech product or invention, it also creates a general hesitancy among potential adopters/users of that new technology.

However, it is clear that a middle ground can be reached, requiring innovators to provide some additional transparency into the efficacy of new programs, while ensuring that the creator's business models & proprietary contributions are not exposed to potential competitors.

We further address the issue of transparency in our responses to Question D.1, Question D.2, and Question E.3.

Privacy Legislation

As noted in the question, the patchwork of state-by-state privacy laws that have been enacted over the past half decade has created uncertainty for data providers in a number of industries.

We address this further in our response to Question D.3 of this RFI.

Regulations

Mortgage lenders currently contend with a multitude of overlapping federal, state, and local regulations. Oftentimes, this means that the cost of getting something wrong can be very high, and lenders have to manage that risk when adopting new innovations. This could have the unintended effect of driving down the desire to innovate.

We address the impact of regulations more fully in our response to Question B.5 of this RFI.

B. Identifying Fintech Opportunities in the Housing Finance Ecosystem

Question B.1

What kind of fintech activities have the greatest potential to positively impact the housing finance sector? Describe several situations in which a product or service has been or could be used, the factors considered in determining importance, and associated impacts.

Fintech products and services are already being used throughout the housing finance sector, in both the primary and secondary mortgage markets.

In our responses to Question B.2 and Question B.3, we touch on several different aspects of the origination and servicing processes, identifying ways in which the usage of fintech tools within the industry – and CoreLogic specifically – has already transformed the homebuying experience. We also make note of several areas where further benefits could be realized through the application of new fintech capabilities. Throughout every aspect, however, you’ll notice several key themes: streamlining and standardization; increased automation and less extensive manual review processes; transparent documentation practices; and the use of advanced analytics to improve productivity.

As mentioned previously in our response to Question A.2, the fintech activities with the greatest potential to positively impact the housing finance sector are those that focus on facilitating responsible innovation on the equitable access of consumers to affordable and sustainable mortgage credit.

Fintech has the ability to vastly transform how we identify and support underserved communities through a variety of applications:

- *Non-Traditional Sources of Income* – In areas with few available jobs (or areas where wages have not increased alongside cost-of-living), individuals often have to find non-traditional sources of income to make ends meet. This could mean picking up a second job in the evenings, starting one’s own business on the side, or even playing sets at the local bar a couple of nights a week. Advancements in cash flow analysis products provide the ability to derive and calculate more difficult income sources such as gig economy jobs or small business start-ups.
- *Expanded Access to Credit* – Oftentimes, those living in underserved communities find it difficult to establish a credit history. These communities are historically ‘underbanked’, meaning they have few reliable banking options, and have a high percentage of rental housing. Since traditional credit scoring models don’t consider items such as rent payments, utility payments, or deposit account information, these individuals are disproportionately likely to have a thin credit file, or none at all. Improvements in liabilities analysis capabilities allow for the utilization of transaction data from digital asset verifications, which makes it easier to establish alternative credit histories for borrowers with little to no credit.
- *Ability to Repay* – Along similar lines, improved data science applications are able to ingest a variety of new digital sources, which makes it easier to establish a borrower’s ability to repay. This includes the non-traditional sources of income mentioned above, as well as many of the data sources that feed into expanded credit histories. These digital sources can also more accurately capture debt-to-income ratios.

- *Fair Lending Models* – While fintech advancements have the ability to improve lending decisions for LMI and majority-minority communities, our industry must take great care to ensure that the algorithms used do not “penalize or otherwise treat borrowers differently due to predictive analytics, especially if variables used in these models are correlated with protected class status.”⁷ Algorithmic biases can have incredibly detrimental effects on communities of color, especially in the mortgage lending industry. We need to focus on changing the way machine learning models are being used, including (but not limited to) teaching them to first look for potential correlative data points not recognized today in both credit decisioning processes and property valuations. Our industry needs to think of ways in which we can go beyond the traditional FICO/debt-to-income model or the Form 1004 appraisal methodology. Too often, the current approach is prone to bias, whether implicit or explicit.
- *Historical Data and Future Performance* – Today’s review process mostly focuses on a) the current credit risk of the individual, and b) the value of the home at that specific moment in time. Debt-to-Income (DTI) and Loan-to-Value (LTV) are still the key drivers that determine whether or not a loan will be made. Neither the property’s ability to retain value nor the financial trajectory of the borrower are considered at any point during the underwriting process, two assessments that could be implemented via innovative fintech capabilities. The investor’s risk on a loan may be greatly reduced if the borrower’s financial history shows measurable signs of improvement. Additionally, the property’s ability to keep pace (or even exceed) market performance – which we might refer to as the property’s ‘desirability’ – protects the investor should they need to sell/exit a property. Using these additional metrics, one could argue that a desirable property with an average or below-average borrower credit profile might be a relatively safer loan than a less desirable property with an average or above-average borrower credit profile. If these factors were to be considered, they could lead to the development of new credit solutions, lowered costs for investors, and improved market liquidity. This could have the effect of lowering mortgage loan costs for homebuyers while still ensuring responsible lending practices are the norm for all mortgage borrowers.

In the short-run, some of these ideas and initiatives will need help from federal regulators, whether by administering regulatory sandboxes and targeted relief from regulatory liability to create innovation-friendly environments, instituting best practices and industry standards to clarify federal compliance requirements, or shortening approval timelines for certain fintech innovations that meet established prerequisites.

However, in the long-run, these efforts to strive for equity in homeownership should become self-sustaining and a driver of long-term profits for both the housing industry and the broader economy, while expanding much needed real estate financing to LMI communities.

Question B.2

What are the typical time requirements of each process within the mortgage lifecycle? What are the “critical path” activities that drive the mortgage timeline and borrower expense? How could fintech be applied to improve efficiency, reduce costs, reduce time requirements, or facilitate equitable outcomes for borrowers?

