Divergence of Aviation Finance Markets: Lulls before the Storm or Growth?

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KEY FINDINGS

- COVID has changed the structure of demand for aircraft, and it has impacted both financing of aircraft lessors and the airlines with different effects geographically.
- Airlines face a bifurcation of opportunity, between larger or state-supported airlines with access to the public debt capital markets or government subsidy and smaller airlines, which have had to fall back on private capital in a challenging environment.
- The aircraft ABS and EETC financing environments continue to have pressures from downward aircraft pricing and 2 EETC issuance winddown cases.

ABSTRACT

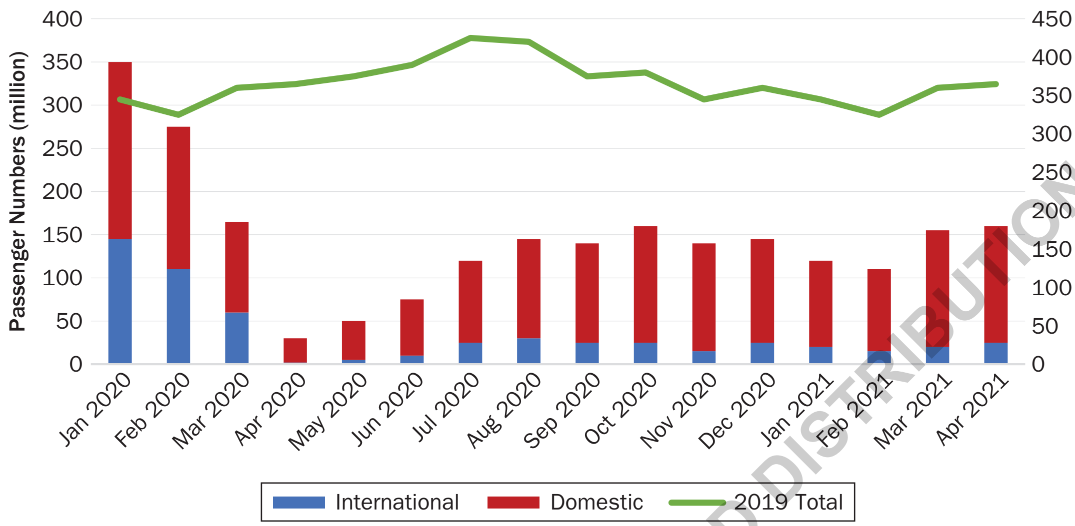
The aviation industry is undergoing a series of layered dynamic effects to the entire business model value chain including aviation finance, leasing, and associated structured products. COVID has caused an historical exogenous demand shock and global airlines have suffered greatly; recovery is varied and uneven. There is a divergence of what has occurred since COVID and outlook geographically among the airlines (end-users), their lessors, and all of the various stakeholders in financing structures, such as aircraft asset backed securities (ABS) and enhanced equipment trust certificates (EETCs) that make up the capital structure. Debt funding has been robust for airlines with access to the capital markets, but others are less fortunate and are finding it more difficult. Financing options are diverse but are restricted among the players, given the effects of COVID. Pricing and structuring characteristics are all affected by these conditions.

UNPRECEDENTED TIMES FOR AVIATION AND AIRCRAFT FINANCE MARKETS

Today, the aviation industry is a series of layered dynamics affecting the entire aviation business model value chain, including aviation finance, leasing, and the associated structured products. There is a divergence of outlook among the airlines (end-users), their lessors, and all of the various stakeholders in financing structures that make up the capital structure. The dynamics interplaying between each of these segments has significant effects on aircraft asset backed securities (ABS) and enhanced equipment trust certificates (EETCs), as well as other debt and lessor financings.

EXHIBIT 1

Monthly Air Passenger Numbers in 2020–21 vs. 2019



SOURCE: ICAO, 2021, May 11.

GLOBAL AND REGIONAL PANDEMIC COVID ENVIRONMENT FOR AVIATION

Airlines have seen a mixed recovery since being hit hard starting in January 2020, which is the onset of the COVID effects in Asia. Asian airlines started seeing sliding demand in January 2020; the US and Europe didn't start to see the true effects until March. Since then, there is a tale of two divergent views of domestic and international travel demand.

