



# Taking Stock

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## Overview

We gathered stock data, cleaned the data, and analyzed monthly dividend stocks to identify top dividend amounts and yields. Additionally we evaluated the data for monthly dividend stocks to investigate the impact from Covid-19.

# Questions we asked:



1

What are the top 10 highest-returning dividend stocks (by month) in the given dataset?

2

What are the quantifiable impacts on stocks between March 2020 to the present?



## Let's define some things:

- Cash/Stock Dividend: A payment (either in the form of cash or partial shares of stock) to a stock owner as their prerogative as a shareholder
- Liquidation: any means of turning stock value into usable currency
- Dividend Yields are the dividend amount divided by price of stock share. Last day of each month used for price variable.



# Cleanup

- Reduce size of initial Kaggle CSV
- Merging relevant tables together
- Compensating for missing information
- COVID-specific: separating dividend/yield data into specific timeframes



# Unexpected Challenges

1. Repo issues
2. Specific coding problems
3. Coordinating project ideas and solutions



## Analysis: Question 1

Two different ways to identify top monthly dividend stocks:

1. The amount of dividends paid to the stockholder
2. The dividend yield to the stockholder (dividend payout amount / stock price)

symbol	month	open	close	dividend
MSFT	201801	86.1250	95.01	0.00
MSFT	201802	94.7900	93.77	0.42
MSFT	201803	93.9900	91.27	0.00
MSFT	201804	90.4700	93.52	0.00
MSFT	201805	93.2100	98.84	0.42
MSFT	201806	99.2798	98.61	0.00
MSFT	201807	98.1000	106.08	0.00
MSFT	201808	106.0300	112.33	0.42
MSFT	201809	110.8500	114.37	0.00
MSFT	201810	114.7500	106.81	0.00
MSFT	201811	107.0500	110.89	0.46
MSFT	201812	113.0000	101.57	0.00

## Analysis: Question 2

To start, we defined our data into two separate timeframes:

1. Pre-COVID: January 2018 through February 2020
2. COVID: March 2020 through the estimated end of this year.

Next, we calculated the average monthly dividend payout and yield for the months in both ranges.

The goal of comparing these two ranges is to show the effects of the emergence of COVID-19 on each share of our monthly dividend payouts and yields.

symbol	frequency	201801_open	201802_open	201803_open	201804_open	201805_open	201806_open	201807_open	201808_open	...	202003_divider
NEWT	Q	18.55	17.03	16.91	18.12	17.98	20.20	19.98	20.98	...	0.44
CCAP	Q	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	...	0.00
IRM	Q	37.80	34.94	31.36	32.87	33.97	33.35	34.90	34.85	...	0.61
TRTN	Q	37.88	38.20	28.46	30.51	30.85	35.03	30.25	35.40	...	0.52
RMR	Q	59.40	64.65	63.20	69.90	74.45	75.95	78.20	86.70	...	0.00



# Why Should We Care?



We all love money, and we could all use some extra income! For dividend stocks specifically, dividends are paid immediately versus the potential volatility of day-trading stocks.

# Question 1

## Top 10 Monthly Dividend Stocks



## Top 10s by Month: Dividends vs. Dividend Yields

### Dividends

symbol	average_total_dividends
EMB	0.391494
VCLT	0.289086
SLG	0.268681
VWOB	0.268097
EPR	0.247083
EMCB	0.243278
O	0.226528
VCIT	0.220806
TLT	0.215847
PDI	0.214431

### Yields

symbol	average_total_dividend_yields
CLM	0.017405
CRF	0.017226
OXLC	0.016199
EDF	0.013238
GECC	0.013126
ORC	0.012750
EDI	0.011938
OXSQ	0.011373
GGN	0.011181
RIV	0.010802

## Question 2:

# COVID Complications: Dividends and Yields



### Hypotheses:

Null: If the defined COVID range (March 2020-present) does not impact dividend stock payments, then there will be not be a dividend stock percentage change exceeding a factor of 5 percent.

Alternative: If the defined COVID range (March 2020-present) does impact dividend stock payments, then there will be a dividend stock percentage change exceeding a factor of 5 percent.

## Before and After the Start of Covid: Dividends:

symbol	average_dividend_before_covid
EMB	0.407012
EPR	0.312692
VCLT	0.286412
VWOB	0.262058
SLG	0.258558
EMCB	0.237808
O	0.223904
VCIT	0.223258
TLT	0.220565
CLM	0.218115

symbol	average_dividend_after_covid
EMB	0.35115
VCLT	0.29604
SLG	0.29500
VWOB	0.28380
EMCB	0.25750
O	0.23335
PDI	0.22050
VCIT	0.21443
MBB	0.20837
KBWY	0.20603

