

TACTICAL INVESTING IN EMERGING MARKETS DEBT:

A PATH TO SUPERIOR RETURNS?

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Tactical investing, which involves making short-term adjustments to an investment portfolio based on market fluctuations, can be a double-edged sword.

While it has the potential to generate superior returns compared to buy-and-hold investing, it often proves elusive in major financial markets due to several factors including market unpredictability, behavioral biases, and the complexity of executing tactical strategies effectively. However, there may be opportunities in lesser efficient, more volatile markets as recently noted by Asness (2024), particularly with the advent of noisy social media which can increase volatility – and opportunity.

With more than 100 countries in its universe and dozens of liquid government and corporate bond markets, Emerging Market Debt (EMD) may be one of those lesser efficient asset classes that often is driven by investor reactions to dramatic media headlines. Indeed, there is evidence that some modest rotation and rebalancing in hard currency and local currency opportunities could generate meaningful outperformance over a long-time horizon.

By Michael Nguyen, Lead of Quantitative Research

Knowing When to Hold 'Em, When to Fold 'Em?

One of the primary advantages of tactical investing is the opportunity to capitalize on market inefficiencies often found in EMD. According to research by Sharpe (1992), tactical asset allocation can yield higher returns than a static, long-only approach by taking advantage of price discrepancies and trends in various asset classes. For instance, during risk-off periods, tactical investors may reposition their portfolios to reduce exposure to less risky assets or cash, to mitigate losses. Conversely, as markets recover, they can shift back to riskier securities to capture the possible dislocation in market prices. This ability to move in and out of asset classes based on market sentiment can lead to superior investment performance over time - particularly in those that often create excessive nervousness, like Emerging Markets.

However, execution is critical. Tactical investing requires precise timing, informed decision-making, and rigorous market analysis. As noted by Fama and French (2004), even slight misjudgments in allocation timing can have significant impacts on overall returns. Successful tactical investors often utilize quantitative models, trend-following strategies, and key economic

indicators to inform their decisions, striving to enter or exit markets before major price movements occur.

The challenge arises in the form of market unpredictability. Unlike long-only investing, which relies on a buy-and-hold strategy that assumes a general upward trend in asset prices, tactical investing must contend with short-term volatility and unforeseen economic events. For instance, the COVID-19 pandemic in early 2020 created unprecedented market turbulence that challenged even the most seasoned tactical investors.

According to Tsai et al. (2021), many investors struggled to maintain their positions or adjust in time to avoid losses during rapid market shifts, demonstrating the inherent risk in tactical strategies. Behavioral biases also play a crucial role in the effectiveness of tactical investing. Investors often fall prey to emotions, such as fear and greed, leading to poor timing decisions. Kahneman and Tversky (1979) highlighted how cognitive biases could cause investors to misinterpret market signals or become overly confident in their strategies. This can result in tactical investors missing crucial market opportunities or making hasty decisions that add to their costs, ultimately detracting from potential profits – again,

something witnessed frequently in volatile Emerging Markets.

In contrast, buy-and-hold investing offers simplicity and reduced stress. Investors in this category often focus on fundamental analysis and benefit from compounding returns over time.

However, the potential for superior returns in tactical investing cannot be understated. In an early study by Brown and Goetzmann (1995), the authors found that tactical strategies, when executed correctly, significantly outperformed their long-only counterparts over various market cycles. The key takeaway is that, while tactical investing presents challenges, those who possess a disciplined approach and leverage the right tools can exceed the average market returns.

The EMD Opportunity: 2004-2024

How would such a strategy have played out in EMD, rotating through the three broad areas of (1) hard currency sovereign, (2) local currency sovereign, and (3) hard currency corporate bonds?

To test the idea of trying to profit from market opportunities, we propose a model identifying four distinct risk regimes: **Goldilocks** (characterized by rising growth and declining inflation), **Reflation** (growth and inflation both on the rise), **Stagflation** (falling growth with rising inflation), and **Recession** (both growth and inflation in decline).

To systematically classify market regimes, we apply our customized Principal Component Analysis (PCA) to a set of 30 macro-financial factors including equities, fixed income, commodities and VIX, among others, observed at a monthly frequency. The first two principal components (PC1 and PC2) capture the dominant sources of variation in global macro conditions and market sentiment.

- **PC1** reflects a broad global risk sentiment signal. It is interpreted as a “risk-on/risk-off” axis:
 - When **PC1 is above its 5-month moving average**, the market is in a **risk-on** state, consistent with improving global growth conditions and investor appetite for risk.
 - Conversely, when **PC1 is below its 5-month moving average**, it signals a **risk-off** environment, typically

associated with deteriorating growth and tighter financial conditions.

- **PC2** is interpreted as a proxy for **demand for bonds and duration**, typically linked to inflation dynamics and monetary policy expectations:
 - When **PC2 is rising**, it reflects **stronger demand for bonds**, often associated with disinflationary trends and expectations of policy easing.
 - When **PC2 is falling**, it suggests **weaker bond demand**, typically seen in reflationary environments or during inflationary shocks.