International flight demand is still in the doldrums, compared to both domestic travel and pre-COVID figures, as borders have heightened restrictions with testing and other types of restrictions for visitors and, in some cases, for citizens of the country as well, such as Australia. This is seen in Exhibit 1. Many countries are still reluctant to open up travel completely, still requiring mandatory quarantines and other testing implementations that have hindered cross-border travel.

On the other hand, domestic travel demand has seen a varied recovery. Asia, generally, has done a better job than other geographies in containing COVID and this has shown in the air traffic. In countries where there is the ability to sustain domestic travel, there has been a rebound in the traffic, such as in China and the US. Countries that either are too small geographically for domestic traffic or are focused on international feeder and transit traffic have continued to suffer, such as Singapore. Europe has seen starts and spurts in the recovery of air travel demand, as there have been inconsistent policies and shutdowns throughout its member nations. Also, there have been intermittent hotspot outbreaks that have resulted in additional stepped-up restrictions for the local populations to contain the COVID effects.

Recently, there has been a large push for the global populations to increase vaccine inoculation rates. There is varied success among countries, but the global fully vaccinated population is increasing. This is especially true with the fast increase of vaccination rates in the US, which has seen 134 million people, or 40.5% of the total US population, fully vaccinated, with more than 50.3% having received at least one shot. The US national goal is to reach 70% vaccination by July 4th (Centers for

Disease Control and Prevention 2021). The rollout has had significant momentum that has created euphoria and optimism for the US travel market, especially heading into the peak summer travel season. This enthusiasm for travel has been seen in the advanced summer air ticket sales and the gear-up of airlines to service this anticipated demand by hiring back staff and bringing aircraft back to service from parked status.

Although the optimism is shown in the US market, the European markets are in a more controlled tone, with some of the major markets still under various states of lockdown due to some resurgence of COVID. There is an increased vaccination program being rollout throughout the continent, but this is not going as fast as desired, due to supply chain and other issues. Currently, Asia and its larger landmass countries are seeing renewed domestic travel, including China, where the flights have at times peaked above pre-COVID figures. This is in a backdrop to lower COVID rates and slower but increasing vaccination drives throughout.

CHANGING AIRLINE BUSINESS ENVIRONMENT

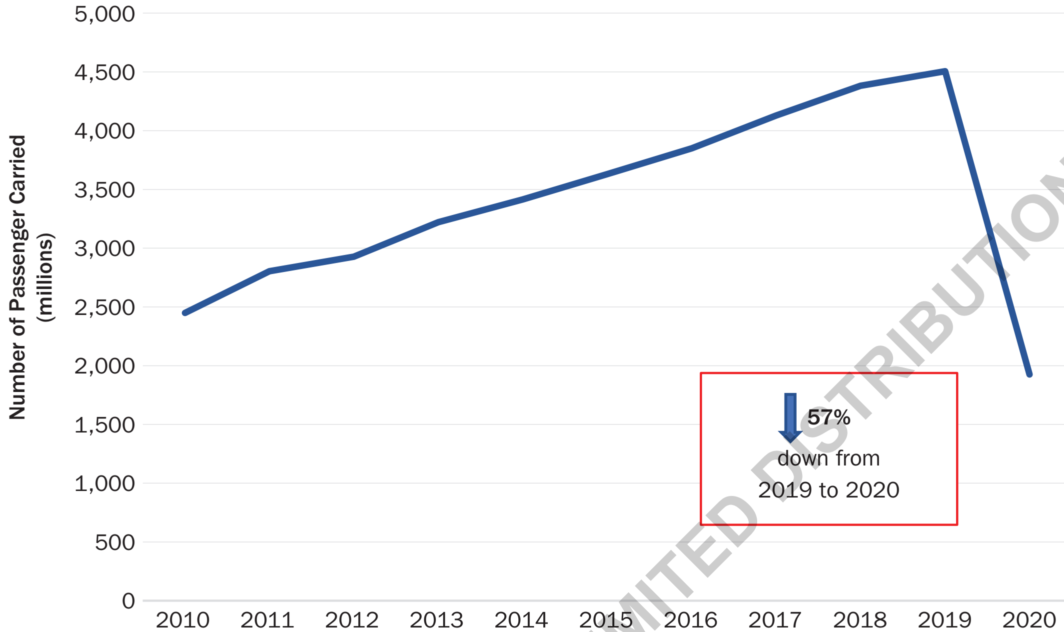
Airlines have also been hurt very badly, with IATA saying the global airline revenues were $328 billion (compared to $838 billion in 2019), the same figure as in 2000 not accounting for inflation (IATA 2020). This drop of ~40% in revenues from last year resulted in net industry losses of $126 billion in 2020; this is expected to continue, with losses estimated at $48 billion in 2021 (IATA 2021c). The industry has experienced very large exogenous shocks in demand, which has resulted in airlines attempting to decrease their cost basis and cutting costs through at all available options. This cost-cutting potential varied as some airlines, especially in the US markets, were already pretty lean, even before the pandemic; others had more room to cut.

