
Southwest's acquisition of AirTran: an analysis of short-term stock performance

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Abstract: This paper examines the short-term stock performance of Southwest Airlines and AirTran Airways using time series data consisting of daily and cumulative abnormal returns \pm 60 trading days around the merger announcement and merger completion dates. The impact of Southwest's announcement to acquire AirTran is positive. The daily abnormal returns of Southwest and AirTran, using the S&P 500 as index, are highly significant on the merger announcement date. The impact of the merger completion is mixed, however. Southwest's share price drifted lower up to the merger date, underperforming the S&P 500, while the share price of AirTran generally drifted higher in a very narrow range. Southwest and AirTran, nevertheless, outperformed the AMEX Airline Index, suggesting that the higher fuel prices at the time of the merger may have influenced investor reaction to the merger, resulting in lower share prices of major airlines. The beta of Southwest improved after the merger announcement and completion of the merger, suggesting shareholder confidence in the merger and in Southwest's financial performance, at least in the short-term.

Keywords: abnormal returns; airline mergers; event study; stock performance.

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1 Introduction

The global airline industry was profitable in 2011 despite the disaster in Japan, unrest in the Middle East, and oil price increases due to the efficiency gains of the last decade and the strengthening global economic environment, reducing the impact of higher fuel prices, but with a 0.7% margin the airline industry may not weather another shock (Francis et al., 2011). Available seats (capacity) in the US airline industry have not risen, allowing airlines to charge higher fares. The combination of capacity restraint and ancillary fees (e.g., additional charges for food and beverage, checked-in luggage, priority boarding, rebooking and cancellation) may have helped the industry return to profitability after the disastrous first decade of the 21st century (JD Powers and Associates, 2011).

Taneja (2003) argues that the airline industry is not only unprofitable but overwhelmingly complex, citing 12 characteristics that create the apparent complexity: excessive government regulation, network-driven structure, organised labour and high labour cost, capital and fuel intensity, high fixed costs, high cyclicity and seasonality, revenue vulnerability, destructive competition, commodity products, vulnerability to the weather and dependence on infrastructure and technology, uneven playing field, and extremely variable planning horizon. The airline industry's complexity and its related unprofitability have contributed to a history of bankruptcy and consolidation (e.g., mergers and acquisitions or M&As). Hanlon (2007) argues that M&As are generally seen as a way to improve airline industry fortunes. Moreover, investment analysts tend to see consolidation as a positive development in the airline industry, expecting increased revenues and non-labour cost improvements to ensue (Chase, 2010).

The focus of our study is on the short-term performance of the stock prices of Southwest and AirTran around the merger announcement and merger completion dates. The equity price movements of the acquiring and target (acquired) firms have been shown to indicate the market (shareholder) opinion regarding the management decisions of the airlines involved. Positive equity price movement is a reflection of shareholder confidence that the proposed action is in the best interest of shareholders while a negative price movement suggests that the action does not benefit shareholders or comes at too high a cost. This paper uses an event study methodology to explore the short-term stock

performance of Southwest and AirTran. The major objective is to determine whether Southwest's decision to acquire AirTran benefits its shareholders since domestic airline mergers have been shown to reduce operating costs (Brueckner and Spiller, 1991; Clougherty, 2002; Levine, 1987).

2 Airline M&As in the USA

Subsequent to the US Airline Deregulation Act in 1978, the merger activity in the 1980s led to a sharp increase in the overall concentration of the industry with eight carriers controlling 90% of the domestic industry in 1989 (Hanlon, 2007) and six carriers controlling 86% of the industry by the early 1990s (Kim and Singal, 1993). While the US Department of Transportation argued strongly that markets remained 'contestable' there was a great deal of criticism for mergers between carriers based at the same airport – Northwest and Republic, as well as TWA and Ozark, primarily because the mergers resulted in reduced service, fewer choices, and higher fares (Bailey and Williams, 1988).

Low cost carriers (LCCs) began to exert increasing pressure on the traditional carriers in the 1990s, exacerbating the dire financial position of full-service airlines. After the September 11, 2001 terrorist attacks in the USA, the LCCs expanded service while legacy carriers reduced capacity and departure frequency (Bond, 2003; Haddad, 2003). The terrorist attacks, rising fuel costs, and the severe acute respiratory syndrome epidemic in 2002 and 2003 created 'the perfect economic storm' for US airlines, according to the Air Transport Association (2003), leading to bankruptcy and a new round of M&As. A 2005 study by the US Government Accountability Office (2005) concluded that legacy airlines were not able "to reduce their costs sufficiently to profitably compete with low cost airlines". For many of these carriers, a viable option was merger or acquisition, although only one of the 20 major airline mergers since deregulation, Delta and Western, can be deemed a long-term success (Steffy, 2007). One of these mergers, Piedmont and US Airways in 1989, the largest airline merger up to that point, is one of the least successful mergers as efforts to equalise pay between the two firms created an airline with the highest cost structure in the US airline industry (Jones and Jones, 1999).

In the case of short-term financial performance, Singal (1996) reports that the two-day abnormal returns were positive for target and acquired firms, contrary to the finding that acquiring firms earn zero or negative returns (Malatesta, 1983; Varaiya, 1986). Hanlon (2007) argues, however, that the instability and volatility of the airline industry make almost any consolidation that promises to reduce costs or lower capacity appear attractive to airline investors. While some fall short of proclaiming consolidation as an 'unambiguous positive' (Chase, 2010), consolidation is viewed as a means to reduce capacity and improve profitability, especially M&As among domestic airlines (Brueckner and Spiller, 1991; Levine, 1987).

