Data Summary

Bitcoin Data

We obtain Bitcoin historical data using the `crypto2` package in R. The data is available from March 28th, 2013 till February 5th, 2021. All the data obtained is for each day and is in US Dollars. We obtain open, close, high, low prices and their associated times. We also obtain volume and market capitalization.

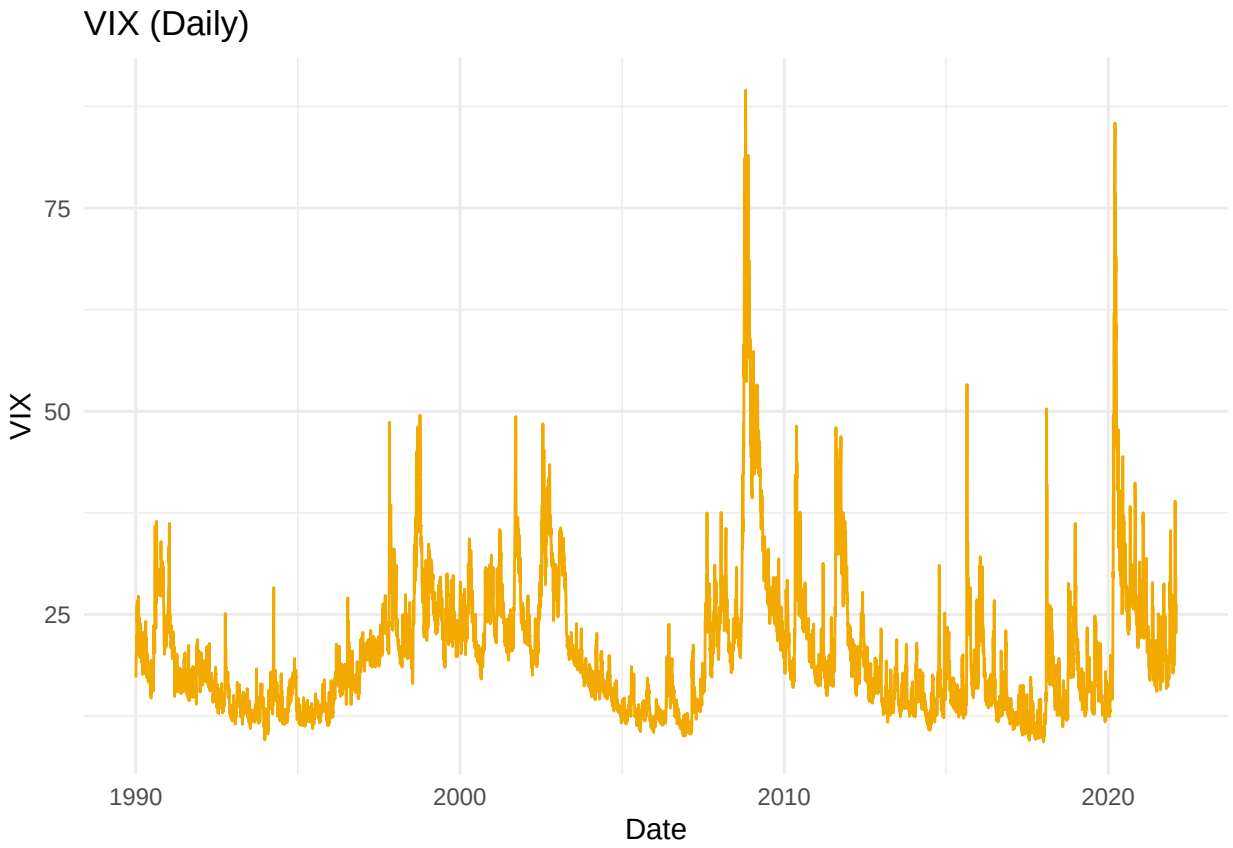
```
coin_hist %>%
  ggplot(aes(as.Date(timestamp), high)) +
  geom_line(color="#F2A900") +
  scale_x_date(date_labels = "%b-%d-%Y") +
  theme_minimal() +
  labs(title = "Bitcoin Highest Price (Daily)", x = "Date", y = "High (USD)")
```


```
coin_hist %>%
  ggplot(aes(as.Date(timestamp), market_cap)) +
  geom_line(color="#F2A900") +
  scale_x_date(date_labels = "%b-%d-%Y", limits = as.Date(c("2013-04-28","2021-02-05"))) +
  theme_minimal() +
  labs(title = "Bitcoin Market Capitalization (Daily)", x = "Date", y = "Market Cap (USD)") +
  scale_y_continuous(labels = label_number(suffix = "B", scale = 1e-9))
```

Volatility Index (VIX)

The data is available from 1990 till present. It is measured daily.