The peak summer travel months, when one expects to build cash cushions ahead of the bleak winter months, were met with very shallow results last year. This continued with low winter months having net cash outflows. The first of only two positive events during this period was that many, but not all, governments around the world provided subsidies and other indirect forms of state aid to assist the industry. This aid was worth over $190 billion of confirmed and unconfirmed subsidies at the end of 2020, according to the research by the author, and $225.1 billion as of March 2021 according to IATA (IATA 2021b). The other positive event was the continued strength of the air freight segment of the business. During the height of the pandemic and continuing afterward, air freight demand has produced counterbalancing revenue for airlines when revenue passenger numbers were low. Even passenger aircraft cabins, along with the usual underbelly freight capacity, were used at times for the transportation of masks and other PPE (personal protection equipment), among other lighter cargo.

In summary, this summer season is anticipated to produce good results in what is historically considered the peak travel season, especially in the US. If this occurs, this is the first time the industry will be able to recoup some of its losses since the start of COVID. Europe is still on shaky ground, with outbreaks and increased vigilance throughout the continent. In Asia, the outbreak in India is having reverberations around the world, as are small outbreaks in a couple of other jurisdictions that were relatively unscathed previously. In China, the May 1 long holiday peak travel period saw significant travel and air travel demand has relatively come back online, with significant domestic demand, but profits have not yet recovered fully to pre-COVID levels, as international flight figures are still low.

EXHIBIT 2

World Air Passenger Traffic Evolution 2010–2020



SOURCE: OAG Aviation 2021.

AIRLINE FINANCING ENVIRONMENT

As I have recommended since February 2020, airlines need to increase their cash and credit positions by all means, as there is intense bankruptcy risk with what amounted to the largest exogenous demand shock in aviation history according to IATA (Yu 2020c; IATA 2021b). This severe shock can be seen in Exhibit 2. There will also be increased M&A activity, as airlines would go bankrupt without the proper cash flow support from normal revenue. Even so, the largest demand shock in history, 2020, resulted in only 55 global airline bankruptcies, seeing protection, or undergoing reorganizations, according to my research. This is less than what one would expect in a normal year. One can say that the financing support by governments has assisted airlines.

For those airlines with credit grade ratings and access to the capital markets, the credit markets have been available and robust. These airlines are generally state-owned, flag carriers, or otherwise blue chip companies. Not only is there record debt that has raised by airlines in the period since COVID started, but the characteristics of that debt included low interest rates and the generally high LTVs provided. This debt raised has come in all forms: unsecured, secured, and EETC lending totaling approximately $65 billion in 2020. Some carriers have issued debt secured by all of the airlines' owned unencumbered assets, such as slots, frequent flyer programs, and airport equipment. "Everything but the kitchen sink" could describe the financing of the three US major carriers. The public equity markets have also been supportive of publicly listed airlines after the large drop in March 2020, which has shown some valuations rebound to pre-COVID figures, even with the additional encumbrances from issuing large amounts of debt. This has allowed some secondary equity to be raised, as well.

These characteristics are especially true for US carriers. Emerging markets and other non-blue chip carriers without access to capital markets, both equity and debt, are in a much more difficult position. There has been significant support from their various governments around the world, but smaller players are not getting as much percentage as larger players. They would have to rely on other private forms of capital, raising debt or equity in a negative environment for airlines.

Another available option is to raise cash from selling or encumbering their assets through off-balance-sheet activities such as sale-leaseback (SLB) transactions for the older aircraft they already have on their books or for newly delivered aircraft. With the significant amount of aircraft supply parked globally (at the high, about 70% of the global fleet was parked), airlines are hesitant to lease additional aircraft from lessors, as the existing capacity is not being used. This has created even more parked aircraft, less circulation, and less potential for new leases for older aircraft that are coming off lease. As demand for older aircraft has decreased, the pricing of naked aircraft has also decreased alongside the additional supply available.