Southwest Airlines acquired Muse Air in 1985, Morris Air in 1993, and acquired certain assets of bankrupt ATA Airlines in 2008. On September 27, 2010 Southwest Airlines (LUV) announced its acquisition of AirTran Airways (AAI) for USD 1.4 billion and on November 9, 2010, the Antitrust Division of the US Department of Justice requested additional information on the proposed acquisition (<http://en.wikipedia.org/>

wiki/Southwest-AirTran_merger). On April 26, 2011 US antitrust regulators cleared the merger (<http://www.cnbc.com/id/42769464> and <http://www.cnbc.com/id/42768810>) and a week later, on May 2, Southwest Airlines completed its stock acquisition of AirTran (<http://www.southwest.com> and <http://www.cnbc.com/id/42862056>).

Since a number of studies indicate that the stock prices of acquiring and target firms show abnormal returns before and after the merger (Israel, 1991; Lang, 2000), we expect that:

H₁ The acquisition results in positive abnormal returns for Southwest Airlines.

H₂ The acquisition results in positive abnormal returns for AirTran Airways.

3 Methodology

We collected the daily index data of the S&P 500, Dow Jones Industrial Average (DJIA), and AMEX Airline Index (XAL), an index of mostly US airline stocks, and the daily share price data of Southwest and AirTran. We collected data for two periods: 60 trading days before and after the merger announcement and 60 trading days before and after the completion of the merger. We conducted internet searches to identify the acquisition announcement date, the actual merger date, and events that might influence the share prices of Southwest and AirTran such as communication with regulators and discussion with shareholders and labour groups, as well as approval by unions, the board of directors, shareholders, and regulators.

The efficient market hypothesis states that share prices incorporate all available information, which means any information regarding a merger should be reflected in the share prices of merging firms (Mandelker, 1974). The finance literature defines abnormal returns as the extent to which returns are different from those that would have been appropriate using a model that generates 'normal' returns (Brown and Warner, 1980), interpreting the abnormal return over an event window as a measure of the impact of the event on the share prices of the firm (Campbell et al., 1997). The use of daily stock returns and the characteristics of daily data with regard to their effect on event study methodologies have been investigated by Brown and Warner (1980, 1985), arguing that event studies using the market adjusted returns model based on standard parametric tests are well specified, while the use of daily stock returns for an event study analysis is straightforward (Brown and Warner, 1985).

We used the S&P 500 as the market benchmark in the computation of abnormal returns because the broader market is more representative of investors' sentiments than the DJIA. The S&P 500 also mirrors the performance of the DJIA in the 121-trading day periods, around the announcement date and around the merger date, considered in the study. We also examined any new information between the announcement date and the date of the merger by comparing the movement of the share prices around the announcement date and around the merger date. We graphed the daily abnormal returns (DARs) and cumulative abnormal returns (CARs), the sum of DARs over a period of n days, to show the performance of Southwest and AirTran against the S&P 500 and the XAL.

We used the following equations to compute for the DARs and CARs of Southwest's and AirTran's common shares. Equation (1) shows the market-adjusted returns model, a

linear model that relates stock returns to market returns whose error term has an expectation of zero and a variance equal to $\sigma_{\varepsilon_{it}}^2$ (Campbell et al., 1997).

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \quad (1)$$

where $E_{\varepsilon_{it}} = 0$ and $Var_{\varepsilon_{it}} = \sigma_{\varepsilon_{it}}^2$.

Brown and Warner (1985) define the market-adjusted returns model as:

$$A_{it} = R_{it} - R_{mt} \text{ for } i = 1 \text{ to } n \quad (2)$$

A_{it} is the excess or abnormal return of security i at time t , R_{it} is the return on stock i at time t , and R_{mt} is the return on the market index at time t .

$$R_{it} = [(P_{it} - P_{it-1}) \div (P_{it-1})] \times 100\% \quad (3)$$

$$R_{mt} = [(I_{mt} - I_{mt-1}) \div (I_{mt-1})] \times 100\% \quad (4)$$

P_{it} is the price of security i at time t and P_{it-1} is the price of security i at time $t - 1$. I_{mt} is the market index at time t and I_{mt-1} is the market index at time $t - 1$.

Appendices 1 and 2 show the statistical significance of the DARs and CARs, based on the t -statistics, of Southwest's share price in the 121-trading day window around the merger announcement and merger completion dates. Appendices 3 and 4 show the statistical significance of the DARs and CARs of AirTran's stock price in the 121-trading day period around the merger announcement date and in the 60-trading day period before the completion of the merger. Statistical significance suggests that 'new information' exists and the stock market has been slow to reflect all relevant information in the share prices of Southwest and AirTran. Statistically significant abnormal returns indicate that arbitrage exists, suggesting that knowledgeable investors benefit from the new information regarding the merger announcement or completion of the merger.

We computed the betas of Southwest and AirTran using equation (5), based on the ordinary least squares market model.

$$\beta_i = \frac{\text{cov}(r_i, r_m)}{\text{var}(r_m)} \quad (5)$$

where β_i is the beta of stock i , the ratio of the covariance of the rates of return of stock i and the market; r_i is the rate of return of stock i , and r_m is the rate of return of the market (Brealey et al., 2006).

The capital asset pricing model (CAPM), $r - r_f = \beta(r_m - r_f)$, where $r - r_f$ is the expected risk premium of the stock (e.g., Southwest or AirTran stock) and $r_m - r_f$ is the expected risk premium on the market (e.g., S&P 500 or DJIA), argues that an increase in a firm's beta increases its cost of capital (Brealey et al., 2006), resulting in lower present values of its future cash flows. Investors invariably interpret a firm's higher beta as negative news, resulting in lower share prices (Flouris and Swidler, 2004). Turner and Morrell (2003), in their study of airline stocks and cost of equity capital, argue that betas calculated using the CAPM tend to be lower, although they attribute the lower betas on the airlines in their sample or the market volatility at the time of their study.

