

Exchange Rates during Significant Events

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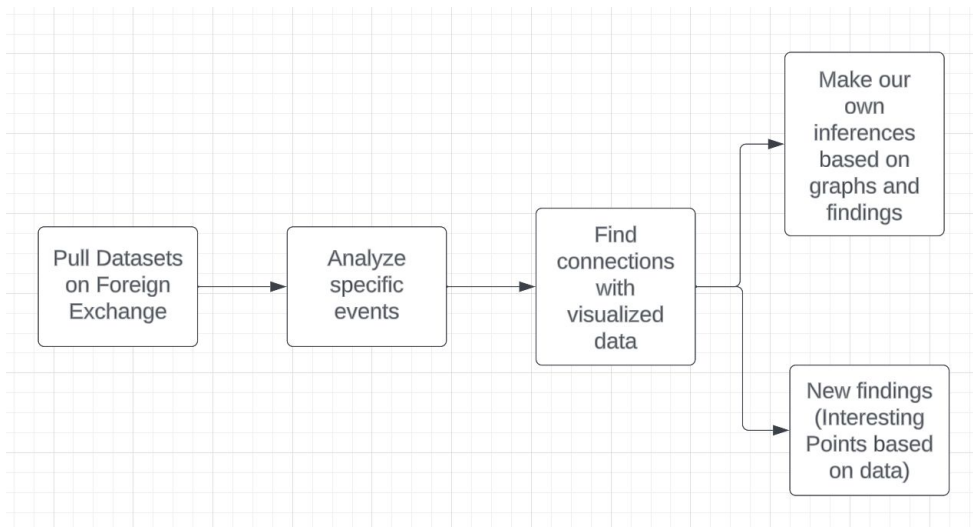
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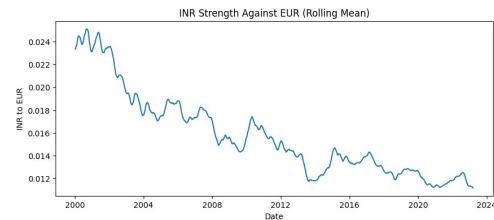
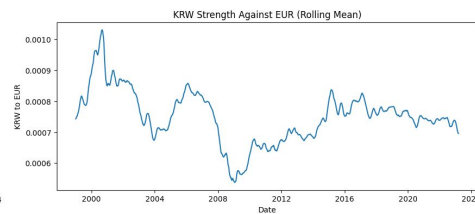
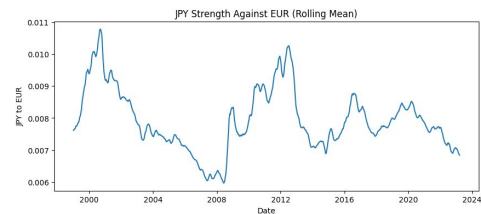
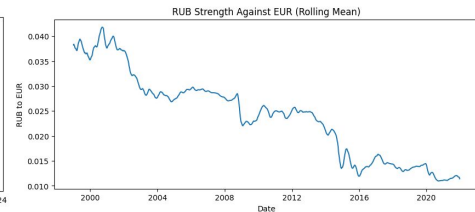
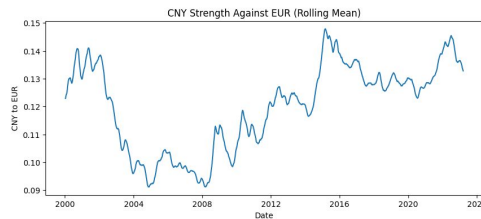
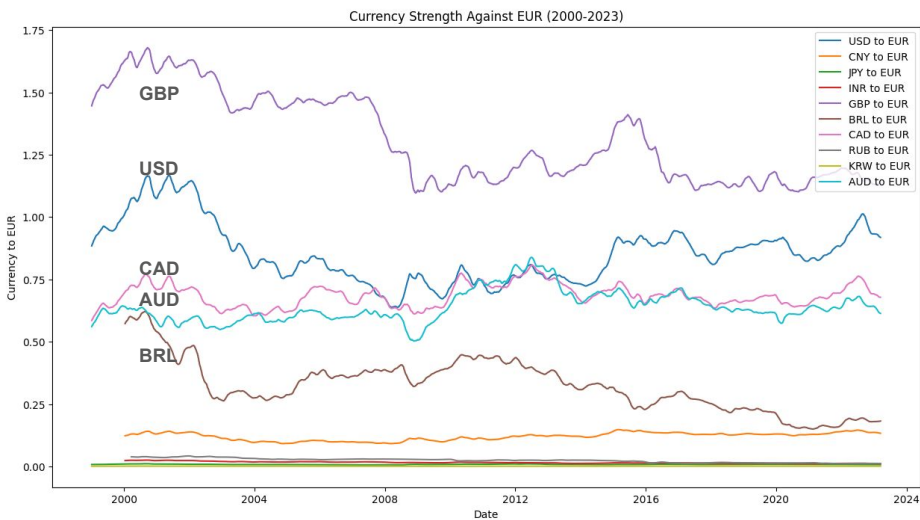
Data Overview

