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Fallen Angels: The investment opportunity

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Fallen Angels¹

1. What is a fallen angel?

Financial market participants are fond of attaching colourful names and phrases to financial market phenomena. One of the more imaginative terms that can be heard in the fixed income markets of the world is “fallen angel”. In religious terms, a fallen angel is an angel that has been rejected from heaven because of behaviour unbecoming of an angel.

The corporate bond markets of the world can be broadly categorised into two groups: Investment Grade on the one hand and High Yield on the other. Bonds that are categorised as “investment grade” are deemed to have been issued by governments and corporations that are highly unlikely to default. Investment grade bonds carry a BBB- or higher rating from Standard and Poor’s and/or a Baa3 rating or higher from Moody’s ratings services. Between 1981 and 2015 only 0.3% and 1.9% of bonds rated by Standard and Poor’s as A and BBB respectively defaulted over the following year; while no bonds rated AAA or AA defaulted over the following year, over the same timeframe².

High yield bonds are issued by governments and corporations that have a credit rating below BBB- and/or Baa3. Investors and ratings agencies generally believe that the risk of an issuer default on these bonds is high, relative to that of bonds issued by entities with an investment grade rating. This does not mean that they will default of course, just that the likelihood is higher. Between 1981 and 2015 5.0% and 27.9% of all bonds that defaulted were classified as BB and B respectively within 1 year of the default. The 1 year defaults rates were much lower. Investors are generally rewarded for the higher default risk inherent in high yield bonds with a higher yield than on investment grade bonds with a similar maturity. Investors might have an allocation to high yield bonds because they are attracted by the high yield relative to investment grade bonds, and also because these allocations may help them diversify some of the risks in their investment portfolios.

So how does a bond become a fallen angel?

The majority of investment grade bonds are issued by corporations (and governments) that enjoy an investment grade rating at the time that the bond is issued. Similarly, the majority of high yield bonds are issued by an issuer that is deemed by ratings agencies to be a high yield issuer. However, some bonds in the high yield universe begin life as an investment grade bond, but due to a decline in the perceived credit quality of the issuer over time the bond may be downgraded to high yield status by credit rating

agencies. The bonds of these issuers are referred to as fallen angels. So, rather than angering a celestial being, a corporate fallen angel is one whose credit metrics no longer qualify it for investment grade status and the lower borrowing costs that come with that status.

2. What is the potential investment opportunity?

There is a significant body of academic research that has looked at the impact of credit rating changes on the associated stock price of the bond issuer³. Most studies find that a downgrade normally leads to a fall in the related equity price. Fewer academic studies have looked at the more direct impact of a downgrade on the prices of bonds issued by the corporation whose ability to pay has been diminished in the eyes of the ratings’ agencies. However, unsurprisingly, the general result is that the prices of bonds issued by the downgraded corporation also fall on the announcement of the downgrade⁴. These studies generally indicate then that while investors may be aware of the deteriorating financial position of a corporate borrower, the announcement by a rating agency that may merely confirm investors’ views, is treated as ‘news’, that is, it has an impact on related equity and bond prices.

Although, academics have looked at the issue of credit rating downgrades, to our knowledge, no academic research has focussed specifically on the impact on bond prices of a downgrade from investment grade status to high yield status. But why should this phenomenon be of interest to investors? What investment opportunity can there be from buying the bond issues of corporations that have had been assessed to have experienced a significant decline in their ability to pay?

2.1 The Overreaction Hypothesis

The potential investment opportunity may exist because of a phenomenon known as the Overreaction Hypothesis. This hypothesis has its roots in behavioural finance. Whereas classical modern portfolio theory assumes that all investors are rational, behavioural finance has extended the work of psychologists who find that people behave in a way that is very different from the behaviour assumed by classical finance theory. For example, psychologists find that people can often make the same mistakes over and over again, and that they use rules of thumb to make complex decisions rather than cold hard, scientific analysis.

