

Index Insights | Fixed Income

Are Fallen Angels still angelic performers?

October 2025

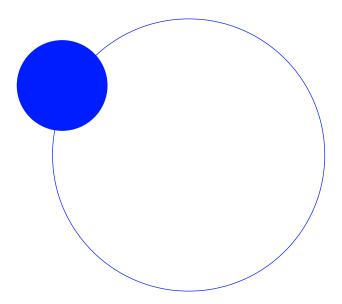
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Executive Summary

- In our latest paper on Fallen Angels (FA) in the credit market, we assess the performance of FAs since Covid using the FTSE Time-Weighted Fallen Angel Bond Index (TWUSFA), which captures critical timing effects
- We find a more favourable risk/return profile in FAs to either US investment grade or high yield debt, and a reduced cliff-edge effect of downgrades from Investment Grade (IG) to High Yield (HY)
- Single name studies for Ford and Hudson Pacific Properties verify the importance of FA timing effects in the paper
- Improved credit metrics in the post-Covid cycle also mean the share of FAs in the US HY market is close to a 25 year low
- Finally, since FAs are hybrid IG/HY credits, they have had lower default risks than most HY issues, but stronger correlation to risk-on assets like equities than higher grade IG credits
- This means they can offer diversification benefits to a credit portfolio, and can enhance the efficient frontier and Sharpe ratio of the portfolio



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Introduction – re-assessing Fallen Angels in the post-Covid world

In 2019, we wrote a paper¹ looking at Fallen Angels² (FA) US credit markets and presented FTSE Russell/Invesco data to show how strongly they had performed, from 2000 to 2019. The widely documented, and negative, "cliff-edge" effect of the downgrade from investment grade (IG) to sub-investment grade, or high yield (HY), increased the volatility of FA performance, but also created investment opportunities. Timing effects proved critical in that period, with credits facing downgrade risk to HY tending to fall in value well in advance of rating agency downgrades.

In this paper, we re-assess the data on FAs in the post-Covid world and seek answers to the following key questions for investors. Namely, how far has this strong performance of FAs continued? Do downgrade timing effects remain critical? Has behaviour of FAs changed since Covid, and do they continue to have higher credit-beta than other HY issues? Is there evidence that the traditional "cliff-edge" effect of the downgrade from IG to HY now diminished? And finally, is the correlation of FA returns stronger with HY or IG credit?

Characteristics of Fallen Angels as an asset class

To answer these questions, it is worth noting the index characteristics of FAs, as an asset class. The FTSE Time-weighted Fallen Angel Bond Select Index (TWUSFA) has index weights which are highest for FAs for the first 12 months, after downgrade to sub-IG, and then fall from months 13 to 61 (using the formula 61 minus number of months). More broadly, as Table 1 shows, compared to HY, the TWUSFA has (a) longer duration, (b) concentration in sectors subject to shocks (e.g., TMT after 2000/01, financials after the Global Financial Crisis (GFC), and energy after the oil price collapses of 2014/15 and 2020), (c) lower coupons, since the bonds were issued as higher grade credits, increasing price volatility, and duration, versus HY issuers, (d) weaker, or lighter, covenants (since they were issued as IG credits), and (e) lower default rates relative to HY issuers, not least because most FAs are B, or BB rated. Table 1 summarises the characteristics of the FTSE Russell US credit indices for FAs, HY and IG credit. The Sharpe ratios show FAs have a superior risk/return profile to HY and IG credit since 2020.

¹ Fallen Angels in the US credit market, FTSE Russell, May 2019.

² A Fallen Angel is defined as a corporate, or sovereign, bond downgraded by rating agencies from an IG credit rating to a HY rating.