- Quarterly Data ([Fiscal Data US Treasury](#))
- Monthly Data ([Datahub](#))
- Daily Data ([Datahub](#))
- EUR to USD ([Investing.com](#))
- EUR to USD in Minutes ([HistData](#))
- Daily Exchange Rates per Euro 1999 - 2003 ([Kaggle](#))

- Production of Forex Graphs
- Analyze Graphs
- Connect specific events with analysis
- Make new conclusions or connect events with trends on a graph (Investor Panic, Uncertainty, etc)

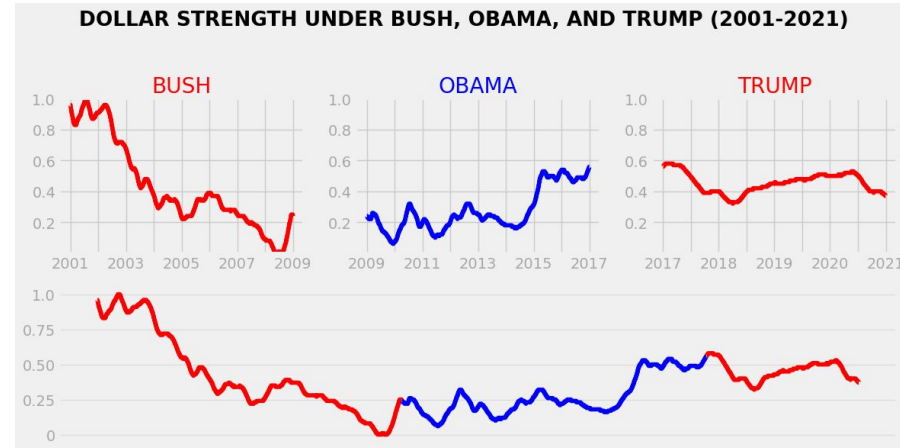


Top 10 GDP



USA vs Euro Analysis

- **2001 Dot-com bubble burst:** Impacts global markets, including USD.
- **2008 Global Financial Crisis:** Crisis in U.S. leads to USD decline, but later Euro strengthens as European economy seems more resilient.
- **2010 European Debt Crisis:** Concerns over Eurozone stability depreciate the Euro, with USD/EUR reaching historic highs.
- **2010-2012 European Debt Crisis:** Crisis, especially in Greece, weakens Euro against USD.
- **2016 Trump Election:** Trump's economic policies strengthen USD against Euro.
- **2016 Brexit Referendum:** Limited initial impact on USD/EUR, but later Euro volatility due to Brexit uncertainties.
- **2020 COVID-19 Pandemic**

