The credit scoring blind spot – Macroeconomics

The advantages of credit scoring are well documented. Undeniably, its use has increased credit availability for consumers; enhanced lender capabilities; and increased industry transparency. In this paper, we identify a problem that improper reliance on credit scores can pose for portfolio managers and recommend an easy to implement data-driven solution.

Just the facts, Ma'am

The poor credit performance of loans originated in 2015 and later has fueled debate about marketplace lending with some questioning the nascent industry's viability. To get a better sense, we looked at over a million loans originated by a marketplace lender between January 2012 and June 2016.

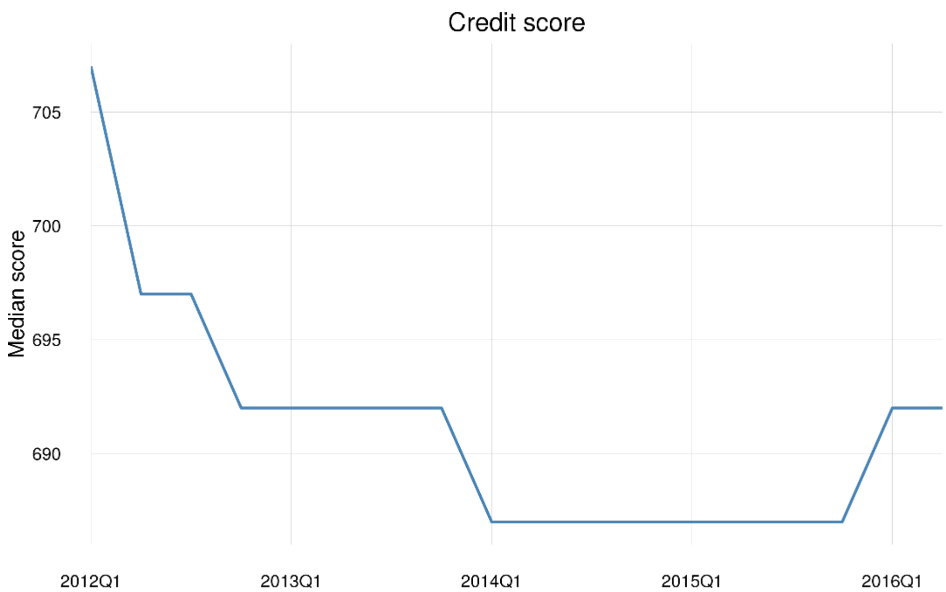

Figure 1: Median origination credit score by quarter.

During the period of deteriorating credit performance, origination credit scores remained stable and even improved slightly. How does one reconcile deteriorating credit performance with stable credit scores?

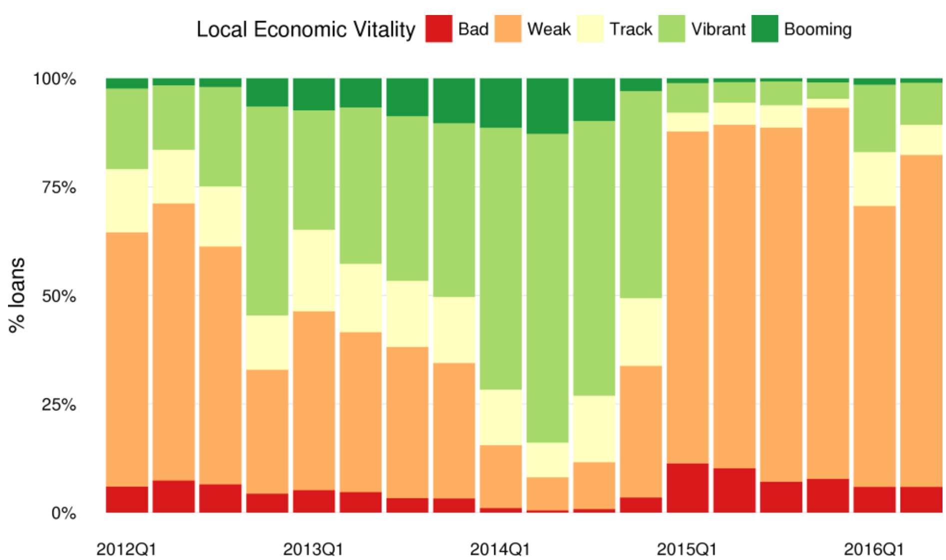

Figure 2: Equal weighted quarterly loan origination by Local Economic Vitality of borrower's location.

We assigned each loan to a Local Economic Vitality band based on data current as of the origination date and examined the loan mix for the eighteen quarters. The proportion of loans originated to borrowers from economically stronger locations peaked mid-2014 and has been declining since then.

The change in loan mix is easier to grasp when one views the ratio of loans to "Better" locations (corresponding to the economically "Vibrant" and "Booming" locations) versus "Worse" locations (corresponding to "Weak" and "Bad" locations). The data are clear—after 2014, more loans were originated to borrowers from economically weaker locations. This increase in riskiness is not reflected in credit scores.