Table 1 – Index characteristics of Fallen Angels versus Investment Grade and High Yield

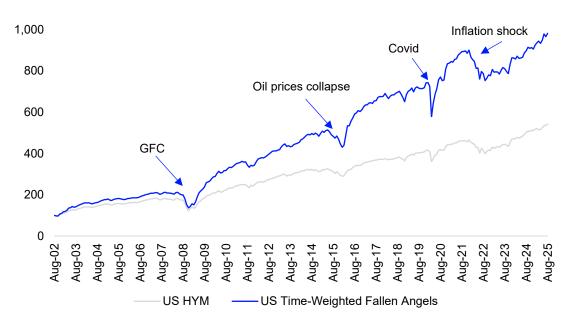
	FTSE US High yield market inde: US\$	FTSE Time- Weighted US x Fallen Angel Bond Select index US\$	FTSE US Broad IG Corporate Bond index	Notes
Average coupon	6.58%	5.05 %	3.62%	Lower FA coupons due to IG heritage
Yield to maturity	7.25%	6.26%	4.5%	But YTM more akin to HY
Duration	3.08 years	4.45 years	5.98 years	Notably longer FA duration than HY
OAS	330 bp	222bp	33bp	
Credit ratings	Down to C and D rated	Mostly BB or B rated	BBB- and above	FAs more prone to ratings migration
Covenants	More restrictive	Lighter covenants	Lighter covenants	General weakening in covenants
Default rates	Highest	Lower	Lowest	Reflects covenants
Correlation of returns	Higher with equitie	Slightly lower with equities	Higher with govt bonds	FA correlation reflects hybrid asset status
Sharpe ratios (Aug. 2020 – Aug. 2025)	0.813	1.876	1.662	

Despite Covid and Ukraine shocks, Fallen Angels recovered quickly

Recent performance by the TWUSFA demonstrates these characteristics. The Covid and inflation shocks (2020, and 2022) initially dominated credit performance, as Chart 1 shows. However, FA credits then recovered strongly as default risks fell on Fed intervention and delivered strong performance in the 2023/24 risk rally, showing a higher Sharpe ratio than HY or IG credits since 2020. Also note that the Fed's decision to include FAs in its QE programme, from May 2020 onwards, was important in restricting the sell-off in FAs, by widening the scope of asset purchases to sub-IG credit for the first time³. This also set a precedent for future QE purchases.

³ Similarly, the ECB accepted FAs as eligible for purchase in its own QE programme (April 2020), provided FAs did not fall more than 2 notches below IG.

Chart 1 – US Time Weighted Fallen Angels index performance versus High Yield credit



Explaining Fallen Angels outperformance versus other High Yield indices

The formal downgrade to sub-IG is well signalled to markets in advance by credit rating agencies, so FA bonds can be oversold when joining HY indices, and stand at artificially low prices, particularly if the cliff-edge effect has driven forced selling. Our own credit research suggests initial valuations are important in driving subsequent returns⁴, so this undervaluation effect may help explain outperformance by FAs.

A related point is that FAs tend to experience more ratings' migration than other credit issues, and a higher proportion of credit upgrades than other HY issues. This may be due to FAs often being established IG businesses suffering temporary financial pressures after sector-specific shocks (i.e. in the auto industry during Covid, energy after the 2014-15 oil price collapse, or the TMT bust in 2000-01).

⁴ Do valuations correlate to long-term returns? Examining US equities through various size and style indices | LSEG January 2025.

Differences in credit rating methodologies and the cliff-edge effect

We also note the differences in credit rating methodologies and how they are treated by index providers.⁵ These differences in methodology mean bonds categorised as IG by one index provider, may be categorised as HY by another. Before the GFC, issuers often sought a 3rd credit rating as a "tie-breaker", if bonds straddled the IG/HY boundary, given that regulators used the 2nd lowest rating (since the 3rd rating might secure IG status). But the Dodd-Frank reforms to the ratings industry in 2010 were intended to reduce conflicts of interest, and regulatory reliance on credit ratings, by increasing penalties and litigation risk. Empirical research suggests 3rd ratings became less informative post-Dodd-Frank, like other credit ratings, with a much weaker market impact on credit spreads for firms with S&P and Moody's ratings on opposite sides of the IG/HY rating boundary⁶. In the FTSE Time-Weighted US Fallen Angel Bond Select Index (TWUSFA), If a bond is rated as IG by one rating agency and HY by the other, the IG rating is assigned to the index quality. These ratings remain unchanged for the entire performance month.

Other structural factors have also reduced the cliff-edge effect

Delayed adjustment in formal credit ratings, and the advent of credit funds arbitraging between credit risk and the risk implied by imperfect, or delayed, credit ratings tends to mean price adjustments in FAs occur before formal downgrades to HY. This pre-pricing effect may have reduced the cliff-edge effect of moving from IG to HY. Another factor cushioning the impact is that bond funds often have some discretion to spread sales of FAs out over time, after a formal downgrade. Finally, the higher share of BBB-rated bonds post-GFC may have been driven by more defensive credit ratings, given increased penalties and litigation risk for rating agencies, post Dodd-Frank, over-stating the FA downgrade risks.