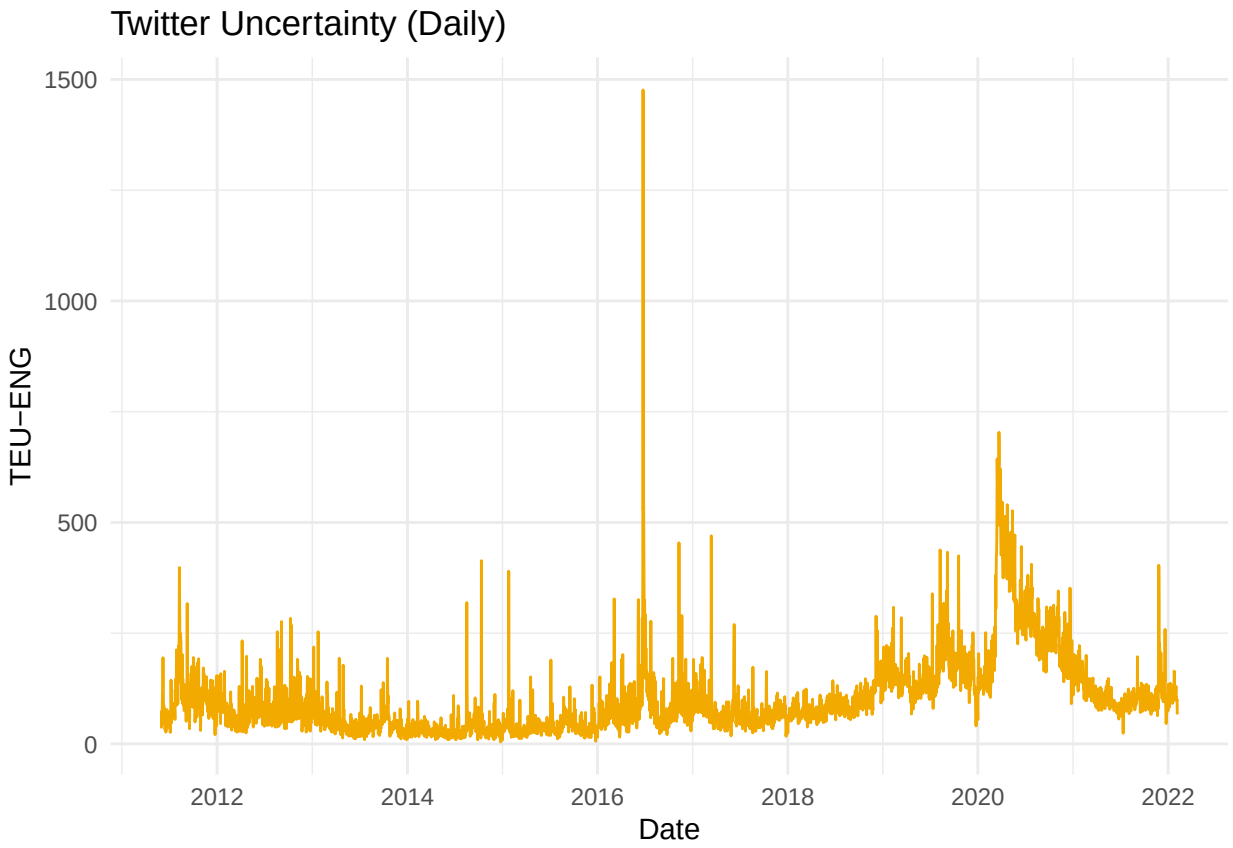
```
vix %>%
  ggplot(aes(Date, High)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "VIX (Daily)", x = "Date", y = "VIX")
```



Uncertainty measures

Twitter Uncertainty

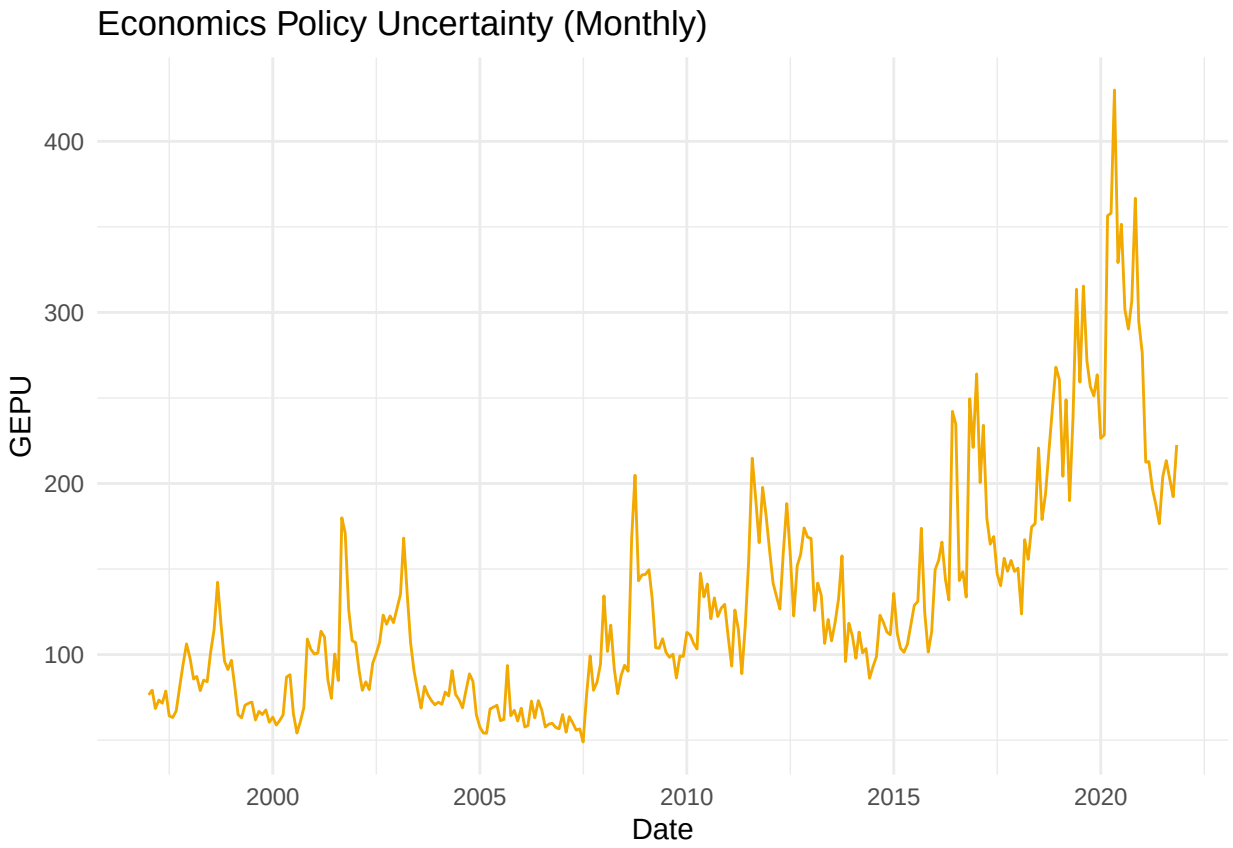
```
tw_uncer %>%
  ggplot(aes(as.Date(date), `TEU-ENG`)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Twitter Uncertainty (Daily)", x = "Date", y = "TEU-ENG")
```



