

ACCOUNTING FOR AIRLINE FREQUENT FLYER PROGRAMS: MANAGEMENT INCENTIVES AND FINANCIAL REPORTING IMPACTS

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ABSTRACT

The obligation to provide free or reduced-fare travel to passengers who redeem their accrued frequent flyer program (FFP) benefits represents a significant liability on every major U.S. airline's balance sheet. Major U.S. airlines employ one of two methods to account for the liabilities they incur when issuing mileage credits to traveling passengers. The Deferred Revenue Method recognizes a liability for the fair value of the outstanding mileage credits (with "fair value" defined under International Financial Reporting Standards (IFRS) as "the amount for which the award credits could be sold separately"). The Incremental Cost Method recognizes a liability for the marginal cost of providing air transportation to eligible award passengers (i.e. the cost of taxes, fuel, food, etc. to fly one additional passenger on a seat that otherwise would have been empty—generally a nominal amount).

Incremental cost accounting for FFPs has been subject to increasing scrutiny over time. In the last several years airlines have reduced seating capacity due to high fuel prices and weak demand during the global economic recession, which has caused flights to be fuller and has increased the chance that, for any given seat, a passenger flying on redeemed frequent flyer miles could displace a fare-paying passenger. The Incremental Cost Method does not account for the opportunity cost (i.e. the cash revenue foregone) associated with such a displacement.

The U.S. Financial Accounting Standards Board (FASB) considered, but never reached authoritative guidance on, how to account for airline frequent flyer programs. In contrast, airlines reporting under IFRS have been required to use the Deferred Revenue (fair value) Method of accounting since July 2008. Reporting FFP liabilities under fair value, however, has resulted in some airlines' FFP liabilities increasing dramatically. For example, when Delta Air Lines chose to revalue its FFP under the Deferred Revenue Method following its Chapter 11 reorganization and subsequent fresh start accounting, its FFP liability increased from \$412 million to \$2.4 billion.

Specific management incentives are associated with the adoption and use of each accounting method, and the FFP accounting method chosen by a given airline can potentially drive the way management operates its FFP, including the relative amount of award seats it makes available. Additionally, the Deferred Revenue Method in particular provides opportunities to manage reported earnings through FFP-related accounts.

The goal of this thesis project is to examine and answer the following central question: In the context of investors' informational needs, what are the circumstances under which the Deferred Revenue Method is preferable to the Incremental Cost Method of accounting for FFP liabilities?

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INTRODUCTION

Accounting for airline frequent flyer program (FFP) liabilities has been a controversial topic for decades, beginning in the late 1980s when airlines were first required to display FFP liabilities on their financial statements. At that time, the airline industry protested the requirement to record any liabilities for their FFPs, asserting that they would have to scale down their programs to avoid unattractively large liabilities clouding their balance sheets (Weiss et al., 1988). In reality, FFPs, and the number of mileage credits and associated liabilities outstanding, have grown exponentially since then. CNBC estimated that over 15 trillion frequent flyer miles were outstanding as of May 2011 (Whitman, 2011).

Today, major U.S. airlines employ one of two methods to account for FFP liabilities for mileage credits earned by paying passengers: either the Deferred Revenue Method or the Incremental Cost Method. The Deferred Revenue Method recognizes a liability for the fair value of the outstanding mileage credits (with “fair value” defined under International Financial Reporting Standards (IFRS) as “the amount for which the award credits could be sold separately”) (KPMG, 2008). The Incremental Cost Method recognizes a liability for the marginal cost of providing air transportation to eligible award passengers (i.e. the cost of taxes, fuel, food, etc. to fly one additional passenger on a seat that otherwise would have been empty—generally a nominal amount).

Incremental cost accounting has been subject to scrutiny several times throughout the history of FFPs. Within the past few years airlines have reduced seating capacity due to high fuel prices and weaker travel demand during the global economic recession, causing flights to be fuller on average and increasing the chance that, for any given seat, a passenger flying on redeemed frequent flyer miles could displace a fare-paying passenger (notwithstanding the fact that many airlines limit the number of seats eligible to be reserved using FFP mileage credits). Because the Incremental Cost Method does not account for the opportunity cost incurred when an award passenger displaces a fare-paying passenger, it could theoretically result in a less accurate liability valuation when flights are (or could be) fully booked with fare-paying passengers.

Airlines reporting financial information under International Financial Reporting Standards have been required to use the Deferred Revenue (fair value) Method of accounting since July 2008. Reporting FFP liabilities under fair value, however, has resulted in some airlines’ FFP liabilities increasing dramatically. For example, when Delta Air Lines chose to revalue its FFP under the Deferred Revenue Method following its Chapter 11 reorganization and subsequent fresh start accounting, its FFP liability increased from \$412 million to \$2.4 billion (KPMG, 2008).

Since FFP liabilities are valued at a higher amount under deferred revenue (fair value) accounting, airlines using the Deferred Revenue Method to value their FFP liabilities report reduced accounting net income in the period in which liabilities are incurred (i.e. when mileage credits are earned by passengers or sold to credit card companies and other third parties); however, greater revenue recognition opportunities are available upon award redemption for airlines using the Deferred Revenue Method (Sheppard et al., 2008). These factors and trade-offs could potentially influence airline managers when they decide which method to use to account for their FFPs, as well as how to structure rewards and redemption policies for customers.