Amongst many behavioural traits that psychologists have identified, and which are not content with the concept of “rational economic man”, is the tendency of people to overreact to bad news and underreact to

good news⁵. This is what academics refer to as the Overreaction Hypothesis. But well before psychologists began to document this behavioural phenomenon the economist, John Maynard Keynes, made reference to it in an investment context in the 1930s. Keynes wrote:

*“... day-to-day fluctuations in the profits of existing investments, which are obviously of an ephemeral and nonsignificant character, tend to have an altogether excessive, and even absurd, influence on the market.”*⁶

In a pioneering piece of work in the mid-1980s Werner DeBondt and Richard Thaler⁷ tested the overreaction hypothesis using US stock data. What they found was that stocks that had sold off heavily tended to rebound in a predictable way over subsequent months, outperforming those stocks that had previously performed well. Indeed, the results were so clear that the researchers showed how the phenomenon could be turned into a profitable investment strategy involving buying losing stocks and short-selling winning stocks.

2.2 Institutional factors

It is possible then that the fall in the price of those bonds issued originally by investment grade corporates which then subsequently get downgraded to high yield status, may rebound subsequently because investors initially overreact to the very bad news that their bond has become a fallen angel. However, while the tendency for investors to overreact to bad news might be one reason why we could expect bond prices to rebound after an issuer has been downgraded to high yield status, there may be institutional factors that exacerbate this psychological reaction.

In 2006, Cantor et al surveyed 200 US and European fixed income fund managers and plan sponsors⁸. They found that only 14% of the fund managers and 8% of the plan sponsors did not include reference to ratings in their investment guidelines. The implication of this is that active bond fund managers may be forced to sell bonds in the event of a rating downgrade if this decline leads to a breach in the investment guidelines. While the authors found that many plan sponsors allowed the manager time to adjust the position, no manager wants to report back to their investors that their portfolio has suffered a downgrade. This means that managers may sell bonds that are potentially headed for a downgrade, thus depressing their prices ahead of any subsequent downgrade. Unfortunately the Cantor et al study did not focus on the boundary between investment grade and high yield universes. Many institutional investors see the two as distinct asset classes, not as a homogeneous class, it is therefore likely then that a manager would be particularly sensitive about holding a bond that had fallen out of the investment grade universe into another asset class, since it would give a poor impression of the manager's ability to analyse credit risk. Therefore, whether a manager is compelled by rules to sell fallen

angels, or whether they are motivated to sell these bonds as they head towards high yield status to protect their own reputation, and protect their investors from further losses, forced selling, whatever the cause, may lead to bond prices falling below their 'fair value' meaning that a bond's price may experience a recovery once the downgrade dust has settled.

Active bond fund managers may then be compelled by mandates, or simply feel compelled to sell investment grade bonds as they head for a downgrade to high yield status, or once they have been downgraded to this status. However, indexed funds (often referred to as passive funds) may also play a part in the process. Managers running indexed investment grade bond portfolios will normally be compelled to sell a bond that is no longer part of the index. Given that they are bound by strict rules, and given the scale of the index fund industry today, arguably when a bond issuer becomes a fallen angel, the selling pressure around this event emanating from indexed bond funds could be much more significant than that emanating from active bond fund managers.

2.3 Summary

In summary, there is ample evidence in academic literature to suggest that a change in the credit rating of an issuer, particularly a downgrade, is news. These announcements represent new information for investors which is subsequently incorporated into current security prices. There is also evidence in the field of psychology that investors tend to overreact to news, particularly bad news, and also evidence to suggest that financial market participants are as likely to overreact to news and events as any other type of person. Finally, the fact that explicit reference is made to credit ratings in investment guidelines for active fund managers, and via index rules for managers that run indexed funds, means that a ratings change could lead to forced selling, particularly when the downgrade creates a fallen angel, since investment grade bonds and high yield bonds are seen by many investors as being distinct asset classes. Taken together, there exists the distinct possibility that bonds issued originally by investment grade issuers that are subsequently downgraded to high yield status, could fall in price sharply and then subsequently rebound in price.