Economic Policy Uncertainty

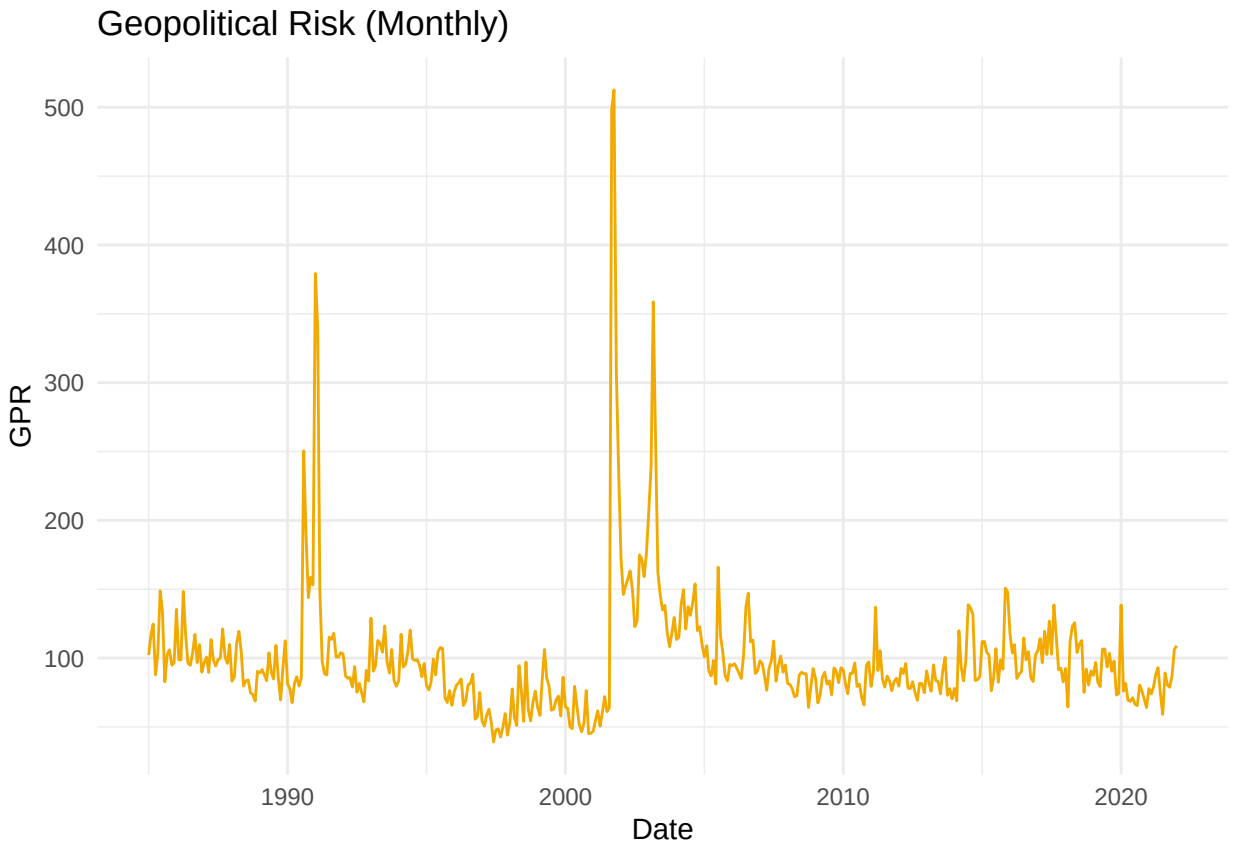
```
epu_uncer %>%
  ggplot(aes(as.Date(Date), GEPU_current)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Economics Policy Uncertainty (Monthly)", x = "Date", y = "GEPU")
```

```
## Warning: Removed 3 row(s) containing missing values (geom_path).
```



