

FINTECH IN HOUSING FINANCE

Response to RFI

Submitted to FHFA by:

TMC Emerging Technology GP LLC As General Partner of the TMC Emerging Technology Fund LP

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Question A.2

How could FHFA facilitate adoption of "responsible innovation"?

FHFA could benefit by establishing a small but diverse multi-stakeholder advisory group consisting of representatives from across the mortgage tech spectrum, including technology innovators, data scientists, IT operations professionals, risk managers, corporate development professionals and investment professionals. Depending on the size of the group, sub-groups could be established to deal with specific areas of interest including risk management, corporate governance, innovation, etc., as appropriate to FHFA's interests and needs.

Because of its strong convening power, we note that The Mortgage Collaborative ("TMC") could likely be leveraged to help form and organize these groups as industry collaboration is a core thesis behind why TMC was formed and continues to prosper and grow. Much of the program content for its members is built on the principle of collaboration.

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?

The lack of standards across the industry is most definitely an impediment to improving the efficiency of the mortgage sector. Although we have MISMO standards for a variety of items, state and local jurisdictions have their own formats and protocols, for example, for deed recordation which create enormous inefficiencies with substantial financial cost. One only need to look at the size of the title insurance industry to get a sense of the opportunity to drive cost out of the system. Although FHFA has no direct jurisdiction over states and counties, it could establish GSE protocols that could indirectly help to flush these inefficiencies from the system.

To illustrate this point, one need only look at the many failed attempts to implement OCR technology in the mortgage industry. Conventional OCR algorithms are based on character recognition and are easily confused by handwriting, poor document resolution, manual recording stamps, text orientation that is



not close to horizontal, stray lines that are common in photocopied documents, etc. Compounding this problem is the lack of industry adoption of a common set of data field definitions and formats, document formats and even data and file transfer protocols.

New developments in OCR have emerged that contextualize visualized data to provide a more accurate digital interpretation of scanned documents and help to overcome some of the issues noted above, particularly when the attached data bases are equipped with the ability to "learn" from manual corrections. The next challenge is to extract the cleaned data in a form that is directly usable in incumbent LOS platforms. This kind of end-to-end solution is the mission of Trained, another portfolio company of our Fund, which is working to overcome the challenges of the mortgage industry's highly fragmented data landscape.

Question B.5

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

Regulatory complexity favors incumbent fintechs and helps them to grow larger and more dominant at the expense of new market entrants. One only need look at the concentration of vendors within the servicing, document collection, disclosure generation, and LOS segments to see the problem in action as these segments are each dominated by a few large players. By contrast, there are many smaller companies in the CRM and point of sale spaces as the compliance and regulatory requirements are significantly less complex. This is an unfortunate situation for the mortgage industry as new founders approaching the industry are more apt to tackle more simple problems in a less regulatory complex (but more crowded space) rather than more significant problems and having to deal with immense regulatory complexity.

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?

We are evaluating an investment in InGenius that has developed intellectual property that leverages publicly available data to provide its customers with the ability to segment a geographical market by their peer institution type to view mortgage production volume, %LMI (low to moderate income), and %MMCT (majority minority census track) within majority minority census tracks. The resulting monthly reports can be filtered by lenders and loan officers. One of the differentiating factors is InGenius' use of deed data which is updated monthly versus HMDA which is updated annually. To make the data easy to consume, InGenius has created a platform with a unique user-friendly interface that has built-in CRA/Fair Lending filters and reports.



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.

No doubt there are many ways technology can help to facilitate fair lending. One such example is Home Lending Pal, one of our Fund's portfolio companies. HLP's technology roadmap involves leveraging blockchain technology to anonymize certain data that can be used by lenders to redline, intentionally or otherwise, mortgage applicants that would otherwise pass their screens from a strictly credit standpoint. The key to make this work is making separate systems talk to one another in a seamless fashion which, as mentioned in the response to Question A.3, is made more difficult (but not impossible) by the lack of harmonized standards. HLP strives to close the mortgage gap faced by minorities by leveraging its cutting edge approach to the front and middle portions of the mortgage process.

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?

See response to Question A.2 above. For further information, please contact:

Respectfully submitted,

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