3. Evidence of the impact on bond prices

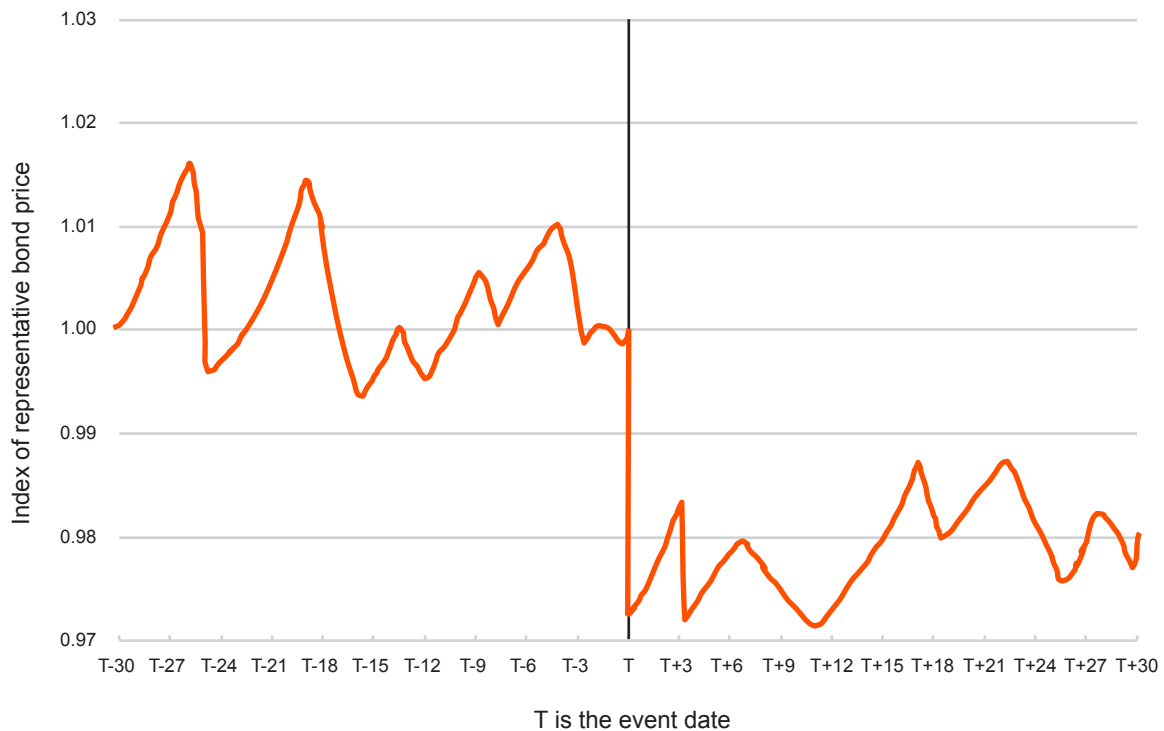
To investigate the possibility of a rebound in prices of fallen angels, we analysed the price performance of 534 bonds that had become fallen angels, 30 days before their fall from grace and for their first 30 days after the downgrade to high yield status. The fallen angels were all investment grade issuers that were components in the Citi US Broad Investment-Grade Bond Index and subsequently became components of the Citi US High-Yield Market Index. All the bonds in this latter index, that includes fallen angels, are: fixed rate bonds with at

least one year's maturity; have a minimum issue size of US\$250m; have a maximum S&P and Moody's credit rating of BB+ and Ba1 respectively; and a minimum S&P and Moody's credit rating of C and Ca respectively.

The bonds were all downgraded from investment grade to high yield status over the calendar period of

January 2006 to February 2016. We use an 'event time' methodology to analyse the daily performance of the bonds over the period T-30 to T+30, where T is the day of the downgrade. This essentially means that we calculate the average performance of each bond, on each of the days over the 61 day event window, regardless of when the downgrade occurred in calendar time.

Figure 1: Stylised representation of the impact of a credit rating downgrade on the price of a bond when markets are efficient



Source: Cass Business School. Stylised representation for illustrative purposes only.