Geopolitical Risk

```
gpr %>%
  drop_na(GPR) %>%
  ggplot(aes(as.Date(month), GPR)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Geopolitical Risk (Monthly)", x = "Date", y = "GPR")
```



Gold

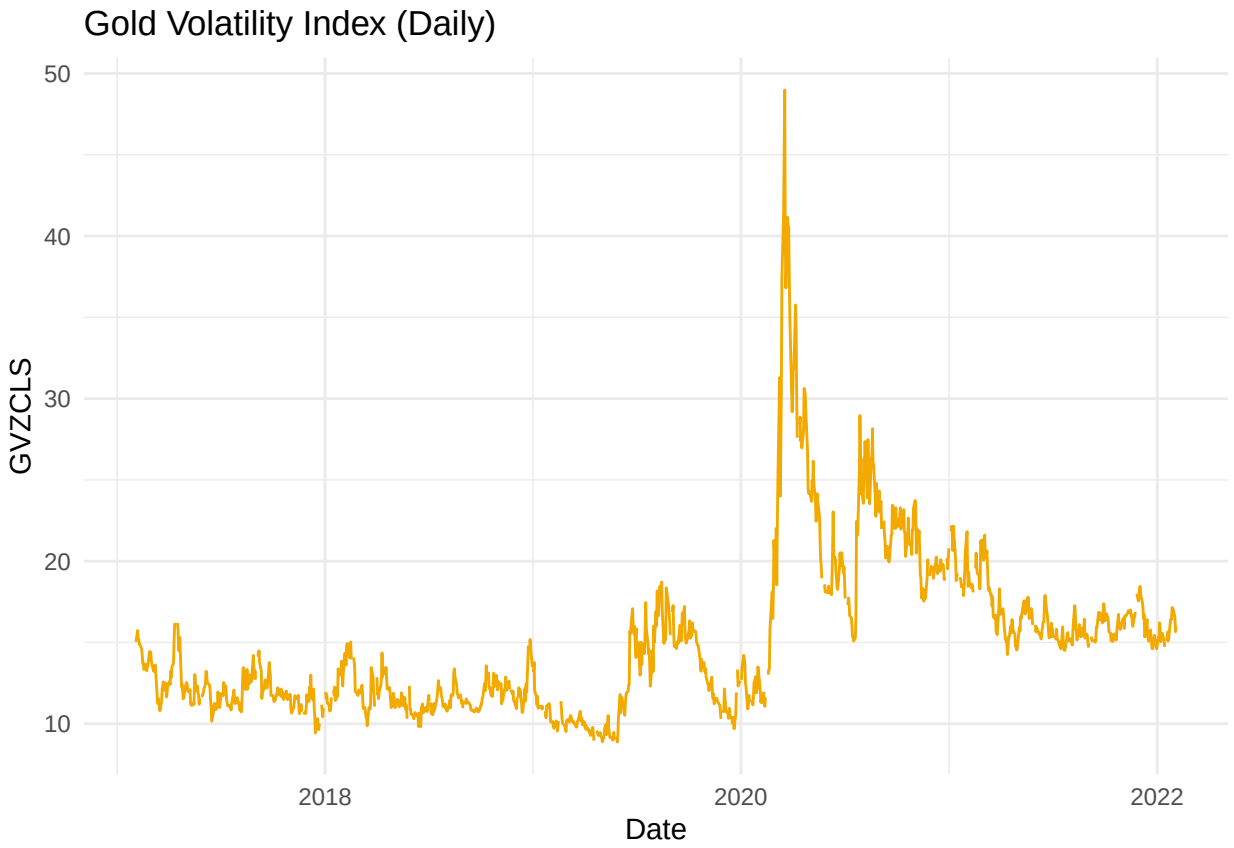
Price

```
gold %>%
  ggplot(aes(as.Date(Name), `US dollar...2`)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Gold Price (Daily)", x = "Date", y = "Price")
```

```
## Warning: Removed 2381 row(s) containing missing values (geom_path).
```

