Residential energy efficiency: Setting the stage for securitisation

The Warehouse for Energy Efficiency Loans (WHEEL) project
by Mark Wolfe | May 4th, 2016

Harnessing institutional investment will be crucial to generate the investment needed into residential energy efficiency – putting a premium on financial innovation. Residential energy efficiency improvement represents an enormous opportunity – for the homeowner, for equipment manufacturers and fitters, and, not least, for investors. But for that opportunity to be fully realised, a significant provision of low-cost finance from institutional investors will be required.

The good news is that the capital is available and, given historically low interest rates, it is cheap. Institutional investors are looking for attractive investment opportunities, and to invest in the markets of tomorrow. Since the Paris Agreements, they are eager to seize upon investments that help decarbonise their portfolios. The challenge is that, from the point of capital market investors, residential energy efficiency loans are often small: perhaps $10,000-20,000 per household. The answer? Aggregating these loans, and using securitisation techniques to repackage and sell on the debt to capital markets investors. The prize: substantial reductions in the cost of finance for householders, encouraging take-up and delivering emissions reductions.

For the first time last year, just such a securitisation of energy efficiency loans was transacted, through the Warehouse for Energy Efficiency Loans (WHEEL) project. Established by the Energy Programs Consortium (EPC), a group of US state and federal agencies focused on energy policy, with the Pennsylvania Treasury, the WHEEL project was created as a platform to refinance residential energy efficiency loans made by US states. The project had its genesis in Pennsylvania's Keystone Home Energy Loan Program. Between 2006 and 2010, energy finance provider AFC First, under an agreement with the Pennsylvania Treasury, originated $45 million in energy efficiency loans. It became clear it would require additional private capital to complement the public finance it could offer.

WHEEL provides a warehouse into which participating states – initially Pennsylvania, Kentucky and Ohio – can effectively sell loans from residential energy efficiency programs. The warehouse is funded at first using lines of credit from Citi and the Pennsylvania Treasury, but the goal is that it will finance itself by issuing long-term securities collateralised against the loan repayments.

The first of these asset-backed securitisations (ABS) was sold last summer by Renew Financial, the day-to-day manager of the WHEEL programme. The $12.56 million “toe-in-the-water” deal was bought in its entirety by Calvert Investment Management. The 2.3-year ABS, rated single-A by Fitch, pays a coupon of 3.51%. Larger deals – asset-backed securitisations are usually larger than $100 million – could offer even greater reductions in funding costs.

The transaction is collateralised against almost $16 million of underlying loans. As well as delivering lower utility bills for the borrowers, these loans have a measurable environmental impact: collectively they will save an estimated 8,000 MWh of electricity, and avoid almost 500 metric tons of carbon dioxide emissions. It is anticipated that last year’s ABS will be the first of many. In addition to the initial three participants, the states of Florida and New York have joined the programme. Future securitisations are likely to be offered in tranches, with higher risk securities offering higher coupons, allowing WHEEL to target investors with a range of risk appetites.

So what made the first WHEEL securitisation possible? There were four fundamental preconditions that allowed the deal to go ahead:

- Simplicity: The underlying WHEEL loans are straightforward, fixed-rate, closed-end unsecured instalment loans. Loan recipients must stringent income ratio and other conservative underwriting requirements.
- Standardisation: Each loan that is purchased by the WHEEL warehouse is written against standardized, conservatively worded documentation. The programme guidelines and use of proceeds are tightly controlled. This gives buyers of the ABS confidence that the underlying loans are of high quality.
- Strong credit quality: The first securitisation had a FICO (credit quality) score higher than a typical ABS. We believe consumers are more motivated to pay energy efficiency loans than general-purpose loans because the original investment saves them money on their utility bills.
- A high quality origination network: Having a strong origination channel is important when securitisising consumer loans, to create a pipeline for future transactions. WHEEL can draw on a network of thousands of pre-approved and managed contractors.
The US market for residential energy efficiency securitisations is likely to be substantial. A 2013 study from the Lawrence Berkeley National Laboratory forecasts that customer-funded energy efficiency spending will hit $9.5 billion in 2025, double the $4.8 billion seen in 2010. Pennsylvania estimates the size of the residential retrofit economy is potentially $600 billion. But those figures are dwarfed by the global opportunity. EPC is embarking on a project, funded by the ClimatoWorks foundation, to explore the prospects for developing markets for residential energy efficiency loans in the EU, Brazil, India and China. We are confident that the lessons learnt from the first WHEEL programme securitisation can be applied beyond the United States, and that other jurisdictions can tap the capital markets to substantially reduce the cost of residential energy efficiency improvements.

But this requires that a number of key stakeholders are involved. These include financial institutions, local regulators, credit rating agencies and investors. Financiers need to engage with local regulators to ensure that loans can be originated in a form that is amenable to securitisation. Credit rating agencies need to engage with and understand this new asset class, to ensure that the risks are accurately communicated to investors. And investors need to step forward with the capital needed to deliver the full potential of residential energy efficiency.

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