In turn, we define the investable EMD universe to include two core risks segments per delineated asset class: “Local Low Yield” (LLY) and “Local High Yield” (LHY) for local currency bonds, “Hard Currency Government Investment Grade” (GIG) and “Hard Currency Government High Yield” (GHY) for sovereign hard currency bonds, and Hard Currency Corporate Investment Grade (CIG) and High Yield (CHY) for hard currency corporate bonds.

The GIG and CIG are defined as the bonds in JP Morgan’s key EMD indices with a rating of BBB- or higher in the government and corporate sectors respectively. The higher risk GHY and CHY segments are bonds in those in the indices rated BB+ or lower.

With these six defined asset classes, we then attempt to compare the risk and return of a static buy-and-hold benchmark portfolio against a tactical regime-switching model. This model adjusts allocations dynamically, emphasizing riskier, high-yield assets (LHY, GHY, and CHY) during Goldilocks and Reflation periods and shifting focus to safer, investment-grade assets (LIG, GIG, and CIG) in Stagflation or Recession environments.

When the regime is either in Goldilocks or Reflation (risk-on periods), the model allocates 100% to its respective high-risk pool in the next month. When the regime is in Stagflation or Recession (risk-off periods), the model rebalances 100% into their lower risk portfolios.

The Results Are In

Hard Currency Sovereign: Using the economic indicators as signals for shifting to different risk-weighted portfolios vs. JP Morgan EMBIGD benchmark (Please refer to index definition in table 2) for 240 months, we noted that our allocation changes generated an annualized gross return of **6.93% or +1.49%** more than those of the benchmark. Moreover, volatility was reduced modestly from **8.90% to 8.50%**, boosting a Modified Sharpe Ratio from **.62 to .81**. The cost for such allocation changes was a small increase in maximum drawdown, from **25.85% to 26.27%**. In short, the model produced gross returns that would have generated 92nd-percentile performance for the 20-year period in the eVestment universe and 63rd percentile for the trailing 5-year period.

Hard Currency Corporate: In the hard currency corporate bond sector, we note that our allocation signal changes again proved worthwhile. The annualized return recorded **8.28% or 3.05%** more than that of the benchmark JPM CEMBI Broad Diversified (Please refer to index definition in table 2). Part of this can be attributed some excessive volatile periods, such as the Global Financial Crisis, when the system captured some significant de-risking and re-risking opportunities. Again, volatility was marginally higher at **7.87% to 7.49%**, which lead to better Modified Sharpe Ratio from **.70 to 1.05**. Interestingly, for hard currency corporates the regime strategy helped reduced the drawdown significantly from **24.30% to 20.75%**. In short, the model produced gross returns that would have ranked in the **93rd** percentile performance for the 10-year period compared to the eVestment universe of managers (a universe with a much shorter track record than that for Hard Currency Sovereign managers), and 91-percentile the trailing 5-year period.

Local Currency Sovereign: In the local currency sovereign sector, our allocation signal changes also generated better results: Annualized return of **6.09% - or 2.07%** more than that of the benchmark which is JP Morgan GBIEMGD (Please refer to index definition in table 2). Again, regime volatility fell from **11.90% for the benchmark to 11.60%**, improving the Modified Sharpe Ratio from **.34 to .52**. Maximum drawdown was also curbed from **29.32% to 28.02%**. In short, the model produced gross returns that would have ranked in the **89th percentile** performance for the 10-year period (again, a universe with a shorter track record) compared the eVestment universe of managers and **35th percentile** for the 5-year period.

Please note: The model performance presented above, as well as in Table 1 below, is shown on a gross-of-fees basis. Similarly, peer group performance figures are also reported gross of fees. Prospective investors considering a strategy similar to the one depicted in the model should be aware that actual returns will be reduced by the deduction of management and other applicable fees.

Table 1. Summary Statistics, PCA Model and EMD Benchmarks, 2004 – 2024

	Annualized Return	Annualized Volatility	Sharpe Ratio*
Hard Currency Sovereign Index	5.54	8.9	0.622
Regime Strategy	6.93	8.5	0.815
Hard Currency Corporate Index	5.23	7.49	0.698
Regime Strategy	8.28	7.87	1.052
Local Currency Index	4.02	11.9	0.338
Regime Strategy	6.09	11.6	0.525

*Modified reflecting zero for risk free rate.

Discussion

In aggregate, the allocation switching models generated positive outcomes relative to their respective benchmarks, not only by enhancing returns but also by improving risk-adjusted statistics across all three Emerging Market Debt asset classes over the 2004–2024 period. It is important to note that this outperformance did not materialize in every individual year, as market risk regimes can begin and end at arbitrary points, independent of the calendar year. Consequently, one should not anticipate any risk regime-following model to outperform benchmarks on an annual basis. This characteristic may also affect short-term peer rankings, as the rules-based model operates independently of the calendar year.

