Alex Everett, Cameron Hume

Alex Everett is an investment analyst at Cameron Hume. He supports investment decision-making and macroeconomic analysis across all actively-managed client portfolios. Alex joined the Cameron Hume graduate program in 2016 and passed the CFA Level III exam in 2019. He holds an honours degree in economics from the University of Edinburgh.

An ESG returns story

The Pacific Gas & Electric Company

Alex Everett

When a company is the subject of its own blockbuster movie, it tends not to be good news. Examples of *Deepwater Horizon* (BP), *The Social Network* (Facebook) and *Too Big to Fail* (multiple financial institutions) only serve to promulgate this view. The troubling wildfire-litigation-wildfire cycle playing out between Pacific Gas & Electric (PG&E), the Californian state and other private bodies might lead one to question how long it will be before PG&E is the subject of its own movie.

Those with long (movie) memories, though, may remember that PG&E has already played a supporting role in the film *Erin Brockovich*. Contamination of groundwater with cancer-causing hexavalent chromium was found to have been a result of PG&E's poor environmental standards in southern California, further aggravated by a nefarious cover-up operation. Nearly 20 years later, PG&E is once more in the headlines for all the wrong reasons, as its equipment has been linked with multiple major wildfires in recent years.[1]

This paper highlights the compelling ESG (environmental, social and governance) story that has played out with PG&E bonds in recent years in relation to wildfires in northern California in the United States.

A phantom rating?

Distributing power is a resource-intensive exercise, and PG&E's core business is rendered even more expensive, and risky, by its operating in the drought-ridden state of California. Bond issuance is one of PG&E's main sources of funding, therefore bond holders must be satisfied that they are adequately compensated for credit risk.

Whether a bond adequately compensates its holders for credit risk is, in part, based on consideration of yield in comparison to sector. Theoretically, by comparing within sectors, investors ensure that the level of systematic risk each issuer faces is broadly similar; any further credit risk discrepancies are likely to be issuer-specific.

Is this the case? We plot USD-denominated, A- rated bonds in the electric sector in Figure 1. These bonds are plotted relative to a fitted curve for the sector, constructed using our proprietary analytical package, 'CaTo'. Various long-dated PG&E issues are circled, which at first look appear to have been trading at around 50bps cheap to fair value as of early 2018.

All the bonds in Figure 1 are credit rated A-, implying that each issue has broadly similar creditworthiness. However, even within a subset of bonds with the same credit rating and sector classification, there remains considerable spread variation. This does not appear to be the whole story.

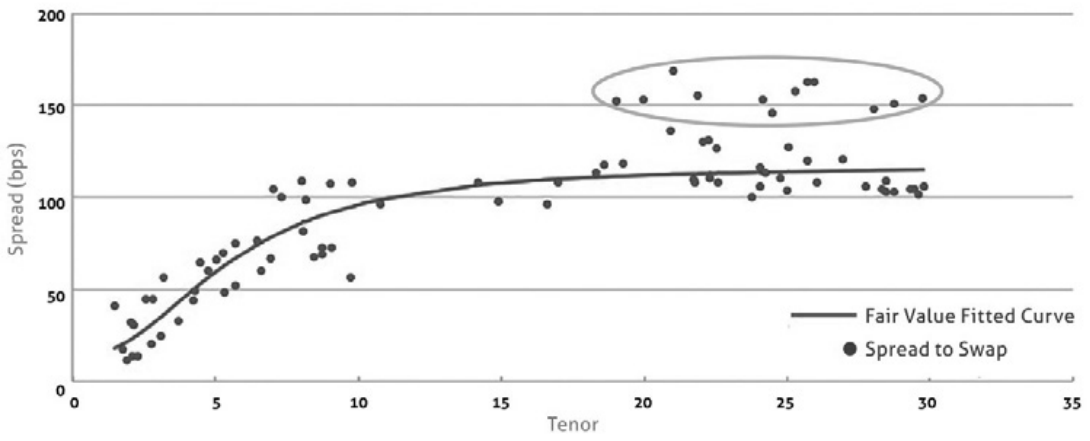
A new approach

Enter ESG factors. In recent years, the consideration of ESG factors has grown in both rigour and uptake, forming a component of many investors' fundamental analysis. At Cameron Hume, we have fully integrated ESG factors in our investment process to support decision-making.

An interesting aspect of this case is that PG&E might appear to be an attractive ESG prospect. PG&E is a Californian provider of natural gas and electricity and claims to deliver some of the cleanest electricity in the US, with nearly 80% of the electricity generated from greenhouse gas-free sources.