Timing effects – how critical are they?

A Cass Business School study in 2016 finds that FAs fell in value by -4.1%, based on maturity, from 24 days before the formal downgrade to HY, to 7 days after, but recovered most of their losses in the following 23 days. This empirical evidence helps explains why the FTSE TWUSFA is time-weighted with higher weights assigned to bonds that have become "Fallen Angels" more recently. This time-based approach aims to capture the potential rapid price rebound effect that new FAs have, after the initial downgrade to HY. Please see Box 1 for further information on the FTSE Fallen Angel Index methodology, and the attractions of a time-weighted approach for investors.

⁵ www.lseg.com/content/dam/ftse-russell/en_us/documents/ground-rules/ftse-time-weighted-us-fallen-angel-bond-select-index-ground-rules.pdf

⁶ See "The game changer: regulatory reform and multiple credit ratings", He Huang, Jiri Svec, Eliza Wu, Journal of Banking and Finance, December 2021.

⁷ Fallen Angels: the Investment Opportunity. September 2016, Cass Business School using Yield Book data

Box 1 – FTSE Fallen Angel index methodology and why it is attractive to investors

"When we were developing our US High Yield Fallen Angels UCITS ETF, over 9 years ago, we selected the FTSE index to track. This was largely because we believed that the innovative time-weighted approach would be the best way to capture the performance of the asset class. This latest FTSE paper further reinforces the previous research through real-life market environments and experiences. We continue to believe that the time-weighted approach offers investors the best exposure to an asset class with a potential for continued growth as well as relatively higher yields than pure investment grade yet with improved credit metrics to pure high yield debt."

Wayne Parker, Senior Portfolio Manager, ETFs & Indexed Strategies, Invesco.

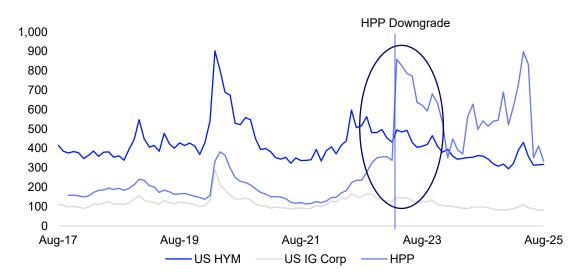
Single-name performance

Case study 1 - Hudson Pacific Properties

Further evidence on the timing of FA performance may be found in single corporate names since Covid, and their ratings migration from IG to HY. Chart 2 shows the initial impact of Covid on Hudson Pacific Properties' Bonds⁸ through the option-adjusted spread (OAS) over US Treasuries, and also on the OAS of the FTSE US IG credit and HY indices. Three things stand out from the Chart. Firstly, the spread widening in Hudson Pacific Properties (HPP) when Covid arrived was a little greater than the IG index, but less than the HY index, consistent with its credit rating of BBB- before the downgrade. Secondly, the spread widening in HPP, occurred prior to the downgrade to HY in July 2023, shows "over-shooting" of the HY index (860bps vs 500bps), and occurs when the issuer goes on negative watch, some 3 months before the formal downgrade to HY (Moodys Rating went down 3 notches from Baa3 to Ba3). Thirdly, the subsequent spread compression in HPP since the downgrade far exceeds that in either the IG or HY indices.

 $^{^8 \ \}text{Hudson Pacific Properties (HPP)} \ 3.95\% \ \text{November-2027}, 5.95\% \ \text{February-2028}, 4.65\% \ \text{April-2029}, 3.25\% \ \text{Jan-2030}.$

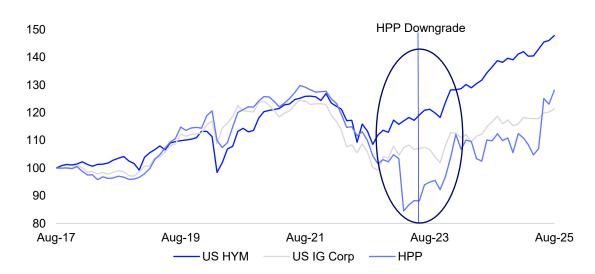
Chart 2: Option adjusted spreads of Hudson Pacific Properties and credit indices (bps)



Strong out-performance since the downgrade

Performance returns tell the same story, as Chart 3 shows. The HPP Bond Index issue underperforms in the days around the negative watch announcement, but begins to rally strongly, even before the formal downgrade to HY, on July 11th 2023. This confirms that timing effects in the short-run performance of FAs tend to be dominant, and that capturing them early can maximise the performance effects.