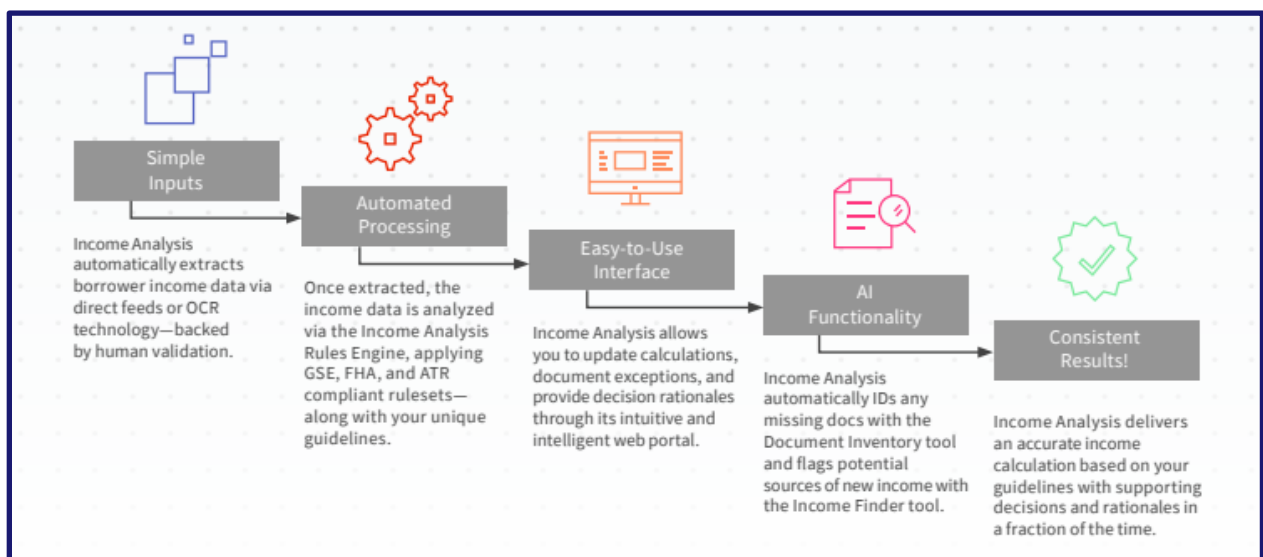
The mortgage process is an amalgamation of hundreds of distinct yet overlapping processes, determinations, requests, applications, regulations, and more. Many of these need to occur sequentially, which makes the mortgage process ripe for delays and other setbacks. Below, we identify some of the ‘critical path’ activities that occur during mortgage origination and servicing, demonstrate how fintech has already contributed to vast improvements in overall time requirements, and, where applicable, discuss additional manners in which fintech could be applied to further improve efficiency and reduce time requirements, thus reducing overall costs and facilitating equitable outcomes for borrowers.

Borrower Income Analysis

Calculating a borrower’s income has traditionally been a manual, time-consuming task characterized by inefficient processes, inconsistent results and the absence of supporting documentation. Thankfully, this has begun to change in recent years. Fintech advancements have already led to greater efficiencies in the overall process through enhanced data extraction capabilities, automated processing mechanisms, improved user interfaces for lenders, expanded document inventory tools, and increased artificial intelligence (A.I.) functionality.

The graphic below describes how CoreLogic’s own income analysis process incorporates new fintech capabilities to reduce origination times.

FIGURE 1 – CORELOGIC INCOME ANALYSIS PROCESS



By reducing manual documentation reviews and calculations (or eliminating them entirely) through automation, and continuing to enhance processing capabilities, income processing times have been reduced from several hours to mere minutes. Moving the borrower analysis earlier in the underwriting process increases loan officer, processor, and underwriter productivity, as well as overall loan quality (not to mention a reduction in human error and compliance risk). Including a transparent ‘paper’ trail that tracks all exceptions, details each rationale, and automatically identifies missing documentation throughout the underwriting process, further streamlines and standardizes borrower income calculations.

To further improve the underwriting process – historically characterized by the ordering of point products in a rigid, step-by-step workflow – we need to reimagine it as a holistic, digitized, automated, and streamlined process that lenders can leverage to validate applicants from pre-qualification to closing.⁸

While recent advancements in fintech have drastically reduced processing times, future focus could be placed on reducing costs. By further reducing manual work and running standardized workflows, loans can be originated faster, with fewer steps, and at a lower overall cost.

Case Study: How One Income Analysis Solution Improved Lending Satisfaction from the Inside Out⁹

Collateral Verification / Valuations

In addition to the borrower income analysis, an accurate determination of a property’s value is a core underpinning of every mortgage origination. This determination process requires the verification of a property’s value, title, condition, and hazard risks (discussed separately in the following section of this response). Today, lenders often use automated valuation models (AVMs) when determining a property’s value, because they can provide quick and accurate assessments of collateral value. This, in and of itself, has already helped to streamline the homebuying process.¹⁰ These innovative modeling, data and computing technologies – including machine learning algorithms, network graph technologies, cloud-based analytic infrastructure, and comprehensive data strategies – are being used by lenders for a variety of valuation use cases throughout the origination (and servicing) process, from marketing through to portfolio monitoring.¹¹

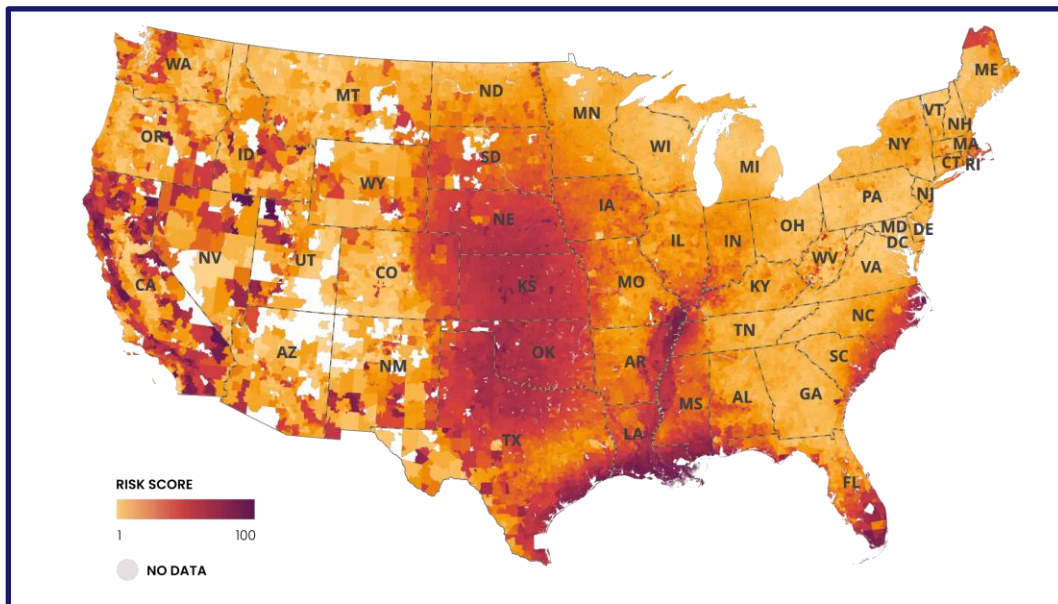
Moving forward, FHFA and the GSEs should periodically reassess the purchase limits associated with various valuation methods to ensure we continue to increase the speed and efficiency of our mortgage origination processes, while also ensuring the safety and soundness of the overall mortgage market ecosystem. It would also benefit lenders for FHFA and other applicable federal regulatory agencies to provide more definitive guidance on the use of different valuation methods, so that they can more easily understand how to ensure regulatory compliance, particularly when selecting a third-party vendor.