In 1990 the Accounting Standards Executive Committee, part of the American Institute of Certified Public Accountants (AICPA), considered a proposal to make the Deferred Revenue Method mandatory for U.S. airlines. In the face of strong oppositional lobbying by airlines, the proposal was defeated in an 8-to-5 vote with two abstentions. *The New York Times* reported at the time, “The move is likely to please airline executives, who can report higher earnings using current accounting methods” (Cowan, 1990). Years later, according to the AICPA, the Financial Accounting Standards Board (FASB) considered how to account for FFPs, but never reached authoritative guidance on the issue (AICPA, 2011).

By 2008, however, the FFP accounting paradigm and management desires of the U.S. airline industry had apparently shifted. In a 2008 study of airline industry accounting issues, international accounting firm KPMG implied that U.S. airlines still using the Incremental Cost Method would prefer to change to the Deferred Revenue Method, but had no precedent to do so absent a FASB pronouncement making the Deferred Revenue Method mandatory or, alternatively, a fresh start accounting opportunity in conjunction with Chapter 11 reorganization (Sheppard et al., 2008).

Today, as the FASB works with the International Accounting Standards Board (IASB) to develop new uniform international accounting standards, it is a relevant time to revisit the two FFP accounting methods accepted under U.S. GAAP and consider the relative advantages, disadvantages, and management incentives associated with each.

U.S. AIRLINE INDUSTRY USE PATTERNS & FINANCIAL STATEMENT IMPACT

The U.S. Department of Transportation defines a major airline as one with annual operating revenues in excess of \$1 billion (U.S. DOT). Of the seven major U.S. airlines in existence as of April 2012, five use the Incremental Cost Method to account for mileage credits earned by traveling passengers: Alaska, American, JetBlue, Southwest, and US Airways. The remaining two carriers, United and Delta, elected to change to the Deferred Revenue Method in fresh start accounting subsequent to their exits from Chapter 11 reorganization.

The financial statement impact of using the Deferred Revenue Method over the Incremental Cost Methods is material. Based on an analysis of 2010 Forms 10-K for the seven major U.S. airlines, airlines reporting FFP liabilities under the Deferred Revenue Method incur FFP liabilities at over twice the rate of their Incremental Cost Method counterparts as a percentage of total current liabilities (see Table 1).

Table 1
Major U.S. Airlines’ Frequent Flyer Program Liabilities as of December 31, 2010

	FFP liabilities as a percentage of total current liabilities	FFP liabilities as a percentage of total liabilities
Carriers using Incremental Cost Method	20.14%	7.50%
Carriers using Deferred Revenue Method	43.78%	13.34%

SURVEY OF ACCOUNTING METHODS IN USE

Incremental Cost Method

The Incremental Cost Method's conceptual soundness relies on an environment in which FFP awards are carefully controlled by the issuing airline such that passengers redeeming awards are filling seats that otherwise would have been empty (thus justifying an accrual of only the incremental cost of transporting one additional passenger). Airlines using the Incremental Cost Method estimate and record a liability for the incremental cost of issuing awards to their FFP members. For awards expected to be redeemed in the form of free travel on the issuing airline, the incremental costs include fuel, food and beverage, insurance, and other handling costs. For awards expected to be redeemed for free travel on other partner airlines, the incremental cost is represented by the amount the issuing airline must pay the other airline pursuant to the terms of its agreement with the other airline.

A number of factors influence an airline's estimate of the amount of mileage credits it expects to be redeemed. Among those factors are the threshold of mileage credits the airline requires for an award to be issued (the higher the threshold, the lower the rate of the redemption), the expiration period (if any) for mileage credits earned, and the airline's historical redemption rates. Major airlines accumulate significant amounts of data on mileage credit redemption patterns and have developed statistical models to estimate future redemptions (AICPA, 2011).

Deferred Revenue Method

The Deferred Revenue Method, while acceptable as one of two options under U.S. generally accepted accounting principles (GAAP), is required under International Financial Reporting Standards and is specifically addressed in International Financial Reporting Interpretations Committee (IFRIC) Interpretation No. 13, *Customer Loyalty Programmes*. The Deferred Revenue Method's conceptual soundness, according to IFRIC, relies on the principle that future awards are separately identifiable goods for which customers are implicitly paying (IASB, 2007).

Airlines using the Deferred Revenue Method divide the proceeds of a sale in which mileage credits are awarded into two components: an amount reflecting the value of the air transportation specifically purchased by the customer in the first sale and an amount reflecting the fair value of the mileage credits awarded to the customer. The amount assigned to the first component is recognized as revenue once the first sale is complete (i.e. once air transportation for the ticket purchased is provided). The amount assigned to the second component (the fair value of mileage credits awarded) is deferred as a liability until the airline fulfills its obligations with respect to the mileage credits (i.e. honors the redemption of those mileage credits by providing free travel or some other award).

To determine the value to assign to the deferred revenue component, under both U.S. GAAP and IFRS, airlines look to transactions in which mileage credits are sold by airlines to third parties (such as banks that issue FFP miles to credit card customers), or to sales of tickets with similar restrictions as those associated with frequent flyer award redemptions.

