



An Energetic Look At Pure Energy

by [Steve Brown](#) Topics: [lending](#), [risk management](#)

Summary: Could poor energy efficiency predict commercial loan defaults? New study sheds some light.

You may not have known this, but the US Energy Information Administration reports US energy consumption by energy source, as of the end of 2016 was: petroleum (37%), natural gas (29%), coal (15%), nuclear (9%) and renewable (10%). Of further interest perhaps, the renewable energy piece of this pie breaks down as: hydroelectric (24%), biofuels (22%), wind (21%), wood (19%), solar (6%), biomass waste (5%) and geothermal (2%). Finally, we all used those energy sources for electric power (39%), transportation (29%), industrial (22%), residential (6%) and commercial (4%).

As you consider this today, we point out that other research indicates that commercial lenders may want to consider the energy efficiency of their borrowers' buildings when making loans. That's because poor energy efficiency may predict commercial loan defaults.

A joint study by the University of California at Berkeley and Lawrence Berkeley National Laboratory reviewed and evaluated the impact of energy use and prices in six major cities. They also looked at the default performance of commercial mortgage-backed security (CMBS) loans from 2000 and 2012.

The analysis was based on commercial mortgage data trends provided by the CMBS data company Trepp LLC, along with energy use statistics from benchmarking disclosures. Researchers then compared the individual energy efficiency of each building along with the loan contracts, property values and characteristics. They looked at the performance of each loan over time and other factors.

The study found that there is a strong connection between energy efficiency and whether the owners of these buildings are likely to default on their loans. Possibly not surprisingly, commercial buildings that are less energy-efficient or have higher overall energy costs run a greater risk of the borrower defaulting on the loan. Just knowing this makes such loans less attractive and riskier, so banks should be charging more it would seem.

The study also found that a building's energy use and price are statistically and economically tied to commercial mortgage defaults. The asset characteristics of buildings and operational factors that might impact energy use have a pronounced effect on whether or not a loan borrower will default.

In conducting the study, researchers also included a breakdown of varying energy factors which could impact buildings in different cases. They included YoY changes in energy use based on facility management, maintenance, and how the various occupants in the buildings utilized energy.

With this in mind, the study's authors point out that the results underscore the need for lenders to develop or use existing measurement tools to assess the "energy consumption profile" of the commercial buildings when underwriting. It can help protect the bank longer term and highlight the risk of potential default.

For example, the researchers say lenders may benefit from data such as a building's site and source energy use intensity (EUI). It measures the overall energy efficiency of a property and whether or not it is well-maintained.

Furthermore, the team responsible for the study believes that energy factors should, and will be fully and routinely incorporated in commercial mortgage appraisals. This accelerates the demand for buildings with lower energy risk.

Over the next several years, the expectation is that a greater understanding and appreciation of energy

efficiency may be considered a part of the lending and origination process.

No matter how open to risk a bank might be, the study points out the importance of weighing energy efficiency and overall energy costs when it comes to evaluating risk. It may seem odd, but this added wrinkle is yet another way to protect the bank and look at loan risks.

ECONOMY & RATES

Yesterday

Yields dipped 1bp despite strong home sales as investors awaited more details on the much anticipated tax plan.

Rates As Of: 11/22/2017 12:24PM (PST)

Treasury	Yields	MTD Chg	YTD Chg
3M	1.29	0.16	0.79
6M	1.44	0.16	0.83
1Y	1.58	0.16	0.78
2Y	1.73	0.13	0.54
5Y	2.05	0.03	0.12
10Y	2.32	-0.06	-0.12
30Y	2.75	-0.13	-0.32
FF Market	FF Target	Fed Disc	
1.16	1.25	1.75	
Prime	Unemployment	Oil	
4.25	4.10	\$58	

[More Market Rates](#)

BANK NEWS

Competition Shift

The CEO of Deutsche Bank says the bank does not only think about other financial institutions when it looks at competition. It also considers technology and non-bank institutions and other companies (such as Starbucks, who he said takes deposits from banks through its pre-payment options), which are not regulated, as its competition.

ROE Drop

For bankers keeping score out there, we note that research finds that before the credit crisis the typical bank on the KBW Regional Banking Index had a 15% return on equity, which is why so many boards throw that out during strategic planning sessions. It should be noted however that since the crisis, after the crush of regulation and requirements to hold more capital relative to assets, this same group now sits at just under 9%. That's a 40% decline between these periods and is the new reality. Now you know, so be sure to share this with directors during strategic planning.

Attack Risk

ZDNet reports a spin off from Zeus malware originally created to steal banking account details now allows it to eavesdrop and modify emails and social posts, steal account login information and cookies. This updated Trojan is known as Terdot.

AUTOMATED INTERNATIONAL SERVICES FOR YOU

Community banking teams can automatically send [international wires](#) using existing domestic platforms. Contact us to learn more.

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