4 Results and analysis

The stock price of Southwest outperformed the S&P 500 (see Figure 1), gaining 8.72% on the merger announcement date and peaking at USD 14.25 in the 60-trading day period following the merger announcement, an increase of 6.82% from its closing price of USD 13.34 on announcement date. AirTran’s share price increased 61.32% on the merger announcement date closing at USD 7.34, from USD 4.55 on the previous trading day. AirTran’s share price also outperformed the S&P 500 (see Figure 2), peaking at USD 7.50 in the 60-trading day period following the merger announcement, an increase of 2.18% from its announcement date share price. Although market perception on Southwest and AirTran is generally negative prior to Southwest’s announcement of the merger on September 27, 2010 (see Figures 1 and 2), the increase in share prices and the resulting positive abnormal returns following the merger announcement indicate a positive investor perception of the merger.

Figure 1 Stock performance of Southwest Airlines (LUV) ± 60 trading days (July 1–December 21, 2010) around the merger announcement date (September 27, 2010) using the S&P 500 as benchmark (see online version for colours)

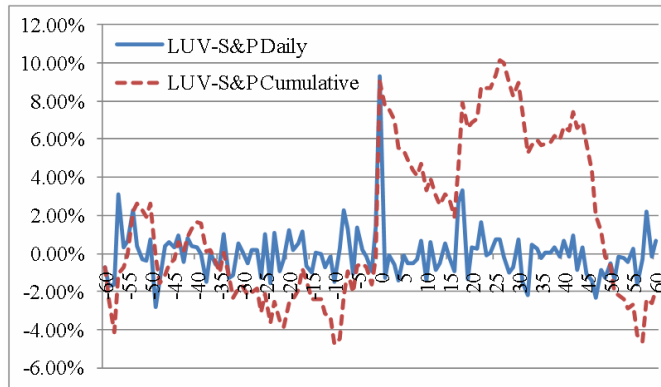
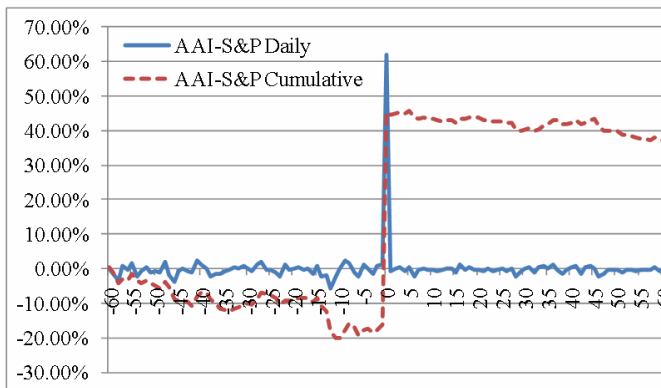


Figure 2 Stock performance of AirTran (AAI) ± 60 trading days (July 1–December 21, 2010) around the merger announcement date (September 27, 2010) using the S&P 500 as benchmark (see online version for colours)



Southwest's share price underperformed the XAL (see Figure 3), suggesting that investors view Southwest's acquisition of AirTran as negative relative to its industry, perhaps due to the uncertainty of absorbing AirTran's assets and employees into Southwest's operations. Southwest's underperformance against its industry may also indicate investor skepticism on its ability to further reduce operating costs given that AirTran operates Boeing 717s, not the Boeing 737s that arguably give Southwest its cost advantage over its rivals. With razor-thin margins in the airline industry, Southwest's ability to extend its cost reduction strategies at AirTran is in doubt. AirTran's share prices outperformed the XAL (see Figure 4), indicating that investors have a positive perception on its acquisition by Southwest relative to its industry. The diverging trends of the acquirer's (Southwest) and target's (AirTran) share prices indicate that shareholders of target firms usually benefit more than the shareholders of acquiring firms (Bradley, 1980; Asquith and Han Kim, 1982). Southwest's stock price performance is consistent with the analysis of Haugen and Langetieg (1975) that the stock prices of acquiring firms significantly underperform their industry average.

Figure 3 Stock performance of Southwest Airlines (LUV) \pm 60 trading days (July 1–December 21, 2010) around the merger announcement date (September 27, 2010) using the XAL as benchmark (see online version for colours)

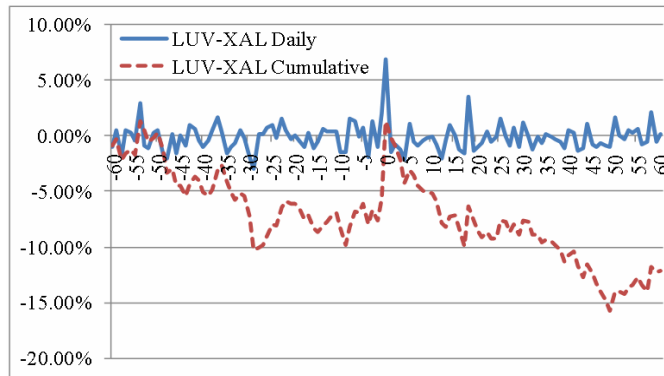
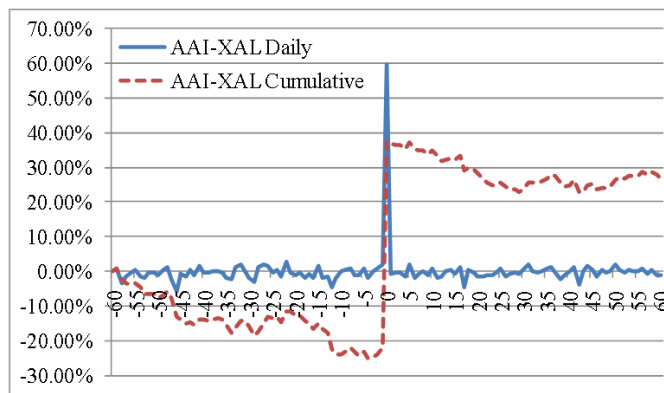


