Airline Costs and Financial Measurements

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Background

- Eleven years as CEO of Spirit Airlines
- Six Years as SVP of US Airways
- Three Years as President of TACA
- Three Years as SVP of Continental
- Early Years at American, Northwest, and UPS
- SU 1984 and Princeton 1986

Remember the ASM!

- Airlines are a factory that produce seats going places.
- The Available Seat Mile (ASM) is one seat flying one mile
- Most airline costs are “unitized” using the ASM
  - Though some are better used with block hours, departures, aircraft, or passengers

Cost per ASM

$$\frac{\text{Cost}}{\text{ASM}}$$

- Productivity
- Unionization
- Business Complexity
- Fleet and Airports

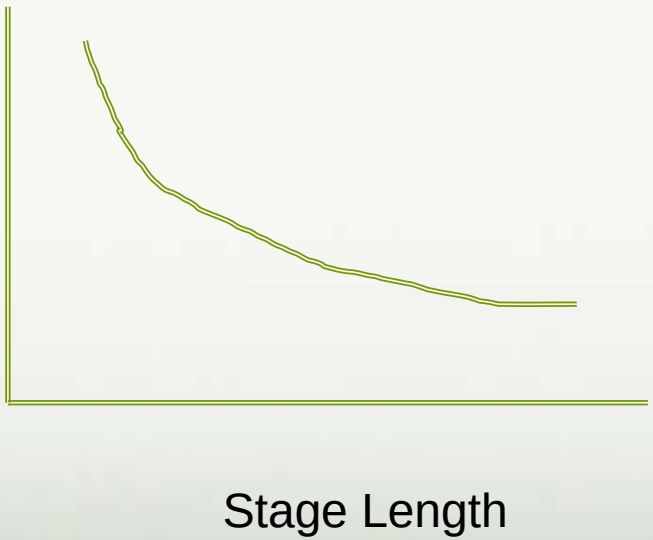
- Aircraft Size
- Aircraft Configuration
- Utilization
- Stage Length

Cost per ASM ex-Fuel

- Airlines often look at Cost/ASM excluding fuel
- Reflects fuel cost is less controllable
  - But is more controllable than many think
- Low Cost airlines tend to have Cost/ASM ex-fuel in the 4.5 cent to 6 cent range, while traditional airlines have Cost/ASM ex-fuel in the 6.5 cent – 10 cent range

Cost per ASM Varies with Stage Length

- Like revenues, airline unit costs decline with longer stage lengths:



- Comparative Cost/ASM must be “stage length adjusted”
- Southwest is shorter haul than JetBlue, so in absolute their cost advantage doesn’t look as large as it really is

Major Cost Categories

Cost Category	Average Percent of Total
Labor	35%
Fuel	28%
Fleet	17%
Airports (non-Labor)	10%
Distribution	5%
Overhead and Other	5%

Labor Productivity

- Pilots typically represent 50% of all airline labor cost
- Productivity for pilots and flight attendants is measured by the “Pay to Block” ratio:

1.65

For every paid $1 of revenue-earning time

This airline pays $0.65 for time not flying

Other Labor Cost Considerations

- Labor costs typically include all salaries and benefits
- Outsourced labor often in a separate line item on the income statement
- “Full Time Equivalent” (FTE) measurements best represent true labor component with outsourced and part-time workers

Fuel Cost Considerations

- Fuel cost is a function of fuel price and usage
- Price is the least controllable component of fuel
  - Hedging can increase or decrease costs
  - Fuel storage is not feasible
  - Delta bought a refinery a few years again an attempt to vertically integrate
- Usage is a function of aircraft type, schedule, and pilot procedures and training
- “Into Plane” fees are meaningful and included in the fuel line on an airline income statement

Aircraft Cost Considerations

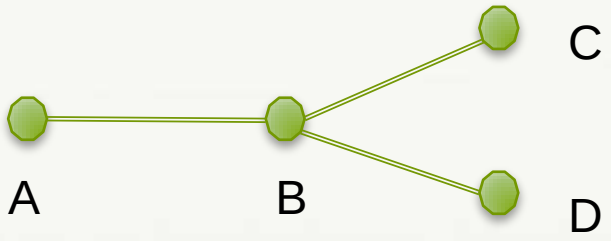
- This could be a class unto itself!
- Many ways to finance aircraft, some that show on balance sheet and some that show off balance sheet
- When determining comparative financial metrics, it is important to capitalize leases not on the balance sheet
- Fleet plan (new, old, size, etc.) in addition to financing drives this line item

Other Cost Considerations

- Airports charge airlines using landing fees and facility charges
- Distribution costs include credit card interchange fees, charges from travel agents and Global Distribution Systems (CRSs), web and call center, and advertising
- Overhead is typically shown per ASM and should decline with growth
- Airline product offering drives significant differences in these line items

Airline Profitability Measurement

- Uses Accounting information but is not Accounting!
- Consider the following simple schedule:



  - Costs for each segment are generally easy to determine
  - Revenues are not, however!

Airline Profitability Measurement

- The fundamental issue with measuring airline profitability is:

Costs are largely determined by fleet and flight segment, while revenues are determined by O&D

- The challenge of a good flight profitability system is to properly allocate revenues and costs to make good flight planning decisions

“What happens if I add or remove this flight frequency?”

Airline Stock Prices

- Every investor knows that there is a difference between good companies and good stocks
- Airline stocks tend to be volatile with fuel prices, labor insurrection, and fears of excess capacity
- Growth is often discounted in airline stocks
- Return on Invested Capital (ROIC) has only recently become standard for airlines to report

Recent Industry Trends

- Three part industry today:
  - Four huge airlines carrying over 80% of all customers
  - Four small but fast growing ultra low cost carriers
  - Three carriers “stuck in the middle”
- Industry still growing faster than the economy, resulting in price pressure and margin pressure
- Larger, high-cost airlines have become better at competing with lower cost providers by increased segmentation and physical airport control

Two More Opportunities

- #1, Data! The airline industry does not make good use of data and hires few data scientists
- Airplanes create enormous amounts of data with every flight, suggesting that big improvements could be made in flight planning, fuel usage, and maintenance planning
- And #2, consolidation is not quite over. Likely consolidation in the regional space, in the ULCC space, and in the “stuck in the middle” space

Airline Economics Class

- For Fall 2018, now ECON 471 and ECON 695-04
- Class Includes Discussions About Airline Practices:
  - Pricing, Revenue Management, Scheduling
  - Airports, Fleet Planning, Labor, Profitability Measures
  - Industry History, Alliances, Frequent Flier, Regulation
- Guest Speakers Featured with Diverse Topics
- Readings, Problem Sets, and Business Cases

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Questions?