## Before and After the Start of Covid: Dividend Yields

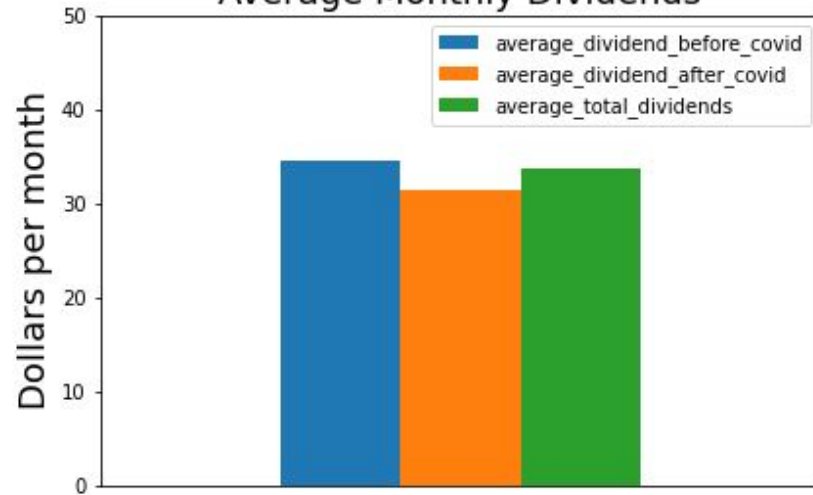
symbol	average_dividend_yield_before_covid
CLM	0.017249
CRF	0.017053
OXLC	0.013716
EDF	0.012903
ORC	0.012222
EDI	0.011568
GGN	0.011184
RIV	0.010209
HIE	0.010207
ZTR	0.009966

symbol	average_dividend_yield_after_covid
GECC	0.022750
OXLC	0.022657
CLM	0.017810
CRF	0.017674
OXSQ	0.017596
ORC	0.014122
EDF	0.014111
JQC	0.014005
ACP	0.013215
EDI	0.012898



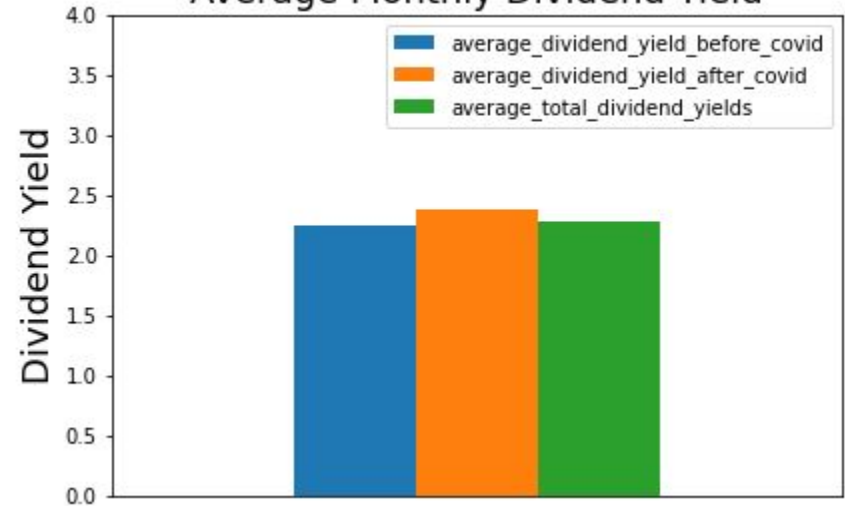
# What We Mean in Pictures: Dividend Stock vs. Yield

Average Monthly Dividends



average_dividend_before_covid	34.503962
average_dividend_after_covid	31.502050
average_total_dividends	33.670097

Average Monthly Dividend Yield



average_dividend_yield_before_covid	2.244738
average_dividend_yield_after_covid	2.384264
average_total_dividend_yields	2.283495

## Conclusions: Question 1

- Between the top 10 monthly dividend stocks and monthly dividend yields, there's no overlap when comparing them in the merged data.





## Conclusions: Question 2

So, what does this all mean for COVID?

- There was an 8.70% drop for dividend stocks from our pre-COVID range into our COVID range.
- Yield, however, saw a 5.88% percent increase in our After-COVID range.

While this sounds weird, let's remember our yield equation:  $\text{yield} = \text{dividend} / \text{stock-price}$ . So, if the price is falling, then the possibility exists for buying more shares with available dividends.

Our findings for dividend stock change correspond to our alternative hypothesis.



## Resources

1. <https://www.investopedia.com/terms/s/stockdividend.asp>
2. [https://www.kaggle.com/tsaustin/us-historical-stock-prices-with-earnings-data?select=dataset\\_summary.csv](https://www.kaggle.com/tsaustin/us-historical-stock-prices-with-earnings-data?select=dataset_summary.csv)
3. <https://www.dividendchannel.com> (for frequency of dividend stocks)
4. <https://financial-dictionary.thefreedictionary.com/liquidation>
5. Stock photos courtesy of Unsplash.com and Google (stock photos).

# Questions?





# Thank you.