Figure 4 Stock performance of AirTran (AAI) \pm 60 trading days (July 1–December 21, 2010) around the merger announcement date (September 27, 2010) using the XAL as benchmark (see online version for colours)



Despite Southwest’s underperformance against the XAL around the merger announcement date, its stock performance against the S&P 500 indicates that Southwest’s shareholders benefited from the merger announcement from a broader market perspective. Southwest’s positive DAR and CAR are statistically significant on announcement date (see Appendix 1). The positive market perception extended to AirTran as well. The target airline’s DAR is statistically significant on announcement date (see Appendix 3).

Figure 5 Stock performance of Southwest Airlines (LUV) \pm 60 trading days (February 3–July 27, 2011) around the merger completion date (May 2, 2011) using the S&P 500 as benchmark (see online version for colours)

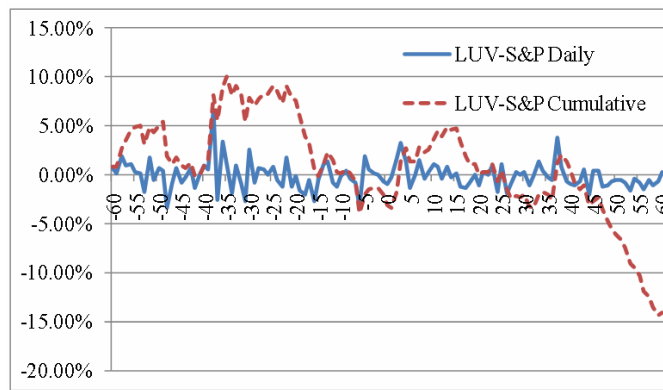
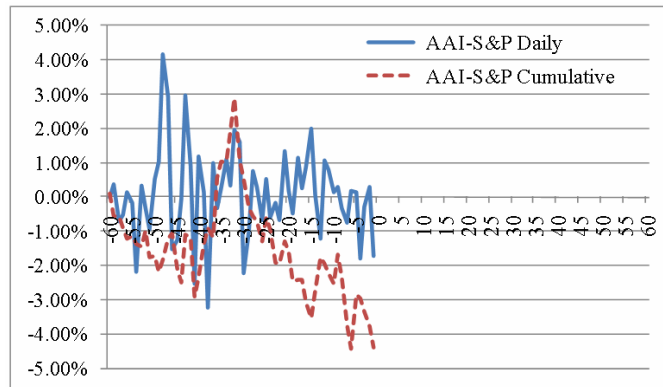


Figure 6 Stock performance of AirTran (AAI) 60 trading days (February 3–April 29, 2011) before the merger completion date (May 2, 2011) using the S&P 500 as benchmark (see online version for colours)



While the stock prices of Southwest and AirTran fared badly against the S&P 500 (see Figures 5 and 6) in the 121-trading day window around the merger completion date, their stock prices outperformed the XAL (see Figures 7 and 8). This suggests that airline stocks were underperforming relative to the broader market as kerosene-type jet fuel prices were higher in the second and third quarters of 2011 (see Table 1), resulting in lower share prices of major airlines. The higher fuel prices may have been caused by the deteriorating situation in the Middle East and security concerns regarding the Strait of

Hormuz, where tankers carrying a sizeable supply of crude oil pass through, due to the standoff between the West and Iran on the latter's nuclear ambitions. Southwest's and AirTran's stock performance against the XAL indicates that investors have a positive view of their merger despite the rising cost of fuel.

Figure 7 Stock performance of Southwest Airlines (LUV) \pm 60 trading days (February 3–July 27, 2011) around the merger completion date (May 2, 2011) using the XAL as benchmark (see online version for colours)

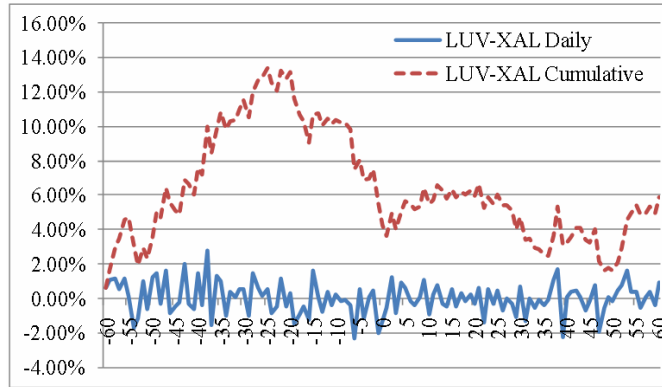


Figure 8 Stock performance of AirTran (AAI) 60 trading days (February 3–April 29, 2011) before the merger completion date (May 2, 2011) using the XAL as benchmark (see online version for colours)

