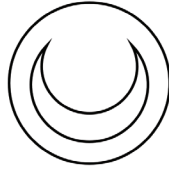# Bull & Moon

A Novel Cross-Disciplinary Investment Strategy

On The Efficacy Of Individual-Stock Stellar Compatibility Analysis in Portfolio Building

Daniel Greenberg, MSCHF Finance Working Group - Research Division
bullandmoon.com
ayyyy@mschf.xyz

Summary

Bull & Moon provides high level analysis of the general favorability of investments into publicly traded stocks based on the calculated astrological compatibility between the individual investor and the corporate entity invested in.

We here establish the rationale for our approach, and demonstrate the success of an example investment portfolio guided by Bull & Moon's algorithm over the duration of Q3 2019, showing returns of 7.47% versus a market baseline of 1.7% on the same quarter.

Summary

Since 1817 the New York Stock Exchange has seen the advent and application of numerous investment and trading strategies (swing trading setups, merger arbitrage, value investing, DCF modeling, quantitative analysis, day trading, trading on the news, pairs trading, range trading, momentum trading...).

Yet all of these are century old strategies that, while their popularity has come and gone, are fundamentally traditional in their basis and arguable in terms of their relative efficacy. Even the selfsame analysts who pioneered these techniques will acknowledge that there remains a heavy element of chance - as so quintessentially analogized by Burton Malkiel's dart-throwing monkeys as far back as 1973 in *A Random Walk Down Wall St.*

We believe that in order to solve to this paradox, which lies at the heart of the field, we must look to other disciplines. The world of investment trading strategies has become insular and overly reliant on dogma and historical anecdote. By looking to other fields that deal with similar problems of extrapolating from volatile data and making impactful predictions we hope to inject fresh viewpoints and arrive at meaningful strategic improvements.

Specifically, we posit that the same astrological influences that determine the predilections and compatibility of individuals should apply to companies, which are, after all, composed of people and legally considered person-like entities with their own discrete "birth" dates and behavioral patterns. Our research attempts to generalize the relationships and patterns observable between different astrological signs to a holistic picture of investment compatibility, and therefore the likelihood of financial return, between individual investors and a set of publicly traded stocks.

This paper seeks to present a case for the efficacy of astrologically-derived investment strategies via a sample portfolio created with Bull & Moon's matching algorithm and seeded with test capital at the beginning of Q3 of FY2019. **From our results we find this test portfolio outperforms the market** (using the S&P 500 as a benchmark proxy for overall market performance) **by a significant margin,** warranting further study and prompting our release of Bull & Moon to larger audience.

Background

Daniel Greenberg is a principal of our research group and the volunteered case study for our testing. We begin by presenting a brief overview of Greenberg's salient characteristics to the Bull & Moon algorithm.
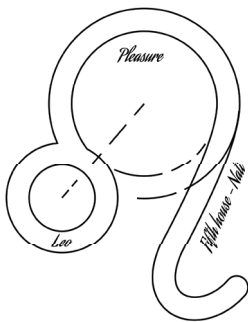
fig1: *Investor Profile (Leo)*

Greenberg is a Leo. People born under the sign of Leo are natural born investors, typically characterized by their creativity, self-confidence, dominant personalities, and drive to achieve their goals in whatever specific area of the financial spectrum they commit to. The archetypical strength of a Leo is frequently romanticized as "king of the jungle" status, and this is a useful image to think with. Leos are often early investors whose success draws attention from less aggressive investors.

We observed an enduring tradition of individuals applying astrological compatibility to potential partners in personal life. Greenberg's extensive documentation of his own personal interactions following the outset of this study backed this up. Said Greenberg: "Once I began paying attention to the information available my mind was blown - the women I met were totally compatible." (N.B: the scope of this study does not extend to a comprehensive analysis of the accuracy of astrological predictions in the built social environment. For a deeper look see *Nostradamus et al. 1513*).