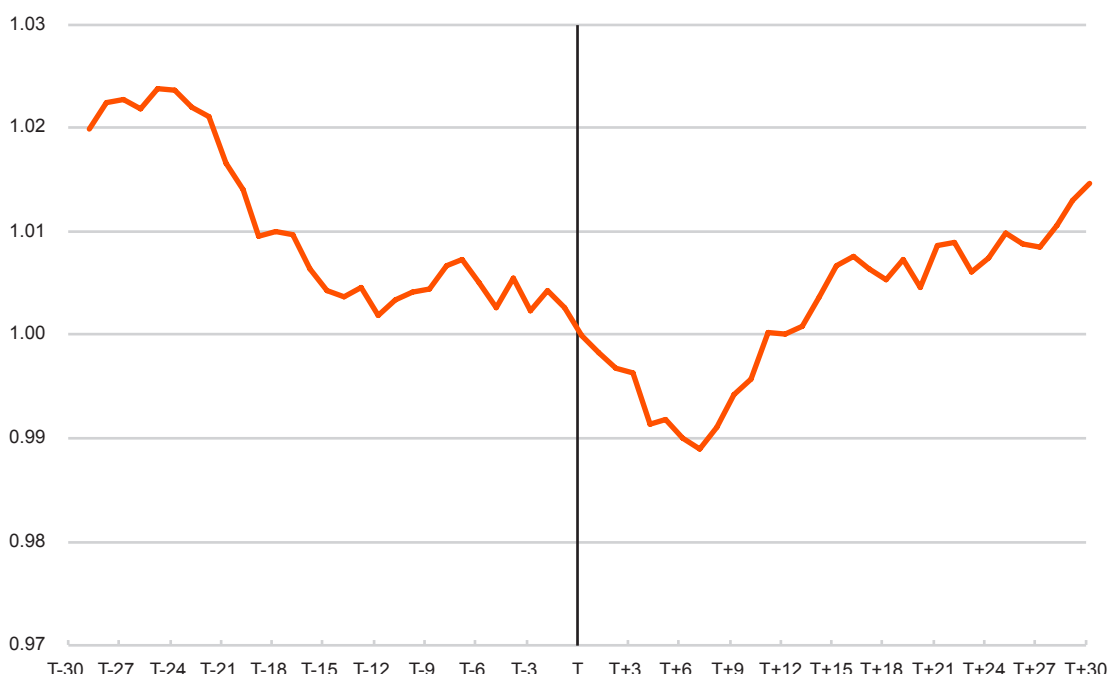
However, before we discuss the impact on typical bond prices of being downgraded from investment grade to high yield, we should first consider the outcome that would be consistent with the idea that markets are efficient. If they are efficient then the price of a bond today embodies all the information that is relevant for the prospects of the bond tomorrow, which in turn means that past information about the bond will not be able to help investors forecast future price changes. Figure 1 presents a stylised version of the impact that a downgrade at time T might be expected to have

when there is no investor overreaction or forced selling effects present, that is, when the market is efficient. The figure shows broadly random price changes before the downgrade; a sharp fall in the level of the price on the day of the downgrade (on the assumption that the rating agency's announcement is news); followed by broadly random price changes after the initial drop in the value of the bond, at a lower average level.

Figure 2 shows the average impact on the price of the fallen angels in our sample, 30 days prior to the downgrade and 30 days after. The figure shows a clear decline in average bond prices prior to the downgrade. From day T-24 there is an average fall in prices of 2.4% to the downgrade at time T. This indicates that market participants typically respond to the weakening ability to pay of the underlying bond issuers. However, average bond prices continue to fall a further 1.0% until around T+7, indicating that investors see the downgrade as confirmation that the ability to pay of the issuer has indeed declined. Figure 1 then shows a 2.5% recovery

in average bond prices from T+7 to at least the end of the event sample of T+30. This is the sort of “V-shaped” price reaction that DeBondt and Thaler found in their work and which can be seen as a confirmation of the overreaction hypothesis, and/or with the forced selling of both active and indexed bond funds. It is therefore the sort of illustrative price pattern that one would expect to find if bond investors are selling ahead of a downgrade to high yield status, followed by buying pressures from either high yield investors or other investors that are less constrained a few days after the downgrade.

Figure 2: The average response of bond prices around a downgrade to fallen angel status



Source of data: The Yield Book Inc. and Citigroup Index LLC. Source of calculations: Cass Business School, based on bond prices of fallen angels from the Citi US High Yield Market Index over the period from January 2006 to February 2016.

Figure 2 shows the impact of the downgrade on all of the bonds in our sample. But this sample includes bonds of all maturities and duration. Figure 3 presents the same analysis, but where the bonds in the sample have been sub-divided by maturity – 0-3 years, 3-5 years, 5-7 years and 7+ years. In all cases the average price of the bonds in each category begins to decline

at around T-24, and begins to recover around T+7. Between T-24 and T+7 the average fall in price is 3.5%, 4.0%, 2.1% and 3.9% for the 0-3, 3-5, 5-7 and 7+ years categories respectively. Although the average prices of all bond categories recover, the 3-5 year category rebounds most impressively after the announcement by almost 3.6%.