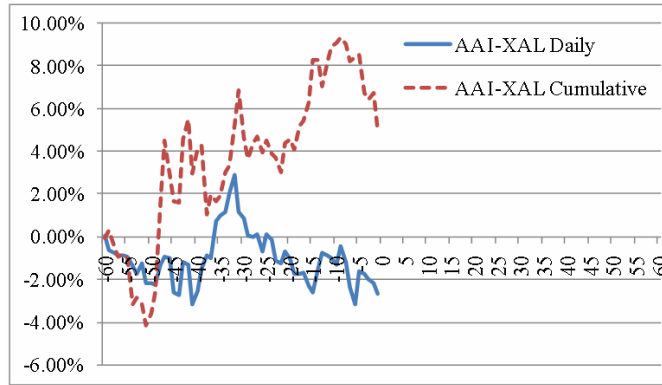


Table 1 Kerosene-type jet fuel prices per gallon in 2011

	<i>Quarterly average (USD)</i>	<i>Percent higher over first quarter</i>
First quarter	2.87	-
Second quarter	3.13	8.87
Third quarter	3.03	5.31
Fourth quarter	2.96	3.04

Source: Thomson Reuters

The statistically significant negative CARs of Southwest in the last ten trading days of the 60-trading day period following the completion of the merger (see Appendix 2) suggest that shareholders' wealth decreased. Southwest's stock price lost an average of 10.26% in the aforementioned period from its closing price on May 2, 2011. The decrease in Southwest's share price cannot be solely attributed on its merger with AirTran because jet fuel prices were higher at the time of the merger (see Table 1), complicating the impact of the merger on its share price. The statistically significant positive CARs of AirTran from the 36th trading day to the 31st trading day before the completion of the merger (see Appendix 4) suggest that investors benefited from its imminent acquisition by Southwest. AirTran was delisted on May 2, 2011 when Southwest completed its stock acquisition of AirTran.

The beta of Southwest in the 61-trading day period leading to the merger announcement $[-60, 0]$ is 1.15, while its beta is 0.79 in the 61-trading day period following the merger announcement $[0, 60]$, indicating that its stock price volatility significantly improved following the announcement of its acquisition of AirTran. This suggests that Southwest's cost of capital decreased following the merger announcement, at least in the short-term, increasing the present value of its future cash flows. The positive outlook on Southwest's future cash flows may have contributed to its share price increase of 8.72% on announcement date, outperforming the S&P 500 by 9.29% (see Figure 1), which is highly significant (see Appendix 1), suggesting that investors benefited from the merger announcement.

The beta of AirTran in the 61-trading day period leading to the merger announcement $[-60, 0]$ is 0.57, while its beta in the 61-trading day period following the announcement $[0, 60]$ is -1.05 . This suggests that AirTran's share price volatility doubled following the announcement date while moving in the other direction of the S&P 500. AirTran's higher beta is due to the S&P 500's volatility in the same period (September 27 to December 21, 2010). The S&P 500's maximum and minimum values are 1,254.60 and 1,137.03, respectively, with a variance of 921.30, while AirTran's share price in the same period is stable with maximum and minimum values at USD 7.50 and USD 7.33, respectively, with an almost zero variance. While the higher beta of AirTran during this period may result in a higher cost of capital and lower present value of its future cash flows, the 61.32% increase of its share price on announcement date (see Figure 2) more than offsets this apparent anomaly. Moreover, AirTran's average share price of USD 7.41 in the period following the merger announcement up to one trading day before the completion of the merger, an increase of 62.77% from the trading day prior to the merger announcement, indicates positive investor confidence in the future of AirTran as a subsidiary of Southwest. The beta of AirTran in the 60-trading day period leading to the completion of the merger is 0.26, indicating that investors are upbeat about its future with Southwest.

The beta of Southwest in the 61-trading day period leading to the completion of the merger $[-60, 0]$ is 0.99, a slight increase from its beta of 0.79 following the merger announcement. The increased volatility of its share price cannot be solely attributed to the merger because its higher beta may also be due to the higher jet fuel prices (see Table 1) at the time of the merger and the slower growth in the US economy in 2011 compared with the previous year, as well as the slower growth of the transportation and warehousing sector, which includes the airline industry, in the third and fourth quarters of 2011 compared with the same period in the previous year (see Table 2). Southwest's beta improved to 0.81 in the 61-trading day period $[0, 60]$ after its merger with AirTran,

suggesting that investor perception on its USD 1.4 billion stock acquisition of AirTran improved when uncertainty regarding the merger has been resolved (Halpern, 1983).

Table 2 US gross domestic product (GDP) and transportation and warehousing (T&W)

	2010 growth rate				2011 growth rate			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GDP	3.9	3.8	2.5	2.3	0.4	1.3	1.8	3.0
T&W	-2.9	-1.3	11.9	11.0	-0.8	1.7	5.7	0.7

Note: The quarterly growth rates are seasonally adjusted at annual rates.

Source: Bureau of Economic Analysis, US Department of Commerce

Southwest's six-month (May 3, 2011 to November 4, 2011), 12-month (May 3, 2011 to May 3, 2012), and 18-month (May 3, 2011 to November 5, 2012) betas after its merger with AirTran are 0.98, 1.02, and 0.96, respectively, indicating that its beta has been stable in the 18 months following its merger with AirTran. Southwest's long-run betas (i.e., at least one year), are slightly lower compared with its beta of 1.11 in the 121-trading day period around the merger announcement, but slightly higher compared with its beta of 0.90 in the 121-trading day period around the completion of the merger. The narrow range of Southwest's betas indicates that the merger did not increase the share price volatility of Southwest, suggesting investor confidence in its acquisition of AirTran, despite rising fuel prices and slower US economic growth at the time of the merger.

5 Conclusions

This paper examined the impact of Southwest's acquisition of AirTran on their share prices using two events – merger announcement and merger completion. The graphs of the DARs and CARs of Southwest and AirTran indicate that investors view the acquisition of AirTran by Southwest as positive news, outperforming the S&P 500 on announcement date. The statistically significant abnormal returns of Southwest and AirTran on announcement date attest to the upbeat reaction of investors on the merger. The beta of Southwest following the merger announcement confirms the positive investor perception regarding its acquisition of AirTran.