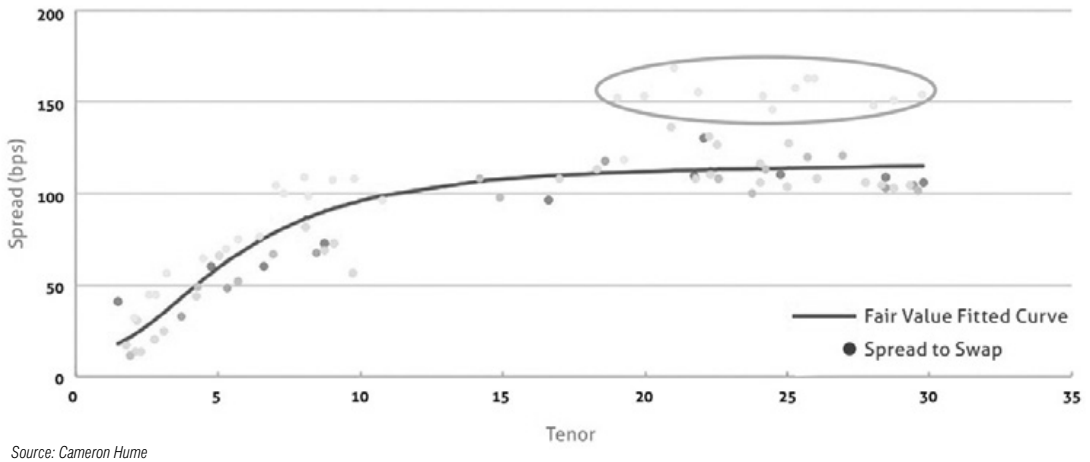
Figure 2 presents a near-identical chart to Figure 1, yet each issue is now based on its ESG rating, according to MSCI. We consider each bond issuer's ESG rating and supporting metrics as a core part of fundamental analysis, adding significantly to the investment process. In producing ESG ratings, MSCI takes into account multiple 'key issues' ranging from carbon emissions to sustainable hiring practices, combining these to produce a weighted ESG score rela-

Figure 1. USD-denominated, Electric A- bond spreads (Q1 2018))



Source: Cameron Hume

Figure 2. USD-denominated, Electric A- bond spreads with ESG rating overlay (Q1 2018)



Source: Cameron Hume

The quote

The consideration of ESG factors has grown in both rigour and uptake, forming a component of many investors' fundamental analysis.

tive to an issuer's sector. By applying these to bonds in each client's investment universe, we further identify required yield compensation, including the plethora of additional risk factors linked to ESG considerations and externalities.

The PG&E bonds circled in Figure 2 were rated BBB (Average) by MSCI, where particular attention was paid to the company's poor management of *biodiversity* and *land use* risks—a key issue for which the company scored a mere 1.7 out of 10. Specifically, alongside this rating MSCI noted:

> 'The company's risk exposure is also elevated by the fact that 25% of assets are in natural gas T&D which involved higher disturbance risk due to pipeline activity. Further, all of PG&E's operations are in the US, where the ecosystems are fragile. Therefore, PG&E's overall level of risk exposure is moderately high, although not too far from the industry's average.' [2]

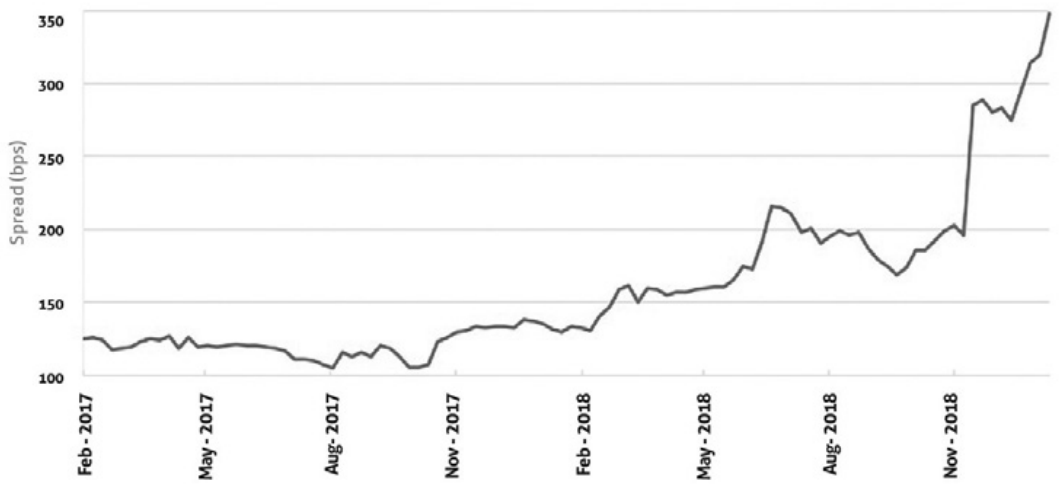
This, of course, must be taken in context. *Biodiversity* and *land use* is considered, and weighted, alongside other key ESG issues including *opportunities in renewable energy* and *corporate governance*, within which PG&E scored highly. As such, PG&E's overall ESG score and subsequent rating was deemed average, despite the poor score with respect to *biodiversity* and *land use*. Nevertheless, the warning around fragile ecosystems has since proven particularly prescient.