Chart 3: Performance of Indexed Hudson Pacific Properties bonds and Cash Credit Indices (USD)



Source: FTSE Russell. Data to August 31, 2025. For illustrative purposes only. Please see the end for important legal disclosures.

Chart 4: Hudson Pacific Properties Total return index (USD)

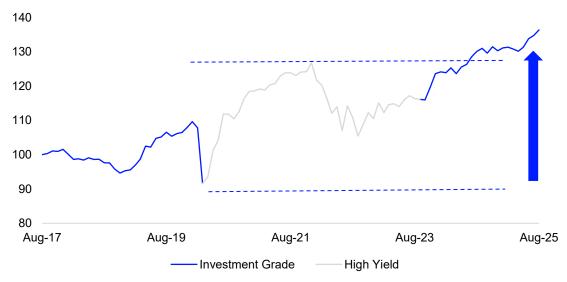


Source: FTSE Russell, data to August 31, 2025. For illustrative purposes only. Please see the end for important legal disclosures.

Case Study 2 – Ford's downgrade at the height of Covid

FORD was downgraded at the height of COVID⁹, and had a total of \$36bn of Index debt downgraded (across 35 bonds) in March 2020. To assess performance, we have simulated building an index of only FORD Bonds, weighted by bond market cap. Total returns for these bonds are shown in Chart 5.

Chart 5: Ford corporate bonds total returns (USD)



Source: FTSE Russell, data to August 31, 2025.For illustrative purposes only. Please see the end for important legal disclosures.

From the lowest index points to the highest index level (i.e. maximum draw-up), between March 2020 and November 2021, the Ford Index would have returned 30.5% just after the bonds were downgraded. Chart 6 shows credit spreads for Ford bonds versus FTSE Russell US IG and HY indices.

⁹ S&P downgrades Ford over manufacturing disruption | S&P Global Market Intelligence

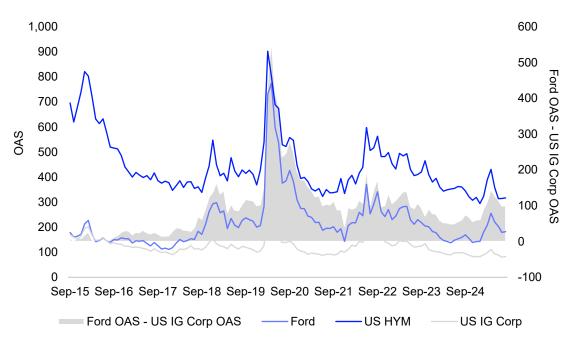


Chart 6: Ford bonds- option adjusted spreads (OAS)

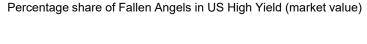
Source: FTSE Russell, data to August 31, 2025. For illustrative purposes only. Please see the end for important legal disclosures.

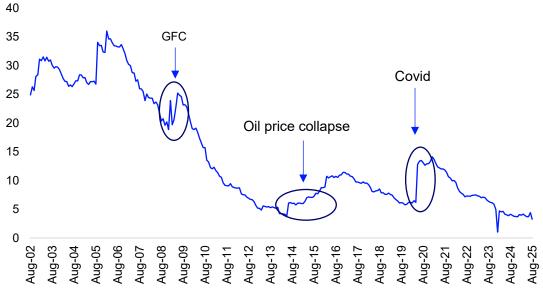
Risks to Fallen Angels - would a spike in the share of Fallen Angels in High Yield cause underperformance?

Spikes in the share of FAs have been associated with either sector-specific shocks (energy price collapse in 2014-15) or recessions and major macro shocks (GFC, and Covid). And such shocks are, by definition, unforecastable.

