Stock Price Analysis

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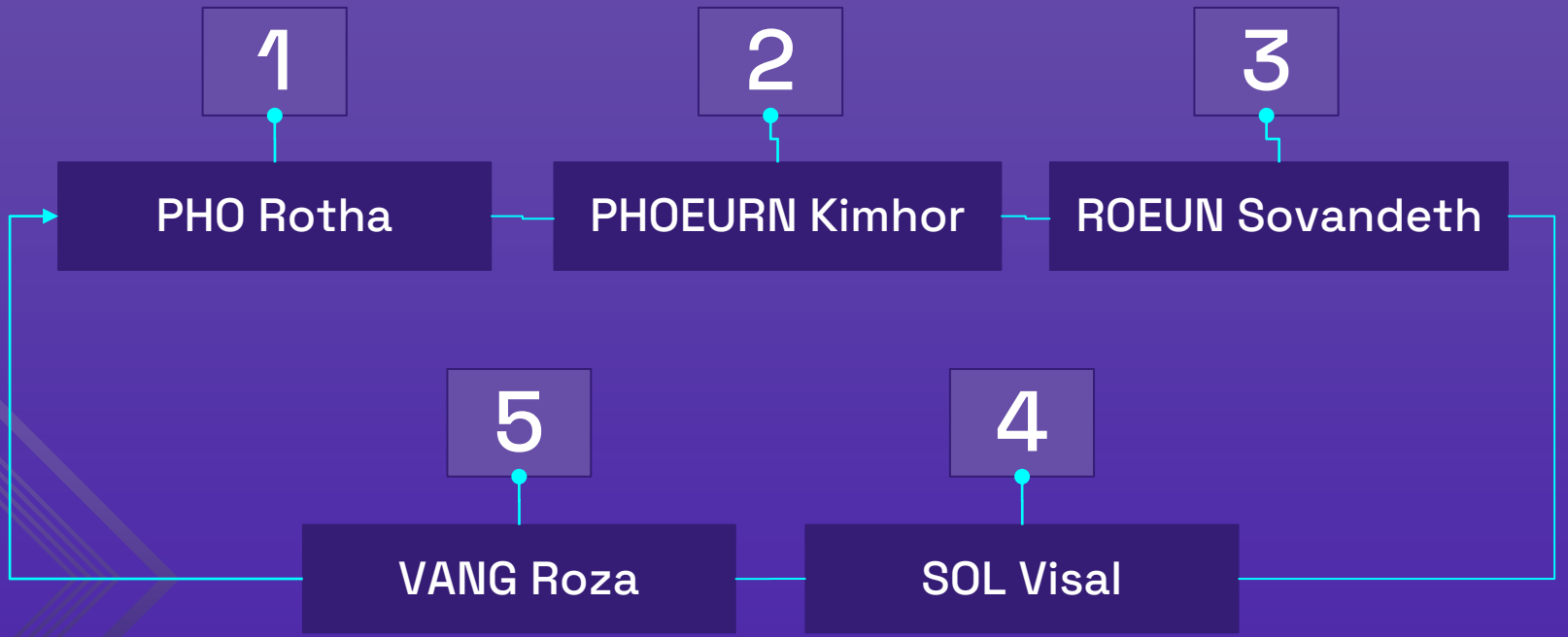
Our team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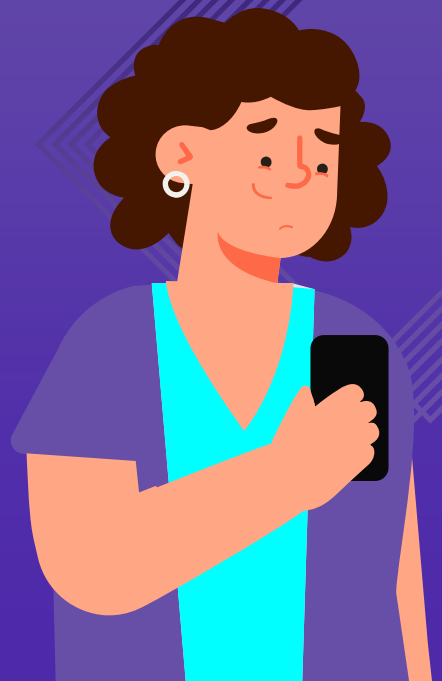
01 Introduction to Stock

Introduction to Stock

- Stock is a share in the ownership of a company.
- When more buyers want a stock than sellers, the price will go up. Conversely, when more sellers want to get rid of a stock than buyers, the price will go down.