A review of each asset class reveals several insights warranting further discussion. Firstly, tracking error associated with such strategies tends to be relatively high for fixed income asset classes. This is logical, given the aggressive rotations and the unpredictability of risk regimes, but it also reflects the investment style common among EMD managers in comparatively volatile markets. Furthermore, portfolio rotations are determined using 30 factors, which can result in both premature and delayed adjustments that may miss sudden market inflections—factors that also contribute to elevated tracking error.

Hard Currency Sovereign debt, whose benchmark features relatively long duration, registered a tracking error of 3.23% and an information ratio of 0.43. For the Local Currency strategy, the tracking error was

notably higher, at 6.45%—almost double that of the Hard Currency Sovereign strategy. As a consequence, its information ratio was lower at 0.32, despite the strategy generating higher excess return. Although these levels may appear elevated, they are not atypical in developing markets. The higher tracking error is more understandable when considering that the Hard Currency index is substantially more diversified than the Local index, and all assets are denominated in a single currency—the US dollar. With more than 70 issuing countries, Hard Currency assets, unified by currency, are more correlated, even across different risk pools, than their local currency counterparts. By contrast, the Local Currency universe, with fewer than 20 index countries, results in high and low-risk pools that are more concentrated than those of Hard Currency, thereby increasing idiosyncratic risk. Additionally, foreign exchange rates in emerging markets tend to exhibit lower correlation than Hard Currency assets, collectively contributing to greater volatility and higher tracking error.

It is also noteworthy that the Hard Currency Corporate strategy recorded a tracking error similar to the Hard Currency Sovereign strategy (3.25%), but achieved a 3.05% annualized excess return, resulting in an information ratio of approximately 0.94. However, it should be noted that around half of this outperformance occurred in 2009, the rebound year following the Global Financial Crisis. Excluding 2009 from the dataset, the Hard Currency Corporate strategy would still have produced over 1.5% annualized excess return, comparable to the other asset classes, and the tracking error would have declined to a relatively modest 2.1%, resulting in an even stronger information ratio. This period, however, serves to underscore the benefits of a systematic tactical approach. For instance, during the significant market drawdown of 2008, the system declined by only 10.9% compared to the benchmark's loss of 15.9%. More significantly, the model correctly signaled to increase risk exposure during the crisis, achieving a remarkable 33.7% outperformance in 2009 when markets rebounded.

These findings indicate that tactical positioning can add value. Outperformance over benchmarks has been consistent across Emerging Market Debt asset classes

over the long term, with a general reduction in volatility relative to indices. Moreover, drawdowns were also consistently reduced. Notably, in periods of pronounced market declines and recoveries, such as the 2008–2009 Global Financial Crisis, the model both limited losses and participated in market rallies across all asset classes.

Summary

Please be advised that the returns referenced above are produced by our proprietary, rules-based model and do not represent the actual performance of our strategies. These promising results suggest potential avenues for further research. For example, in a low-risk regime, the model could be modified to rotate 100% into cash, rather than into lower risk benchmark assets. Alternatively, investors capable of adopting both long and short positions could consider adjusting parameters to shift from 100% long maximum risk to 100% short maximum risk portfolios as another methodological possibility. Refining the size of low and high-risk asset pools might also facilitate implementation of these rotations. In some scenarios, employing derivatives may help reduce friction costs associated with portfolio adjustments. Furthermore, the 30-factor model utilized can be adapted to incorporate different fundamental data sets or technical indicators. The potential for further customization is substantial, allowing investors to tailor research parameters according to individual risk appetites and specific investment guidelines.

In conclusion, while tactical investing entails certain challenges, the prospect of achieving superior returns remains compelling, particularly in less efficient markets such as EMD. For investors prepared to navigate these complexities, evidence from the past two decades suggests that even modest tactical rebalancing, when compared to buy-and-hold strategies, can serve as a valuable instrument for enhancing portfolio performance.

Table 2: Benchmarks and indices – definition and performance

Index	Definition	Index Returns				
		2024	2023	2022	2021	2020
J.P. Morgan GBI-EM GD	is the J.P. Morgan Government Bond Index for Emerging Markets Global Diversified (J.P. Morgan GBI EM GD) : The index is comprehensive global local emerging markets index, and consists of regularly traded, liquid fixed-rate, domestic currency government bonds to which international investors can gain exposure.	-2.38	12.70	-11.69	-8.75	2.69
J.P. Morgan EMBI GD	is the J.P. Morgan EMBI Global Diversified Index (EMBI GD) : The index is a market capitalization-weighted total return index of hard currency (USD, EUR, GBP) denominated Brady bonds, loans, Eurobonds and local market debt instruments traded in emerging markets.	6.54	11.09	-17.78	-1.80	5.26
J.P. Morgan CEMBI BD	Is the J.P. Morgan Corporate Emerging Market Bond Index Broad Diversified , which track USD denominated debt issued by emerging market corporations. CEMBI BD is a granular asset class with 1.331 bonds of 609 different issuers from 52 different countries.	7.63	9.08	-12.26	0.91	7.13

References

Asness, Cliff S., The Less-Efficient Market Hypothesis (2024). *The Journal of Portfolio Management*. Forthcoming, available at SSRN: <https://ssrn.com/abstract=4942046> or <http://dx.doi.org/10.2139/ssrn.4942046>

Brown, S. J., & Goetzmann, W. N. (1995). Performance Persistence. *Journal of Finance*, 50(2),679-698.2.