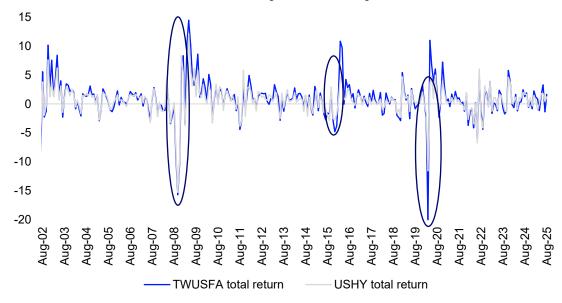
Chart 7 below does indeed show that shocks causing spikes in the share of FAs, like Covid, have been correlated with a brief period of FA underperformance. However, this was followed by a period of outperformance, notably after the commodity price collapse in 2015-16, and Covid in 2020.

Chart 7: Share of Fallen Angels in the US High Yield market and total returns in Fallen Angels versus US High Yield









Source: FTSE Russell, data to August 31, 2025.

Tighter financials, lighter covenants key in low FA share

Given the period of under-performance during the downgrade process, is the current low share of FAs in HY a significant risk to the asset class, should it mean-revert to higher levels? Previous periods suggest a spike in the share of FAs in HY risks a brief period of under-performance, at least in the approach to the formal downgrades. However, fundamental factors have helped drive the share of FAs in HY to current low levels, suggesting the "new normal" may be a lower share, barring shocks.

Higher inflation and steady growth since Covid have given relatively strong corporate EBITDA growth, enabling US corporates to improve debt metrics. Reduced stock buy-backs in 2022-23 have improved debt-equity ratios. Another legacy of the GFC and Covid shocks may have been changes in corporate behaviour to protect credit ratings, and reduce the cost of capital.

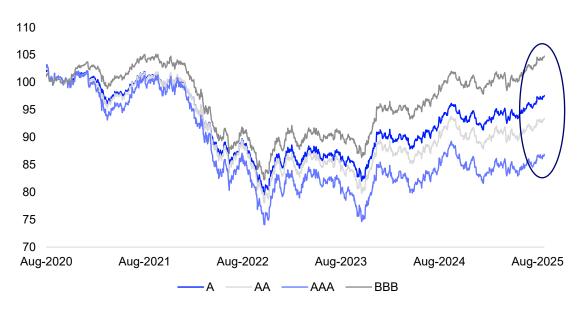
Lighter covenant protection for investors has also been a factor in both low corporate default rates, compared to the GFC credit cycle, and the lower migration from BBB to sub-IG. Note too that Corporates have achieved successful debt re-financing in 2023-24 during the risk rally, of the 2024 maturity wall.

Finally, the low share of FAs in HY likely reflects recent FA upgrades back to investment grade, for "rising stars "like Ford. This is consistent with the fact FAs are credits which attract more upgrades than other HY issues.

Share of BBB issues in IG credit has fallen since 2019

Additional evidence of improvement in credit quality may be found in the evolution of the share of BBB issues in IG credit since Covid. This had increased to over 50% in 2019, after heavy issuance to finance M&A activity in the telecoms and beverage sectors, prompting warnings about a surge in FAs from the OECD¹⁰, but the current share of BBB issuance is below 50%. These factors are reflected in the outperformance by the BBB sector in 2023-24, as the Chart 8 shows.

Chart 8: US Investment Grade corporate returns by quality (TR, USD)



Source: FTSE Russell, data to August 31, 2025.

So although an increase in the share of FAs is possible in 2025, should the US economy enter a recession, it can be argued changes in corporate behaviour, and lighter covenants would raise the share to a lower degree than in previous credit cycles.

Fallen Angels improved the efficient frontier of a US credit portfolio

Turning to the credit portfolio benefits from FAs, based on the returns and standard deviation of returns in the IG, HY and FA indices over the last 10 years, we find that adding a weighting in FAs improves the efficient frontier of a US credit portfolio. This is shown in Chart 9. The highest Sharpe ratios are achieved with a 20% weighting in FAs,

^{10 &}quot;Corporate Bond Markets in a Time of Unconventional Monetary Policy", OECD, February 2019.

and a diversified, blended portfolio of IG, HY and FAs. Even a weighting as high as 40% in FAs gives Sharpe ratios near 0.90, whereas a zero FAs weighting pulls the Sharpe ratios much lower. The high volatility in FA issues, and short periods of negative returns on downgrades, means optimal FA weightings are around 20%, based on returns over the last 10 years.