Figure 3: The average response of bond prices around a downgrade to fallen angel status by duration

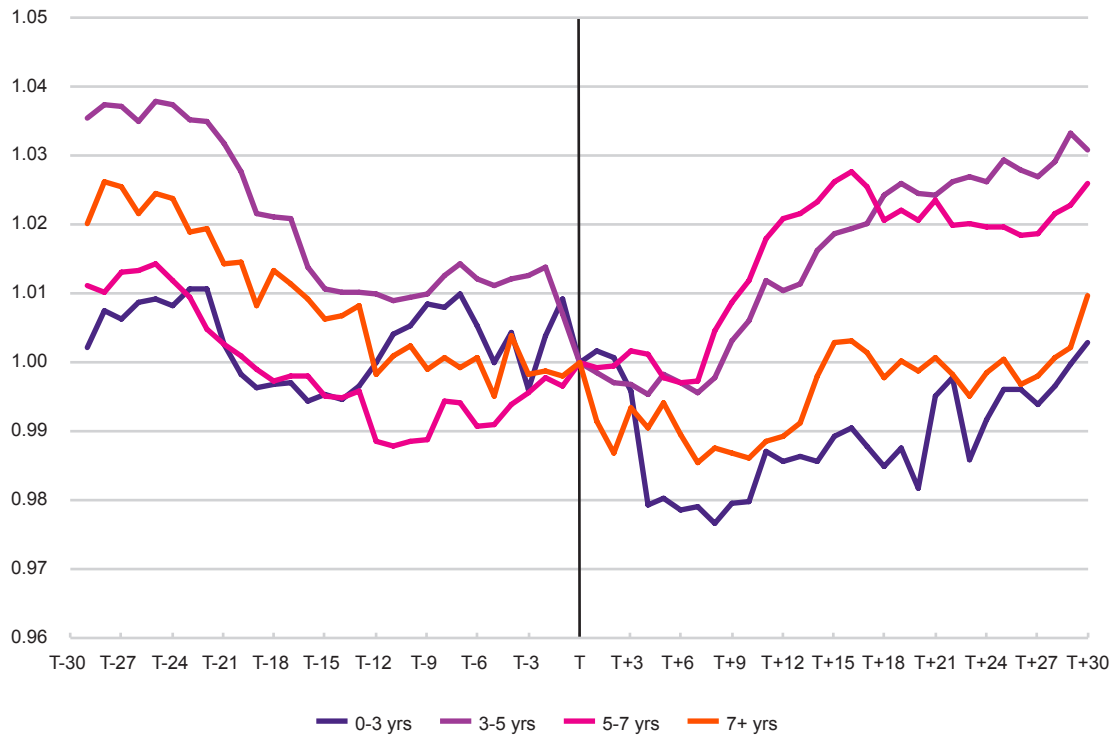


Source of data: The Yield Book Inc. and Citigroup Index LLC. Source of calculations: Cass Business School, based on bond prices of fallen angels from the Citi US High Yield Market Index over the period from January 2006 to February 2016.

Figure 4 presents a further breakdown of the bonds in our sample across the downgrade event window. In Figures 2 and 3 we do not differentiate the bonds rating. In Figure 4 we present the results only for those bonds that were downgraded to BB status, rather than to a rating below this. Indeed, this group of bonds comprised the majority of the sample, 474 of the 534 total, so it precludes from the analysis any bond downgraded to single B rating

status or lower. The results are therefore similar to those in Figure 3, but probably give a cleaner picture of the overreaction effect. Between T-24 and T+7 the 0-3 year bonds decline by -3.0% in value, and then rise from that point until the end of the event window by +2.5%. The equivalent figures for the 3-5 year bonds are -4.1% and +3.4%; for 5-7 year bonds are -1.4% and +2.9%; while for the 7+ years category it is -3.8% and +2.0%.

Figure 4: The average response of bond prices around a downgrade to BB by duration



Source of data: The Yield Book Inc. and Citigroup Index LLC. Source of calculations: Cass Business School, based on bond prices of fallen angels from the Citi US High Yield Market Index over the period from January 2006 to February 2016.

4. How could investing in this idea fit into a portfolio?

The event study analysis presented in Section 3 indicates that there may be an opportunity for investors to benefit from the fall in bond prices following a downgrade to high yield status and the subsequent recovery. For some investors, like hedge funds, it might be possible to benefit from this phenomenon. However, it might be difficult for other investors to benefit from this phenomenon.