Hazard Risk Determinations

As climate change continues to impact our country’s financial system, it is increasingly important that lenders and borrowers are able to receive accurate, granular, and reliable hazard risk determinations throughout the origination process. Transparency of risks becomes particularly important – the standards by which risks are measured must be same across origination, servicing, and secondary markets. Asymmetric risks, such as those from changes in climate, are particularly important to identify and quantify consistently.

Currently, the only nationwide requirement regarding hazard risk determinations is implemented by the National Flood Insurance Program (NFIP), which mandates the purchase of flood insurance for homes that: a) are financed by a federally-backed mortgage, and b) are located in Special Flood Hazard Areas (SFHAs) as defined by the Federal Emergency Management Association (FEMA). However, states are showing an increased willingness to go beyond these federal requirements to encourage more robust hazard risk determinations in the homebuying process, with the most notable being California.¹² We would encourage FHFA to conduct further research into the ways in which fintech innovations can allow for more accurate – and granular – hazard risk assessments.

FIGURE 2 – CORELOGIC COMPOSITE RISK SCORE NATIONAL MAP



In lieu of dedicating multiple pages toward our thoughts on the future of hazard risk determinations, we will simply direct you to our 2021 comment letter to FHFA regarding climate and natural disaster risk.¹³ Since that time, we applaud FHFA efforts to engage in market research efforts with respect to natural hazard risk determinations, case studies, and proof-of-concepts that take into account composite hazard risk scores that assess the risk of damages and losses at the property-level across the most common natural hazard perils. As noted in our RFI response, we remain committed to collaborating with FHFA, as desired, as FHFA works to secure our nation’s housing system against increasing climate-related financial risks.

Property Tax Estimation

Historically, the method to estimate property tax for borrowers has been disjointed and inconsistent. Loan officer calculations can vary widely from person to person, with some seasoned loan officers calculating taxes off of 2% of the appraised value while others choose to base their estimate off of 1.5% of the purchase price. Then, there’s the loan officer that chooses to do 2% of the fair market value. Moreover, there simply is no industry standard on how to estimate the property tax for new construction or a new home, creating a significant amount of discrepancies in the industry.¹⁴

Estimation engines (such as CoreLogic’s) can be combined with property tax data to provide an accurate estimate for a borrower’s specific address prior to closing, even for new construction loans. These tools provide quick

address verification, accurate real property tax information at the time of loan application, estimated annual tax amounts, as well as the most current actual tax amounts available.

Moving forward, property tax discussions should utilize fintech to increase focus on:

- *Establishing Consistency for Property Tax Estimations* – There is no current standard, and lenders need a consistent process from beginning to end when establishing escrow accounts, especially when it comes to taxes. Every situation and borrower needs to be treated the exact same way. There should be no guesswork.
- *Assisting after Natural Disasters* – Natural disasters continue to impact millions of people, and as they are forced to rebuild, they also have to establish escrow accounts with their new homes. Fintech can help enable them to decide what home they want and can afford to rebuild given the predicted property tax.
- *Consistency throughout both Origination and Servicing* – From the beginning of the process all the way to a borrower deciding they want to reopen their escrow account after six years, the same numbers and documents should be used and available without fail, keeping everything streamlined and consistent.

The unique part of property taxes is that it drastically impacts both the origination and servicing side of the mortgage process. Once a loan is being serviced, the borrower expects their monthly mortgage payment and property taxes to go in a certain direction, and if they don't, the servicing team is left to explain where the break down in numbers happened. It's a common problem in servicing departments that hijacks a lot of time, and which would be improved greatly with greater industry standardization.

Case Study: How One Lender Increased Efficiency and Client Satisfaction with CoreLogic's Property Tax Estimator¹⁵

Case Study: How Umpqua Bank enhanced the customer experience and delivered consistent results using CoreLogic's Property Tax Estimator¹⁶

Improved Payment Tracking

Consumers in 2022 expect real-time notifications for just about everything: from our recent Amazon Prime orders to our flash flood Weather Channel alerts to the status of our 2-topping medium pizza via the Domino's Pizza Tracker, we are inundated with updates on a daily basis.

And consumers assume much of the same when it comes to the homebuying process. Homeowners now expect more visibility into the status of their real estate tax payments or mortgage updates. To do so, the servicing industry needs to concentrate on finding ways to provide a better, more unified, and consistent view of property tax data across the mortgage system. This will allow servicers to benefit from accurate data faster, eliminating some of the biggest issues that frustrate borrowers.¹⁷

Applying Predictive Analytics to Improve Loss Mitigation

Servicers need to be able to identify and understand potentially hidden portfolio risks so preventive action can be taken to avoid potential losses. They need to ensure adherence to regulatory requirements and obtain required data for reporting in a timely manner. Integrating flexible solutions that utilize the most robust and comprehensive analysis available is critical.¹⁸

Thankfully, recent fintech capabilities have already improved the way in which mortgage servicers mitigate losses throughout their portfolios. Technological advancements in portfolio monitoring capabilities now allow servicers to address portfolio risk and compliance by providing ongoing insights to specific changes in a servicer's portfolio. By using these insights into triggers such as lien priority status, collateral valuation analysis, borrower credit analysis, hazard profiling, and event risk, compliance managers are more easily able to mitigate losses and minimize risk.¹⁹

As we mentioned earlier in our response to this question, transparency of risks is particularly important – the standards by which risks are measured must be the same across origination, servicing, and secondary markets. Asymmetric risks, such as those from changes in climate, are particularly important to identify and quantify. The servicing industry needs to be able to identify any deviations in their portfolio of assets that are different than what was expected and identify the root cause of that deviation.

Like others within the industry, CoreLogic has worked to develop our own loan-modification decisioning tool, which accelerates Government-Sponsored Enterprises (GSE), Ginnie Mae (including FHA, VA, and USDA-insured loans), and proprietary loan modifications, while also providing auditable reporting and tracking.²⁰ Again, referring back to a point we've made numerous times in this response, transparency is key.

Better Serving LEP Borrowers

In recent years, our industry has placed a heavier emphasis on better serving Limited English Proficiency (LEP) borrowers, who are often more vulnerable to the various pitfalls that can exist throughout the mortgage process. Documents may need to be translated, and interpreters may need to be scheduled for in-person conversations, both of which can increase the length of time it takes for an LEP borrower to obtain a mortgage. Fintech has already – and can continue to – help reduce costs and time requirements for LEP borrowers in a number of ways: enabling quicker translation and certification of documents to be signed; adopting video teleconferencing to provide access to greater numbers of interpreters with more frequent availability; ensuring language preferences are tracked throughout the life of the mortgage to prevent issues arising during future refinances or sales.

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?

No comment.

Question B.4

What are the existing data challenges that most prevent data-driven decision-making in the mortgage lifecycle?

The most prominent data challenge facing the broader mortgage industry, spanning from origination to servicing to the secondary market, is the need for **standardized, comparable, and granular data**.