Airlines are increasingly preferring to conserve their capital by financing their new order book through SLB transactions, where they cannot or do not want to postpone the deliveries. Narrow-body aircraft SLB transactions post-delivery increased 2.3 times in volume from 2019 to 2020; wide-body aircraft SLB increased 1.4 times in volume during the same period according to Boeing Capital (Boeing Capital Corp. 2021). Although OEMs might be willing to facilitate a delay in the delivery of new aircraft, there is escalation pricing generally built into aircraft delivery pricing, which adds up over time, and potential terms restructuring that is extracted by the OEM. SLBs are the majority of transactions done in the market since COVID started.

Likewise, selling aircraft might be a good strategy but, with so many parked aircraft and global demand falling, few end-user airlines would want additional capacity or have the funds to finance it; the same argument holds for leasing. Even if there is demand by an end-user, the price has fallen with the lack of buyers from the traditional pool, such as other airlines, investors, and lessors.

In summary, airlines have deployed a wide array of cost-cutting measures, including selling assets, cutting labor costs, off-balance sheet financings, restructurings, and even M&A. Airlines' underlying business models are still in a precarious financial situation because, although there is much optimism, the airlines have yet to see the resumption of traditional revenues levels. Therefore, airlines will see more M&A as a response to the environment, as well as suppliers that have all bulked up and increased negotiating strength, such as the recently announced AerCap/GECAS tie-up. This is similar to the increased merger activity in the aircraft supplier environment.

LESSOR FINANCING AND AIRCRAFT VALUES ENVIRONMENT

The financing market has been a very different story, as well. Before COVID, the leasing industry was just off its historical overall highs. The leasing business volume has increased since the 2001 slowdown, with a pause in 2008–2010 during the financial crisis, before continuing its upward momentum. According to Boeing Capital, there was \$59 billion of funding for the industry in 2020, which was slightly less than \$62 billion in 2010 (Boeing Capital Corp. 2021).

In light of the historically low interest and additional quantitative easing for the interest rate environment, bank financing has been increasingly selective, with some banks pulling out of the market completely. This has caused increased lending margins even when overall rates decreased; credit committees have been even more selective on the airline credit exposures, making it much harder to finance aircraft on a secured bank financed basis. With this situation, there have been other private debt investors coming into the space, such as Castlelake, with their aircraft debt financing program being added to their existing equity and ABS business.

The lack of availability of debt financing has added to the lack of transactions in the lessor market. There have been a few secondary transactions (buying naked or with-lease-attached aircraft) since COVID and some of the transactions in 2020 were remnants of deals that were negotiated pre-COVID and in the final stages of closing. With the lack of transiting and leasing-in of older aircraft by airlines, banks have so far been reluctant to repossess aircraft, even when the airline is in clear default. The appetite is not strong for potentially paying for aircraft parking, insurance, storage, and other fees while trying to find the next lessee. There is starting to be some movement in recovering aircraft.

Despite the bleak bank debt markets, lessors who have access to capital market debt (secured or unsecured) or debt warehouse facilities, such as the newly arranged $1 billion warehouse by Griffin Global Asset Management, have the ability to take advantage of this dislocation to do additional deals and potentially the ability to securitize them into the ABS market.

Thus far, there have been several already significant M&A activities in the lessor space, with the largest being the announcement of GECAS being acquired by AerCap to form the largest aircraft lessor globally (Yu 2021a). The other is the announced take-private acquisition of FLY Leasing by Carlyle Aviation Partners. Additional consolidation in the lessor space, and likewise in the airline space, is to be expected.