The fair value of mileage credits awarded is determined at the time of issuance, and the liability balance resulting from individual deferrals is not adjusted for future changes in fair values. However, as the fair value of mileage credits changes over time, airlines change the amount of revenue they defer as part of any given ticket sale (known as the “deferral rate”). The change in deferral rates results in a pool of mileage credits valued at a variety of different rates; airlines employ a methodology such as weighted average or first-in, first-out to determine the amount of revenue to recognize from customer redemption of an award. Thus, for a given level of mileage credits awarded and redeemed, the amount of revenue deferred and recognized varies from period to period (AICPA, 2011).

Required Use of Deferred Revenue Method for Miles Sold to Third Parties

In contrast to the two options available to U.S. airlines for accounting for mileage credits issued to passengers purchasing air travel, U.S. GAAP requires use of the Deferred Revenue Method for FFP liabilities arising from the sale of mileage credits to third parties (e.g., banks who issue mileage credits to their credit card customers). Under these third party sale arrangements, airlines divide the sale of mileage credits into two components: the value of future travel to be provided and the value of marketing services provided (e.g., allowing the third-party customer to use the issuing airline’s logo and branding, access its customer mailing list, etc.).

Prior to January 1, 2011, airlines used the “Residual Method” to allocate the proceeds of any given sale of mileage credits to third parties between the future value of travel to be provided to award passengers and the value of marketing services provided to the third party customer. Airlines using the Residual Method would first calculate the fair value of future travel to be provided; this amount was deferred and recognized as marketing services revenue when mileage credits were redeemed for awards. The residual sale proceeds were recognized as revenue at the time of the sale. The FASB’s Accounting Standards Update 2009-13, *Multiple Deliverable Revenue Arrangements*, eliminated the residual method (FASB, 2009). Proceeds are now allocated to the two deliverables on the basis of their relative standalone selling prices on the date of the transaction—a procedure that essentially mirrors the Deferred Revenue Method. The move to eliminate the Residual Method in favor of the Deferred Revenue Method to account for mileage credits sold to third parties is consistent with the continued convergence of U.S. GAAP and IFRS to fair value accounting.

Five of the seven major U.S. airlines use the Incremental Cost Method to account for mileage credits earned by traveling passengers while simultaneously using the Deferred Revenue Method to account for mileage credits sold to third parties. These airlines do not distinguish between miles earned by travelers and miles sold to third parties on a specific identification basis; instead, they allocate mileage credits between the two categories. Mileage credits sold to third parties are assumed to be used for future travel awards, so airlines recognize these mileage credits as passenger revenue on a straight-line basis over the estimated usage period of the mileage credits based on their historical experience. Because of the separate deferral rate and revenue recognition patterns, these airlines eliminate mileage credits sold to third parties from the incremental cost liability balance and account for them separately from mileage credits earned by traveling passengers.

MANAGEMENT INCENTIVES

Each of the two FFP accounting methods is associated with specific potential management incentives because FFP-related revenues, expenses, and liabilities vary considerably depending upon the accounting method chosen.

The FFP accounting incentive paradigm has shifted for U.S. carriers over the past 25 years. In 1990 the U.S. airline industry strongly opposed a proposal being considered by the AICPA's Accounting Standards Executive Committee to make the Deferred Revenue Method mandatory for accounting for earned mileage credits. Major U.S. airlines, all of which used the Incremental Cost Method at the time, were pleased that the Incremental Cost Method allowed them to report higher accrual net income from period to period, as well as lower FFP liabilities, relative to the Deferred Revenue Method. As a result, they were thrilled when the Accounting Standards Executive Committee ultimately voted against the proposal, a decision *The New York Times* headlined, "Accountants' Move Favors Airlines" (Cowan, 1990).

However, by 2008 a KPMG article surveying global FFP accounting practices stated that U.S. airlines (other than those who had the opportunity to engage in fresh start accounting due to their Chapter 11 reorganizations) are "being somewhat disadvantaged by their inability to move to [the Deferred Revenue Method] like their IFRS counterparts" (Sheppard et al., 2008). The fact that nearly all major U.S. airlines to have undergone Chapter 11 reorganization since 2000 chose to switch from the Incremental Cost Method to the Deferred Revenue Method appears to validate KPMG's opinion. Airlines who have switched to the Deferred Revenue Method upon exiting Chapter 11 reorganization include United, Delta, Northwest, and Frontier. U.S. Airways is the only major U.S. airline to emerge from a Chapter 11 reorganization since 2000 without changing to the Deferred Revenue Method for FFP accounting.

It is possible that the reason most airlines choose to switch to the Deferred Revenue Method while undergoing Chapter 11 reorganization is related to the so-called "big bath" theory of accounting. The "big bath" theory holds that management of companies that are already reporting poor financial results may be incentivized to take as many additional charges as possible during the period of turmoil because the market penalty for incremental losses in an already poor year is relatively small. Additionally, by taking all charges during one period of turmoil, the financial results of future periods are likely to appear stronger (Kieso et al., 2010). The "big bath" theory could certainly apply to airlines undergoing Chapter 11 reorganization and their choice to switch to the Deferred Revenue Method. While the one-time expense associated with revaluing the FFP-related liability balance to the Deferred Revenue Method is significant (nearly \$2 billion for Delta Air Lines), the expense recognized in the period of revaluation represents incremental revenue that may be recognized in future periods, thereby making the financial results of future periods look stronger.