Fama, E.E., & French, K. R. (2004). "The Capital Asset Pricing Model: Theory and Evidence." *Journal of Economic Perspectives*, 18 (3): 25–46.

Kahneman, D., & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2),263-291.

Sharpe, W. F. (1992). Asset Allocation: Management Style and Performance Measurement. *The Journal of Portfolio Management*,18(2),5-10.5.

Tsai, H. C., et al. (2021). Behavioral Finance: The Impact of Psychological Factors on Investors' Decision-Making. *Journal of Behavioral Finance*, 22(2),191-210.

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Appendix 1 - Monthly Returns for each Regime Strategy and its corresponding benchmark

Date	Sovereign Regime	Sovereign Benchmark	Corporate Regime	Corporate Benchmark	Local Regime	Local Benchmark
31/01/2005	0.0024	0.0065	0.0046	0.0092	0.0064	-0.0032
28/02/2005	0.0113	0.0066	0.0216	0.0041	0.0140	0.0398
31/03/2005	-0.0280	-0.0236	-0.0221	-0.0164	-0.0207	-0.0380
30/04/2005	0.0054	0.0129	0.0094	0.0152	0.0284	-0.0006
31/05/2005	0.0241	0.0269	0.0147	0.0153	-0.0059	-0.0001
30/06/2005	0.0125	0.0190	0.0116	0.0125	-0.0005	0.0237
31/07/2005	-0.0085	-0.0008	-0.0069	-0.0041	-0.0092	0.0060
31/08/2005	0.0167	0.0186	0.0145	0.0150	0.0174	0.0144
30/09/2005	0.0313	0.0174	0.0136	-0.0006	0.0496	0.0071
31/10/2005	-0.0152	-0.0151	-0.0114	-0.0116	-0.0102	-0.0182
30/11/2005	0.0168	0.0143	0.0109	0.0097	0.0373	0.0196
31/12/2005	0.0202	0.0164	0.0138	0.0117	-0.0045	0.0128
31/01/2006	0.0223	0.0130	0.0098	0.0013	0.0475	0.0454
28/02/2006	0.0279	0.0208	0.0170	0.0085	0.0372	0.0138
31/03/2006	-0.0133	-0.0162	-0.0056	-0.0111	-0.0313	-0.0154
30/04/2006	0.0029	-0.0004	-0.0010	-0.0026	0.0020	0.0274
31/05/2006	-0.0253	-0.0182	-0.0052	-0.0013	-0.0665	-0.0454
30/06/2006	-0.0060	-0.0037	-0.0081	-0.0045	0.0298	-0.0260
31/07/2006	0.0358	0.0312	0.0253	0.0216	0.0495	0.0422
31/08/2006	0.0270	0.0257	0.0183	0.0183	0.0259	0.0116
30/09/2006	0.0045	0.0059	0.0072	0.0087	-0.0007	-0.0074
31/10/2006	0.0244	0.0196	0.0140	0.0099	0.0412	0.0467
