Accounting for Sustainability

Current and future impacts of ESG frameworks on aviation investments are examined by Professor David Yu, Ph.D., CFA, Senior ISTAT Certified Aviation Appraiser.

Sustainable finance and ESG is the future of finance going forward. By definition, ESG (Environmental, Social and Governance) measures sustainability and societal impacts from investments in a company. While there is some variation in priority of the three aspects in the definition, in general the order of importance and priority: is governance, environmental and social. While governance issues have been around longer, environmental and societal concerns have now increased. The purpose the ESG is to put a framework of criteria on top of traditional performance metrics such as return and risk to evaluate companies to determine its future financial performance.

ESG policies are becoming more and more important not only for direct investments for aircraft but also the derivative ecosystem of industries which encompass the airline operators, the passenger end users, and all of the supply chains surrounding the manufacture, operations and maintenance of aircraft. Currently, there is still no universal industry standard on the ESG investment policies from investors. There are many investment approaches but the common ESG criteria for aircraft investments include: 1) whether the fleet includes the latest (most fuel-efficient) aircraft; 2) if there is a contracted long-term lease to an operator airline, then does that airline operator have a high ESG-rating; and 3) does the aircraft lessor and airline attempt to maximize the socio-economic benefits of travel by means of commercial aircraft.

Airlines with high ESG ratings include those that fully participate in aviation emissions trading or offsetting schemes and also have known and set market-leading social and governance policies. Emission offsets have been implemented either as paid by the end user or by airline itself and sometimes both. Some of these

include airlines that have encouraged the development of biofuel and fully committed to replacing traditional jet fuel with a greener alternative when it becomes commercially available and sustainable. Focusing on the aircraft fleet, a measurement is on whether the fleet has a high percentage of newer aircraft, hence ones that are lower fuel burn that reduces CO2 emissions and generates smaller noise footprint than comparable older aircraft types. Fuel-efficiency metrics compared with the industry averages are also another specific metric used. While there are no legal mandated efficiency levels, this might occur in the future like in the auto industry. EasyJet recently noted it would be a net zero emissions operator through the acquisition and use of offsets.

Many major institutional and sovereign wealth funds have established ESG mandates for their investment philosophies. One example is Singapore's Temasek, which is invested in Singapore Airlines, that has mandated targeting to reduce greenhouse emissions. Norwegian's sovereign wealth fund (Government Pension Fund Global) has made ESG a priority topic and it is the most addressed topic for the fund occurring at 272 events in 2018. There are drawbacks as well such as returns are not comparable to other alternatives. This was the case also with Norway's sovereign wealth fund where ESG theme mandates lost money and had to be cut to reduce costs.

There is a push for lower carbon footprint from the reduced aviation demand. IATA announced a downgrade of its 2019 outlook for the global air transport industry to a $28 billion profit (from $35.5 billion forecast in December 2018). In addition, 2019 total overall costs are expected to grow by 7.4%, outpacing a 6.5% rise in revenues. Profit per passenger will similarly decline to $6.12 (from $6.85 in 2018). These lower metrics have resulted in the lowered footprint of the industry. Several contributing factors include for the rising fuel prices, weakening of world trade and uncertainty and a new factor of "flight shaming."

This "flight shaming" theme has had significant media focus on carbon emissions and has been primarily a Europe phenomenon. This is where end users are considering the environmental impacts (mainly the carbon footprint) of flying before usage. This is especially acute in Germany, France and Sweden. In addition, there specific government and tax policies that have been enacted that are more explicit disincentives such as France is to soon introduce a €1.5 levy on domestic tickets, rising to €18 ($20) on long haul travel. In addition, Germany is to double its taxes for flights originating from Germany from January and Switzerland is another country proposing a flight tax to address environmental concerns.

According to UBS, "the upshot of personal concern allied to increased cost will reduce intra-European traffic growth over the next 20 years to 1.5% per year versus the 3% per year currently estimated by Airbus." There are ways to counteract this potential consumer backlash, namely with technical innovations but the biggest problem is that there are few technological solutions available that will help it reduce emissions. One current solution is the use of low-carbon fuels or biofuels instead of traditional fuel. This has been tested and has a wide variance of utilization by airlines. One example is all flights from Los Angeles and Oslo carry

a tiny biofuel mix. Another innovation is electric and hybrid aircraft but this is not the maturity of widespread use. It might be more intermediate step with hybrid technologies like the auto industry than a straight jump into fully electric technologies. There has been major investment by suppliers such as Boeing, Airbus and Rolls-Royce.

Europe has been more forward in the development of environmental and green frameworks. It was forward thinking in terms of renewable energy usage and implementation with specific mandates and incentive financings. This has extended to its commitments to more environmentally conscience aviation including carbon requirements for the industry. Direct emissions from aviation account for about 3% of the EU's total greenhouse gas emissions and more than 2% of global emissions (https://ec.europa.eu/clima/policies/transport/aviation_en). The European Union Emissions Trading System (EU ETS), launched in 2005, was the first and the largest greenhouse gas emission trading scheme globally. It consisted of a market-based approach to controlling pollution by providing economic incentives for achieving reductions in the emissions of pollutants. While the target of the EU ETS scheme was implementation of phase 1 and 2 by 2012, there was significant pushback from the airline industry and other countries including China, India, Russia, and the United States, which refused to comply with the scheme due to sovereignty impediment issues among others. In the end, the US and China pressured the EU to freeze the implementation.

While this was not implemented, there is an additional attempt to implement the scheme in other ways that would be more acceptable. In the ETS current phase three (2013 – 2020), only flights within the European Economic Area are covered; international flights are not, until 2023. The cap for aviation activities set for the current phase was set to 95% of these historical aviation emissions. In the next ETS phase four (2021 – 2030), calls for the overall number of emission allowances to decline at an annual rate of 2.2% from 2021 onwards, compared to 1.74% currently. To assist in this lowered standard, several low-carbon funding mechanisms will be established including the Innovation Fund and Modernization Fund. The Innovation Fund will support the demonstration of innovative technologies and breakthrough innovation in industry and the Modernization Fund will support investments in modernizing the power sector and wider energy systems, boosting energy efficiency, and facilitating a just transition in carbon-dependent regions in 10 lower-income EU member states. This is a trend for investors and is not a trend. There are concerted efforts to make this a reality globally. While there has been progress, there is still significant room for improvement both framework, regulatory and other means for the industry. To address these issues, more support mechanisms needs to be implemented to negate some of the collateral drawbacks that might not be easily foreseen on the industry. The aviation industry should be on the forefront of this issue instead of having outside parties and stakeholders implement their thoughts on the industry.

All opinions expressed are the authors' own. David Yu is an investor turned full time finance professor at New York University Shanghai, where he teaches and focuses on cross-border investing and financing along with a specialty in real assets and aviation. He is also Chairman of China Aviation Valuation Advisors and the only Senior ISTAT Certified Appraiser based in N. Asia. His research website is: www.davidyuda.com and can be reached at david.yu@nyu.edu.