The Factors that Influence the Up and Down of Stock Price

Company Performance

Companies with strong earnings and growth potential tend to have higher stock prices.

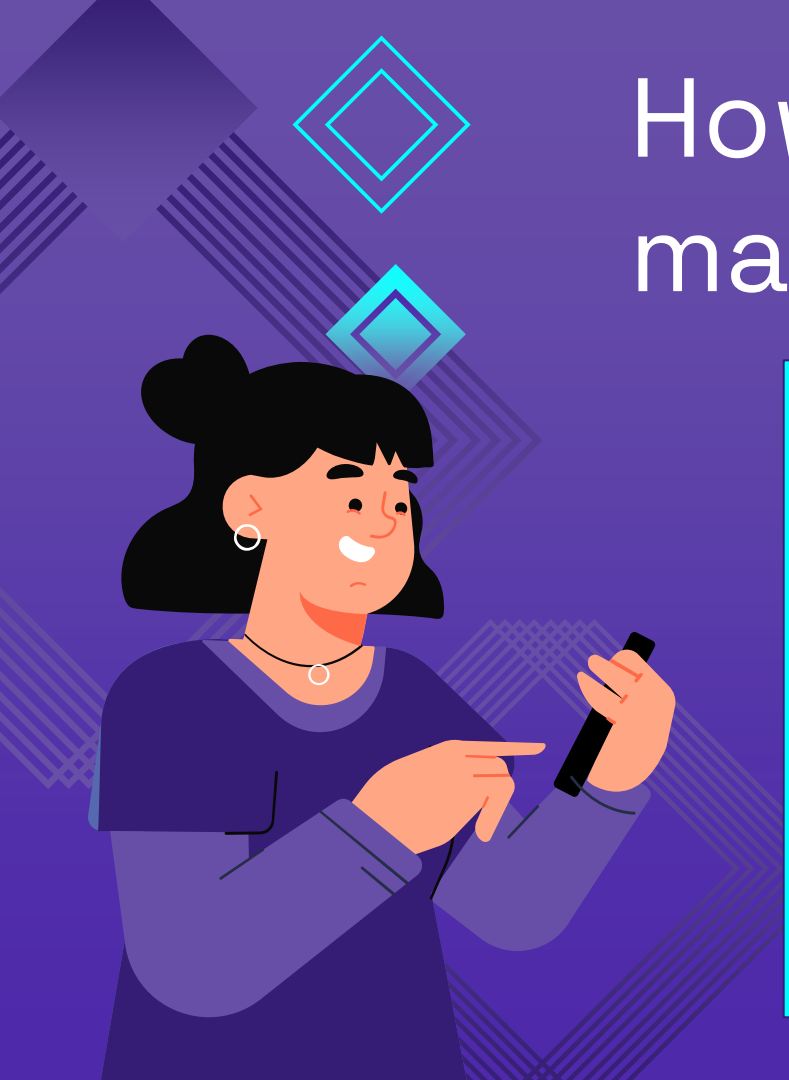
Investor sentiment:

When investors are feeling confident, they may be more willing to buy stocks, which can drive up prices. Conversely, when investors are feeling fearful, they may be more likely to sell stocks, which can drive down prices.

Economic conditions

During periods of economic growth, investors are more likely to be optimistic about the future, and stock prices tend to rise.

How does the stock market work?