However, via index investing it is possible for all investors to access this investment strategy. Citi have produced a fallen angel index⁹, which aims to track the performance of a universe of fallen angels. The index is based upon the Citi US High-Yield Market Index, and has the same composition requirements regarding credit quality, maturity, and issue size. Each fallen angel in the index is held for a maximum of 60 months after the issues falls into high yield. The weight of each fallen angel in the index is based on a time-weighted function, so that the index allocates higher weights to bonds that have more recently become a fallen angel. To help manage issuer concentration risk and to satisfy UCITS diversification requirements, an issuer cap of 5% is applied. Fallen angels that are upgraded to investment grade status are

subsequently removed from the index, and all the bonds in the index have maturity of at least 1 year.

Table 1 presents some risk characteristics of the Citi Time-Weighted US Fallen Angel Bond Select Index (FA), along with equivalent risk characteristics of more familiar indices: an index of US Treasuries (Treas); an index of US investment grade corporates (Corp); a high yield index (HY); and finally the Standard & Poor's Composite index (S&P500). The sample period is January 2000 to March 2016. The statistics were all calculated using the total return, USD versions of each index¹⁰. The table shows that the fallen angel index had the highest return of all of the indices. The fallen angel index had a higher Sharpe ratio than the high yield index, but had a marginally higher maximum drawdown than the high yield index.

A more important issue for investors is how an investment in the fallen angel universe could fit with other investments. Table 2 below shows the correlation of the five indices from table 1. Unsurprisingly the fallen angel's index had a relatively low correlation with the indices representing the other asset classes, though a relatively high correlation (91%) with the high yield index.

Table 1: Risk and return characteristics of asset classes (Jan 2000 to March 2016)

	Treas	Corp	HY	FA	S&P500
Ann ret	5.36%	6.57%	7.10%	11.04%	5.29%
St-dev	1.31%	1.59%	2.91%	3.49%	4.38%
Sharpe	0.23	0.25	0.15	0.21	0.07
Max draw	4.80%	14.96%	33.47%	36.20%	50.95%

Notes: Ann ret, is the annualised return; St-dev, is the standard deviation of returns; Sharpe, is the Sharpe ratio; and Max draw, is the maximum drawdown of the index over the sample period. Source: Source of data: Thomson Financial, except the fallen angels index which was provided by Invesco. Source of calculations: Cass Business School.

Table 2: Correlations between asset classes (Jan 2000 to March 2016)

	Treas	Corp	HY	FA	S&P500
Treas	100%	–	–	–	–
Corp	59%	100%	–	–	–
HY	-19%	52%	100%	–	–
FA	-17%	50%	91%	100%	–
S&P500	-33%	19%	65%	55%	100%

Notes: This table presents the return correlations of the asset classes introduced in Table 1. Source: Source of data: Thomson Financial, except the fallen angels index which was provided by Invesco. Source of calculations: Cass Business School.

For a better idea of how these correlations might benefit investors, we need to combine the indices. As a way of exploring the possible ways in which investing in a fallen angel's universe we chose two ways of weighting the indices. The first approach involved simply applying an equal weight to the indices. The second approach involved weighting the indices such that the weighted-volatilities of the indices were equal. Essentially this means that the index with the greatest volatility receives the lowest weight, while the index with the lowest volatility receives the highest weight, such that the weight times the volatility is equal for each index. This approach is sometimes referred to as "naïve risk parity". To be clear, we are not advocating either approach, rather, these are just two ways of looking at the opportunities for multi-asset class investors afforded by fallen angel investing.

Table 3 presents the results of combining the indices on an equally-weighted basis. The combination denoted "Equal 4" in the table shows the results of combining the four, more familiar asset classes: Treas, Corp, HY and the S&P500. The other equally-weighted combinations add or subtract from this set of indices. So, for example, the final column in the table shows the results of subtracting the S&P500 index from the mix and adding the Fallen Angel's index, and so on. The results in Table 3 show that the addition of the fallen angel's universe to the multi-asset class portfolio would have enhanced returns in all cases. This is

unsurprising given the statistics in table 1. The addition of the fallen angel's index also produces a slightly higher Sharpe ratio in each case, which indicates that it might be possible to improve the risk-reward profile by adding an investment in fallen angels. Finally, the maximum drawdown is marginally higher with the addition of the fallen angel index, except when the fallen angel investment replaces the investment in US equities, as shown in the final column of the table.