KPMG expressed the opinion that U.S. airlines would prefer to switch to the Deferred Revenue Method in order to "create locked up value which can be used to fill seats and generate revenue in slow downs" (Sheppard et al., 2008). This section examines potential incentives management may have to choose the Deferred Revenue Method or the Incremental Cost Method, how the accounting method chosen drives the way FFPs are operated, and how FFP accounting could potentially be used as a vehicle to manage airline earnings.

Incentives Associated with Selecting and Implementing the Deferred Revenue Method

Perhaps the most compelling incentive management has to choose the Deferred Revenue Method (or choose to switch to the Deferred Revenue Method) is the fact that, for any given ticket sale, it allows for significantly higher future revenue recognition opportunities at the point of eventual mileage credit redemption relative to the Incremental Cost Method—even though no associated cash inflow exists as a result of mileage credit redemption. Although switching to the Deferred Revenue Method also means allowing FFP-related liabilities to balloon relative to the Incremental Cost Method, that liability balance represents future revenue that can be recognized by the entity. Furthermore, management can influence the amount and timing of mileage credit redemption revenue it recognizes from the liability balance by regulating the availability of award seats. This phenomenon is discussed further in the earnings management section below.

Once an airline chooses to switch to the Deferred Revenue Method, the accounting method itself likely drives management decisions about the FFP's operation. Use of the Deferred Revenue Method primarily incentivizes management to make more award seats available relative to the Incremental Cost Method—a decision that would please passengers and could generate loyalty, although at the expense of potentially displacing fare-paying passengers. When award passengers travel using mileage credits, it has the effect of not only reducing the airline's FFP liability, but also allowing the airline to recognize revenue approximately commensurate with the amount a fare-paying passenger would have paid (because the initial liability was accrued at the then-fair value of air travel).

U.S. airlines classify revenue recognized from mileage credit redemptions as part of passenger revenue—the same income statement category in which revenue from fare-paying customers is recognized, although many airlines disclose the percentage of revenue passenger miles that represent award travel.

Clearly, both airline management and sophisticated investors are aware of the impact of FFP redemptions on revenues, as evidenced in this excerpt from Delta Air Lines' fourth-quarter 2011 conference call:

Savi Syth (Analyst, Raymond James): If you look at Delta's frequent flyer revenue, it comes to roughly about 5% of total revenue. But if you look at United or Alaska, theirs just comes to about 10% of total revenue. Just wondering why that discrepancy was and if there was potential for that to increase.

Richard Anderson (CEO, Delta Air Lines): Yes. I suspect – I'm not familiar with the specifics of United, but I expect the difference is in the deferred revenue accounting. Each airline has the specific values and that will impact comparability between carriers. While the treatment may be the same, it's unique for carriers. So I think it is somewhat difficult to try to match up the specifics, one carrier versus another.

Ed Bastian (President, Delta Air Lines): We certainly don't think that our frequent flyer plan is any less revenue producing than any other carrier out there (Seeking Alpha, 2012).

Bastian's response to the analyst, somewhat puzzlingly, seems to imply that award redemption revenue recognized is an indicator for the revenue-producing capability of an airline's FFP, and that investors view a higher proportion of award redemption revenue as positive. In other words, as noted above, it appears that one incentive for management of airlines using the Deferred Revenue Method is to make relatively more seats available for award redemption—despite the fact that revenue recognized from award redemptions is cashless, and could even result in the short-term displacement of fare paying passengers and the cash revenue associated with them.

Incentives Associated with Selecting and Implementing the Incremental Cost Method

The incentives for airlines to choose (or choose to maintain use of) the Incremental Cost Method of accounting for FFPs are the same ones that have been discussed throughout this thesis: specifically, they are significantly lower FFP-related liabilities and expenses from period to period relative to the Deferred Revenue Method, as well as higher initial revenue recognition when a paying passenger purchases air travel (because the liability accrual as a percentage of total sale proceeds is smaller). Those features, however, necessarily mean that when passengers redeem mileage credits for award travel, airlines using incremental cost accounting do not have revenue recognition opportunities of nearly the same magnitude or flexibility as those using deferred revenue accounting.

POTENTIAL TO MANAGE EARNINGS THROUGH FFP-RELATED ESTIMATES

Both the Deferred Revenue Method and Incremental Cost Method are characterized by their dependence on numerous management estimates. These estimates, combined with the material nature of FFP-related revenues, expenses, and liabilities, provide potential opportunities to manage earnings.