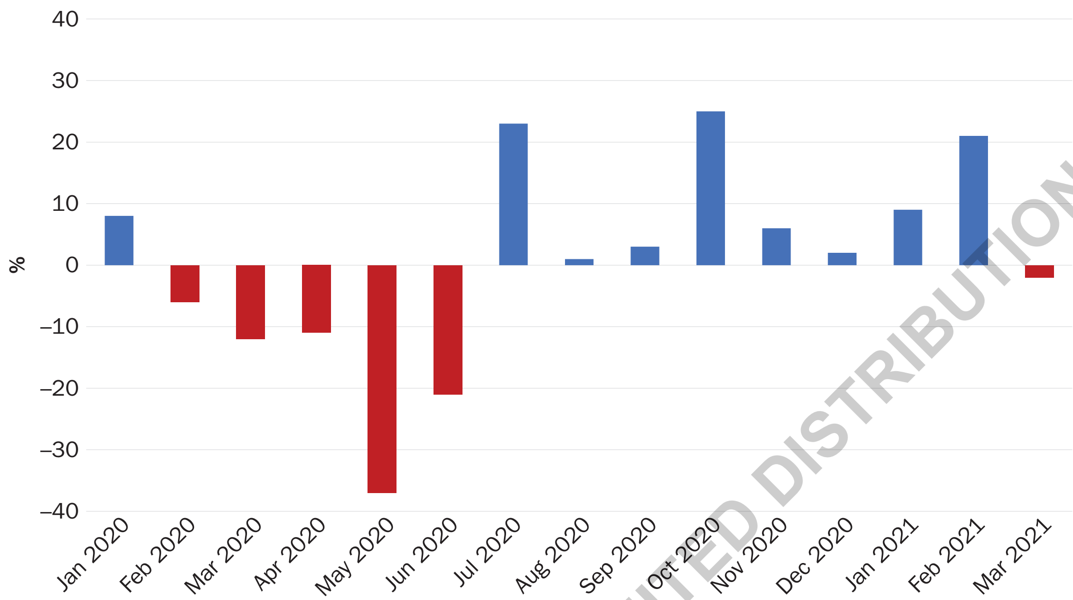
Aircraft values, which have varied quite a lot, are, by far, the largest assets of an airline. Just like demand, values like leasing deal volume had been, until COVID, on a bull run since the 2001 slowdown, with a pause in 2008–2010—during the financial crisis—before continuing their upward momentum. Lease rate factors for leasing deals have increased, has leverage (LTV) on leasing transactions. These have all contributed to the run-up in values for aircraft across the spectrum. With the dislocation, there is a gap in the bid-ask price spread and not many transactions are being concluded. Over the long haul, the international market is more adversely affected; this implies that values for larger, wide-body aircraft are more affected than narrow-body aircraft, but both have been affected by the pandemic. Asset valuation also showed a dip following the great financial crisis and depressed prices exhibited up to two years of lag before the start of recovery for different aircraft subasset classes (Yu 2020a). Similarly, the values attributed in the ABS and EETC structures have also been historically robust. Declining underlying aircraft valuation is only one area that will exert significant downward pressures on ABS and EETC along with the primary and secondary transaction market going forward. The same dynamics, such as decreasing underlying values and increasing LTV, have also affected lessors and their portfolios.

CAPITAL MARKETS—AIRCRAFT EETC/ABS

All of the aforementioned factors have affected ABS and EETC. Pricing has seen quite large movements. The senior A tranche has seen pricing fall in the initial months, raising concerns on the viability of the underlying airline(s) credits. Not only were there concerns on the credit of the underlying airlines in the ABS and EETC, but many of the aircraft were also parked. At the peak (in the beginning), this figure was nearly 70% of all aircraft in ABS and EETC structures. It has recovered to the point where it is currently around the 40% parked. As of late March, Fitch notes that rent collections are down 40% year-on-year, representing a significant number of leases in arrears of their rental payments (Fitch Ratings 2021b). Month-on-month percentage change

EXHIBIT 3

Average Aircraft Rent Collections Month-on-Month % Change



SOURCE: Fitch Ratings 2021a.

figures for average aircraft rent collections are shown in Exhibit 3. As the pandemic has progressed, this rate has not pulled back significantly, as airline business models have not yet recovered.