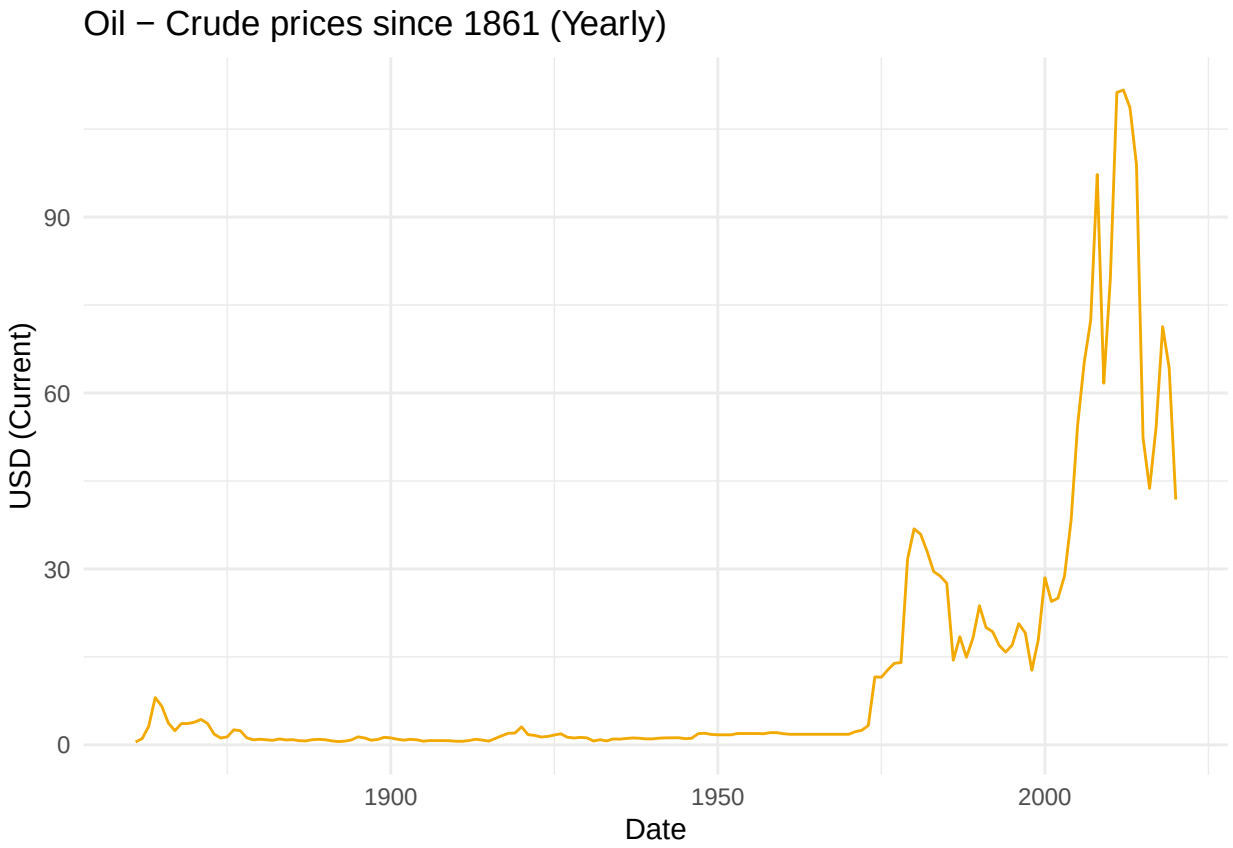
Volatility

```
gold_vix %>%
  ggplot(aes(DATE, GVZCLS)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Gold Volatility Index (Daily)", x = "Date", y = "GVZCLS")
```



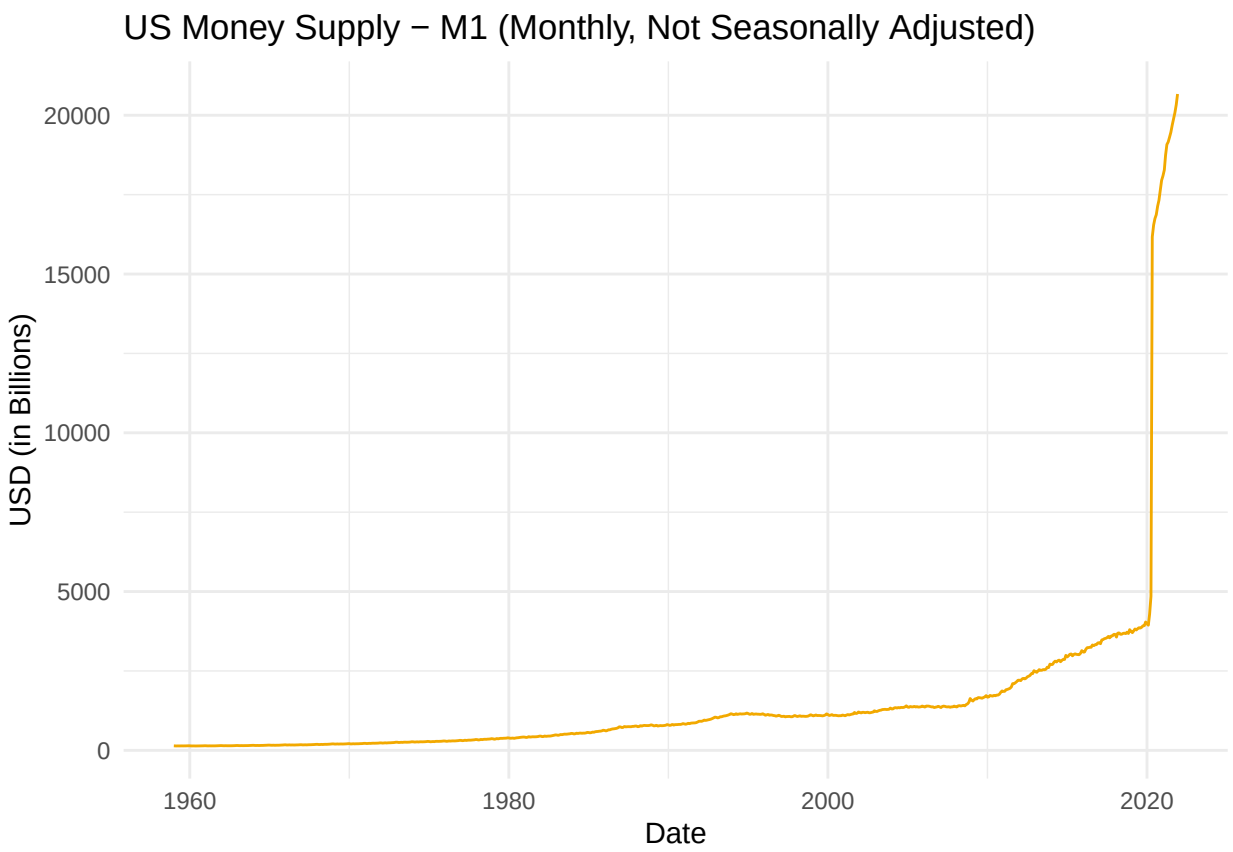
Oil

```
oil %>%
  ggplot(aes(Year, `Oil - Crude prices since 1861 (current $)`)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Oil - Crude prices since 1861 (Yearly)", x = "Date", y = "USD (Current)")
```