Potential to Manage Earnings through Estimates of Breakage

The estimate common to the two accounting methods is known as breakage, or the amount of mileage credits expected never to be redeemed. Airlines can influence breakage by adjusting the threshold of mileage credits required for a member to receive award travel, or by setting or adjusting their expiration policy for mileage credits. Airlines develop comprehensive statistics on their programs so historical redemption patterns can assist them in estimating future breakage amounts; ultimately, however, the estimate of breakage is a management judgment. The estimate becomes particularly subjective when past statistics do not capture the redemption rate's reaction to a new program change, such as a change to the terms of the FFP (e.g., change of expiration policy, award availability, etc.). For example, Alaska Air Group recognized \$42.3 million in pretax revenue in 2008 as a result of changing its FFP account deletion policy so that inactive accounts would be deleted (and the associated mileage credits removed from the company's FFP liability balance) after two years instead of three.

Past redemption trends may also not be representative of future redemption trends in the case of customers who have rarely or never redeemed mileage credits but are saving credits for a major award. Airlines who regard such passengers' mileage credit account balances as likely never to be redeemed may be overstating breakage, thereby overstating revenue and understating their FFP liability balance.

Table 2 shows the impact of hypothetical changes in breakage estimates for the three major U.S. airlines that disclose that information.

Table 2
Impact of Changes in Breakage Estimates

Airline	FFP Accounting Method	Breakage Estimate	Impact on FFP Liability Balance of 10% Change in Breakage in \$	Impact of Hypothetical 10% Change in Breakage as Percentage of Current Liabilities
Alaska	Incremental Cost	12%	\$70,000,000	4.91%
Delta Air Lines	Deferred Revenue	29%	\$320,000,000	2.81%
United	Deferred Revenue	24%	\$630,000,000	4.98%

Interpretation: For Alaska Airlines, a hypothetical 10% decrease in the carrier's estimate of breakage (the number of mileage credits expected never to be redeemed) would result in a \$70,000,000 increase in the carrier's FFP liability balance, which would represent a 4.91% increase in current liabilities.

Potential to Manage Earnings through Other FFP-Related Estimates

FFPs offer the potential to manage earnings through estimates other than breakage. For the Incremental Cost Method, the primary management estimate is the incremental cost of carriage. For the Deferred Revenue Method, major estimates are related to the mix of redemption activity (i.e. the proportion of awards redeemed for travel in first class versus coach, the proportion of awards redeemed on the sponsoring airline versus a partner airline, and the proportion of awards redeemed for travel versus non-travel awards). Because deferred revenue liabilities are accrued at fair value, and each of the aforementioned award categories varies significantly in fair value, differences in estimates of the mix of redemption activity can materially affect the liability balance, as well as revenue recognized from period to period.

KPMG also notes, as previously mentioned, that, for those airlines using the Deferred Revenue Method, "Loyalty deferral will create locked up value which can be used to fill seats and generate revenue in slowdowns," suggesting that during periods when travel demand is weak, airlines can make up for some of the revenue loss they experience simply by making more seats available for use by award travelers (Sheppard et al., 2008). Although doing so does not involve generating misleading estimates, carrying additional award passengers nevertheless represents a method of smoothing income across periods, because the revenue recognized from FFP award redemptions is reported as part of passenger revenue. It is worth noting, however, that if airlines are carrying additional award passengers in a period where paid travel demand is lax in any event, the airline is not giving up any potential cash flows to carry these award passengers to whom it would have had to honor award travel obligations eventually.

The inclusion of revenue from providing award travel in passenger revenue may unfairly influence industry metrics such as yield (revenue per passenger-mile), load factor (the percentage of available seats that are filled), and revenue per available seat-mile (RASM - yield multiplied by load factor). These metrics are compared by analysts and investors across airlines and within single airlines over

time. Airlines could potentially influence and smooth these metrics over time by changing the ease with which passengers can redeem their mileage credits for award travel from period to period.

Cash Flow Differences between Deferred Revenue and Incremental Cost Methods

Even though passenger revenues reported from period to period vary significantly depending upon the accounting method chosen, cash flows, the ultimate concern of investors, should theoretically be the same for a given airline regardless of the accrual accounting method it uses to account for its FFP-related transactions. However, as discussed above, the FFP accounting method chosen tends to drive the way programs are operated. Thus, all else held equal, an airline using the Incremental Cost Method might experience amounts and timing of cash flows that differ from the scenario in which that same airline uses the Deferred Revenue Method.

It is somewhat difficult to measure whether any significant cash flow differences attributable to the FFP accounting method's impact on management behavior actually exist. The difficulty in measurement is partially due to the lack of airlines' detailed disclosures with respect to the cash flow impacts of their FFPs. For example, United nets the increase or decrease in its FFP deferred revenue balance with the advance purchase of miles (e.g., from its bank partner who issues United Mileage Plus-branded credit cards) on its statement of cash flows, so there is no way to determine exactly how much of the passenger revenue United reports on its income statement is from paying passengers, versus how much of that revenue represents redemptions of FFP awards for which cash was realized many periods ago and no subsequent cash inflows can be expected.

Carriers using the Deferred Revenue Method are incentivized to make available more award seats than their counterparts using the Incremental Cost Method because of the revenue recognition and liability lowering opportunities associated with carrying award passengers. As a result, a carrier using the Deferred Revenue Method in the short run could displace more potential fare-paying passengers in order to carry award passengers, and thereby may generate lower cash flows (despite reporting higher accrual revenue) than a similar carrier using the Incremental Cost Method. From a business perspective, the argument could be made that the opportunity cost of the cash flows given up by making more award seats available (and displacing some fare-paying passengers) is made up in the long run by securing additional loyalty from customers and their future incremental travel spend as a result of their loyalty to a given airline. For example, a customer may choose an airline to which he or she has an affinity relationship through its FFP over another airline for a given trip, even if the incumbent airline is more expensive.