Table 4 shows the risk and return characteristics of the same combinations of asset classes as analysed in Table 3, but where the weights in each of the asset class combinations are risk parity-based rather than equally-weighted. All of these combinations achieved a lower average return over the sample period. However, in each case the maximum drawdowns are much lower. In this case – arguably – simply adding the Fallen Angel's index to the other four produced the most attractive risk-return mix.

Table 3: Equally-weighted combinations of asset classes (Jan 2003 to March 2016)¹¹

	Equal 4	Equal 4 + FA	Equal 4 - HY + FA	Equal 4 - S&P + FA
Ann ret	7.16%	8.12%	7.95%	7.67%
St-dev	1.81%	2.02%	1.89%	1.80%
Sharpe	0.24	0.25	0.26	0.27
Max draw	19.97%	22.92%	20.83%	19.16%

Notes: Ann ret, is the annualised return; St-dev, is the standard deviation of returns; Sharpe, is the Sharpe ratio; and Max draw, is the maximum drawdown of the index over the sample period. Source of data: Thomson Financial, except the fallen angels index which was provided by Invesco. Source of calculations: Cass Business School.

Table 4: Risk parity-weighted combinations of asset classes (Jan 2003 to March 2016)

	RP 4	RP 4 + FA	RP 4 - HY + FA	RP 4 - S&P + FA
Ann ret	6.13%	6.70%	6.37%	6.37%
St-dev	1.32%	1.48%	1.35%	1.38%
Sharpe	0.27	0.27	0.28	0.27
Max draw	11.53%	14.34%	12.06%	12.26%

Notes: Ann ret, is the annualised return; St-dev, is the standard deviation of returns; Sharpe, is the Sharpe ratio; and Max draw, is the maximum drawdown of the index over the sample period. Source of data: Thomson Financial, except the fallen angels index which was provided by Invesco. Source of calculations: Cass Business School.

The results in Tables 3 and 4 indicate that an investment in fallen angels, along the lines of the Citi Time-Weighted US Fallen Angel Bond Select Index, at a minimum gave investors an additional string to their diversification bow, but also offered the potential for enhanced risk-adjusted returns, however they choose to weight the multi-asset class components.

5. Summary

In this short paper we have investigated the price behaviour of fallen angels as they fall from investment grade to high yield status. We do find clear evidence that the bonds of issuers that have been downgraded to high yield status from investment grade status fell before the downgrade, and continued to fall for six to seven days on average after the downgrade. After this point we found that average prices rose for at least the post event window of thirty days that we study here. This phenomenon offered investors the opportunity to enhance the returns on a multi-asset class portfolio and at the same time the potential to improve the diversification of their portfolios.

¹ This article is based upon a fuller analysis of this phenomenon that will be available as a Cass Business School research paper in Autumn 2016.

² Source: Table 13, Default, Transition, and Recovery: 2015 Annual Global Corporate Default Study and Rating Transitions, Standard and Poor's.

³ For example see Holthausen, R. and R. Leftwich (1986) for evidence of the impact using US data and Barron, Clare and Thomas (1997) for UK evidence.

⁴ See for example, Hite and Warga (1997).

⁵ See Kahneman, D. and A. Tversky (1982).

⁶ See Keynes, J.M., (1936).

⁷ See Debondt and Thaler (1985), or for evidence of the phenomenon using UK data see Clare and Thomas (1995).

⁸ See Cantor et al (2007).

⁹ https://www.yieldbook.com/f/m/pdf/citi_indices/intro.us.fallen.angels.pdf

¹⁰ For the US Treasuries index we use the Bank of America ML Treasury Masters' index; for US investment grade corporates we use the Citi US Broad Investment-Grade Corporate Bond Index; to represent US high yield we use the Citi US High Yield Market Index; and for US equities we use the S&P 500 Composite index. All of the data was gathered from Thomson Financial's DataStream.

¹¹ The sample period is slightly shorter than the full sample so that we can make meaningful comparisons between Tables 3 and 4. The shorter sample period reflects the need to calculate volatility for the risk parity-weighted combinations of asset classes, where we use a three year window to calculate asset class return volatilities.

