A NEW MEASURE OF COMPETITIVE RISK IN THE AVIATION INDUSTRY – UNIQUE, UNBIASED AND FORWARD-LOOKING

Avinomics is the only company that can measure airline risk, a year into the future. We quantify how each airline assesses risks and opportunities over the next 12 months by measuring planned changes to destinations, asset utilization, and so on. Based in Frankfurt, at the heart of Germany, global aviation and finance, Avinomics is an essential partner for professionals involved in aviation finance, managing airline-related credit-card risks, trading aviation securities and other airline-risk related businesses.

Avinomics measures the steps each airline is taking over the next year to prepare for business risks or opportunities - for example, by making changes to destinations. Our method is unbiased and strictly quantitative; it does not rely on expert opinion, or interpretation of backward-looking financial data from past quarters. Avinomics can tailor what we measure to give you the penetrating views you need, and we can put these data into a wider context to give you new perspectives.
OUR TEAM MORE THAN MEASURES UP
IN AVIATION, FINANCE, AND DATA SCIENCE

WHAT SETS US APART

Avinomics is the only company that can measure airline risk - and almost a year into the future. Avinomics is the only provider of objective and forward-looking data on the risks implicit in various airline strategies. We consider flight schedules to be one essential data set.

By collecting and computing both running and forward-looking data from carriers, airports, and many other sources, we calculate perspectives and penetrating views that backward-looking financial data cannot render.

Avinomics measures what changes every airline is planning over the next 12 months to destinations, asset utilization, connectivity, and so on. By doing that, we do nothing less than quantify how each airline assesses its business risks and opportunities.

Avinomics is a growing, high-caliber team that brings together decades of experience in aviation, finance, computing, and mathematics. From our offices in central Frankfurt, right next to the city’s historic stock exchange, we are used to working on complex problems under high pressure.
THE TEAM

Franz Rothlauf is an Avinomics shareholder. He is Professor of Information Systems, Chief Information Officer, and Academic Director of the Executive MBA Program at the University of Mainz. A distinguished academic, he is a longstanding member of many international associations.

Martin Korbmacher is an Avinomics shareholder. He is Founder and Managing Partner of Event Horizon Capital and Advisory, Frankfurt. Before that, he was Head of Investment Banking, Germany and Austria, at Credit Suisse, and held top positions at Dresner Kleinwort, Frankfurt.

Philipp Goedeking is Founder and Managing Director of Avinomics. The firm is his second entrepreneurial venture after Airconomy, which was bought by Amadeus. Philipp started his career at Lufthansa and became a respected consultant at Alix Partners, Roland Berger and BCG.

Bernhard Eschweiler is a member of Avinomics’ Advisory Board. He is Managing Partner at Beta Economics, Frankfurt, which he founded after a career at JP Morgan. Among other top posts, he was Managing Director and Head of Global Central Bank Group at JP Morgan, Singapore.

Klaus Heinemann sits on the Avinomics Advisory Board. He is also a member of the Advisory Board of SkyWorks, Greenwich, CT, and a co-founder of HH Kapital, Amsterdam. Before that, Klaus served as Chairman of Finnair, Helsinki, and as Chief Executive of AerCap, Amsterdam.

Christoph Franz is an Avinomics shareholder and a member of its Advisory Board. Christoph is Chairman of the Board of Roche, Basel. Prior to that, he was Chief Executive of Lufthansa and Chief Executive of Swiss International Air Lines, two of a series of leading executive posts.

