Executive summary

There is now a political commitment to expand worldwide use of renewable energy over the next decade and beyond on a global scale that would have been unimaginable even five years ago. The Paris Agreement drawn up at the United Nations COP 21 Conference on Climate Change at the end of 2015 may have seen 195 nations finally sign up to a common strategy to address global warming, but it was a far-reaching deal between the US and China a little over a year earlier that really lent momentum to the process.

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Meeting these goals will require an investment running into several trillions of US dollars and how all this expenditure will be financed remains unclear. Governments will be able to fund only a small fraction of the total; neither is it realistic to expect commercial banks and big energy companies to finance it on their balance sheets. To achieve the necessary quantum expansion of renewable energy will therefore depend on mobilising the vast volumes of capital that reside in pension funds, insurance companies, sovereign wealth funds and other institutional investors around the world.

It should certainly be possible to do so, given the evident appetite among bond investors for environmentally-friendly investments. However, it is difficult to see how green bonds as presently structured will be able to raise all the funding necessary. And while sympathetic government policies will boost opportunities for such investments, it is also going to require a capital market mechanism that enables direct investment in projects and assets, rather than the companies that sponsor and develop them.

Securitisation has the potential to meet this need, as the Grantham Institute for Climate Change at the London School of Economics and other respected institutions around the world are currently advocating. There is no doubt that a wide array of renewable energy projects and assets have core characteristics that are a good match with the key requirements of asset-backed investment.

Two types of transaction have been at the forefront of the embryonic market for widely distributed green securitisations in the US – solar and PACE. Both have traditional granular-type ABS collateral, with the cashflows that service the bonds coming from a pool of several thousand individual obligors.

The most high-profile source of such activity in the US 144a market to date has been solar rooftop installations. Home-owner solar contracts are typically either power purchase agreements or leases. A third category of customer will take out personal loans to finance the solar installations themselves.

Meanwhile, property-assessed clean energy (PACE) programmes enable states that have enacted the necessary legislation to offer owners of both residential and commercial buildings low-cost finance for a range of projects that will reduce the carbon footprint of their properties. PACE programmes establish funds that advance the finance required for these projects and then recover the outlay over a period of up to 20 years through an incremental charge on the general property tax.

Depending on the jurisdiction, PACE assessments can be pledged directly to investors or alternatively can support a PACE bond that is sold on to investors. These bonds usually form the collateral for ABS deals in jurisdictions where there are legal restrictions on the sale or transfer of the underlying assessments.

While solar and PACE transactions may have dominated the nascent green ABS market in the US in terms of the number of deals concluded, the total volume of debt that both programmes have raised to date is comfortably eclipsed by the two 'green' auto loan ABS transactions that Toyota launched in the US during the past two years. These deals raised US$3bn between them to finance loans for customers to buy the company's electrically powered and hybrid vehicles.

Away from the US, there is considerable political impetus to revive Europe's securitisation market. A key driver behind this initiative is the recognition that ABS could take a lead role in raising the vast sums that will be needed to meet the region's commitment to transform itself into a low-carbon economy under the terms of the Paris Agreement.

The European Commission and the European Investment Bank are working with commercial banks, institutional investors and NGOs to devise a simple, transparent and trusted framework for securitisation to adopt in future. The EIB is also exploring practical measures that it could adopt to accelerate the development of a green securitisation market, including warehousing facilities and the extension of its Project Bond Credit-Enhancement initiative.

There is evidence that institutional investors in Europe are prepared to buy debt instruments that are supported by the cashflows from renewable assets themselves rather than the companies that develop them. And there seems to be a range of renewable assets already in place in the region that could potentially provide the collateral for large deals, ranging from highly granular collateral like rooftop solar systems to very large projects like offshore wind farms, whose long-term index-linked revenues are well-suited to securitisation.

While Europe faces challenges in establishing a platform for green securitisation, the financial markets in Asia and Latin America may see the launch of some embryonic programmes sooner. The green agenda is powering ahead in Asia, as the two regional giants China and India hugely increase their issuance of corporate green bonds from this year onwards. Additionally, there is significant potential across the countries of South America for renewable energy, energy-efficiency and forestry developments.

The Inter-American Development Bank, for one, sees more possibilities for project financing and securitisations than for green corporate issuance in Latin America and is focusing its green-investment efforts in the region on helping to aggregate pools of small environmentally-friendly projects for the purpose.