As ever, an active investor must consider multiple sources of information, and here we apply features of bottom-up investing to our top-down relative value approach. Quantifying ESG risk factors in the context of an issuer's ability and willingness to pay enables a more complete consideration of whether PG&E's bonds are truly trading at a discount to fair value, or if the market was under-pricing the issuer's ESG risks.

The quote

Consideration of ESG factors is not a panacea, though without ESG factors incorporated at a fundamental level, value analysis is informationally deficient.

Figure 3. Historical spread for PG&E 4.75% 2044 issue



Source: Cameron Hume

Back to the present

Recent history casts doubt on the concept of PG&E bonds trading at a genuine discount, as the corporation's financial position (and reputation) has sunk to new lows. Throughout 2018, as investigations developed and historical litigation continued, rumours abounded that PG&E equipment was responsible for the 2017 Northern California fires which killed 46 people.[3] Markets began to react to these rumours, as evidenced in the spread widening from May 2018 shown in Figure 3.

In June 2018, the California Department of Forestry and Fire Protection (CAL FIRE) released a statement directly linking PG&E equipment to the 2017 fires, at which point litigation exposure for PG&E was estimated at $17 billion.[4] This was well in excess of PG&E's parent company's annual operating profit and the corporation's ability to access capital markets. Spreads on all PG&E bonds widened considerably.

The ratings strike back

The problems facing PG&E had grown in magnitude to the point where they had direct implications on its parent company, Pacific Gas and Electric Corporation (PCG).

PCG was swiftly downgraded one notch by both Moody's (to Baa2) and MSCI (to BB) in Q3 2018. As the wildfires continued to spread, further investigations by CAL FIRE and others highlighted poor maintenance of transmission equipment around areas exposed to fire. MSCI heavily increased the weighting of the *biodiversity* and *land use* key issue alongside a dismal score of 0.5 out of 10, citing:

'PG&E's repetitive involvement in wildfire-related cases raises concerns over PG&E's efforts to maintain its electric transmission and distribution system in order to address the threats from wildfire-related vegetation management.' [5]

A further downgrade from Moody's followed in Q4 as litigation liabilities increased in response to further investigations and regrettably, further wildfires. As seen in Figure 5, PCG spreads widened substantially further as market participants priced material credit risk. Spreads began to exhibit equity-like behaviour in response to rapidly increasing headline risk.

Amid a rapidly deteriorating set of financial circumstances, in January 2019, PCG was downgraded to default by Moody's following a missed coupon. The corporation filed for Chapter 11 bankruptcy protection days later, and disputes over culpability between PCG, the Californian state and private suppliers looked set to continue.

The saga continues

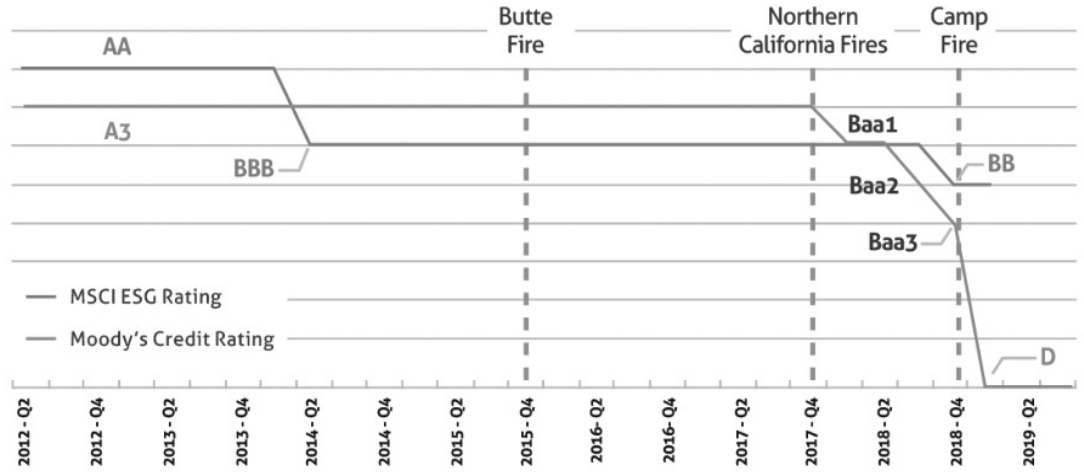
Under Chapter 11 the board of PCG was reorganised, soothing bond markets somewhat, and spreads contracted. Such changes could not resolve the years of accumulated deficiencies in PG&E's infrastructure. In June and October of 2019, PG&E cut off power to thousands of people and businesses in Northern California to reduce risk of further wildfires. That such drastic measures were required drew significant public ire, not least given that PG&E operates as a pseudo-state backed monopoly. Such monopoly status has historically been considered necessary for the vast infrastructure investment required, yet clearly this has not been adequate.