30/11/2006	0.0102	0.0119	0.0106	0.0137	-0.0019	0.0322
31/12/2006	0.0113	0.0062	0.0110	0.0014	0.0360	0.0224
31/01/2007	0.0004	-0.0016	0.0045	0.0004	-0.0105	-0.0080
28/02/2007	0.0148	0.0166	0.0142	0.0168	0.0066	0.0138
31/03/2007	0.0124	0.0093	0.0086	0.0021	0.0391	0.0308
30/04/2007	0.0070	0.0076	0.0135	0.0093	0.0253	0.0301
31/05/2007	-0.0032	-0.0039	0.0059	-0.0022	0.0582	0.0200
30/06/2007	-0.0237	-0.0190	-0.0042	-0.0048	-0.0054	-0.0016
31/07/2007	-0.0174	-0.0106	-0.0236	-0.0075	0.0072	0.0091
31/08/2007	0.0162	0.0107	0.0099	0.0076	-0.0240	-0.0167
30/09/2007	0.0100	0.0238	0.0076	0.0096	0.0440	0.0608
31/10/2007	0.0168	0.0245	0.0103	0.0098	0.0178	0.0432
30/11/2007	-0.0117	-0.0026	-0.0139	-0.0052	-0.0208	-0.0131
31/12/2007	0.0025	0.0061	0.0003	0.0028	0.0182	0.0022
31/01/2008	0.0120	0.0077	0.0043	0.0029	0.0363	0.0155
29/02/2008	0.0042	-0.0011	-0.0069	-0.0040	0.0101	0.0157
31/03/2008	0.0060	-0.0005	-0.0036	-0.0070	-0.0362	-0.0088
30/04/2008	0.0015	0.0095	0.0127	0.0166	-0.0173	0.0139
31/05/2008	0.0017	0.0012	0.0222	0.0044	0.0217	0.0061
30/06/2008	-0.0261	-0.0196	-0.0199	-0.0102	-0.0263	-0.0129
31/07/2008	0.0046	0.0103	-0.0025	-0.0029	0.0444	0.0617
31/08/2008	0.0070	0.0074	0.0050	0.0047	-0.0128	-0.0348
30/09/2008	-0.0514	-0.0668	-0.0558	-0.0752	-0.0116	-0.0538
31/10/2008	-0.1191	-0.1603	-0.1456	-0.1744	-0.0839	-0.1407
30/11/2008	0.0349	0.0296	0.0642	0.0615	0.0076	0.0060
31/12/2008	0.0816	0.0746	0.0271	0.0340	0.1566	0.0984
31/01/2009	0.0010	0.0132	0.0213	0.0229	-0.0344	-0.0596
28/02/2009	-0.0130	-0.0111	-0.0084	-0.0236	-0.0788	-0.0530
31/03/2009	0.0300	0.0363	0.0263	0.0378	0.0605	0.0571
30/04/2009	0.0733	0.0555	0.1234	0.0599	0.0795	0.0843
31/05/2009	0.0553	0.0407	0.1089	0.0551	0.0703	0.0565
30/06/2009	0.0261	0.0144	0.0609	0.0319	0.0026	0.0124
31/07/2009	0.0421	0.0319	0.0645	0.0386	0.0347	0.0461
31/08/2009	0.0301	0.0200	0.0447	0.0290	0.0012	0.0052
30/09/2009	0.0518	0.0490	0.0621	0.0353	0.0359	0.0332
31/10/2009	0.0012	0.0015	0.0137	0.0088	0.0223	0.0096

