THE PACE EVOLUTION

Since its introduction to the asset-backed securitization (ABS) market in 2014, residential Property Assessed Clean Energy (PACE) has garnered significant attention, both positive and negative, from investors, regulators, journalists, PACE customers, the housing industry, Government Sponsored Entities (GSEs), and Congress. Much of the attention centers on the unique asset-specific qualities of PACE, including its lien priority relative to the lien position of a mortgagor on a property, and the associated underwriting by PACE originators, which initially focused primarily on underlying property value. Over the last few years, PACE originators have incorporated additional criteria to augment the industry's underwriting practices. The PACE sector has evolved and Kroll Bond Rating Agency (KBRA) believes that some of the perceived risks associated with residential PACE ABS have been muted while others remain unchanged. This report addresses the current state of the residential PACE ABS market and how the credit strengths and risks of this asset class have evolved over time. To date, KBRA has rated the senior tranche of every public residential PACE ABS transaction (22 issuances) 'AA (sf)' or 'AA+ (sf)'.

The Growth

Introduced in 2008 in Berkeley, California, PACE provides 100% financing for renewable energy, energy efficient or water conservation improvements to a property. Currently, more than two-thirds of the states in the U.S. and Washington, D.C. have passed legislation allowing local governments to create PACE programs. The types of installations that are eligible for PACE financing vary by jurisdiction. For instance, seismic retrofits and storm hardening products are eligible for PACE financing in certain jurisdictions. Unlike other ABS asset classes, the underlying collateral in a PACE transaction is not a loan or a lease but rather a voluntary tax lien (an assessment) authorized by the residential or commercial property owner to finance the improvements. Since a PACE assessment is a voluntary tax lien and not a loan or lease, it has several distinctive features that are atypical for consumer-based assets:

- Underwriting criteria primarily focus on the value of the property;[1]
- PACE assessment stays with the property during tenor of the assessment contract i.e., in the event the property is sold the obligation to pay under a PACE assessment contract transfers to the subsequent property owner;
- Principal balance of a PACE assessment is not accelerated in the event of a payment default by the property owner i.e., the only amounts due as an outstanding tax liability in the event the property is sold at a foreclosure sale are the payments in arrears; and
- The lien associated with a PACE assessment has priority over any lien(s) held by any mortgagor(s).

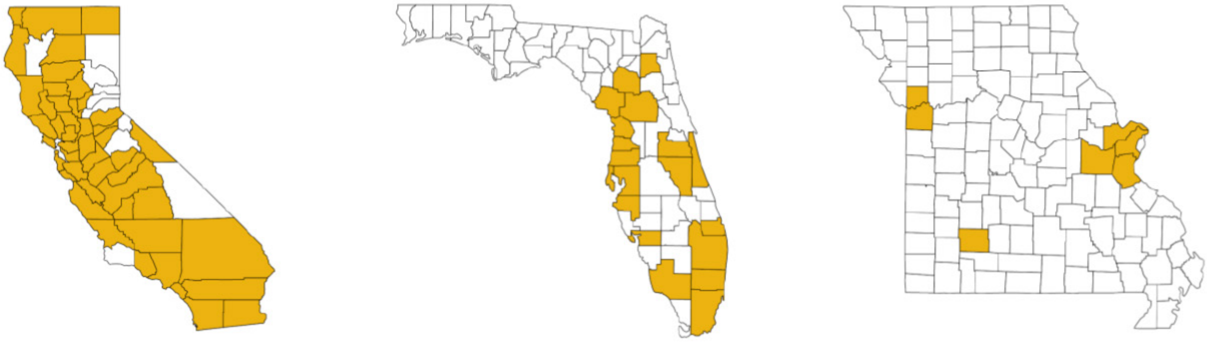
From the start these features made PACE an attractive asset class for the ABS market. KBRA views the low lien-to-values (LTVs), PACE lien priority and lack of acceleration upon default as significant mitigating factors against a potential downturn in the collection of the property taxes where the properties with PACE assessments on them are located.

[1] In some states, the property owner's ability to pay is also considered during underwriting of a PACE assessment.

Residential PACE ABS issuance has grown from a single county in California in 2014 to issuances that routinely comprise more than 50 counties representing multiple states. To date, there have been 22 public residential PACE ABS[2] issuances comprised of approximately 200,000 PACE assessments originated in 75 counties across California, Florida and Missouri.

Figure 1: Public Residential PACE ABS transactions as of 2Q18

22 issuances totaling approximately $4.6 billion comprised of approximately 200,000 PACE assessments



49 of 58 California counties | 19 of 67 Florida counties | 7 of 114 Missouri counties

KBRA believes it is instructive that California, Florida and Missouri are the most active states for residential PACE. Generally, these states could be viewed as covering the entire political spectrum found in the United States. Politically, California is viewed by many as liberal; Florida is considered moderate and Missouri leans conservative. KBRA believes that despite these disparate political views, PACE has flourished due to its appeal as a market-based solution to the deployment of renewable energy and energy efficiency projects.