Amid the ongoing tussle between the company's re-constituted board and activist equity owners, California's Governor warned in November 2019 of a state takeover should the company not undergo appropriate restructuring. In short, the ESG risks prevail.

Wrap up

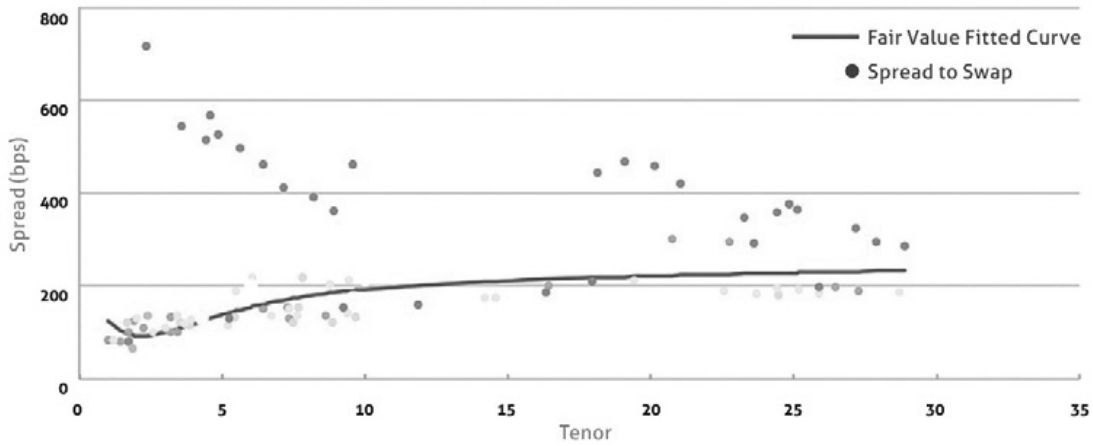
Abstracting from the significant headline risks, this is fundamentally a story of longer-term ESG risk and return. Ultimately, the market's traditional credit analy-

Figure 4. MSCI ESG and Moody's credit rating history



Source: Cameron Hume

Figure 5. USD-denominated, Electric BBB bond spreads with ESG rating overlay (Q1 2019)



Source: Cameron Hume

sis appeared to under-estimate the risks facing PG&E. Here, with the benefit of hindsight, although the bond appeared cheap in early 2018, this proved false. Integrating ESG factors into the analysis would have better informed choices around risk and return opportunity represented by PG&E. Some investors may yet have considered PG&E bonds cheap despite the highlighted ESG risks. Other investors may have weighed opinions on ESG risks from MSCI (and similar) more heavily, and therefore valued the various PG&E bonds differently.

As client-driven investors, we seek to maximise the information we use to make investment decisions. ESG risk factors, we argue elsewhere, represent a significant risk and return driver, and the PG&E story supports this. Consideration of ESG factors is not a panacea, though without ESG factors incorporated at a fundamental level, value analysis is informationally deficient. At Cameron Hume we integrate ESG factors into all of our clients' portfolios in order to support our decision making as fully as possible. To this end, we exited our PG&E holding at an early point in the cycle described above—the ESG risks had led to a credit event and, in our view, the credit risk was no longer priced appropriately. **FS**

Notes

1. PG&E Corporation, *Investor Page: Wildfire Updates*, October 2019.
2. MSCI ESG Report for PG&E Corporation, as of January 2018, issued September 2017.
3. Gorman, S., 'Probe finds PG&E power lines sparked deadly 2017 California wildfires', *Reuters*, 9 June 2018.
4. Chediak, M., 'Facing $17 billion in fire damages, a CEO blames climate change', *Bloomberg Businessweek*, 13 August 2018.
5. MSCI ESG Report for PG&E Corporation, as of March 2019, issued September 2018.