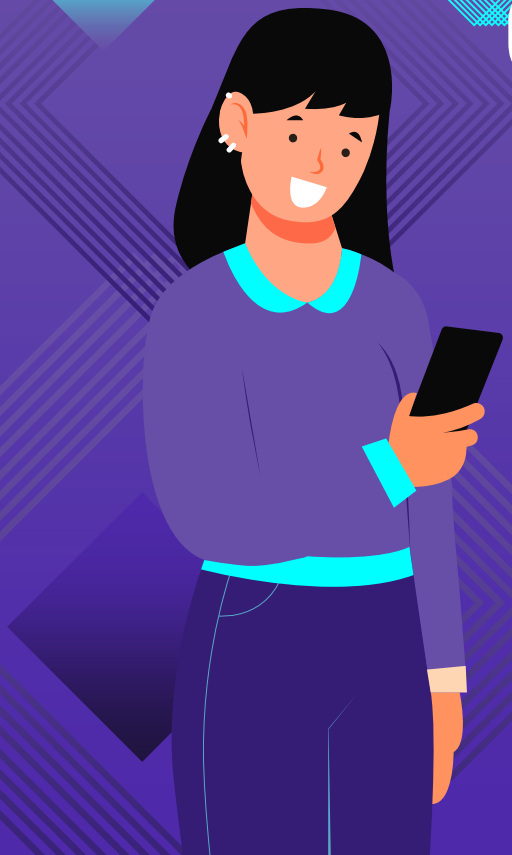


- Stock are traded on stock exchanges, which are electronic marketplaces where buyers and sellers can come together to negotiate prices. The most well-known stock exchanges in the world include the New York Stock Exchange (NYSE)
- For Cambodia, CSX Trade. (Open from 8am to 3pm Monday-Friday)
- Buyers and sellers place orders through their brokers to purchase or sell a specific number of shares at a certain price.

02

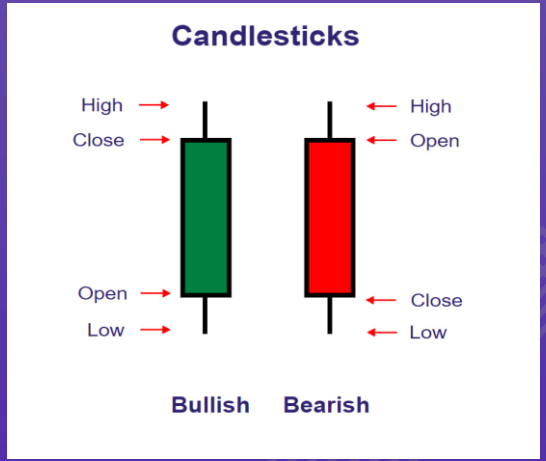
Candlestick Chart

What is a Candlestick Chart?



A candlestick chart is a type of financial chart used to describe price movements of a security, derivative, or currency.

https://www.tradingview.com/chart?offer_id=10&aff_id=7016

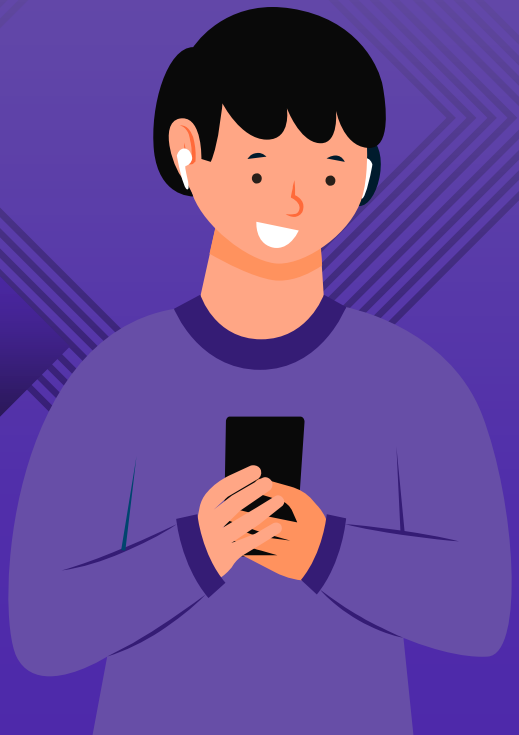


Why Candlestick Chart for Stock Price Visualization?

Determine Price Movement

Traders use candlestick charts to determine possible price movement based on past patterns.