At its outset our group investigated multiple cross-disciplinary approaches to a new theory of predictive investment - including quantum particle positional uncertainty and chaotic motion modeling. Heartened, however, by our initial success with astrological compatibility we elected to focus our efforts entirely on this direction. Our specific breakthrough insight came as follows: Astrology is effective as tool for analyzing the relationship of multiple entities (traditionally persons) based on cross referencing the formation dates of those persons with the trackable position of a background environment which is static relative to those persons. As a tool for making predictive inferences about fundamental social units (i.e. people), we could generalize this system to conglomerates arising from the collective action of social units (i.e. groups, societies, or in this case, companies) provided the requisite specific date and time of those entities' formation.
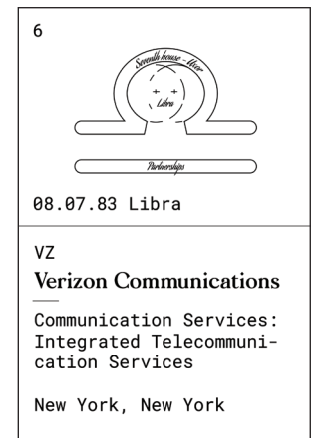
Sampling Notes

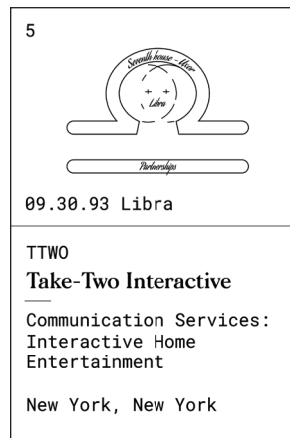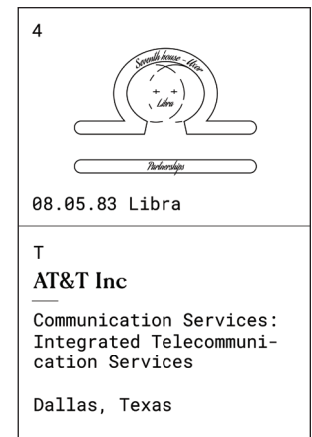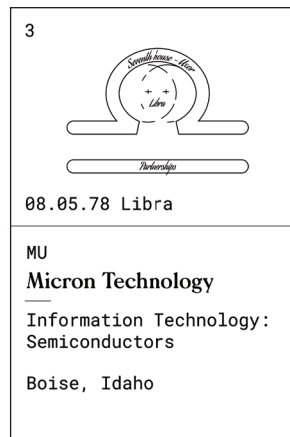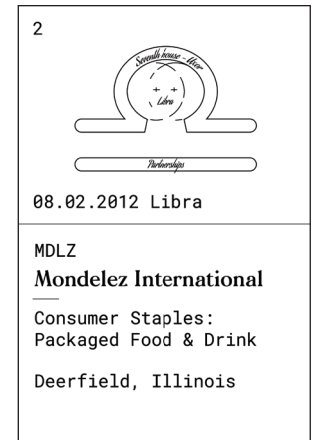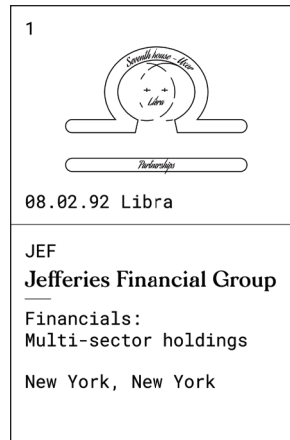Because Bull & Moon's approach requires certain information about the set of companies that make up its total pool of available investment matches that is generally not broadcast (though fortunately not thought sensitive) we are some what restricted in our ability to construct a truly comprehensive data set. As presented here, and as available in our Bull & Moon beta, we therefore operate using a limited sample size (n=500) that we have been able to manually verify. Obviously increasing the size of this data set, and increasing its granularity, are expected to improve the performance of our system beyond its already considerable success.