The Backlash

Despite its growth in popularity, PACE has faced significant headwinds. The distinctive features of residential PACE, which have made it popular, have also caused the Federal Housing Financing Agency (FHFA), Federal National Mortgage Association (Freddie Mac), Federal Housing Administration (FHA), the housing industry and consumer advocacy groups to resist such growth. At issue are the PACE assessment lien's priority relative to the lien position of a mortgagor on a property and a PACE originator's underwriting focus on the property's valuation rather than the property owner's ability to repay (ATR).

Consumer advocacy groups have argued that ATR is the more appropriate underwriting criterion than property valuation. These groups argue that because PACE provides 100% financing i.e., no out-of-pocket costs requirement for the property owner the program could serve as a lender of last resort after denials from lenders of traditional financing options (e.g., unsecured consumer loans, home refinancings or home equity loans). Moreover, these groups often assert that many property owners who enter into a PACE transaction may not be financially savvy enough to understand that their homes may be subject to tax foreclosures upon a payment default under the PACE assessment contract. Similarly, the housing industry is concerned that PACE borrowers may not be aware that PACE liens can impact their ability to sell their homes due to a mortgage lender's unwillingness to extend financing to a buyer of a home with a PACE lien or the FHFA's stated policy against guaranteeing mortgages on homes with PACE liens on them.

[2] Several of these issuances have included commercial properties. However, to the extent included, commercial properties have been limited to less than 5% of the collateral balance of the portfolio at closing.

As a result of these concerns, many property owners with PACE assessments who have attempted to sell their homes or refinance existing mortgages have sought to prepay the PACE assessment in full. KBRA believes public residential PACE ABS issuances have exhibited higher than expected prepayment rates (CPRs).

Figure 2: Public Residential PACE ABS Issuance CPRs[3]

Issuance	Months Since Closing	Class A Note Factor	CPR
HERO 2014-1	51	50.9%	11.8%
HERO 2014-2	44	52.5%	13.2%
HERO 2015-1	38	51.8%	16.2%
HERO 2015-2	35	53.6%	15.9%
HERO 2015-3	31	59.8%	16.6%
HERO 2016-1	28	61.0%	17.6%
HERO 2016-2	24	64.3%	18.9%
Golden Bear 2016-1	24	70.2%	11.7%
HERO 2016-3	21	72.4%	16.6%
Golden Bear 2016-2	19	80.1%	13.1%
GoodGreen 2016-1	19	79.3%	14.7%
HERO 2016-4	18	78.9%	15.4%
GoodGreen 2017-1	14	87.4%	10.1%
HERO 2017-1	14	83.2%	18.2%
Renew 2017-1	14	80.9%	16.6%
HERO 2017-2	10	90.1%	13.0%
Renew 2017-2	8	91.1%	14.8%
GoodGreen 2017-2	7	92.8%	11.3%
HERO 2017-3	6	94.9%	11.9%

Source: Trustee Reports

To date, the CPRs in residential PACE ABS transactions have ranged from 10.1% to 18.9%, which is generally in line with CPRs for FHMA or Fannie Mae-backed residential mortgage backed securities.[4] KBRA views the relatively higher than anticipated CPRs as a credit positive since higher CPRs have resulted in a faster amortization profile and shorter weighted average life of the PACE ABS transactions, thereby reducing "tail risk" for these long-term transactions (typical maturity dates have ranged from 25 years to 35 years). Further, as prepayments reduce the overall pool size, liquidity reserve accounts are available to cover a greater portion of the remaining lien delinquencies.

Although the risk of an FHFA challenge to the validity of a PACE lien in federal court still exists, KBRA views a potential FHFA legal challenge as an increasingly remote risk. This is mainly due to the FHFA's relative silence about PACE assessments over the last few years and the exponential growth in the number of PACE assessments creating a practical obstacle to a successful challenge that would overturn the senior position of existing PACE liens. As of May 2018, approximately 220,000 property owners have PACE liens on their homes.[5]

KBRA also believes the concern regarding foreclosure on a property initiated by a PACE lienholder may be overstated. KBRA is aware of only two residential property foreclosures that were initiated by the PACE lienholder. In each instance the property did not have a mortgage. We anticipate that in a home foreclosure with a mortgage lender that all taxes in arrears, including the PACE assessment, would be fully repaid. Almost all counties in the three states included in PACE securitizations thus far prohibit partial payments of real estate taxes, preventing selective defaults on PACE assessments under existing standards. We will continue to monitor PACE foreclosures as they occur.

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[3] Each issuance shown in Figure 2 has had at least one payment date.

[4] Per KBRA's Agency Mortgage Backed Securities (Agency MBS) historical database, CPRs for Agency MBS transactions have ranged from 10% to 15%.