Loylogic, a reward program consultancy, actively advocates that airlines "invest in reinforcing the value of their miles" by making awards more available in order to continue to attract individuals to enroll in their affinity credit card programs which award FFP miles, programs which are extremely profitable for airlines. Loylogic goes so far as to call FFPs airlines' "most valuable asset." As expressed in Loylogic's FFP whitepaper in reference to making awards more available, "The CFO fears the cash out as well as lower breakage rates. However, he/she will understand that the FFP manager is asking for an investment into a very profitable business (i.e., the most valuable in the airlines' books). An investment into reinforcing the miles value will transfer into more flights sold to frequent flyers as well as more miles sold to program partners at better rates" (Hofer, 2008).

Deferred Tax Asset Balance Differences

Ticket sales result in deferred tax assets, regardless of the FFP accounting method chosen, because less revenue is recognized for financial accounting purposes than cash is received. The magnitude of the difference between cash received and revenue recognized for financial statement purposes differs between methods: the Deferred Revenue Method results in a higher disparity between cash received and revenue recognized, and thus a higher tax deferral. All other things equal, an airline using the Deferred Revenue Method will report lower income tax expense relative to the passenger revenue it reports than an airline using the Incremental Cost Method, because it will defer a higher proportion of revenue for any given ticket sale. Additionally, all other things equal, an airline using the Deferred Revenue Method will report a higher deferred tax asset balance than an airline using the Incremental Cost Method.

The impact of FFP-related revenue deferrals on deferred tax assets, for those airlines that disclose that information, are as displayed in Table 3. Airlines using the Deferred Revenue Method report significantly higher deferred tax assets related to their FFPs relative to their Incremental Cost Method counterparts.

Table 3
FFP-Related Deferred Tax Assets for Major U.S. Airlines

Airline	FFP Accounting Method	FFP-Related Deferred Tax Asset as Percentage of Total Assets
American	Incremental Cost Method	2.51%
Delta Air Lines	Deferred Revenue Method	5.10%
United	Deferred Revenue Method	5.95%
U.S. Airways	Incremental Cost Method	1.59%

Testing for Earnings Management

Earnings management opportunities through FFP-related accounts certainly appear to exist. Whether or not FFP-driven earnings management actually occurs, however, is more difficult to determine. Testing for earnings management would require developing a quantitative measure of investors' informational needs (perhaps a standardized return, or analysts' forecast accuracy). However, with only seven major U.S. airlines, the sample size is so small that it might be difficult to draw any reliable conclusions. Additionally, FFP-related financial statement disclosures are limited, making such testing and analysis difficult.

CURRENT EVENTS AND FUTURE TRENDS

A number of events currently playing out will affect the future of FFP accounting. Those events include the Chapter 11 reorganization of American Airlines' parent company (AMR), new FASB revenue recognition standards, and continued GAAP/IFRS convergence.

AMR Corporation Bankruptcy

On November 29, 2011, AMR Corporation, the parent of American Airlines, filed for Chapter 11 bankruptcy protection, becoming the second to last so-called legacy carrier to file (Alaska Airlines is the only U.S. legacy carrier never to have entered Chapter 11). As of the September 30 prior to its filing, the company reported \$24.7 billion in assets and \$29.6 billion in debt (De La Merced, 2011). At the time of its filing, the company also had almost no unencumbered assets (Morningstar, 2011). In addition to its extremely high level of debt, American Airlines has also been criticized by analysts for some time over its weak unit revenue performance relative to its competitors. For example, in the third quarter of 2011, Delta Air Lines generated revenue per available seat-mile (RASM) of nearly 12% more than American (McCartney, 2011).

American Airlines, as part of its reorganization plan, aims to realize \$2 billion in incremental cost reductions, as well as \$1 billion in incremental revenue gains (Reed, 2012). American Airlines currently uses the Incremental Cost Method to account for its FFP liabilities. The use of the Deferred Revenue Method, although it would result in a ballooning FFP liability balance, could immediately help the company improve its reported unit revenue, as revenue recognition is much higher at the point of award redemption under the Deferred Revenue Method. While switching to the Deferred Revenue Method would not result in any immediate cash flow increases (which, of course, is what the company ultimately needs to ensure its long-term viability), an increase in reported revenues could help generate the impression of improving financial performance.

Assuming AMR emerges from Chapter 11 as an independent entity, the company will have the opportunity to engage in fresh start accounting. It will be telling to see whether AMR—like nearly all of its counterparts who have emerged from Chapter 11 since 2000—will switch its FFP accounting method from the Incremental Cost Method to the Deferred Revenue Method.