In our response to Question B.2, we highlighted a couple of areas in the mortgage origination process specifically where this plays an important role:

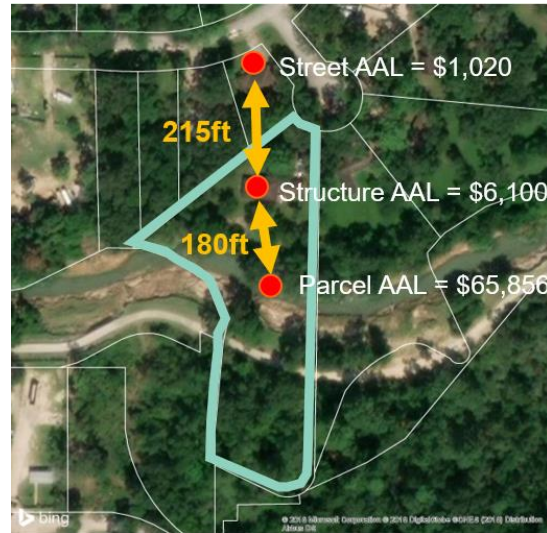
- *Property Tax Estimation* – Currently, there is no industry standard on how to estimate the property tax for new construction or a new home, creating a significant amount of discrepancies in the industry. Lenders are often left to collect property information manually by scouring government tax bill websites, which vary from state to state.
- *Collateral Verification / Valuations* – CoreLogic is working to simplify and standardize valuation throughout the loan lifecycle by leveraging our vast property datasets, multiple listing service (MLS) data, and other unique data assets to create a single model methodology that provides an optimal combination of accuracy and coverage, while also reducing the potential for fraud and valuation subjectivity.
- *Hazard Risk Assessments* – Climate risks are high-gradient perils that can change over short distances, making them wide-reaching yet still acutely felt. To understand the true hazard risk affecting a property, and its risk levels in relation to surrounding properties, it is important to use highly granular and comparable data.

Let's look at this last area – hazard risk assessments – to exemplify a specific instance where data challenges can affect decision-making processes in the mortgage lifecycle: the calculation of Average Annual Loss (AAL) for an individual property when assessing property insurance premiums.

AAL calculations are used by insurance companies to quantify the level of physical risk affecting an individual property, as well as by asset managers on the secondary market to measure levels of risk inherent within a larger portfolio of loans. However, if the data is neither accurate nor granular enough, it can lead to drastic differences in the final AAL calculation for a property.

To reliably assess physical risk, one must be able to both identify the property itself and identify the specific structure(s) on that property that require separate assessments. This identification requires geospatial/location data that can reliably assess the geographical boundaries of a property and its structure(s), along with rich data describing the attributes of the property's parcel/land and the structure itself. If the underlying location data is not accurate, assessments – such as AAL calculations – will not reflect the true risk to the structure, as exemplified below.

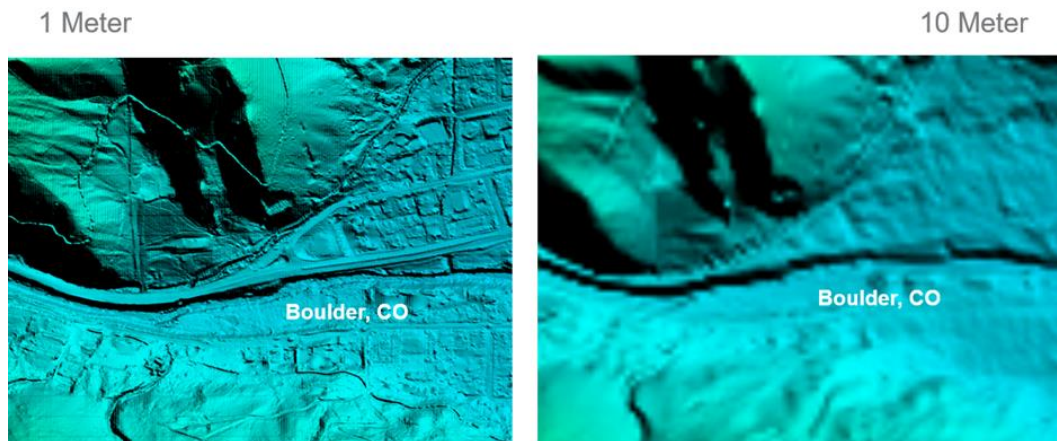
FIGURE 3 – POTENTIAL DISCREPANCIES IN AVERAGE ANNUAL LOSS CALCULATIONS



This image depicts the various AAL amounts that could be calculated depending on whether the individual (or, more likely, the computer model) crunching the numbers used the street address location, the overall parcel location, or the specific structure location. As evidenced, the final calculation can vary wildly.

Hazard risk assessments also employ the use of Digital Elevation Monitoring (DEM), a remote sensing technique used to identify the 3-D footprint of a structure, its ground elevation, and height above sea level. The key to reliability is use of 1-meter resolution DEM, the level of granularity necessary to permit reliable assessment of footprint data in any municipality that has relatively large population centers, including exurbs, suburbs, and urban core. Using anything less – such as 10-meter or 30-meter resolution DEM – in densely populated areas will not provide reliably accurate assessments for individual households, as evidenced below.

FIGURE 4 – COMPARISON OF 1-METER v. 10-METER DIGITAL ELEVATION MONITORING



The more standardized, comparable, and granular the data flowing through the mortgage lifecycle, the greater the ability to rely on data-driven decision making.

Question B.5

What are the existing regulatory and policy barriers to adopting and implementing fintech within the mortgage lifecycle?

Lengthy Approval Timelines

A common concern in this respect that we feel has been articulated by the mortgage industry centers on the lack of clarity with respect to which regulatory agencies have regulatory authority over fintech companies, as well as which laws and regulations apply to a particular fintech company business model. As noted previously, fintech business models differ widely, and with them, the applicability of various prudential, market, and consumer protection regulatory regimes.

Agencies, including FHFA, could take steps to proactively address this challenge by providing more detailed guidance that outlines specific expectations for new fintech products and services to comply with federal regulations. FHFA could also mirror recent work from the Office of the Comptroller of the Currency (OCC) to create a ‘fintech charter’ that would be tailored based upon the role(s) the new fintech is meant to play within the broader financial system and aimed at reducing the time it takes for a product or service to enter the market. With this said, the following barriers would first need to be addressed:

Confusing Regulatory Structure

Lessons can be learned from the legal challenges to the OCC’s process, which – to this point – have left this situation murky. In 2019, a district court ruled that the OCC could not implement those charters, which was eventually overturned in 2021 by the U.S. Court of Appeals for the Second Circuit, which ruled in favor of the OCC, but still “the appellate court didn’t address the district court’s finding the OCC’s special charters for fintech lenders exceeded the agency’s authority under the National Bank Act... and the absence of clarity on the agency’s authority in the decision means companies are unlikely to seek one in the near future”.²¹ The OCC continues to face legal challenges on this issue, including from the Conference of State Bank Supervisors (CSBS).²²

Additionally, the increasing complexity of product offerings creates new regulatory challenges, as it becomes harder to establish bright lines between products or services that were previously very clearly defined. Simple changes in loan details or borrower information can create new regulatory hurdles that delay the entire mortgage origination process.