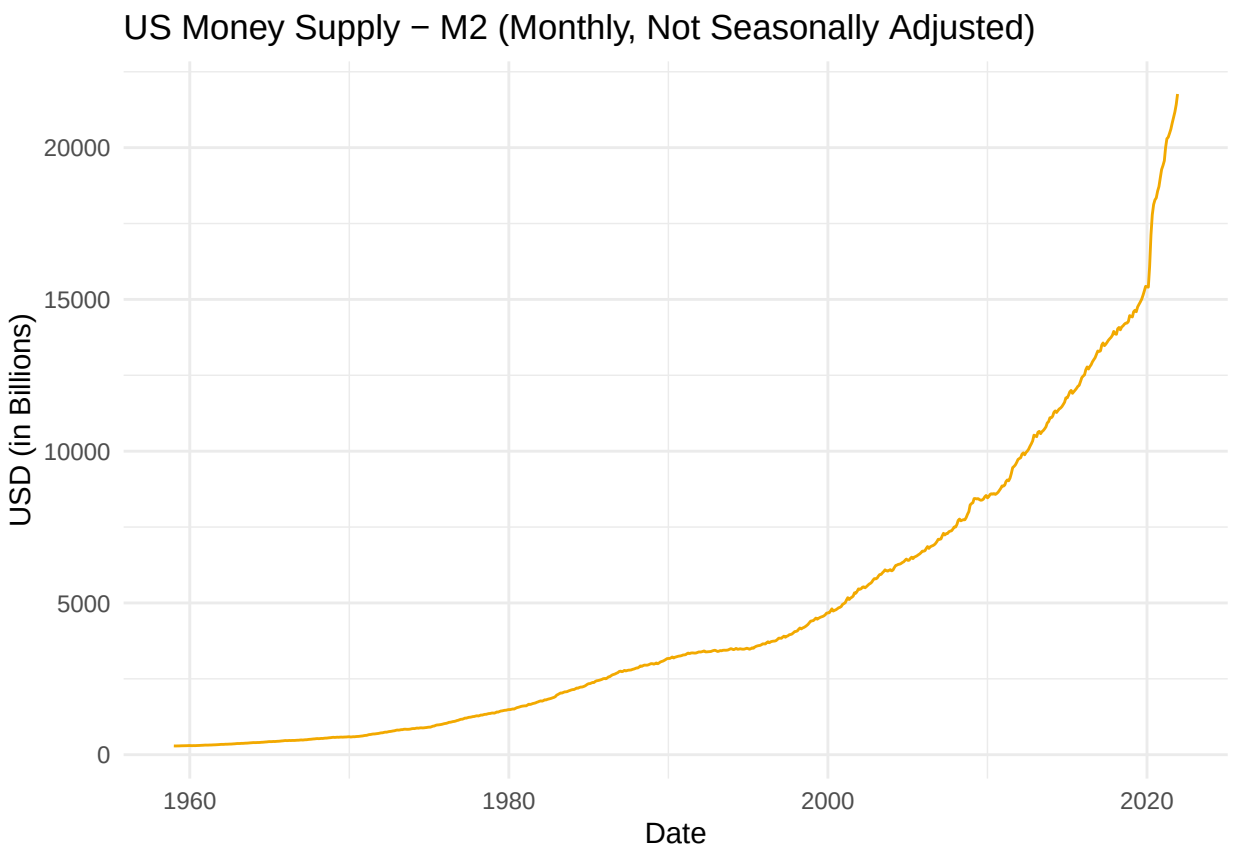


US Money Supply

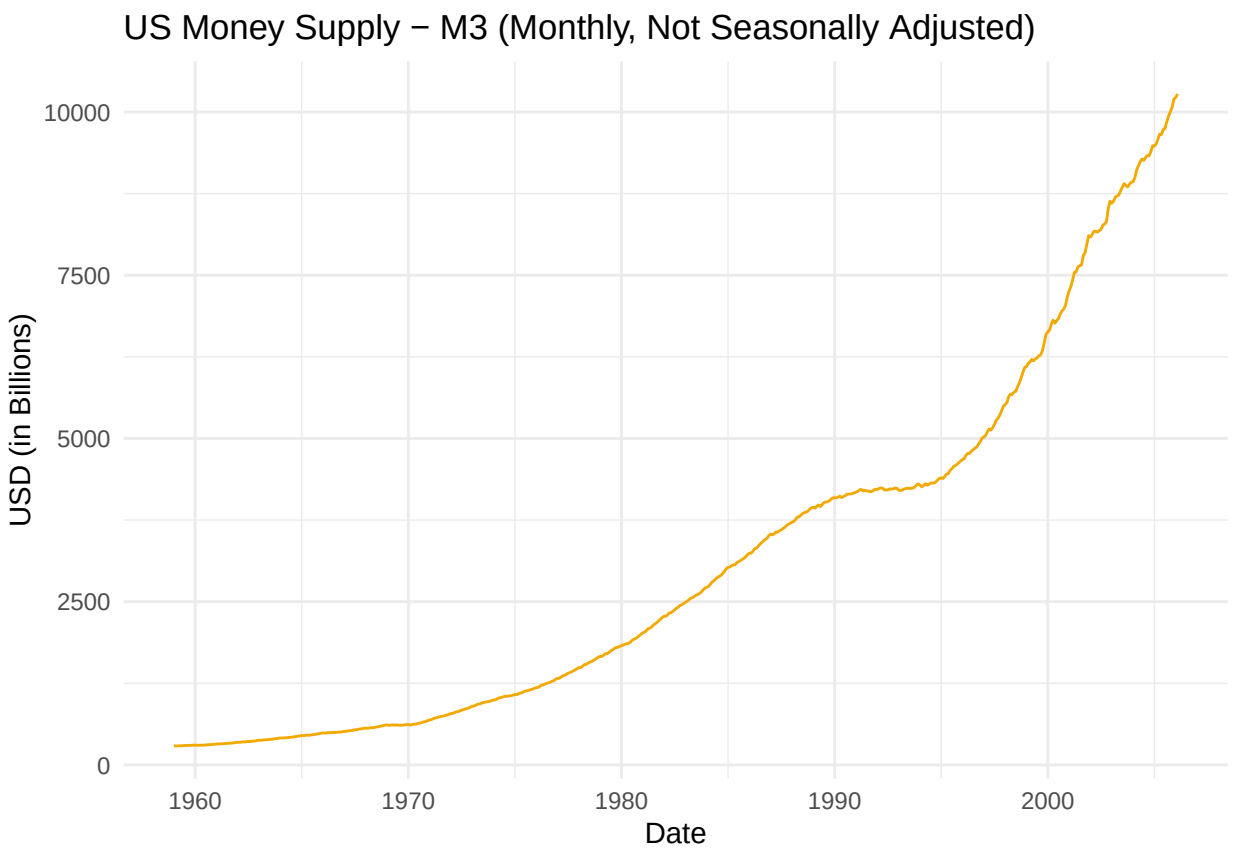
```
US_m1 %>%
  ggplot(aes(DATE, M1NS)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "US Money Supply - M1 (Monthly, Not Seasonally Adjusted)", x = "Date", y = "USD (in Billi
```




```
US_m2 %>%