30/11/2009	0.0030	0.0109	-0.0006	0.0059	0.0234	0.0222
31/12/2009	0.0165	0.0037	0.0256	0.0043	-0.0060	-0.0036
31/01/2010	0.0075	0.0038	0.0299	0.0187	-0.0113	0.0025
28/02/2010	0.0116	0.0136	0.0106	0.0074	0.0323	0.0112
31/03/2010	0.0325	0.0248	0.0439	0.0243	0.0330	0.0401
30/04/2010	0.0141	0.0083	0.0147	0.0128	0.0217	0.0157
31/05/2010	-0.0232	-0.0150	-0.0446	-0.0204	-0.0269	-0.0434
30/06/2010	0.0210	0.0194	0.0202	0.0206	0.0223	0.0089
31/07/2010	0.0333	0.0406	0.0218	0.0261	0.0229	0.0552
31/08/2010	0.0228	0.0239	0.0173	0.0182	0.0088	0.0068
30/09/2010	0.0130	0.0157	0.0129	0.0175	0.0442	0.0576
31/10/2010	0.0262	0.0185	0.0122	0.0077	0.0155	0.0128
30/11/2010	-0.0281	-0.0310	-0.0127	-0.0115	-0.0394	-0.0465
31/12/2010	-0.0081	-0.0045	-0.0047	0.0032	0.0094	0.0314
31/01/2011	-0.0175	-0.0060	0.0064	0.0038	-0.0056	-0.0155
28/02/2011	0.0013	0.0029	0.0087	0.0026	0.0034	0.0149
31/03/2011	0.0187	0.0119	0.0147	0.0094	0.0191	0.0295
30/04/2011	0.0186	0.0136	0.0150	0.0125	0.0523	0.0473
31/05/2011	0.0076	0.0153	-0.0023	0.0072	0.0137	-0.0120
30/06/2011	0.0061	0.0091	0.0007	-0.0035	-0.0039	0.0046
31/07/2011	0.0179	0.0185	0.0175	0.0160	0.0315	0.0137
31/08/2011	0.0119	0.0051	0.0032	-0.0111	0.0166	0.0005
30/09/2011	-0.0365	-0.0436	-0.0306	-0.0523	-0.0413	-0.0983
31/10/2011	0.0381	0.0440	0.0302	0.0482	0.0357	0.0558
30/11/2011	-0.0060	-0.0088	-0.0098	-0.0152	-0.0284	-0.0341
31/12/2011	0.0137	0.0113	0.0095	0.0084	0.0174	-0.0147
31/01/2012	0.0112	0.0158	0.0178	0.0251	0.0497	0.0742
29/02/2012	0.0329	0.0240	0.0377	0.0214	0.0187	0.0286
31/03/2012	0.0002	0.0022	0.0025	0.0028	-0.0145	-0.0199
30/04/2012	0.0182	0.0163	0.0044	0.0083	0.0024	0.0096
31/05/2012	-0.0360	-0.0232	-0.0255	-0.0092	-0.0590	-0.0732
30/06/2012	0.0319	0.0351	0.0163	0.0178	0.0180	0.0558
31/07/2012	0.0399	0.0371	0.0239	0.0239	0.0220	0.0224
31/08/2012	0.0055	0.0118	0.0077	0.0100	-0.0092	-0.0011
30/09/2012	0.0266	0.0163	0.0179	0.0130	0.0215	0.0262
31/10/2012	0.0104	0.0089	0.0182	0.0139	0.0007	0.0052
30/11/2012	0.0154	0.0118	0.0096	0.0054	0.0000	0.0141
31/12/2012	0.0130	0.0071	0.0193	0.0089	0.0264	0.0216
31/01/2013	-0.0008	-0.0134	0.0136	0.0028	0.0273	0.0072
28/02/2013	-0.0047	-0.0031	0.0082	0.0060	0.0021	-0.0032
31/03/2013	-0.0034	-0.0062	0.0000	0.0005	0.0027	-0.0052
30/04/2013	0.0299	0.0292	0.0137	0.0118	0.0132	0.0343
31/05/2013	-0.0215	-0.0357	-0.0134	-0.0184	-0.0891	-0.0625
30/06/2013	-0.0471	-0.0491	-0.0357	-0.0374	-0.0509	-0.0413
31/07/2013	0.0084	0.0121	0.0076	0.0079	-0.0392	-0.0056
31/08/2013	-0.0195	-0.0256	-0.0115	-0.0121	-0.0505	-0.0409
30/09/2013	0.0296	0.0261	0.0163	0.0148	0.0195	0.0440
31/10/2013	0.0374	0.0277	0.0273	0.0224	0.0136	0.0275
30/11/2013	-0.0135	-0.0170	-0.0031	-0.0044	-0.0339	-0.0364
31/12/2013	0.0139	0.0051	0.0070	0.0017	-0.0008	-0.0055
31/01/2014	-0.0227	-0.0068	-0.0024	0.0040	-0.0318	-0.0463
28/02/2014	0.0276	0.0303	0.0176	0.0170	0.0476	0.0392
31/03/2014	0.0265	0.0137	0.0094	0.0067	0.0385	0.0281
30/04/2014	0.0116	0.0124	0.0064	0.0079	0.0134	0.0089
31/05/2014	0.0317	0.0310	0.0212	0.0199	0.0315	0.0208
30/06/2014	0.0133	0.0036	0.0126	0.0064	0.0152	0.0100
31/07/2014	0.0067	0.0040	-0.0027	-0.0002	-0.0128	-0.0106
31/08/2014	0.0172	0.0085	0.0120	0.0080	0.0083	0.0048
30/09/2014	-0.0199	-0.0181	-0.0078	-0.0086	-0.0355	-0.0511
31/10/2014	0.0199	0.0171	0.0102	0.0091	0.0190	0.0156
30/11/2014	0.0065	0.0009	0.0028	-0.0018	-0.0019	-0.0131
31/12/2014	-0.0102	-0.0231	-0.0098	-0.0193	-0.0190	-0.0593
31/01/2015	0.0180	0.0093	0.0146	0.0068	0.0113	0.0034
28/02/2015	0.0030	0.0085	0.0051	0.0115	0.0032	-0.0134