FHFA and other federal regulatory agencies should work collaboratively to clarify compliance requirements and oversight authorities for fintech companies, including requesting legislative clarification where necessary. This will, in turn provide much needed assurance for loan originators and servicers who are looking to use new fintech products and services and may have certain regulatory responsibilities of their own for these fintechs as “third-party service providers.”

Lack of Access to Data Sources

Federal and state regulations can also inhibit access to particular data sources that new fintech products or processes may require in order to be effective.

One prominent example is the current push to incorporate alternative sources of data – such as utility payment information – into credit scoring models in an effort to expand the credit box to include more LMI consumers. However, previous efforts to encourage utility companies to report payment data have not been as fruitful as credit advocates had hoped. “A few state laws restrict reporting of payments history without consumer consent on privacy grounds, and there have been reports that regulators in other jurisdictions have informally discouraged or simply failed to provide clear guidance on whether such reporting is permissible.”²³

As such, the usage of utility payment information by lenders remains limited within the industry: “FICO reports that the number of consumers with [Utility-Telecom-Rental Data] accounts who have tradelines reflected in their NCRA credit files is only about 2.6 percent for utilities, 5 percent for telecom, and 2.3 percent for rent. VantageScore has reported that coverage rates for rental reporting increased from 1.3 percent in 2019 to 1.7 percent in 2021, while coverage for utility rates actually dropped slightly in 2021 to 3.1 percent.”²⁴ Regulators could go much further in requiring utility payment information reporting to the nationwide credit bureaus, including potentially switching from an “opt-in” to an “opt-out” model for consumers.

Lack of Federal Standards

There are a number of additional federal standards – or lack thereof – that have limited the adoption of fintech throughout the mortgage lifecycle.

First and foremost are uneven data security requirements amongst the various federal agencies. In many instances, new fintech products and services may use personally identifiable information (PII) as a part of their internal processes. This highly sensitive information is heavily regulated across all levels of government – however; these regulations are often overlapping, incomplete, and in some instances contradictory. If a company wants to develop a new fintech capability but cannot reliably and accurately understand the complex requirements for storing and transmitting the underlying data, it is increasingly unlikely to pursue that venture.

On a related note, a lack of federal standards surrounding consumer-permissioned transfers of data makes it much more difficult for fintech developers whose products and/or services rely on individual consumers to take a more active role in initiating data transfers and verification:

“As the system has expanded, competitive tensions, security and liability concerns, and coordination challenges have complicated the relationships between data sources, aggregators, and data users... the process has frequently been complicated by disputes over what data elements can be accessed and various business and contracting practices. An organization called the Financial Data Exchange has been working to establish standardized application programming interfaces to effectuate data transfers for particular financial use cases but reaching voluntary consensus has proven challenging.”²⁵

A federal government standard for consumer-permissioned transfers of data would make it much easier for consumers to be proactive in building their credit history, while also improving clarity for furnishers of such data.

Unfavorable Testing Environment

Finally, an increased focus on regulatory sandboxes and targeted, time-limited dispensation from certain regulatory requirements, where applicable, for new fintech product and service pilot programs would provide further assurance to industry participants that they can test, evaluate, and innovate collaboratively with federal government agencies via public/private partnership.

Safe harbor provisions have long been an effective tool to mitigate liability for industry participants who are using innovative new products or tools to better serve their customers. Safe harbor 401(k) plans and safe harbor tax accounting methods are used by businesses of all industries to ensure compliance with the Internal Revenue Service (IRS). To the extent that there are clear opportunities to implement safe harbor provisions for fintech developers and their users, the greater their confidence and willingness will be to continue innovating. To the extent regulators cannot feel comfortable offering broad safe harbor provisions, we recommend working collaboratively with fintech companies, one-on-one, to provide for targeted, time-limited dispensation from a specific, enumerated set of regulatory requirements. Such efforts will make it far easier for fintech developers and their users to engage in pilot programs that empirically test and validate the efficacy of their solutions, while providing valuable insight to regulators as to which regulations ought to apply to certain classes of fintech companies with like business models.

Likewise, regulatory sandboxes offer opportunities for private sector industry participants to “test innovative products, services, business models and delivery mechanisms without immediately incurring all the normal regulatory consequences of engaging in the activity in question.”²⁶ These spaces are critically important for fintech development, as novel products and services can more easily access needed funds by reducing regulatory costs and information asymmetries. Studies have shown that “entry into the sandbox is associated with a higher probability of raising funding and an increase of about 15% in the average amount of funding raised.”²⁷

C. Equitable Access to Mortgage Credit

Question C.1

What new fintech tools and techniques are emerging that could further provide equitable access to mortgage credit and sustainable homeownership? Which offer the most promise? What risks do the new technologies present?

As mentioned previously in our response to Question A.2 and Question B.1, the fintech activities with the greatest potential to positively impact the housing finance sector are those that focus on facilitating responsible innovation on the equitable access of consumers to affordable and sustainable mortgage credit.

Fintech has the ability to vastly transform how we identify and support underserved communities through a variety of applications:

- *Non-Traditional Sources of Income* – In areas with few available jobs (or areas where wages have not increased alongside cost-of-living), individuals often have to find non-traditional sources of income to make ends meet. This could mean picking up a second job in the evenings, starting one’s own business on the side, or even playing sets at the local bar a couple of nights a week. Advancements in cash flow analysis products are providing us with the ability to derive and calculate more difficult income sources such as gig economy jobs or small business start-ups.
 - *Potential Risks* – Inaccurate or incomplete information. As noted in a blog post from the Consumer Financial Protection Bureau (CFPB), “though traditional data can also be inaccurate, certain types of alternative data may be more prone to errors if standards governing those data are different or weaker than those governing traditional data. Consumers might not be able to access or view some types of alternative data. This could prevent consumers from finding and correcting any inaccuracies.”²⁸
- *Expanded Access to Credit* – Oftentimes, those living in underserved communities find it difficult to establish a credit history. These communities are historically ‘underbanked’, meaning they have few reliable banking options, and have a high percentage of rental housing. Since traditional credit scoring models don’t consider items such as rent payments, utility payments, or deposit account information, these individuals are disproportionately likely to have a thin credit file, or not at all. Improvements in liabilities analysis capabilities allow for the utilization of transaction data from digital asset verifications, which makes it easier to establish alternative credit histories for borrowers with little to no credit.
 - *Potential Risks* – As highlighted in the same CFPB post, “Traditional credit factors are heavily influenced by a person’s own financial conduct. Some alternative data may not be related to a person’s own financial conduct and the use of these data could make it more difficult for people to improve their credit standing. Alternative credit factors may also be harder to explain to people seeking credit.”²⁹
- *Ability to Repay* – Along similar lines, improved data science applications are able to ingest a variety of new digital sources, which makes it easier to establish a borrower’s ability to repay. This includes the non-traditional sources of income mentioned above, as well as many of the data sources that feed into

expanded credit histories. These digital sources can also help us more accurately capture debt-to-income ratios.