New FASB Revenue Recognition Standards and U.S. GAAP/IFRS Convergence

The FASB and the IASB are currently working on a joint revenue recognition project, the objective of which is to “Clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP and IFRSs that would:

1. Remove inconsistencies and weaknesses in existing revenue requirements.
2. Provide a more robust framework for addressing revenue issues.
3. Improve comparability of revenue recognition practices across entities, industries, jurisdictions, and capital markets.
4. Provide more useful information to users of financial statements through improved disclosure requirements.
5. Simplify the preparation of financial statements by reducing the number of requirements to which an entity must refer” (FASB, 2012).

The key provision of FASB’s proposed Accounting Standards Update (ASU) on revenue recognition affecting FFP accounting is in the way the proposed ASU would treat contracts with “separate performance obligations.” The ASU calls for entities to allocate the total transaction price to each of the

separate performance obligations and subsequently recognize revenue accordingly as each performance obligation is satisfied.

The proposed ASU would require entities to “allocate the transaction price to all separate performance obligations in proportion to the standalone selling prices of the good or services underlying each...[obligation] at contract inception (that is, on a relative standalone selling basis)” (FASB, 2010). According to a summary of the proposed ASU written by international accounting firm Deloitte & Touche, “The best evidence of standalone selling price is the price at which the good or service is sold separately by the entity”—a definition nearly identical to the way IASB defines “fair value” for the purposes of accounting for liabilities associated with FFP mileage credits under the Deferred Revenue Method (Deloitte, 2010).

The purchase of an airline ticket entitles the customer to: (i) travel on the flight purchased, and (ii) accrue mileage credits that can be used towards future free or reduced-fare travel. If FASB considers these two elements to constitute “separate performance obligations,” which appears highly likely, then U.S. airlines would be required to account for earned mileage credits in accordance with the proposed ASU. In other words, FASB’s proposed ASU, as applied to U.S. airlines, would effectively abrogate the Incremental Cost Method of accounting for earned FFP mileage credits. The implementation of the proposed ASU nearly mirrors that of the Deferred Revenue Method that is currently used by Delta and United.

Alaska Air Group, referring to FASB’s proposed ASU on revenue recognition, noted in its 2010 Form 10-K that, “We believe that a new revenue recognition standard could significantly impact the Company’s accounting for the Company’s Mileage Plan miles earned by passengers who fly on us or our partners” (Alaska Air Group, 2011).

CONCLUSION

Comparability

Whatever the individual merits and drawbacks of the Incremental Cost Method and Deferred Revenue Method, the fact that two methods exist under U.S. GAAP hinders the ability to compare results of operations among airlines. While it does appear that U.S. and international accounting standards are converging towards use of the Deferred Revenue Method, the ability to achieve comparability would still be dubious at best, even if only the Deferred Revenue Method were used, because of the extreme reliance placed on management estimates and judgments. Even absent an earnings management incentive, airlines may use different benchmarks to determine fair values, a key component of determining the FFP-related liability under the Deferred Revenue Method. For example, one airline may look to the value of its own tickets to determine fair value, while another may look to the price at which mileage credits are sold to third parties.

Also, the highly volatile nature of airfares means that the fair value of air travel is constantly changing. For example, in a deflationary fare environment, revenue recognized from FFP award travel in the current period may actually reverse a liability accrued during a previous period when airfares were much higher. In such a situation, the FFP revenue recognized may overstate what the airline would have

actually earned had it flown a fare-paying passenger instead (i.e. its opportunity cost), thereby making comparability across periods difficult and also negating the theoretical superiority of the Deferred Revenue Method to the Incremental Cost Method (which has to do with the Deferred Revenue Method's recognition of an accurate opportunity cost associated with displacing fare-paying passengers).

Disclosures

Unfortunately, the proprietary nature of FFPs makes it difficult for airline managements to provide detailed information about their financial results. Nevertheless, investors would benefit from more detailed financial statement disclosures on FFP operations and accounting. Ideally, FFP revenue should be reported separately from passenger revenue, and the cash flow impacts of FFPs and their various components should be disclosed, as well. Such disclosures would allow investors to differentiate between cash sales of tickets and cashless revenue recognized from FFP award redemptions.

Management Incentives and Earnings Management Opportunities

The fact that nearly every major U.S. airline to emerge from Chapter 11 reorganization since 2000 has chosen to switch to the Deferred Revenue Method suggests that the revenue recognition opportunities associated with the Deferred Revenue Method are attractive to management. Although switching to the Deferred Revenue Method involves allowing the FFP-related liability balance to dramatically increase, the accounting "big bath" theory could certainly apply to an airline undergoing Chapter 11 reorganization and its choice to recognize a large one-time expense associated with revaluing its FFP liabilities using the Deferred Revenue Method in order to take advantage of large future revenue recognition opportunities.

In any event, airlines appear to have numerous opportunities to manage earnings and balance sheet ratios through FFP-related estimates. However, U.S. airlines do not appear to have engaged in aggressive earnings management given the highly volatile, and usually poor, results of operations they have reported since 2000. Quantitative analysis to determine whether airlines have engaged in any degree of earnings management using FFP-related accounts could be the topic of further research, although as aforementioned, the lack of detailed FFP-related disclosures and the small sample size (only seven major U.S. airlines) could make such analysis difficult.