  ggplot(aes(DATE, M2NS)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "US Money Supply - M2 (Monthly, Not Seasonally Adjusted)", x = "Date", y = "USD (in Billi
```

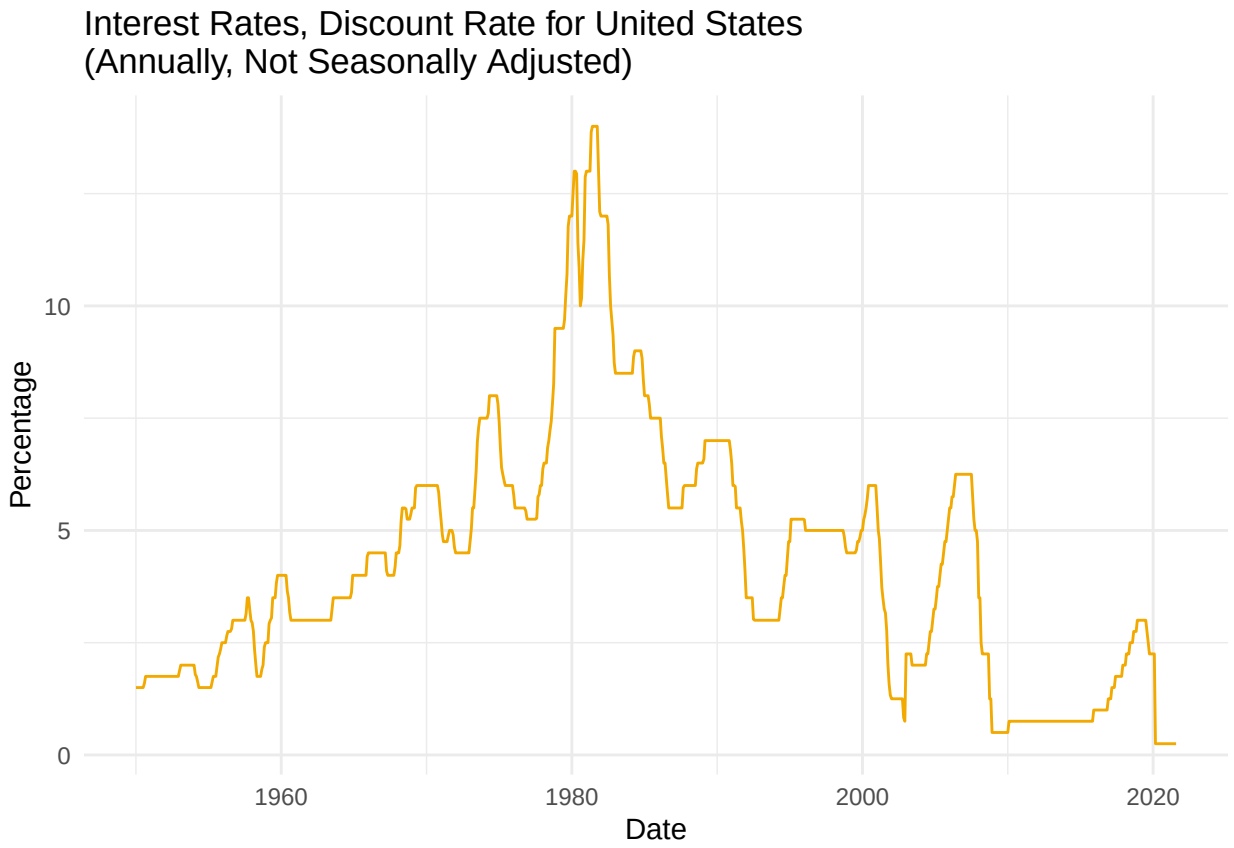



```
US_m3 %>%
  ggplot(aes(DATE, M3NS)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "US Money Supply - M3 (Monthly, Not Seasonally Adjusted)", x = "Date", y = "USD (in Billi
```