- *Potential Risks* – Since the data sources that feed the ability-to-repay calculation are similar to the ones mentioned above, the same types of risks apply: inaccurate/incomplete information and data that isn't related to a person's own financial conduct.

Additionally, the continued development of fair lending models that improve lending decisions for LMI and majority-minority communities could further provide access to mortgage credit and sustainable homeownership, a topic that we delve into more thoroughly in our response to Question C.2, below.

Question C.2

What emerging techniques are available to facilitate or evaluate fintech compliance with fair lending laws? What documentation, archiving, and explainability requirements are needed to monitor compliance and to facilitate understanding of algorithmic decision-making?

While fintech advancements have the ability to improve lending decisions for LMI and majority-minority communities, our industry must take great care to ensure that the algorithms backing these innovations do not “penalize or otherwise treat borrowers differently due to predictive analytics, especially if variables used in these models are correlated with protected class status.”³⁰

Algorithmic biases can have incredibly detrimental effects on communities of color, especially in the mortgage lending industry. To prevent these effects from manifesting, fintech developers, users, and regulators should place an increased emphasis on ensuring that the algorithms behind their products and services are capable of being externally verified/tested.

From a compliance perspective, it is much easier to build full audit trails into technological processes and practices than into human-driven, manual processes and practices. Including a transparent ‘paper’ trail that tracks exceptions, details rationales, and automatically identifies missing documentation throughout origination and servicing helps to further streamline and standardize the overall mortgage process. A step-by-step documentation process, coupled with responsible archiving practices, makes it easier for auditors to conduct their work.

Unfortunately, the industry itself has not developed any standards or guidelines for how fintech companies/users should document and archive their practices. Regulators such as FHFA can, and should, step in to support the industry with metrics, guidelines, etc. until the industry is able to develop a thriving practice.

For further insights, we would like to highlight a new framework from our colleagues at the National Fair Housing Alliance (NFHA), the Tech Equity Initiative, a research effort launched by NFHA to increase the fairness of algorithmic decisioning systems in the mortgage lending industry. CoreLogic is proud to be a key data contributor to this effort.

The objective of the initiative is to identify, test, validate, develop, improve, and publicize mortgage underwriting and pricing methodologies and techniques which responsibly increase homeownership and reduce the cost of credit for mortgage applicants often deemed risky or hard-to-score. The findings of this research will be made public with the goal of helping lenders and regulators adopt the tools that can safely extend the dream of homeownership to more deserving Americans.³¹

One of the foundational elements of this initiative is the development of a new framework for auditing algorithmic bias in housing and lending – Purpose, Process, and Monitoring (PPM). “The PPM framework enables auditors to conduct a critical analysis of an algorithmic system to identify its assumptions and limitations and produce appropriate recommendations to mitigate consumer fairness and privacy risks that may result from poorly developed models.”³²

Question C.3

Are there effective ways to identify and reduce the risk of discrimination, whether during development, validation, revision, and/or use of fintech models or algorithms? Please provide examples if available.

Absolutely. Identifying and reducing the risk of discrimination in fintech models and algorithms is dependent upon robust oversight mechanisms, frequent testing and re-testing of data sets for potential bias(es), outside/third-party validation of the models/algorithms used, and a continuing effort to revise and improve the data sets/models based upon feedback from the previous actions.

Oversight Mechanisms

Establishing adequate oversight mechanisms, both internal to the company and from a federal regulatory perspective, is the first and most important step toward ensuring we, as an industry, are able to identify and reduce the risk of discrimination in fintech models. Internal oversight mechanisms could include, among many options: the establishment of a position/office dedicated toward fintech oversight, the creation of an internal framework for dealing with (and solving for) potential biases that may arise, and a robust reporting mechanism to ensure compliance with federal regulations. We address regulatory oversight needs in our responses to both Question A.3 and Question B.5 of this RFI.

Testing (and Re-Testing)

Data & analytical capabilities need to be continuously tested to ensure a lack of algorithmic bias. It is not enough to simply test the algorithms when initially validating new models – they must be frequently assessed and reassessed as new data enters the system and as the models are used for new and varied purposes.

Third-Party Validation

Concurrent with continuous testing, it is important that new fintech innovations receive external third-party validation from entities that have the capabilities to conduct wholistic assessments of the underlying data and analytics being used in order to ensure a lack of algorithmic bias. We discuss this further in our response to Question C.2 of this RFI, above.

Continuous Revisioning

Finally, once models have been developed under adequate oversight mechanisms, have established a cycle of testing and re-testing, and have been validated by competent third-parties, they must be continuously revised and improved to ensure compliance with all applicable federal regulations and fair lending laws.

D. Identifying and Mitigating Fintech Risks

Question D.1

What risks do fintech and fintech firms present to the economy and the financial sector? To the housing finance sector? To FHFA-regulated entities? To counterparties of FHFA-regulated entities and other third parties? To mortgage borrowers and consumers?

While new fintech products and innovations are often viewed as solutions to pre-existing pain points within the housing industry, we must take care to remember that fintech also has the potential to introduce new categories of risk to the market, or to exacerbate the current inequities that it oftentimes claims to solve.

Algorithmic Bias

As mentioned in our responses to Question C.2 and Question C.3 above, algorithmic biases can have a hugely detrimental effect on LMI communities and communities of color. A recent publication from the San Francisco Federal Reserve Bank focused on alternative data sources and analytical techniques summarized some of the specific drivers of algorithmic bias in both traditional and machine learning models:

“...bias can occur due to a number of flaws in the underlying data, such as a lack of information about key subgroups, use of noisy or flawed measurements, and use of training data that were affected by historical discrimination or bias. These problems are particularly important to the extent that they impact racial equity and inclusion, but they can also affect other aspects of model performance. Thus, in considering adoption of new data sources, it is important to vet the information with regard to accuracy, reliability, potential gaps in coverage, and similar issues.”³³

To prevent these effects from manifesting, fintech developers, users, and regulators should place an increased emphasis on ensuring that the algorithms behind their products and services are subject to robust oversight, are continuously tested and re-tested, and are capable of being externally verified/tested. Otherwise, these models could end up violating Fair Lending agreements by creating bias under the guise of risk reduction; for example, by instituting certain credit quality requirements that could lead to the avoidance of some LMI communities.

Consumer Privacy Issues

As mentioned previously in our comments, new fintech products and services may use personally identifiable information (PII) as a part of their internal processes. Consumer privacy risks stemming from the usage of PII can manifest in a variety of ways, but many can be traced back to a general lack of guidance from federal and state regulators. We delve into this issue more thoroughly in our response to Question D.3.