Conceptual Soundness of Each Method

Ultimately, both the Deferred Revenue Method and Incremental Cost Method appear to be conceptually sound and suited to meeting investors' informational needs when applied under the right circumstances. For example, the Incremental Cost Method appears to be a valid way of accounting for FFP-related liabilities, and it should be the preferred method when an airline carefully controls its inventory of seats such that displacement of potential fare-paying customers is minimal. The Incremental Cost Method is also subject to far less influence from management estimates. On the other hand, the Deferred Revenue Method appears to be a valid way of accounting for FFP-related liabilities, and it should be the preferred method when an airline's FFP award customers regularly displace potential fare-paying customers. The Deferred Revenue Method successfully accomplishes the objective of recognizing the opportunity cost associated with such displacements (although perhaps not always accurately or objectively, as aforementioned). The Deferred Revenue Method is also, however, subject to influence by a number of

management estimates that can materially affect the FFP-related liability balance along with the amount of passenger revenue recognized from period to period.

Regardless of the arguments that can be made for and against each method, in the probable event that the FASB enacts its proposed ASU on revenue recognition, the Deferred Revenue Method will likely be the only surviving FFP accounting method under U.S. GAAP. In that case, the issue is no longer which FFP accounting method is preferable under which circumstances. Instead, the question becomes whether the benefit from transitioning to a single accounting method based on fair value outweighs the potential for differing management estimates to result in lack of comparability and potential earnings management opportunities in the U.S. airline industry.

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**APPENDIX A: FFP ACCOUNTING METHODS COMPARISON
(MAJOR U.S. AIRLINES)**

	Incremental Cost Method	Deferred Revenue Method
Requirements for Conceptual Soundness	Conceptual soundness relies on an environment in which FFP awards are carefully controlled by the issuing airline such that passengers redeeming awards are filling seats that otherwise would have been empty (thus justifying an accrual of only the incremental cost of transporting one additional passenger).	Conceptual soundness relies on the principle that future awards are separately identifiable goods for which customers are implicitly paying.
Summary of Accounting Process	Issuing airline estimates and records a liability for the incremental cost of issuing awards to its FFP members expected to redeem mileage credits. For awards expected to be redeemed in the form of free travel on the issuing airline, incremental costs include fuel, food and beverage, insurance, and other handling costs.	Issuing airline divides proceeds of ticket sales in which mileage credits are awarded into two components: amount reflecting value of air transportation provided and amount reflecting fair value of mileage credits awarded. Amount assigned to second component (fair value of mileage credits awarded) is deferred as a liability until airline fulfills its obligations with respect to the mileage credits.
Average FFP-Related Liabilities as Percentage of Total Current Liabilities	20.14%	43.78%
Key Estimates/Potential Earnings Management Opportunities	<ul style="list-style-type: none"> • Breakage (the amount of mileage credits expected never to be redeemed) • Estimate of the incremental cost of carriage 	<ul style="list-style-type: none"> • Breakage (the amount of mileage credits expected never to be redeemed) • Mix of redemption activity (i.e. proportion of awards redeemed for travel in first class versus coach, the proportion of awards redeemed on the sponsoring airline versus a partner airline, and the proportion of awards redeemed for travel versus non-travel awards) and fair value of those items • Influencing reported passenger revenue by increasing or decreasing the amount of award travel from period to period (by changing the ease with which passengers can redeem their mileage credits)

APPENDIX B: DEFINITIONS OF TERMS

Term	Definition (As Used in this Thesis)
Award passenger	A passenger traveling on redeemed FFP mileage credits (in contrast to a fare-paying passenger)
Award travel	Free or reduced-fare travel provided to customers who redeem their FFP mileage credits
Available seat-miles (ASMs)	The number of seats an airline sells multiplied by the number of miles those seats fly (e.g., a Boeing 737-800 with 157 seats flying 500 miles generates 78,500 ASMs)
Frequent flyer program (FFP)	A customer loyalty program offered by an airline in which customers earn mileage credits, most often through purchasing travel on the offering airline or by using an affinity credit card related to the offering airline's FFP; customers may redeem their mileage credits under specified conditions, usually for free or reduced-fare travel on the offering airline, although numerous redemption options exist
Legacy airline	An airline that was in existence and had established an interstate route network prior to industry deregulation in 1978 (as compared to a so-called low-cost carrier); of the seven major U.S. airlines as of April 2012, five were legacy airlines (Alaska, American, Delta Air Lines, United, and US Airways) and two were low-cost carriers (JetBlue Airways and Southwest)
Load factor	Total revenue passenger-miles (RPMs) divided by total available seat-miles (ASMs); in other words, the percentage of total seats that are occupied
Major airline	An airline with annual revenues in excess of \$1 billion
Mileage credit	An individual unit of value as defined in the offering airline's FFP terms and conditions (for most airlines, mileage credits are referred to as "miles," although some airlines to them as "points")
Reward	The service or product for which FFP members may redeem their mileage credits (most often free or reduced-fare travel)
Revenue passenger-miles (RPMs)	The number of paying passengers (often including FFP passengers for whom revenue is recognized) multiplied by the number of miles they fly (e.g., a Boeing 737-800 with 157 seats, of which only 120 are occupied, flying 500 miles generates 60,000 RPMs)
Yield	Total passenger revenue (which often includes revenue from award travel) divided by total RPMs