While the share prices of Southwest and AirTran underperformed the S&P 500 around the completion of the merger, their share prices outperformed the XAL, suggesting that the higher fuel prices in the second and third quarters of 2011 may have influenced investor reaction to the Southwest-AirTran merger, sending major airline stocks lower, resulting in negative abnormal returns against the broader market index. Since Southwest and AirTran outperformed their industry leading to the completion of the merger and given that Southwest also outperformed the XAL following its merger with AirTran, overall the acquisition of AirTran by Southwest has been well-received by investors. Southwest's beta in the 121-trading day period around the completion of the merger is lower compared with its beta in the 121-trading day period around the merger announcement, suggesting that the positive perception of investors regarding its merger with AirTran persists despite the threat of higher fuel prices in the horizon.

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Appendix 1**Table A1** Southwest's DARs and CARs around the merger announcement date

<i>Day</i>	<i>DAR</i>	<i>CAR</i>	<i>Day</i>	<i>DAR</i>	<i>CAR</i>
-60	-0.008	-0.008	0	0.093***	0.090**
-59	-0.017	-0.025	1	-0.013	0.077*
-58	-0.017	-0.041*	2	-0.001	0.076*
-57	0.031**	-0.010	3	-0.006	0.070*
-56	0.003	-0.007	4	-0.014	0.056
-55	0.007	-0.001	5	-0.001	0.054
-54	0.023**	0.022	6	-0.005	0.049
-53	0.004	0.026	7	-0.005	0.044
-52	-0.003	0.023	8	-0.003	0.041
-51	-0.004	0.019	9	0.006	0.047
-50	0.007	0.026	10	-0.014	0.033
-49	-0.028**	-0.002	11	0.006	0.039
-48	-0.014	-0.016	12	-0.009	0.031
-47	0.004	-0.012	13	-0.005	0.026
-46	0.006	-0.006	14	0.005	0.031
-45	0.003	-0.003	15	-0.002	0.029
-44	0.009	0.006	16	-0.009	0.019
-43	-0.005	0.001	17	0.027**	0.046
-42	0.008	0.009	18	0.033***	0.079
-41	0.004	0.013	19	-0.013	0.066
-40	0.003	0.016	20	0.003	0.069
-39	0.000	0.016	21	0.002	0.071*
-38	-0.015	0.001	22	0.017	0.088**
-37	0.001	0.002	23	-0.001	0.087**
-36	-0.006	-0.004	24	0.000	0.087**
-35	-0.005	-0.010	25	0.007	0.094**
-34	0.010	0.001	26	0.007	0.101**
-33	-0.013	-0.012	27	-0.002	0.100**
-32	-0.011	-0.024	28	-0.010	0.090**
-31	0.005	-0.018	29	-0.007	0.082*
-30	0.001	-0.017	30	0.007	0.089**
-29	-0.005	-0.022	31	-0.015	0.074*
-28	0.002	-0.020	32	-0.022*	0.053

Notes: This table shows the statistical significance of the DARs and CARs of Southwest's share prices \pm 60 trading days around the merger announcement date. Three (***) asterisks indicate that the abnormal return is significant at the 1% level (highly significant), two (**) asterisks at the 5% level, and one (*) asterisk at the 10% level.

Table A1 Southwest's DARs and CARs around the merger announcement date (continued)

<i>Day</i>	<i>DAR</i>	<i>CAR</i>	<i>Day</i>	<i>DAR</i>	<i>CAR</i>
-27	0.002	-0.018	33	0.004	0.057
-26	-0.013	-0.031	34	0.002	0.059
-25	0.010	-0.021	35	-0.002	0.057
-24	-0.015	-0.037	36	0.001	0.057
-23	0.011	-0.026	37	0.001	0.058
-22	-0.010	-0.035	38	0.003	0.061
-21	-0.003	-0.039*	39	-0.002	0.060
-20	0.012	-0.027	40	0.007	0.066
-19	0.002	-0.024	41	-0.002	0.064
-18	0.005	-0.019	42	0.010	0.074*
-17	0.011	-0.008	43	-0.009	0.066
-16	-0.006	-0.015	44	0.003	0.068
-15	-0.010	-0.024	45	-0.011	0.058
-14	0.000	-0.024	46	-0.014	0.043
-13	0.000	-0.024	47	-0.023**	0.020
-12	-0.007	-0.032	48	-0.009	0.012
-11	-0.001	-0.033	49	-0.013	-0.002
-10	-0.015	-0.048*	50	-0.005	-0.007
-9	0.002	-0.045*	51	-0.014	-0.020
-8	0.023**	-0.023	52	-0.002	-0.022
-7	0.013	-0.010	53	-0.002	-0.024
-6	-0.011	-0.021	54	-0.005	-0.029
-5	0.014	-0.007	55	0.002	-0.027
-4	0.002	-0.005	56	-0.017	-0.043*
-3	-0.002	-0.007	57	-0.003	-0.046*
-2	-0.009	-0.016	58	0.022*	-0.024
-1	0.013	-0.003	59	-0.002	-0.026
			60	0.006	-0.019

Notes: This table shows the statistical significance of the DARs and CARs of Southwest's share prices \pm 60 trading days around the merger announcement date. Three (***) asterisks indicate that the abnormal return is significant at the 1% level (highly significant), two (**) asterisks at the 5% level, and one (*) asterisk at the 10% level.