Candlestick Pattern : Potential Bull (rise) Direction



03

Analysis Process

Tools Used

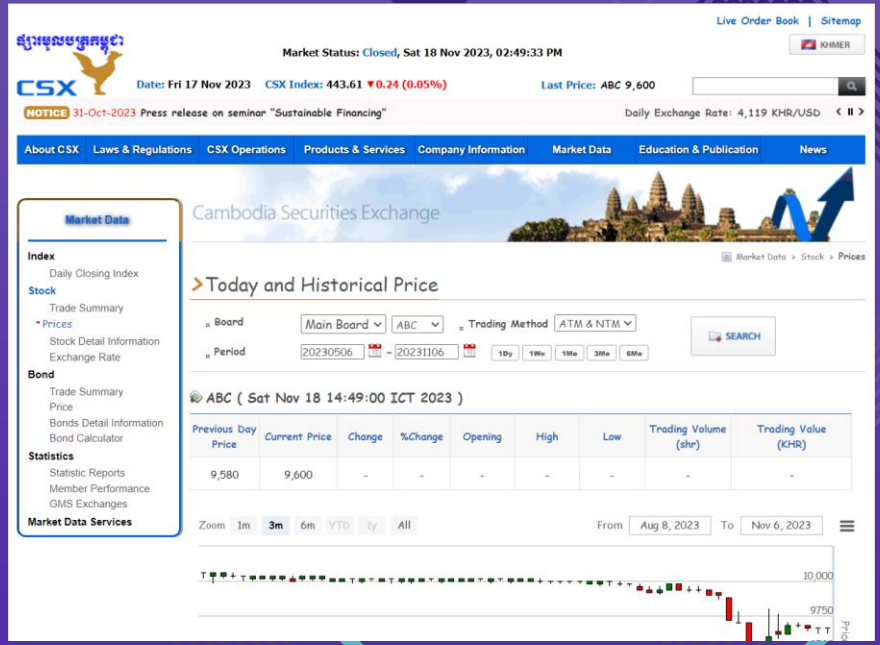
Python
Language

VS Code (IDE)

Data Collecting

- The data from **csx.com.kh**

- The data is about **Acleda Stock Price** from 25 May 2020 to 31 August 2023



Observation

The maximum value of **Trading Volume (shr)** is very far away from the minimum value. This indicates that there's something interesting about this data.

```
1  df.describe()
```

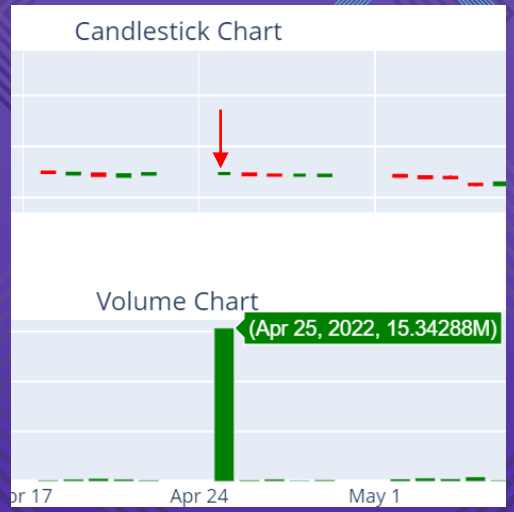
✓ 0.0s

	Date	Closing Price	Trading Volume (shr)	Opening	High	Low
count	804	804.000000	8.040000e+02	804.000000	804.000000	804.000000
mean	2022-01-19 02:10:44.776119040	13048.320896	8.389017e+04	13049.514925	13111.194030	12968.855721
min	2020-05-25 00:00:00	10000.000000	2.530000e+02	10000.000000	10020.000000	9360.000000
25%	2021-03-25 18:00:00	10460.000000	1.451225e+04	10495.000000	10515.000000	10415.000000
50%	2022-01-25 12:00:00	11360.000000	4.238600e+04	11360.000000	11400.000000	11300.000000
75%	2022-11-15 06:00:00	16700.000000	7.605025e+04	16700.000000	16760.000000	16645.000000
max	2023-08-31 00:00:00	22600.000000	1.534288e+07	22850.000000	23600.000000	22000.000000
std	NaN	2991.607196	5.468938e+05	3005.337574	3032.830705	2957.633294

Observation (continue)

```
1  df[df['Trading Volume (shr)'] == 15342879]
```

	Date	Closing Price	Trading Volume (shr)	Opening	High	Low
341	2022-04-25	12360	15342879	12360	12480	12300



effective COVID-19 management measure which led to high vaccination rates and low infection rates among the population. As a testament to the success, Cambodia is ranked second in the world in terms of COVID-19 management and recovery.

As a result of effective measure, the second Cambodia-Japan Business Matching can be jointly hosted by both ACLEDA Bank and JCA on 25 April 2022 at ACLEDA Bank Headquarters. More than 24 Japanese companies are confirmed to attend the business matching. This is an important event that could potentially attract more investments into different sectors, bring technical knowhow, and more employment opportunities into Cambodia.