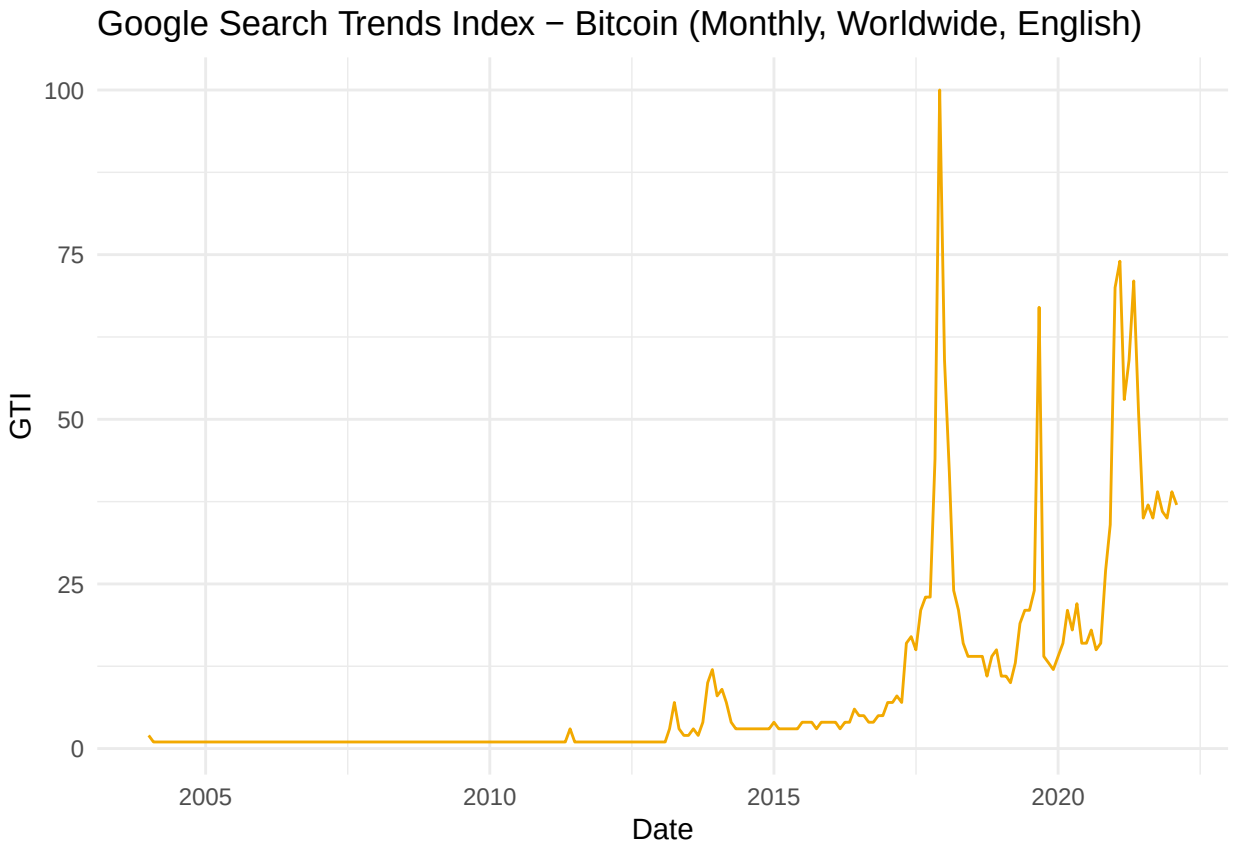
US Interest Rates

```
US_rate %>%
  ggplot(aes(DATE, INTDSRUSM193N)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Interest Rates, Discount Rate for United States \n(Annually, Not Seasonally Adjusted)",
```



Google Search Trends Index

```
gti %>%
  ggplot(aes(Month, Bitcoin)) +
  geom_line(color="#F2A900") +
  theme_minimal() +
  labs(title = "Google Search Trends Index - Bitcoin (Monthly, Worldwide, English)", x = "Date", y = "G
```


Google Search Trends Index − Bitcoin (Monthly, Worldwide, English)
GTI
100
75
50
25
0
2005
2010
2015
2020
Date