There have been a few cases of EETC restructuring, including the first emerging market credit LATAM 2015-1 EETC. As the airline filed for bankruptcy protection, the portfolio of aircraft in this EETC was rejected. For a while, the liquidity provision provided cashflow for the investors' interest payments but, eventually, the aircraft were auctioned off. The eventual price received was very low (~40%) compared to the aircraft value ascribed to the ABS.[1] In that, we described the conflict between the different tranches, and in this case that occurred. Tranche A agreed to sell as it wanted to buy the aircraft itself. Interestingly, the A tranche did not recover 100% par value, which is often touted; other lower B and C tranches were both wiped out, as there were not enough proceeds in the waterfall after paying off the outstanding liquidity facility and A tranche investors (Bodzin 2021).[2]

Similar to the LATAM EETC situation, Norwegian Air Shuttle has filed for bankruptcy and rejected the leases under examinership in Norwegian 2016-1 EETC.[3] VMO Aircraft Leasing bought into the B class and bought out the A class certificates, intending to buy the aircraft portfolio at a discount going through a public auction process, as required by the structure. Investors are expected to recoup their principal, according to Fitch, and VMO will be able to acquire naked aircraft at a discount (Fitch Ratings 2021b). The difference is LATAM A-class certificate holders did not recoup 100% of their principal par value. Norwegian Air Shuttle itself has since emerged from bankruptcy restructuring.

[1] For more discussions of this LATAM 2015-1 EETC deal and its considerations, see Yu (2020b).

[2] For a more in-depth discussion of restructuring of aircraft ABS and EETC, see Yu, Papajohn, and Michael (2021).

[3] For more discussions of this Norwegian Air Shuttle bankruptcy and its considerations, see Yu (2021b).

The market for ABS and EETC has come back from the low point with enthusiasm as investors are continuing to search for yield. This fundamentally does not make sense in all cases with the respective underlying assets and lease streams.

The slowdown in new issuances of aircraft ABS began in March, 2020, which coincided with the outbreak in the US and Europe. Besides the early Q1 2020 ABS deals, which were already in the final stretches of structuring to postpone, there were few issuances other than the business jet ABS BJETS 2020-1 coming to market in 2020. In early 2021, the industry saw the restart of the commercial aircraft ABS market, with the latest iteration from Castlelake 2021-1, along with the engine leasing portfolio by another repeat issuer, Willis Lease Finance Corporation, and a regional aircraft ABS by the new issuer, Falko Regional Aircraft. The structures improved, compared to pre-COVID ABS to respond to investors with longer average lease terms, younger-aged aircraft collateral, and structure optimizations. Besides these three deals, there has not been any ABS activity, compared to a robust 18 aircraft ABS deals priced in 2019.

Weeks after the issuance of the Castlelake 2021-1 ABS, Air Namibia filed for bankruptcy and eventually was liquidated by the national government, with one A330-200 on lease to it and included in the portfolio. This raises questions about the robustness of the risk factors in the transactions. The risk factors have come up in other 2020 ABS transactions as well, where the aircraft slated for the portfolio could not be novated over and the deals could not be consummated as structured, which caused pro-rata repayment of the various tranches. Going into 2021, there is news of downgrades to covered rated ABS tranches, such as 37% covered by Fitch were downgraded in late 2020 (Fitch Ratings 2020). Recently, a further 18 securities ratings were cut for select aircraft ABS by KBRA in 2021 (Kroll Bond Rating Agency 2021).

For 2021, only a UAL 2020-1 B class EETC was issued. For North American airline EETCs, Fitch downgraded a variety of them (United, American, Delta, and Air Canada) and affirmed others (Spirit and British Airways). Even with the distress, there have not been any restructurings of ABS and only a couple instances of EETC restructurings. Debt service ratios have been breached in a majority of transactions given the significant amount of lease payment defaults and deferment. Although this has created headaches for the junior and equity holders, the structures do provide investors with credit enhancements for continuing to supply holders of continuing interest cashflows, even when there is significant impairment in the underlying lease arrangements.

CONCLUSION

In conclusion, airlines have suffered greatly due to the exogenous demand shock and the recovery has been varied and uneven. The domestically focused airlines that, have the ability to create significant volumes due to the domestic land geographies have done better in terms of recovery than internationally and transit-focused airlines. In geographical terms, Asia, although getting the brunt of COVID before the rest of the world, has been able to recover quicker. The main economies of China, the US, and Europe are the directional pieces of how the recovery will develop. Even with optimism going into the summer, the underlying aviation business models have not yet recovered. The funding situation is still fluid with changes in values and transactions in a lull. Although there is underlying volatility in the assets for ABS and EETCs, the credit protections in the structures have, so far, generally protected the more senior classes; the lower classes will see more volatility going forward as cracks can be seen.

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