According to Dr. In Channy – President & Group Managing Director of ACLEDA Bank Plc., the business matching helped enable foreign investors to learn more about the investment

Visualization with Candlestick and Bar Chart

Point Estimation

- n = 804

For Closing Price : $\bar{x} = \frac{\sum_{i=1}^{n} x_i}{n} = 13048.3209$

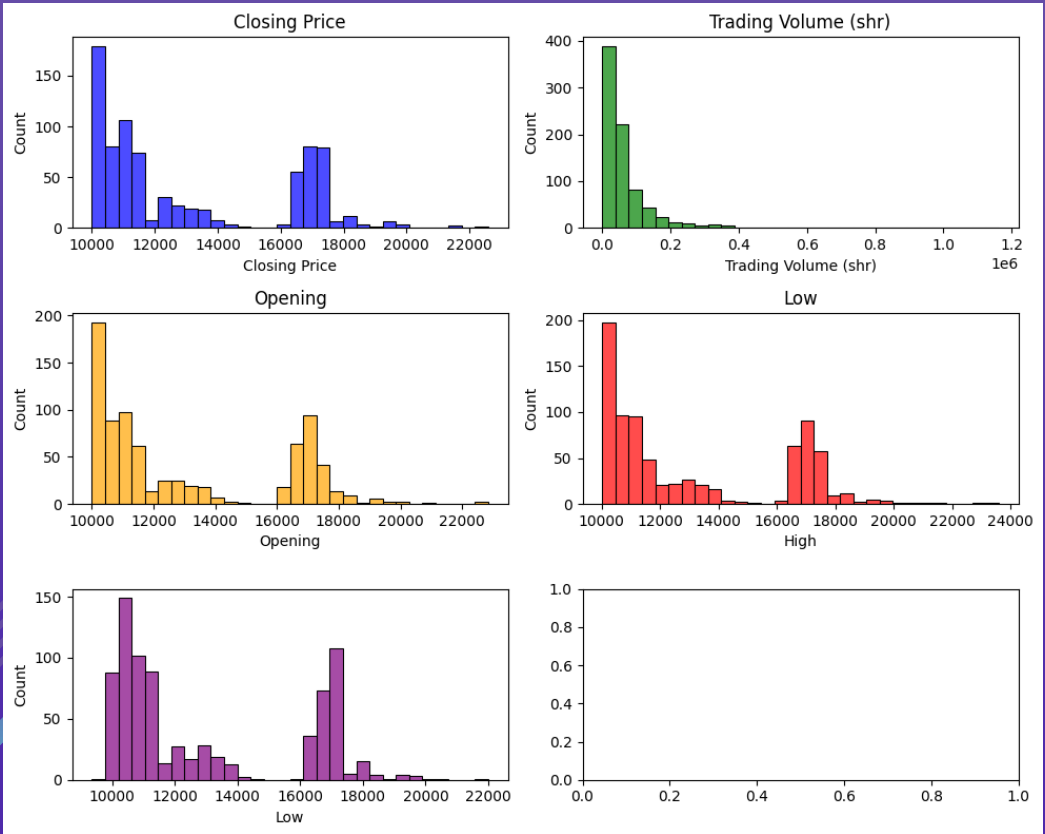
For Opening Price : $\bar{x} = 13049.515$

Highest Price : $\bar{x} = 13111.2$

For Lowest Price : $\bar{x} = 12968.855$

For Trading Volume : $\bar{x} = 83890.17$

Check if Each Variable is Normal



- As we can see, none of the variable is normal.

Confidence Interval

For Closing Price : $CI = \left[\bar{x} - z_{\frac{\alpha}{2}}\frac{s}{\sqrt{n}}, \bar{x} + z_{\frac{\alpha}{2}}\frac{s}{\sqrt{n}}\right] = [13034.565\ , 13063.79]$

For Opening Price : $\mathrm{CI} = [\ 13035.693\ , 13065.0533\ ]$

Highest Price : $\mathrm{CI} = [\ 13097.165\ , 13126.794\ ]$

For Lowest Price : $\mathrm{CI} = [\ 12955.241\ , 12984.135\ ]$

For Trading Volume : $\mathrm{CI} = [\ 64430.160, 65345.219\ ]$

- Confidence Level = 95%
- n = 804
- Z = 1.96

Merci !

Vous avez des questions?