31/03/2015	0.0048	0.0022	0.0040	0.0051	-0.0212	-0.0298
30/04/2015	0.0039	0.0163	0.0081	0.0171	0.0133	0.0292
31/05/2015	-0.0015	-0.0039	0.0145	0.0052	-0.0323	-0.0258
30/06/2015	-0.0114	-0.0156	-0.0085	-0.0090	-0.0072	-0.0122
31/07/2015	0.0039	0.0049	0.0029	-0.0004	-0.0195	-0.0256
31/08/2015	-0.0145	-0.0091	-0.0085	-0.0155	-0.0605	-0.0538
30/09/2015	-0.0157	-0.0129	-0.0052	-0.0118	-0.0404	-0.0297
31/10/2015	0.0257	0.0274	0.0136	0.0223	0.0609	0.0453
30/11/2015	-0.0025	-0.0006	-0.0062	-0.0052	0.0063	-0.0216
31/12/2015	-0.0131	-0.0139	-0.0056	-0.0123	-0.0012	-0.0223
31/01/2016	0.0082	-0.0018	0.0006	-0.0036	0.0336	0.0035
29/02/2016	0.0173	0.0191	0.0084	0.0103	0.0135	0.0144
31/03/2016	0.0301	0.0327	0.0240	0.0320	0.0571	0.0906
30/04/2016	0.0233	0.0177	0.0296	0.0173	0.0497	0.0257
31/05/2016	0.0025	-0.0018	0.0034	0.0021	-0.0619	-0.0544
30/06/2016	0.0316	0.0337	0.0178	0.0179	0.0882	0.0589
31/07/2016	0.0122	0.0180	0.0122	0.0158	0.0193	0.0060
31/08/2016	0.0203	0.0179	0.0178	0.0132	0.0165	0.0004
30/09/2016	0.0127	0.0040	0.0050	0.0015	0.0103	0.0202
31/10/2016	-0.0093	-0.0124	0.0075	-0.0001	0.0104	-0.0085
30/11/2016	-0.0382	-0.0409	-0.0131	-0.0207	-0.0709	-0.0703
31/12/2016	0.0055	0.0133	0.0043	0.0078	0.0100	0.0187
31/01/2017	0.0159	0.0144	0.0193	0.0124	0.0365	0.0225
28/02/2017	0.0222	0.0200	0.0150	0.0139	0.0269	0.0180
31/03/2017	0.0024	0.0038	0.0040	0.0032	0.0358	0.0231
30/04/2017	0.0213	0.0149	0.0160	0.0112	-0.0002	0.0117
31/05/2017	0.0086	0.0088	0.0033	0.0064	0.0037	0.0196
30/06/2017	-0.0043	-0.0014	0.0011	0.0020	0.0082	0.0046
31/07/2017	0.0073	0.0084	0.0098	0.0079	0.0340	0.0207
31/08/2017	0.0200	0.0177	0.0127	0.0096	0.0123	0.0179
30/09/2017	0.0022	0.0001	0.0070	0.0035	0.0040	-0.0034
31/10/2017	0.0054	0.0037	0.0065	0.0034	-0.0359	-0.0282
30/11/2017	-0.0032	0.0005	0.0005	0.0003	0.0155	0.0168
31/12/2017	0.0109	0.0073	0.0048	0.0032	-0.0137	0.0202
31/01/2018	0.0053	-0.0004	0.0045	0.0007	0.0563	0.0448
28/02/2018	-0.0197	-0.0199	-0.0087	-0.0101	-0.0132	-0.0104
31/03/2018	0.0024	0.0029	-0.0002	-0.0019	0.0112	0.0102
30/04/2018	-0.0128	-0.0145	-0.0078	-0.0066	-0.0162	-0.0296
31/05/2018	-0.0003	-0.0094	-0.0010	-0.0070	-0.0155	-0.0498
30/06/2018	0.0003	-0.0119	0.0010	-0.0042	-0.0397	-0.0286
31/07/2018	0.0145	0.0256	0.0103	0.0145	0.0026	0.0190
31/08/2018	0.0025	-0.0173	0.0020	-0.0108	-0.0089	-0.0609
30/09/2018	0.0026	0.0151	-0.0009	0.0094	0.0024	0.0259
31/10/2018	-0.0203	-0.0216	-0.0046	-0.0060	-0.0175	-0.0196
30/11/2018	0.0002	-0.0042	-0.0005	-0.0016	0.0480	0.0281
31/12/2018	0.0165	0.0135	0.0116	0.0072	0.0146	0.0131
31/01/2019	0.0287	0.0441	0.0198	0.0272	0.0348	0.0546
28/02/2019	0.0138	0.0100	0.0125	0.0108	-0.0036	-0.0109
31/03/2019	0.0049	0.0142	0.0061	0.0128	-0.0121	-0.0133
30/04/2019	-0.0008	0.0024	0.0085	0.0078	0.0010	-0.0018
31/05/2019	-0.0046	0.0041	-0.0027	0.0049	-0.0058	0.0030
30/06/2019	0.0278	0.0340	0.0190	0.0220	0.0449	0.0551
31/07/2019	0.0088	0.0121	0.0086	0.0089	0.0169	0.0093
31/08/2019	-0.0287	0.0075	-0.0239	0.0013	-0.0486	-0.0264
30/09/2019	-0.0120	-0.0046	-0.0019	0.0063	0.0050	0.0096
31/10/2019	0.0023	0.0028	0.0155	0.0085	0.0317	0.0290
30/11/2019	-0.0127	-0.0048	0.0072	0.0038	-0.0467	-0.0182
31/12/2019	0.0365	0.0201	0.0160	0.0097	0.0609	0.0413
31/01/2020	0.0064	0.0152	0.0148	0.0154	-0.0175	-0.0129
29/02/2020	0.0056	-0.0097	0.0088	-0.0001	-0.0199	-0.0341
31/03/2020	-0.0807	-0.1385	-0.0832	-0.1152	-0.0932	-0.1107
30/04/2020	0.0232	0.0225	0.0346	0.0409	0.0620	0.0392
31/05/2020	0.0468	0.0607	0.0272	0.0391	0.0199	0.0518
30/06/2020	0.0569	0.0351	0.0368	0.0275	-0.0145	0.0047