Appendix 2**Table A2** Southwest's DARs and CARs around the merger date

<i>Day</i>	<i>DAR</i>	<i>CAR</i>	<i>Day</i>	<i>DAR</i>	<i>CAR</i>
-60	0.007	0.007	0	-0.010	-0.031
-59	0.001	0.008	1	-0.003	-0.034
-58	0.019*	0.026	2	0.016	-0.019
-57	0.009	0.035	3	0.032***	0.014
-56	0.010	0.046	4	0.013	0.027
-55	0.003	0.048	5	-0.014	0.013
-54	0.001	0.049	6	0.000	0.013
-53	-0.019	0.030	7	0.014	0.028
-52	0.018*	0.048	8	-0.005	0.023
-51	-0.005	0.043	9	0.002	0.025
-50	0.007	0.050	10	0.011	0.036
-49	0.004	0.053	11	0.008	0.044
-48	-0.034***	0.019	12	-0.005	0.039
-47	-0.009	0.010	13	0.008	0.048
-46	0.007	0.017	14	-0.003	0.045
-45	-0.008	0.009	15	0.001	0.046
-44	-0.003	0.006	16	-0.013	0.033
-43	0.006	0.012	17	-0.014	0.019
-42	-0.014	-0.001	18	-0.008	0.011
-41	0.001	0.000	19	-0.001	0.010
-40	0.009	0.009	20	-0.011	0.000
-39	0.006	0.015	21	0.002	0.002
-38	0.067***	0.081*	22	-0.001	0.002
-37	-0.026**	0.055	23	0.009	0.010
-36	0.034***	0.089*	24	-0.018	-0.007
-35	0.011	0.100**	25	0.011	0.003
-34	-0.019	0.081*	26	-0.019	-0.015
-33	0.010	0.090*	27	-0.010	-0.025
-32	-0.010	0.081*	28	0.003	-0.022
-31	-0.028**	0.053	29	-0.001	-0.023
-30	0.025**	0.078*	30	0.002	-0.021
-29	-0.008**	0.070	31	-0.011	-0.032
-28	0.007	0.077*	32	-0.002	-0.034

Notes: This table shows the statistical significance of the DARs and CARs of Southwest's share prices \pm 60 trading days around the merger date. Three (***) asterisks indicate that the abnormal return is significant at the 1% level (highly significant), two (**) asterisks at the 5% level, and one (*) asterisk at the 10% level.

Table A2 Southwest's DARs and CARs around the merger date (continued)

<i>Day</i>	<i>DAR</i>	<i>CAR</i>	<i>Day</i>	<i>DAR</i>	<i>CAR</i>
-27	0.005	0.082*	33	0.013	-0.021
-26	0.000	0.082*	34	0.004	-0.018
-25	0.008	0.090*	35	-0.003	-0.020
-24	-0.005	0.085*	36	-0.006	-0.026
-23	-0.013	0.072	37	0.038***	0.012
-22	0.017*	0.090*	38	0.007	0.019
-21	-0.012	0.078*	39	-0.007	0.013
-20	-0.002	0.076*	40	-0.009	0.003
-19	-0.017	0.059	41	-0.012	-0.008
-18	-0.021*	0.038	42	-0.007	-0.016
-17	-0.006	0.032	43	0.005	-0.011
-16	-0.027**	0.005	44	-0.020*	-0.031
-15	-0.006	-0.002	45	0.004	-0.027
-14	0.011	0.010	46	0.004	-0.023
-13	0.013	0.023	47	-0.013	-0.036
-12	-0.008	0.015	48	-0.012	-0.048
-11	-0.013	0.002	49	-0.007	-0.055
-10	-0.001	0.001	50	-0.006	-0.061*
-9	0.004	0.005	51	-0.005	-0.066*
-8	-0.004	0.001	52	-0.008	-0.075*
-7	-0.008	-0.008	53	-0.016	-0.091**
-6	-0.033**	-0.040	54	-0.005	-0.096**
-5	0.019*	-0.021	55	-0.008	-0.104**
-4	0.006	-0.015	56	-0.015	-0.119***
-3	0.001	-0.014	57	-0.006	-0.125***
-2	0.000	-0.014	58	-0.012	-0.136***
-1	-0.007	-0.021	59	-0.008	-0.144***
			60	0.003	-0.141***

Notes: This table shows the statistical significance of the DARs and CARs of Southwest's share prices \pm 60 trading days around the merger date. Three (***) asterisks indicate that the abnormal return is significant at the 1% level (highly significant), two (**) asterisks at the 5% level, and one (*) asterisk at the 10% level.

Appendix 3**Table A3** AirTran's DARs and CARs around the merger announcement date

<i>Day</i>	<i>DAR</i>	<i>CAR</i>	<i>Day</i>	<i>DAR</i>	<i>CAR</i>
-60	0.003	0.003	0	0.619***	0.455
-59	-0.014	-0.011	1	-0.006	0.448
-58	-0.031	-0.041	2	0.004	0.452
-57	0.012	-0.029	3	0.004	0.457
-56	-0.003	-0.033	4	-0.006	0.451
-55	0.017	-0.015	5	0.008	0.459
-54	-0.021	-0.036	6	-0.019	0.440
-53	-0.005	-0.041	7	-0.002	0.438
-52	0.006	-0.035	8	0.003	0.441
-51	-0.009	-0.044	9	-0.003	0.437
-50	-0.006	-0.050	10	-0.003	0.434
-49	-0.008	-0.058	11	-0.004	0.430
-48	0.020	-0.038	12	-0.002	0.429
-47	-0.018	-0.056	13	0.002	0.431
-46	-0.035	-0.091	14	0.001	0.432
-45	-0.004	-0.095	15	-0.009	0.423
-44	0.004	-0.091	16	0.015	0.438
-43	-0.007	-0.098	17	-0.002	0.435
-42	-0.010	-0.108	18	0.005	0.440
-41	0.026	-0.083	19	-0.001	0.439
-40	0.013	-0.070	20	-0.001	0.438
-39	0.001	-0.069	21	-0.007	0.432
-38	-0.020	-0.089	22	0.001	0.433
-37	-0.012	-0.101	23	-0.005	0.428
-36	-0.013	-0.115	24	-0.001	0.427
-35	-0.007	-0.121	25	0.000	0.427
-34	-0.001	-0.123	26	-0.005	0.422
-33	0.006	-0.117	27	0.002	0.424
-32	0.003	-0.114	28	-0.019	0.405
-31	0.010	-0.104	29	-0.004	0.401
-30	0.004	-0.100	30	0.002	0.403
-29	-0.004	-0.105	31	0.005	0.408
-28	0.014	-0.091	32	-0.008	0.400
-27	0.020	-0.071	33	0.004	0.404