Contributors

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Professor Andrew Clare is the Professor of Asset Management at Cass Business School and the Associate Dean responsible for Cass's MSc programme, which is the largest in Europe. He was a Senior Research Manager in the Monetary Analysis wing of the Bank of England which supported the work of the Monetary Policy Committee. While at the Bank Andrew was responsible for equity market and derivatives research. Andrew also spent three years working as the Financial Economist for Legal and General Investment Management (LGIM), where he was responsible for the group's investment process and where he began the development of LGIM's initial Liability Driven Investment offering. He has published extensively in both academic and practitioner journals on a wide range of economic and financial market issues. In a survey published in 2007, Andrew was ranked as the world's ninth most prolific finance author of the past fifty years. Andrew serves on the investment committee of the GEC Marconi pension plan, which oversees the investments and investment strategy of this £4.0bn scheme, and is a trustee and Chairman of the Investment Committee of the £3.0bn Magnox Electric Group Pension scheme.

Stephen Thomas

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Steve Thomas is Professor of Finance and Course Director for the Executive MBA at Cass Business School, London. Prior to this he has been a Professor of Finance at the University of Wales, Swansea, and at Southampton University, and a Visiting Professor at the ICMA Centre, University of Reading, and Queen's University, Canada. He has been a Houblon-Norman Fellow at the Bank of England (1990). Steve has published widely in the areas of market microstructure, economics, and investment strategy and in 2005 was ranked 11th in Europe for published finance research over the previous decade. His research has won a number of awards including prizes, for the Best Paper, Global Finance Conference, Dublin, 2005 and the Best Market MicroStructure Paper, Mid-West Finance Meetings, Chicago, 2006. He has also co-authored the 13 editions of the Official Training Manual for the Investment Management Certificate for CFA UK. Steve has been involved in private client investment strategy for Firecrest Hambro, and fund strategy with Hasley Investment Management and WM Capital; he was a director of Bear Stearns Global Alpha Macro Hedge strategy London, 2005-7. In 2011 he helped create Solent Systematic Investment Strategies which creates and advises on quantitative investment strategies. He was a member of the SME Business Finance Review Advisory Board for the Welsh Assembly Government (2013).

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Dr Nick Motson holds a BSc from City University Business School, an MSc from London Business School and a PhD from Cass Business School. Following a 13 year career as a proprietary trader of interest rate derivatives in the City of London for various banks including First National Bank of Chicago, Industrial Bank of Japan and Wachovia Bank, Nick returned to Cass in 2005 to pursue his doctoral studies. Upon completion of his PhD he joined the faculty of finance full-time in 2008.

Nick's research interests include asset management, portfolio construction, hedge funds, alternative assets and structured products. In 2009 he was awarded the Sciens Capital Award for Best Academic Article, in The Journal of Alternative Investments for his paper Locking in the Profits or Putting It All on Black? An Empirical Investigation into the Risk-Taking Behaviour of Hedge Fund Managers.

Nick teaches extensively at masters level on alternative investments, derivatives and structured products and in recognition of the quality of his teaching he was nominated for the Economist Intelligence Unit Business Professor of the Year Award in 2012.

As well as teaching and researching at Cass, Nick actively consults for numerous banks and hedge funds and has provided research or training clients including ABN Amro, Aon Hewitt, Barclays Wealth, BNP Paribas, Financial Express, Invesco, NewEdge, Old Mutual, Rosbank and Société Générale.

About Invesco PowerShares

PowerShares was founded in the US in 2003 on a vision of delivering investment performance through the benefit-rich Exchange Traded Fund (ETF) structure. In January 2006, PowerShares expanded its vision by becoming part of Invesco Ltd, whose global presence took the Invesco PowerShares story beyond the US.

When the first ever ETF was launched in 1993, its purpose was simple - to track the S&P 500 Index while trading on a major exchange. Since then, many traditional ETFs have been designed to mirror a number of different benchmark indices. Not all ETFs, however, seek to simply track a measure of a market.

Invesco PowerShares offers a selection of ETFs that track “next generation” indices: indices that go beyond merely tracking a particular market. These indices seek to outperform the performance of a particular market through intelligent security selection and weighting.

Invesco PowerShares is part of Invesco Ltd., a leading independent global investment management company dedicated to helping people worldwide build their financial security.

About Cass Business School

In 2002, City University’s Business School was renamed Sir John Cass Business School following a generous donation towards the development of its new building in Bunhill Row. The School’s name is usually abbreviated to Cass Business School.

Sir John Cass’s Foundation

Sir John Cass’s Foundation has supported education in London since the 18th century and takes its name from its founder, Sir John Cass, who established a school in Aldgate in 1710. Born in the City of London in 1661, Sir John served as an MP for the City and was knighted in 1713.

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