Cybersecurity Vulnerabilities

Stemming from the consumer privacy issues mentioned above, and fully addressed in our response to Question D.3, there are inherent cybersecurity concerns for both fintech developers and users. The current lack of thorough,

explicit, federal-level storage requirements for consumer PII can lead to ineffective data security standards that have the potential to expose consumer data to hostile actors.

Third-Party Data Acquisition

Today's housing data landscape is supported by third party service providers, such as CoreLogic, that are able to provide data & analytics that far outpace the internal capabilities of many of our industry's largest banks and insurers. The usage of private-sector third parties has greatly transformed the market in recent years, making it possible for companies to operate in more cost-effective and efficient manners, while also enabling regulatory bodies such as FHFA to provide enhanced oversight.

However, we must also be aware of the risks that arise when using third-party service providers to acquire, store, or analyze data. Third-parties must be able to ensure: 1) safe transmission/acquisition of the data; 2) safe storage of the data (especially any containing PII), and 3) a safe environment for analysis. Industry standards and best practices can help, but regulatory guidelines and/or rules would better define acceptable practices and further ensure accountability.

Lack of Transparency

New fintech products and services can also present risks due to a lack of transparency into their development, application, and efficacy. This last point is key: if the exact efficacy of the innovation is unknown, there is the potential that it could actually increase risk throughout the broader housing finance system.

One such example could be the increase in usage of appraisal waivers thanks to new fintech innovations in the collateral valuations space. Appraisal waivers can be very useful for many seeking a mortgage, leading to quicker origination timelines and potentially lower costs for the homebuyer. However, if the methodology and efficacy of the waiver determinations themselves aren't well-known and understood, they could lead to the creation of loans with undervalued levels of risk.

Another such example can be found with expanded income verification tools that account for digital assets. While these tools can be extremely useful in expanding access to credit to previously credit invisible individuals, they also must be well-understood and frequently revisited to ensure accuracy.

FHFA can play a critical role ensuring that both the risks as well as the benefits of fintech innovations have been weighed and are broadly understood across the housing finance ecosystem.

Question D.2

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

As indicated throughout our responses to Question A.3 and Question B.5 above, the most common risk management practice used by industry participants is a general hesitancy towards adopting new fintech products and services until they have further assurance that the offerings comply with all applicable regulations and counterparty contractual obligations (e.g., representations and warranties and indemnifications). By ensuring a slow introduction of their use in certain automated processes, companies can better monitor their results before expanding usage. Coupled with a robust and active oversight mechanism, companies can safely and effectively implement new fintech capabilities.

We've alluded to many additional risk management practices – both internal company practices and external industry collaborations – already throughout our response, which we summarize below.

Internal Company Oversight

- *Transparent Paper Trails and Robust Archiving Practices* – Including a ‘paper’ trail that tracks exceptions, details rationales, and automatically identifies missing documentation throughout origination and servicing helps to minimize risk by increasing transparency. A step-by-step documentation process, coupled with responsible archiving practices, makes it easier for risk assessors who may be auditing company practices.
- *Strong Third-Party Vendor Management Practices* – In our response to Question D.1, we addressed some of the risks that arise when using third-party service providers to acquire, store, or analyze data. The usage of these third parties, such as CoreLogic, must be coupled with enhanced vendor management practices to ensure a company remains aware of all possible risks.
- *Robust Cybersecurity Practices* – There are inherent cybersecurity risks for fintech both developers and users, which we more fully address in our response to Question D.3 below. Any company using, analyzing, or otherwise controlling consumer PII needs to ensure that it has instituted effective data security standards that will not expose consumer data to hostile actors.
- *Comprehensive Oversight Mechanisms* – Internal oversight mechanisms could include, among many options: the establishment of a position/office dedicated toward fintech oversight, the creation of an internal framework for dealing with (and solving for) potential biases that may arise, and a robust reporting mechanism to ensure compliance with federal regulations.
- *Frequent Testing and Revisioning* – Companies must frequently assess and reassess the algorithms underlying their products/services as new data is entered and new use-cases arise, to ensure a complete lack of algorithmic bias. Once models have been developed under adequate oversight mechanisms, have established a cycle of testing and re-testing, and have been validated by competent third-parties, they must be continuously revised and improved to ensure compliance with all applicable federal regulations and fair lending laws.

External Industry Collaboration

- *Third-party / External Validation* – To prevent algorithmic biases from manifesting, fintech developers, users, and regulators should place an increased emphasis on ensuring that the algorithms behind their products and services are capable of being externally verified/tested by entities that have the capabilities to conduct wholistic assessments of the underlying data and analytics being used in order to ensure a lack of algorithmic bias. We discuss this further in our response to Question C.2 of this RFI, above.
- *Industry Cooperation* – The industry as a whole is capable of addressing risk management issues through the issuances of standards and best practices. Even when non-binding, industry guidelines can quickly become the standard for doing business and play a key role in pushing the industry forward.

Question D.3

What particular risks to consumer privacy have been associated with fintech? What practices are being used to manage these risks?

As mentioned previously in our comments, new fintech products and services may use personally identifiable information (PII) as a part of their internal processes. This highly sensitive information is heavily regulated across all levels of government – however; these regulations are often overlapping, incomplete, and in certain instances contradictory.

Consumer privacy risks stemming from the usage of PII can manifest in a variety of ways, but many can be traced back to a general lack of guidance from federal and state regulators regarding the following:

- *Lack of Common Definition* – Without a standardized definition for *personal identifiable information*, certain cities and states are going to lag behind others when it comes to consumer protection initiatives. Companies looking to minimize their internal risk management and compliance costs may choose to operate in these regions, putting more and more personal consumer data at risk.
- *Lack of Standardized Storage Requirements* – Similarly, a lack of thorough and explicit storage requirements for consumer PII can lead to ineffective data security standards that have the potential to expose consumer data to hostile actors.
- *Confusing Legal Landscape* – Even when consumer PII is explicitly outlined and appropriately stored, the allotted use cases for that PII can vary greatly depending on the locality in which the user (and/or the consumer) is located. For companies operating at a multi-state or national level, this can quickly become a legal nightmare. The same publication noted earlier from the Federal Reserve Bank of San Francisco made note of this: “lenders who have experimented with using information about where customers shop, whether they spend money on particular activities, and other behavioral patterns have faced substantial criticism on privacy and transparency grounds”.³⁴

To address these issues, a national consumer privacy law is needed, one that would establish a common definition for personal identifiable information (among numerous additional terms), standardize storage requirements for highly sensitive personal information, and replace the confusing legal landscape that exists across the country today.

E. Regtech

Question E.1

What are the most promising areas for applying technology to regulatory and compliance functions? Please describe opportunities for “regtech” to simplify or improve compliance with FHFA, Enterprise, or FHLBank requirements.