Wolfgang König is Chairman of the Avinomics Advisory Board. He is Professor of Information Systems at the University of Frankfurt and Executive Director of the university’s House of Finance. Prior to that, he held posts at WHU Otto Beisheim School of Management, Koblenz.
CONTROLLING RISK BY MEASURING RISKS

OUR PRODUCTS

Avinomics offers essential tools for deal originators and risk managers in aircraft financing, acquiring credit-card obligations, trading aviation securities, and others. Our products are based on our unique ability to measure the quality of every airline's strategic position. Each month, we collect real-time and forward-looking airline performance indicators. Our calculations position each carrier in an analytical matrix, based on complex equations that require the mathematical power of three clusters of 64 computer processors running in parallel. Our database reaches back twenty years, which has allowed us to stress test our models. Our measurements have proved accurate even in periods of industry crisis.
NSI – THE ONLY STRATEGIC-RISK MEASURE FOR AIRLINES

The Network Stress Indicator (NSI) helps deal originators strike more and better deals, and gives risk managers more certainty when assessing portfolio and transactional risks. It does this by benchmarking how every airline is girding for the future by measuring the steps it is taking to prepare its network – moves to send off competitors making inroads, or moves to take advantage of market opportunities. Network stress is common to all airlines, but it varies in nature – good or bad – and in degree. The NSI measures the subtlest changes in strategic direction, and shifts in competitiveness, slow or sudden.

By using up-to-the-minute and forward-looking data, the NSI identifies risks before they trigger crises. In tests using past data, the NSI raised a red flag in the twelve months prior to a carrier’s default in more than 90 percent of cases. We give our customers proprietary software that allows them to filter, recombine, and visualize our risk data on bespoke charts. Customers can benchmark one airline against one or more rivals, or against peer groups defined by size, business model, or regional focus. Our software allows the integration of customer specific, confidential, and third-party data.

AIRLINE STOCK TRADING STRATEGIES

Avinomics enables investors in airline stocks to conceive and use risk-controlled trading strategies. The weighting of any airline stock in a portfolio is determined by the quality of the airline’s competitive and strategic position, which we measure every month. Our premise is that a carrier with a superior and sustainable competitive strategy will generally achieve a higher stock-market valuation. Airlines usually change their strategies slowly, so monthly portfolio adjustments and transaction costs are generally modest. Bigger trades are usually required when we measure clear signs of approaching default.

BESPOKE AIRLINE-INDUSTRY WORKSHOPS

Avinomics offers its customers from diverse fields of the aviation industry tailor-made workshops on how to put our risk data into illuminating context. Our clients demand penetrating views on specific airlines, and broader perspectives on regional markets, business models, fleet strategies, and many other aspects. We can extract any number and combination of measures from our database to take a deep dive into the intricacies of the strategic positioning of an airline. Or we can calculate a panorama that looks at an array of players in one region, or with the same business model.
STATE OF THE INDUSTRY

At Avinomics, we calculate the average NSI-risk indicator for all airlines worldwide every month. Based on airlines’ flight schedules and other sources of data, our index-values are a view 12 months into the future. The figure below shows the time series for all airlines as well as for three sub-segments. To calculate index-values for all airlines, as well as for small, medium-sized, and large carriers, AVINOMICS analyzes future flight schedules and hundreds of other data points. We can measure and benchmark average risk data by airline size, but also by operating region, business model, or other criteria.
Airlines typically pursue strategies that either aim to minimize unit costs by offering low-cost, point-to-point services (“efficiency”), or optimize unit revenues by offering services via one or more central hub airports (“connectivity”). As each approach requires a different network architecture, an airline cannot be good at both. Each month, we measure each airline’s strength in both strategic aspects, and position it in a coordinate system of “efficiency versus connectivity”.

The left-hand chart shows the monthly strategic positioning of low-cost carrier Ryanair, from 2003 to today. The size of each monthly circle depicts the carrier’s capacity at that point in time. The progression of the coordinates shows with what speed and focus Ryanair became ever more efficient and ever bigger.

The middle graph shows Qatar Airways’ strict focus on developing its connectivity-driven hub strategy. The carrier’s efficiency suffered in 2014, when Doha’s new airport was opened, and in 2017, as a result of the blockade by other Gulf states. But it did not retrench with regard to connectivity, its core strategy.

The graph on the right depicts the strategic demise of Airberlin. It started with a strong competitive position as a low-cost carrier, but continuously diluted its strategic focus. At the same time, it started expanding capacity by investing heavily in new aircraft. The result of this combination is well known.
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