31/07/2020	0.0310	0.0371	0.0233	0.0232	0.0545	0.0302
31/08/2020	0.0238	0.0051	0.0150	0.0090	-0.0181	-0.0033
30/09/2020	-0.0338	-0.0185	-0.0092	-0.0048	-0.0221	-0.0202
31/10/2020	-0.0018	-0.0003	0.0026	0.0026	0.0050	0.0043
30/11/2020	0.0207	0.0386	0.0162	0.0266	0.0330	0.0549
31/12/2020	0.0324	0.0190	0.0237	0.0147	0.0526	0.0348
31/01/2021	-0.0091	-0.0109	0.0004	-0.0007	-0.0334	-0.0107
28/02/2021	-0.0144	-0.0255	0.0088	-0.0010	-0.0416	-0.0268
31/03/2021	-0.0135	-0.0096	-0.0050	-0.0064	-0.0292	-0.0307
30/04/2021	0.0375	0.0222	0.0095	0.0060	0.0157	0.0226
31/05/2021	0.0148	0.0106	0.0091	0.0065	0.0219	0.0249
30/06/2021	-0.0002	0.0073	0.0089	0.0084	0.0050	-0.0121
31/07/2021	0.0035	0.0042	-0.0022	0.0022	-0.0237	-0.0043
30/08/2021	0.0118	0.0098	0.0102	0.0071	-0.0008	0.0077
30/09/2021	-0.0239	-0.0207	-0.0070	-0.0067	-0.0487	-0.0343
31/10/2021	0.0032	0.0002	-0.0031	-0.0046	0.0074	-0.0133
30/11/2021	-0.0349	-0.0184	-0.0127	-0.0055	-0.0194	-0.0274
31/12/2021	0.0095	0.0140	0.0015	0.0040	0.0103	0.0156
31/01/2022	-0.0190	-0.0284	-0.0137	-0.0167	0.0194	-0.0001
28/02/2022	-0.0652	-0.0655	-0.0446	-0.0484	0.0076	-0.0500
31/03/2022	-0.0263	-0.0090	-0.0349	-0.0255	-0.0138	-0.0153
30/04/2022	-0.0531	-0.0559	-0.0135	-0.0206	-0.0595	-0.0603
31/05/2022	0.0068	0.0003	-0.0017	-0.0059	0.0016	0.0176
30/06/2022	-0.0328	-0.0621	-0.0179	-0.0306	-0.0178	-0.0445
31/07/2022	0.0339	0.0289	0.0089	0.0105	0.0044	0.0029
31/08/2022	-0.0189	-0.0094	-0.0040	0.0018	-0.0017	-0.0014
30/09/2022	-0.0636	-0.0636	-0.0396	-0.0383	-0.0463	-0.0487
31/10/2022	-0.0117	0.0015	-0.0206	-0.0205	-0.0188	-0.0088
30/11/2022	0.0896	0.0759	0.0670	0.0529	0.0416	0.0711
31/12/2022	0.0051	0.0033	0.0237	0.0154	0.0123	0.0216
31/01/2023	0.0376	0.0317	0.0382	0.0304	0.0522	0.0429
28/02/2023	-0.0240	-0.0221	-0.0162	-0.0160	-0.0172	-0.0316
31/03/2023	-0.0040	0.0096	0.0018	0.0083	0.0619	0.0412
30/04/2023	-0.0040	0.0053	0.0052	0.0088	0.0119	0.0086
31/05/2023	0.0018	-0.0057	-0.0075	-0.0058	0.0251	-0.0158
30/06/2023	0.0049	0.0223	0.0031	0.0108	-0.0098	0.0326
31/07/2023	0.0352	0.0191	0.0160	0.0098	0.0288	0.0288
31/08/2023	-0.0172	-0.0150	-0.0023	-0.0044	-0.0321	-0.0269
30/09/2023	-0.0174	-0.0260	-0.0020	-0.0078	-0.0347	-0.0337
31/10/2023	-0.0208	-0.0135	-0.0122	-0.0122	-0.0116	-0.0053
30/11/2023	0.0550	0.0566	0.0367	0.0364	0.0415	0.0527
31/12/2023	0.0472	0.0473	0.0297	0.0307	0.0487	0.0321
31/01/2024	-0.0068	-0.0102	0.0137	0.0059	-0.0103	-0.0152
29/02/2024	0.0260	0.0098	0.0164	0.0071	-0.0015	-0.0057
31/03/2024	0.0296	0.0209	0.0116	0.0100	0.0095	-0.0003
30/04/2024	-0.0138	-0.0208	-0.0034	-0.0088	-0.0339	-0.0214
31/05/2024	0.0155	0.0180	0.0146	0.0146	0.0071	0.0161
30/06/2024	0.0014	0.0062	0.0100	0.0093	-0.0546	-0.0108
31/07/2024	0.0182	0.0187	0.0151	0.0150	0.0268	0.0227
31/08/2024	0.0244	0.0232	0.0167	0.0169	0.0505	0.0307
30/09/2024	0.0126	0.0185	0.0117	0.0123	0.0379	0.0339
31/10/2024	-0.0296	-0.0172	-0.0132	-0.0086	-0.0367	-0.0461
30/11/2024	0.0055	0.0119	0.0060	0.0060	-0.0059	-0.0057
31/12/2024	-0.0221	-0.0140	-0.0088	-0.0054	-0.0023	-0.0193