Notes: This table shows the statistical significance of the DARs and CARs of AirTran's share prices \pm 60 trading days around the merger announcement date. Three (***) asterisks indicate that the abnormal return is significant at the 1% level (highly significant) and one (*) asterisk at the 10% level.

Table A3 AirTran's DARs and CARs around the merger announcement date (continued)

<i>Day</i>	<i>DAR</i>	<i>CAR</i>	<i>Day</i>	<i>DAR</i>	<i>CAR</i>
-26	-0.002	-0.073	34	0.010	0.415
-25	-0.003	-0.075	35	0.004	0.419
-24	-0.009	-0.084	36	0.014	0.432
-23	-0.020	-0.105	37	0.000	0.432
-22	0.012	-0.092	38	-0.013	0.419
-21	-0.001	-0.093	39	0.000	0.419
-20	0.001	-0.092	40	0.004	0.424
-19	0.006	-0.086	41	0.009	0.433
-18	0.000	-0.086	42	-0.014	0.419
-17	0.002	-0.085	43	0.005	0.424
-16	-0.011	-0.096	44	0.008	0.432
-15	0.010	-0.086	45	0.002	0.434
-14	-0.022	-0.108	46	-0.019	0.415
-13	-0.017	-0.125	47	-0.013	0.402
-12	-0.055	-0.181*	48	-0.003	0.400
-11	-0.021	-0.202*	49	0.000	0.400
-10	0.001	-0.201*	50	-0.001	0.399
-9	0.024	-0.177*	51	-0.009	0.390
-8	0.017	-0.160	52	0.000	0.390
-7	-0.011	-0.171	53	-0.003	0.387
-6	-0.021	-0.192*	54	-0.007	0.380
-5	0.015	-0.177*	55	-0.002	0.378
-4	0.003	-0.175	56	0.000	0.378
-3	-0.013	-0.188*	57	-0.003	0.374
-2	0.008	-0.179*	58	0.007	0.381
-1	0.015	-0.164	59	-0.005	0.376
			60	-0.006	0.370

Notes: This table shows the statistical significance of the DARs and CARs of AirTran's share prices \pm 60 trading days around the merger announcement date. Three (***) asterisks indicate that the abnormal return is significant at the 1% level (highly significant) and one (*) asterisk at the 10% level.

Appendix 4**Table A4** AirTran's DARs and CARs before the merger date

<i>Day</i>	<i>DAR</i>	<i>CAR</i>	<i>Day</i>	<i>DAR</i>	<i>CAR</i>
-60	0.000	0.001	-30	-0.022**	0.005*
-59	0.004	-0.006	-29	-0.010	-0.003
-58	-0.007	-0.006	-28	0.007	-0.006
-57	-0.005	-0.009	-27	0.003	-0.007
-56	0.001	-0.012	-26	-0.007	-0.013
-55	-0.002	-0.011	-25	0.005	-0.006
-54	-0.022**	-0.014	-24	-0.006	-0.010
-53	0.003	-0.015	-23	-0.002	-0.019
-52	-0.003	-0.010	-22	-0.007	-0.019
-51	-0.010	-0.018	-21	0.013	-0.013
-50	0.005	-0.017	-20	0.002	-0.016
-49	0.010	-0.022	-19	-0.005	-0.025
-48	0.042***	-0.018	-18	0.011	-0.024
-47	0.029**	-0.012	-17	0.002	-0.024
-46	-0.016	-0.010	-16	0.009	-0.031
-45	-0.013	-0.021	-15	0.020*	-0.035*
-44	-0.001	-0.025	-14	0.000	-0.027
-43	0.030**	-0.011	-13	-0.012	-0.018
-42	0.009	-0.012	-12	0.011	-0.020
-41	-0.025**	-0.029	-11	0.008	-0.022
-40	0.012	-0.023	-10	0.001	-0.025
-39	0.001	-0.014	-9	0.003	-0.017
-38	-0.032***	-0.009	-8	-0.003	-0.023
-37	0.010	-0.012	-7	-0.008	-0.037*
-36	-0.003	0.006*	-6	0.002	-0.044**
-35	0.002	0.010**	-5	0.001	-0.029
-34	0.011	0.010**	-4	-0.018*	-0.030
-33	0.003	0.019***	-3	-0.003	-0.033
-32	0.019*	0.029***	-2	0.003	-0.038*
-31	0.016	0.011**	-1	-0.017*	-0.044**

Notes: This table shows the statistical significance of the DARs and CARs of AirTran's share prices 60 trading days before the merger date. Three (***) asterisks indicate that the abnormal return is significant at the 1% level (highly significant), two (**) asterisks at the 5% level, and one (*) asterisk at the 10% level.