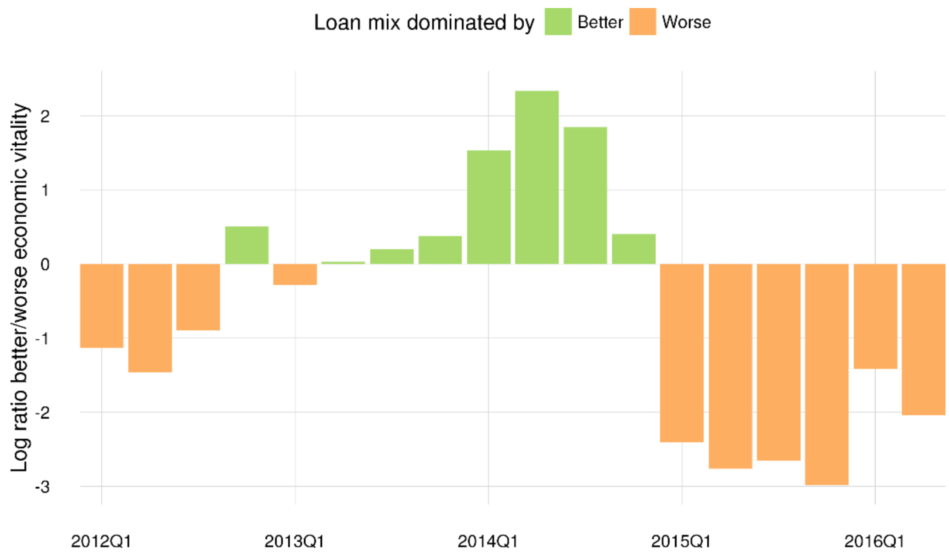

Figure 3: Log ratio of loans assigned to "Better" versus "Worse" Local Economic Vitality bands based on borrower's location. A value of 0 corresponds to an equal number of loans to borrowers in Better and Worse locations. Positive (negative) values correspond to greater (fewer) loans to borrowers in Better locations.

Don't blame credit scores

Credit scores provide a relative assessment and not an absolute statement of risk. Credit scores are not designed to detect interplay of economic conditions and credit performance. The actual level of defaults associated with various scores changes in response to the economic environment. To get a clear sense of that, examine the default rate across various score bands before, during, and after the Great Recession—defaults for a given credit score nearly doubled during the Great Recession. As explored in Credit scoring with an eye to the future, traditional credit scoring models, by design, do not incorporate macroeconomic factors which influence the level of defaults.

The credit scores did their job. But the world around the borrowers changed in ways that impacts borrower credit performance. To get a sense of how the world changed, examine WAIN Street's Very Small Business Default Index that has been validated as a leading gauge of consumer confidence, spending, and defaults. Tha data are clear—things started to deteriorate in Q4 2014. What we are observing is the fallout on credit performance.

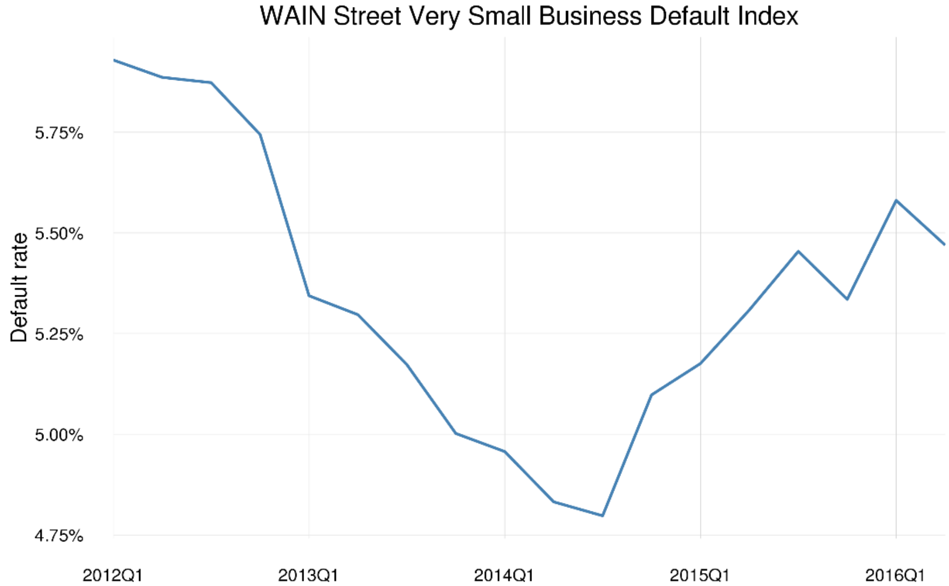

Figure 4: Quarterly default rate of very small businesses. Universe includes sole proprietors and businesses with fewer than 20 employees.

And that is the blind spot—credit performance of a pool of loans is influenced by macroeconomic factors that are not captured by credit scores.

Forewarned is forearmed

To avoid being blindsided, market participants can do two things. First, the origination mix should be regularly monitored for shifts in riskiness owing to economic conditions. This enables making timely adjustments so loan pools stay within desired quality bands. Second, the portfolio should be benchmarked relative to economic conditions much as managers track sector concentrations. This provides additional granular and actionable inputs for portfolio management.

WAIN Street's Local Economic Vitality is a subnational ranking derived from macroeconomic factors including labor market conditions, industrial production, sales, housing market conditions, and financial conditions. Refreshed weekly, it provides a granular and timely basis for monitoring origination mix and benchmarking portfolio composition relative to economic conditions.

Conclusion

Economic conditions are an important determinant of loan portfolio credit performance. Credit scores do not fully reflect the impact of economic conditions on portfolio performance. This blind spot can be remedied by using WAIN Street's Local Economic Vitality as a reference for portfolio comparisons.

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