6.0 5.5 5.0 4.5 Return (%) 4.0 3.5 3.0 2.5 2.0 5.0 6.0 7.0 8.0 4.5 5.5 6.5 7.5 Vol no TWUSFA --- 20% TWUSFA → 40% TWUSFA → 60% TWUSFA

Chart 9: Efficient frontiers for selected Fallen Angel weights¹¹

Source: FTSE Russell, data to August 31, 2025.

Portfolio diversification benefits reflect Fallen Angel risk characteristics

These results are in line with empirical work we have done on the correlation of US asset returns since the mid-1990s, which shows HY credit has distinctly different risk characteristics than IG credits, and particularly A, AA credits. HY credits generally have higher correlation with US equities than US Treasuries, in contrast to IG credit¹², and HY credits perform more like a risk-on asset, than risk-off. Since FAs are effectively a hybrid of IG and HY assets, this means they can offer some of the diversification benefits of HY in a credit portfolio, but without the higher default risks lower grade HY issues carry.

¹¹ Please see Appendix for further details on Efficient Frontier portfolio weights.

¹² See "Multi-asset return correlations: a new regime or an era of instability?", FTSE Russell, June 2024.

Conclusions

So turning back to the questions posed earlier, and the broader investment case for FAs, we reach the following conclusions. Firstly, the relatively strong performance of FAs has continued. Relatively strong EBITDA in the recovery since the Covid shock, tighter financial control and reduced stock buybacks have all improved debt metrics. These factors may have helped drive the stronger performance of BBB issues in IG credit, and suggest the lower share of FAs in HY may be supported by better credit fundamentals. Less demanding covenants on credit may also have contributed, and reduced default rates in this cycle.

Secondly, downgrade timing effects do remain important, amplified by some forced selling, as Covid showed. FAs are often concentrated after sector-specific shocks, and show brief under-performance after the shock, amplified by pre-pricing of down-grades. But they then outperform, even more strongly as credit recovers.

However, the evidence since the Dodd-Frank reforms is that the cliff-edge effect of the formal downgrade from IG to HY is diminishing, due to a variety of factors. These range from pre-pricing effects, to flexibility in fund investment mandates in credit, to differences in credit rating methodologies.

Finally, FAs being hybrid IG/HY credits, with lower default risks than most HY issues, have stronger correlation to risk-on assets like equities than higher grade IG credits. This means they offer diversification benefits to a credit portfolio, and can enhance the efficient frontier and Sharpe ratio of the portfolio.

Appendix

Portfolio performance with variable IG and HY weightings

eights					
TWUSFA	USBIG_CORP	US HYM	Return (%)	Portfolio Volatility	Portfolio Sharpe Volatility
0%	0%	100%	4.78	7.77	0.62
0%	5%	95%	4.69	7.39	0.63
0%	10%	90%	4.59	7.03	0.65
0%	20%	80%	4.40	6.37	0.69
0%	40%	60%	4.03	5.41	0.74
0%	60%	40%	3.65	5.16	0.71
0%	80%	20%	3.27	5.71	0.57
0%	100%	0%	2.89	6.87	0.42
20%	0%	80%	5.09	6.65	0.77
20%	6%	74%	4.97	6.23	0.80
20%	12%	68%	4.86	5.84	0.83
20%	18%	62%	4.75	5.50	0.86
20%	36%	44%	4.41	4.83	0.91
20%	54%	26%	4.07	4.84	0.84
20%	72%	8%	3.73	5.51	0.68
20%	80%	0%	3.57	5.98	0.60
40%	0%	60%	5.39	6.63	0.81
40%	4%	56%	5.32	6.42	0.83
40%	8%	52%	5.24	6.23	0.84
40%	12%	48%	5.17	6.07	0.85
40%	24%	36%	4.94	5.72	0.86
40%	38%	22%	4.67	5.65	0.83
40%	48%	12%	4.49	5.83	0.77
40%	60%	0%	4.26	6.26	0.68

Source: FTSE Russell, data to August 31, 2025.

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