[5] *Source: PACENation.org*

To date, the performance of securitized PACE portfolios has been strong. When PACE ABS was first introduced to KBRA as an asset class, KBRA did have some concerns that historic county level tax delinquency data might not be a fully predictive proxy for the performance of PACE liens, considering adding a PACE lien on a property would increase a borrower's tax liability in a manner that renders past data relating to tax delinquency only partially informative. For that reason, KBRA reviewed the performance data presented in the California Department of Business Oversight annual report of PACE originators and general property tax delinquency information presented for the State of California by LERETA, LLC, a tax service vendor, and concluded there is no significant difference in the rates of property tax delinquency for residential properties with a PACE assessment compared to residential properties without a PACE assessment. This is a positive development from a data perspective. However, KBRA will continue to monitor whether taxpayers with and without PACE assessments continue to perform consistently over time as these deals are subjected to economic environments that are less benign than the current one. KBRA believes the inclusion of ATR criteria to the underwriting of residential PACE assessments will be complementary to the current underwriting methods.[6]

The Fix

The concern regarding the implementation of ATR during underwriting of a PACE assessment and whether the current disclosures to a property owner associated with the underlying contract extended all the way to Congress. In April 2017 Senators Cotton (R-Arkansas), Boozman (R-Arkansas) and Rubio (R-Florida) introduced legislation that would require PACE originators to comply with the Truth in Lending Act (TILA) disclosures. If enacted, the legislation would require PACE originators to comply with the same regulations and disclosures as banks and mortgage lenders. Since PACE originators generally originate PACE assessments via contractor networks, there is concern that neither the originators nor their partners are likely to be well equipped to handle the logistic and administrative requirements associated with TILA compliance.

To address concerns regarding the lack of robust disclosure and ATR requirements, in September 2017 the California Legislature, with the assistance of PACE originators operating in California, passed two bills establishing a statewide consumer protection framework with respect to PACE: Senate Bill 242 (SB 242) and Assembly Bill 1284 (AB 1284). The legislation establishes the following protocols:

- Underwriting standards predicated on income verification and ATR requirements;
- Requires recorded confirmation of terms call between the PACE originator and the property owner before the execution of a PACE assessment contract;
- Provides property owner the right to cancel a PACE assessment contract within three days of signing it;
- Contractors must quote property owner same price as cash for project associated with PACE financing;
- Prevents PACE originators from disclosing to contractors the amount of funds a property owner is eligible for under a PACE assessment;
- Establishes licensing and regulatory framework for PACE industry in California;
- Requires PACE originators to provide training to contractors and individual sales representatives; and,
- Grants California's Department of Business Oversight authority to regulate the PACE industry in California.

[6] Typically, to qualify for a PACE assessment the property owner must be current on property taxes, have no more than one 30-day mortgage late payment during the prior 12 months and must not have been involved in a bankruptcy proceeding during the prior two years. Also, the PACE assessment LTV must be less than 15% of the property value, mortgage-related debt on the property must be less than 90% of the property value, the mortgage debt plus the PACE assessment must be less than 100% of the property value and the total annual payment of property taxes plus all assessments on the property cannot exceed 5% of the property value. Other criteria in addition to the above are also considered during underwriting.

In October 2017, Governor Brown of California signed SB 242 and AB 1284 into law. Starting April 1, 2018, ATR became a consideration in the origination of residential PACE assessments.

Currently, the California legislature is considering two additional bills: SB 1087 and AB 2063. These bills would serve to augment SB 242 and AB 1284 by prohibiting any work from commencing under a PACE assessment contract and prohibiting the execution of a PACE assessment contract unless the PACE originator ensured that certain criteria related to a PACE assessment contract are satisfied. These bills would also require PACE originators verify a property owner's income either prior to or in a timely manner following the execution of a PACE assessment contract.

KBRA believes these laws will strengthen the existing strong underwriting standards and that other states active in residential PACE will follow California's lead to establish ATR underwriting standards.

The Impact

Over its ten years of existence, the PACE industry has undergone significant transformation. However, even though more than two-thirds of the states in the United States and Washington, D.C. have passed legislation allowing local governments to create PACE programs, residential PACE is only active in three states. Interestingly, as the PACE industry begins to embrace certain facets of consumer lending, the three largest residential PACE originators (Renovate America, Ygrene Energy Fund, Inc. and Renew Financial) have each hired CEOs that have extensive backgrounds in consumer lending and the servicing of such assets. KBRA believes these changes bode well for the industry to have the appropriate consumer protections in place, especially given the position of the FHFA, Freddie Mac and the FHA.

In summary, KBRA believes the unintended consequences of the GSEs' refusal to insure mortgages with residential PACE assessments have resulted in a number of credit positives for the ABS transactions. For instance, elevated CPRs of the residential PACE ABS issuances increases the amortization of the notes thereby reducing tail risk and improving the transaction's liquidity position. Greater focus on the consumer's ability to pay and improving consumer protection practices are also viewed as positive developments for the industry. These developments, along with the growth of the PACE market to more than approximately 220,000 homes, create mitigants to the GSEs' primary response in opposition to the asset class. KBRA will continue to monitor these positive developments as part of KBRA's analysis of residential PACE ABS transactions.

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