

# Analysis of Share Prices in DOM

## Introduction

Python is powerful for data science, especially in the field of finance. Today, the American Stock Market fluctuates at an hourly basis, so it would be better for financial analysts apply tools like python to describe the market. In this research, we first examine the transaction features of the DOM as a whole, and then probe into one specific company to detect the historical trend of its share price.

The result is useful for investors, and the research methodology is even more valuable. For researchers who want to investigate other markets or companies, they can get their research done by simply replicating and modifying this methodology.

## Data

We can find our data source in the DOM website. As the data are in real-time, so the result only represents for the situation in 10/20/2019 2:15pm, Peking Time.

## Analysis

### 1. Analysis of the market

We are able to retrieve some share prices of companies by some simple codes.

0	1	2
0	MMM	3M 163.10
1	AXP	American Express 116.76
2	AAPL	Apple 236.41
3	BA	Boeing 344.00
4	CAT	Caterpillar 130.71
5	CVX	Chevron 114.74
6	CSCO	Cisco 46.71
7	KO	Coca-Cola 54.78
8	DIS	Disney 130.89
9	DOW	Dow Chemical 47.96
10	XOM	Exxon Mobil 67.61
11	GS	Goldman Sachs 206.52
12	HD	Home Depot 237.93
13	IBM	IBM 134.09
14	INTC	Intel 51.36
15	JNJ	Johnson & Johnson 127.70
16	JPM	JPMorgan Chase 120.56
17	MCD	McDonald's 208.50
18	MRK	Merck 84.68
19	MSFT	Microsoft 137.41
20	NKE	Nike 96.10
21	PFE	Pfizer 36.46
22	PG	Procter & Gamble 117.47
23	TRV	Travelers Companies Inc 141.36
24	UTX	United Technologies 136.80
25	UNH	UnitedHealth 245.34
26	VZ	Verizon 61.05
27	V	Visa 175.71
28	WMT	Wal-Mart 119.14
29	WBA	Walgreen 55.30

To further investigate the market. We can find the three companies with the highest share prices.

Rank	Company
1	Boeing
2	AmericanHealth
3	Home Depot

Besides, companies like APPLE, McDonald also have very high share prices.

## 2. Analysis of AXP company

American Express Company, together with its subsidiaries, provides charge and credit payment card products, and travel-related services to consumers and businesses worldwide. It operates through three segments: Global Consumer Services Group, Global Commercial Services, and Global Merchant and Network Services. The company's products and services include charge and credit card products, as well as other payment and financing products; network services; expense management products and services; travel-related services; and prepaid products. Its products and services also comprise merchant acquisition and processing, servicing and settlement, point-of-sale marketing, and information products and services for merchants; and fraud prevention services, as well as the design and operation of customer loyalty programs. The company sells its products and services to consumers, small businesses, mid-sized companies, and large corporations through online and mobile applications, third-party vendors and business partners, direct mail, telephone, in-house teams, and direct response advertising. American Express Company was founded in 1850 and is headquartered in New York, New York.

In this research, we will first preform some description statistics to the share price of AXP in the last year.

mean	std	min	25%	50%	75%	max
110.14	2.01	94.89	98.21	109.38	118.65	124.74

We also find that in 250 days the share price has changed. In these days, it increased in 132 days and decreased in 118 days.

Also, we collect the active transaction days in each month

Month	Active Days	Month	Active Days
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JAN	21	JUL	22
FEB	19	AUG	22
MAR	21	SEP	20
APR	21	OCT	22
MAY	22	NOV	21
JUN	20	DEC	19

## Conclusion

With the analysis above, we are able to summary the transaction features of DOM. Boeing, AmericanHealth, and Home Depot have the highest share price currently. For specific companies like AXP, we are also able to get lots of valuable information about its share price with this analysis. Basically, in this project, we apply method of description statistics and show our results in tables. Admittedly, charts and visualization an enrich the content of this analysis, but it does not necessary for share price analysis.