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The burgeoning new world of online "marketplace" lending holds the promise of broader access to credit for consumers and businesses with reduced cost and more competition. However, cutting-edge technology, data sources and credit modeling methods also pose potential for fair lending risk – notwithstanding the fair lending benefits of automated decision-making. We provide an overview of marketplace lending, the "Big Data" and machine-learning technologies increasingly being used by both online and traditional lenders, and key considerations in managing fair lending risk in this brave new world.

Regulators have taken a keen interest in the sector, as well. The federal financial regulatory agencies appear to be attempting to adopt a fairly constructive and balanced approach to marketplace lending, Big Data and machine learning. The U.S. Treasury Department, Federal Deposit Insurance Corporation, Consumer Financial Protection Bureau (Bureau) and Federal Trade Commission have each published reports on these topics that have recognized both the potential benefits and risks to consumers and small businesses, and in February of this year the Bureau issued a Request for Information seeking to learn more about the topic.[1]

What is Marketplace Lending?

We've all heard the term 'marketplace lending', but what does it mean and who are these new competitors and cohorts? Generally the term refers to technology-focused online lending platforms which connect sources of capital (individual and institutional investors) to users of capital (consumers and small businesses). The original peer-to-peer lending platforms from which the sector emerged allowed individual investors to fund loans to individual consumers, with the platform serving as matchmaker, screening mechanism and servicer. The sector grew rapidly with funding from venture capitalists, hedge funds, and institutional investors as many banks cut back their consumer and small business lending after

Exhibit 2

Examples of marketplace lending products and some of the lenders:

- Unsecured personal loans & credit lines: Avant, Lending Club, LoanDepot, Prosper
- Education lending: Common Bond, Earnest, SoFi
- Small business loans & credit lines: Funding Circle, Kabbage, OnDeck
- Small business receivables finance: Blue Vine, Fundbox
- Point-of-sale finance: Affirm, Bread
- Vehicle secured: AutoFi, DriverUp, LendKey
- Real estate secured: LendingHome, Realty Mogul, SoFi

Many marketplace lenders have focused on niche markets that had been overlooked historically by banks or that had been the province of higher-priced finance companies and payday lenders. Some of the lenders have focused on refinancing and consolidating higher-interest-rate debt to lower rates, including student loans and credit card debt (see Exhibit 2 for the most common types of products and some typical players). To some extent, all have focused on using cutting-edge technology to identify and acquire creditworthy consumers and to originate loans at low cost. While they still rely heavily on traditional direct mail marketing and advertising media, they also mine social media, online ad placement and lead generators for prospects.

The role of Big Data

In consumer and small business finance, “Big Data” usually refers to the practice of collecting and combining large amounts of data about potential borrowers from many diverse data sources – well beyond the three national credit reporting agencies – and using computationally intensive processes to discover patterns and interrelationships in the data that help to understand borrower habits and predict credit behavior. Diverse data sources can offer improved insights into consumer behavior. Many of the marketplace lenders are heavy users of Big Data, although banks are also moving in this direction.

The data sources may include spending and shopping behavior, bank account activity, sources of credit used, data from alternative credit reporting agencies, online and social media activity and various other sources such as those listed in Exhibit 3.

Note that not all marketplace lenders rely on alternative data sources, however. Many rely on traditional credit bureau scores (such as FICO and Vantage scores) and ability-to-repay measures (such as debt-to-income ratios or disposable income measures); while others use a combination of traditional and non-traditional credit history, behavioral and other attributes; and still others exclusively use proprietary credit models and decision systems. Some use no credit score information at all.

Next, the risk of a disparate impact on a prohibited basis should be evaluated. Ostensibly neutral variables that predict credit behavior may nevertheless present disparate impact risk if they are so highly correlated with a legally protected characteristic that they effectively act as a substitute for that characteristic.

Some alternative data elements that may be used in credit models and decisions have well recognized correlations with prohibited factors, posing disparate impact risk. For example, geographic location, use of banking services, educational attainment, college or university attended and use of nonprime credit tend to be correlated with race and ethnicity. Unlike credit history data, which has long been accepted by regulatory agencies as having a legitimate business justification notwithstanding its correlations with prohibited bases, alternative credit attributes have yet to gain widespread acceptance and some are viewed with suspicion. If such factors are used in credit decisions, lenders should

About the Financial Economics Practice at CRA

CRA's Financial Economics Practice provides economic and financial analysis and advice to financial institutions, financial regulators, and counsel representing financial institutions. Our experts are skilled in quantitative modeling and econometrics, particularly as applied to issues in credit and compliance risk in primary and secondary consumer lending markets. To learn more about the practice, visit **www.crai.com/financialeconomics**.

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Sources

[1] Consumer Financial Protection Bureau, "Request for Information Regarding Use of Alternative Data and Modeling Techniques in the Credit Process," Docket No. CFPB-2017-0005, Federal Register, Vol. 82, No. 33, Tuesday, February 21, 2017, **https://www.gpo.gov/fdsys/pkg/FR-2017-02-21/pdf/2017-03361.pdf**.

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