The application of fintech to regulatory and compliance functions – aka ‘regtech’ – has the potential to transform the way in which companies comply with federal regulatory requirements, whether by increasing efficiency or automating certain processes, verifying and validating the consistency of information, or enhancing transparency into internal compliance processes.

- *Increasing Efficiency and Automation* – The primary driver of fintech adoption throughout the housing industry is fintech’s ability to automate and/or increase the efficiency and effectiveness of internal compliance, quality control, and review processes.
- *Verifying / Validating Information* – Fintech innovations can make it easier for companies to verify and validate the consistency of information that will be included in company reports and disclosures to regulatory agencies, decreasing the risk of potential errors.
- *Enhancing Transparency* – Fintech can also enhance transparency into internal processes by creating full audit trails that can help compliance teams automatically detect missing documentation, track specific exceptions, or identify potential red flags.

Whether through the application of artificial intelligence or machine learning models, changes such as these can go a long way toward reducing internal compliance costs.

However, regtech should be viewed as a two-way street: one on side, the adoption of regtech by companies to simplify/improve compliance with federal requirements; on the other side, the adoption of regtech by federal agencies to streamline reporting/disclosure requirements, increase responsiveness to company inquiries, and generally improve a wide range of auditing and oversight functions.

- *Streamlining Reporting / Disclosures* – Regtech can be used by federal regulatory agencies to streamline required reporting and disclosures for companies through the implementation of improved information collection capabilities, the standardization of industry reporting forms, and the eventual analysis of the information included in those forms.
- *Increasing Responsiveness* – Regulatory agencies can also use fintech capabilities to increase their responsiveness to industry issues and concerns via the implementation of quicker communication platforms, more efficient whistleblower response procedures, and more frequent interaction with industry leaders.
- *Improving Auditing Capabilities / Oversight Functions* – As mentioned in our response to Question C.2, using regtech to build full audit trails that track exceptions, detail rationales, and automatically identify

missing documentation helps to further streamline and standardize the overall compliance process. A step-by-step documentation process, coupled with responsible archiving practices, makes it easier for auditors to conduct their work.

In an ideal world, these two sides operate in harmony, minimizing the amount of effort required by both company and regulator, while maximizing the transparency, safety, and soundness of our nation's financial system.

Finally, there are some challenges for both companies and regulators when adopting new regtech capabilities, including difficulties associated with the integration of new and legacy technologies, the continued use of paper documentation in some practices, and the potential for data contamination/corruption through the use of these additional third-party fintech service providers.

F. Office of Financial Technology Activities and Stakeholder Engagement

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?

There are a variety of options for FHFA to further engage with industry stakeholders to ensure the continuation of an open, timely, and robust discussion on fintech applications in housing finance.

- *Listening Sessions* – CoreLogic was glad to attend the October 6, 2022 listening session to solicit input on the role of technology in housing finance. This session was a great opportunity for FHFA to have a conversation with industry participants before requiring them to submit their final comments to the RFI. FHFA would be wise to continue these listening sessions – perhaps on a quarterly basis – even after the conclusion of this RFI process, in order to deepen engagement and keep abreast of the latest fintech products and innovations that have the potential to change the industry.
- *Industry Roundtables* – While productive, the short timeframes and long list of speakers for listening sessions can often be conducive to sound bites and brief declarations, without actually prompting the conversation amongst participants that it was designed to initiate. Therefore, it is often helpful for listening sessions to be paired with broader industry roundtables, which can provide participants with more time to discuss topics of importance and offer formats (such as panel conversations or Q&A) that allow for actual conversation.
- *Tech Sprints* – As defined in the RFI, a tech sprint “provides an environment for regulators, technology firms, consumer and academic groups, software developers, and other market participants to work collaboratively together to facilitate solutions, ideas, or products that address a predefined problem statement which has been developed through market research.”³⁵ When the right players are involved, these concerted efforts can act as a catalyst for innovation. Finally, tech sprints are often most effective when participants have a well-defined and obtainable goal. CoreLogic would recommend that FHFA consider standing up a number of parallel tech sprint initiatives, each aimed at a specific pain point within the industry, to more effectively tackle the larger issues affecting our nation’s housing system.
- *Engagement via Oversight* – FHFA should work to further engage with industry through its pre-established oversight functions. One example would be using the annual FHFA Conservatorship Scorecard to identify opportunities for the GSEs to leverage new fintech products and innovations. FHFA could also use its current review of the Federal Home Loan Bank (FHLB) system to outline ways in which the FHLBs could use fintech advancements to better serve their customers.³⁶
- *One-on-One Sessions* – Finally, based upon the feedback gleaned from the engagements above, FHFA can meet with industry participants on a one-on-one basis, to better understand the specificities behind new fintech innovations that the agency oversees.

Question F.2

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

As mentioned previously in our response to Question F.1, tech sprints are often most effective when participants have a well-defined and obtainable goal. CoreLogic would recommend that FHFA consider standing up a number of parallel tech sprint initiatives, each aimed at a specific pain point within the industry.

Some potential topics for future tech sprints include:

- *Affordable Housing Solutions* – As mentioned multiple times throughout our comments to this RFI, fintech innovations can drastically improve our capability to support LMI communities and communities of color. CoreLogic is proud to be a key partner in the Mortgage Bankers Association’s (MBA) CONVERGENCE initiative, which brings non-profits, public officials, and industry stakeholders together to discuss scaling opportunities, identify barriers and gaps for homeownership, and chart potential solutions.³⁷
- *Hazard Risk Assessments* – Natural hazard risks are highly gradient perils that can vary across short distances, making them wide-reaching yet still acutely felt. To account for the increasing intensity and frequency of natural hazards due to climate change, the housing industry needs to drastically reassess the way in which we analyze, incorporate, and communicate natural hazard risk. Composite risk scores, climate scenarios, and catastrophe risk models need to be viewed as fundamental aspects of the homebuying process.
- *Appraisal Reform* – As usage of automated valuation models (AVMs) and appraisal waivers continues to increase, it is important for the industry to have a firm grasp on both the capabilities and limitations of these new fintech products. While AVMs have the potential to considerably decrease appraisal costs and turnaround times, they must also be built with algorithms that have been tested against any inherent biases that could have adverse effects on lending toward LMI communities and communities of color.
- *Alternative Data Sources* – An issue that our industry has been discussing for decades, the usage of alternative data sources in credit modeling decisions has gained traction in recent years, even seeing some limited implementation by a handful of companies. However, widespread adoption remains elusive, as questions remain regarding the reliability of these data sources, the potential for inherent algorithmic biases to detrimentally impact underserved communities, and the larger impact on our overall credit scoring system. A tech sprint hosted by the federal agencies could go a long way toward identifying practical solutions to these questions, easing concerns among skeptics, and helping to spread wider adoption throughout the industry.

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