Case Study Details:
The Greenberg Portfolio

We constructed the Greenberg portfolio in late June (using build v1.2.02 of the Bull & Moon app) around 6 core stocks matched according to his star sign. These were: Jefferies Financial Group (JEF), Mondelez International (MLDZ), Micron Technology (MU), AT&T Inc (T), Take-Two Interactive (TTWO), and Verizon Communications (VZ). These are listed in more detail in the figures that follow.


```
1
08.02.92 Libra

JEF
Jefferies Financial Group

Financials:
Multi-sector holdings

New York, New York
```

```
2
08.02.2012 Libra

MDLZ
Mondelez International

Consumer Staples:
Packaged Food & Drink

Deerfield, Illinois
```

```
3
08.05.78 Libra

MU
Micron Technology

Information Technology:
Semiconductors

Boise, Idaho
```

```
4
08.05.83 Libra

T
AT&T Inc

Communication Services:
Integrated Telecommuni-
cation Services

Dallas, Texas
```

```
5
09.30.93 Libra

TTWO
Take-Two Interactive

Communication Services:
Interactive Home
Entertainment

New York, New York
```

```
6
08.07.83 Libra

VZ
Verizon Communications

Communication Services:
Integrated Telecommuni-
cation Services

New York, New York
```

figs 2-7: *JEF, MDLZ, MU, T, TTWO, VZ*
Stocks comprising the Greenberg Portfolio

On July first, at the commencement of Q3 FY2019, Greenberg purchased shares in equivalent dollar amounts of all 6 companies. As a baseline Greenberg also invested an equivalent amount

of test capital in the S&P 500 to act as a baseline proxy for the market as a whole. We here make an underlying assumption that this represented a large enough aggregate of corporate entities of approximately even distribution across astrological profiles to be a neutral reference point. As noted above, certain limitations in obtaining the requisite data for our profiling scheme prevent us from reasonably assembling an exactly neutral baseline relative to our individual investor but we consider the current level of uncertainty to be acceptable, particularly in the light of the magnitude of difference we observed between these two portfolios.

Results

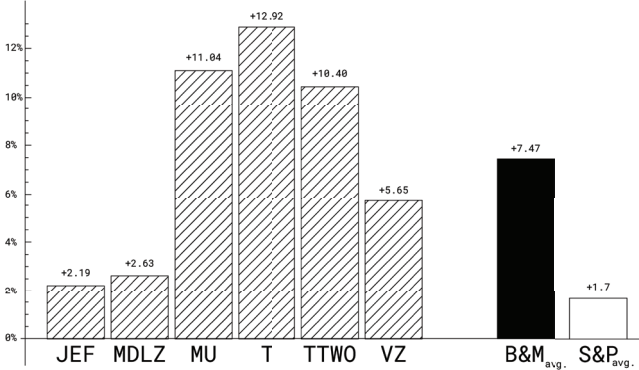|	
Jefferies Financial Group	**+2.19%**
Mondelez International	**+2.63%**
Micron Technology	**+11.04%**
AT&T Inc	**+12.92%**
Take-Two Interactive	**+10.40%**
Verizon Communications	**+5.65%**
Aggregate:	**+7.47%**
S&P 500 Average	**+1.7%**

fig 8: *Comparison of Q3 yields for Greenberg Portfolio, by individual stocks and average, vs. S&P 500 average*

Conclusions and Next Steps

Our findings represent a significant (4x) improvement over a distributed index fund investment approach. Based on the success demonstrated here we are releasing Bull & Moon to a wider audience in order to allow our professional peers an opportunity for scrutiny of our work and as a first step towards establishing a larger user base to accumulate data.

While Bull & Moon's success has been demonstrated in a limited case we acknowledge an outstanding need for due diligence in comparison to a wider variety of more specific investment strategies. We are open to solicitation from speciality firms, and propose that these comparisons be conducted as a series of public

'tests' or contests pitting our astrological determined portfolios against those of 'challenger' firms, provided the founders of those firms will release their star charts to us.

The promise of the strategies developed by our working group goes beyond the stock market and investment fields. We posit additionally that this same methodology may be effective for hiring and career trajectory planning purposes, in counter to the rising industry interest in AI matching systems, which have significant acknowledged flaws due to programmer bias and a tendency to reinforce existing societal prejudices and stereotypes.

Indeed, we expect that the application of astrological calculation to larger societal entities has wide-reaching ramifications for politics, insurance, and marketing. All of these warrant further exploration by specialized research groups; we hope to see great strides made in this discipline over the coming decade.