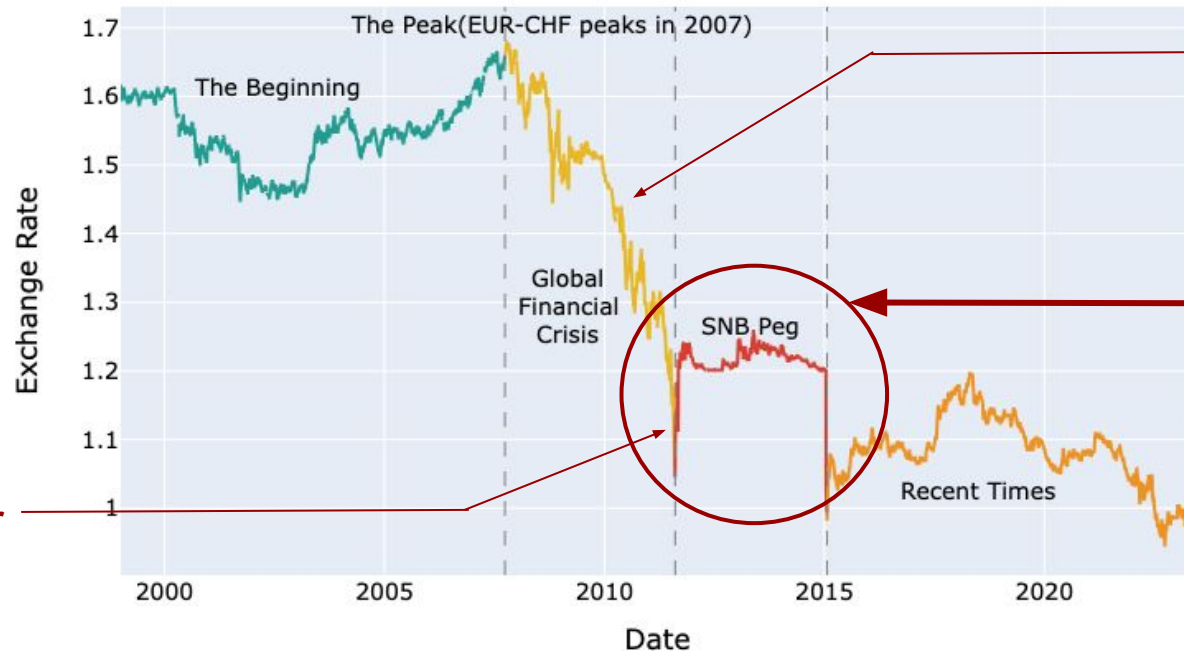


References:

<https://www.forex.academy/the-impact-of-political-events-on-usdeur-exchange-rates-a-historical-perspective/>
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Flash Crash 2015

EUR/CHF exchange rates

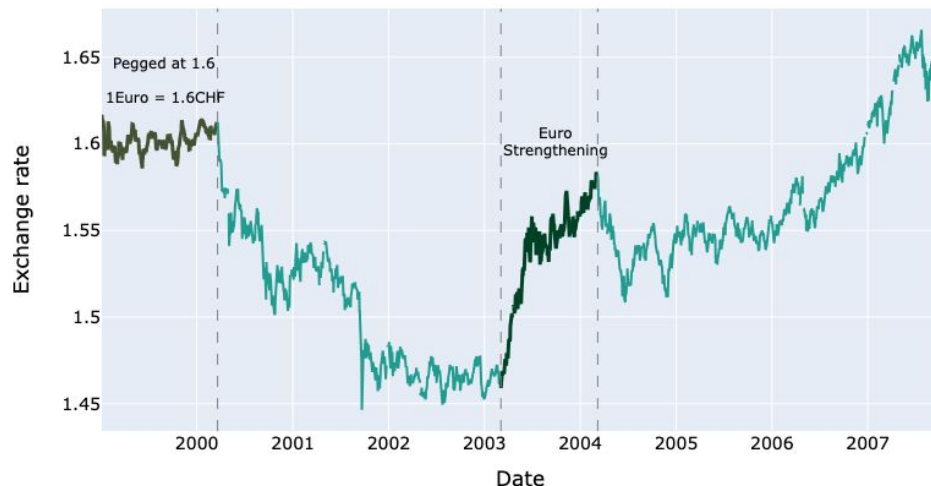


Why did the value suddenly decline?

Something looks out of place, after a sharp decline, the rate becomes suddenly stable

Why did the value suddenly rise after declining?

Flash Crash 2015



Global Financial Crisis:

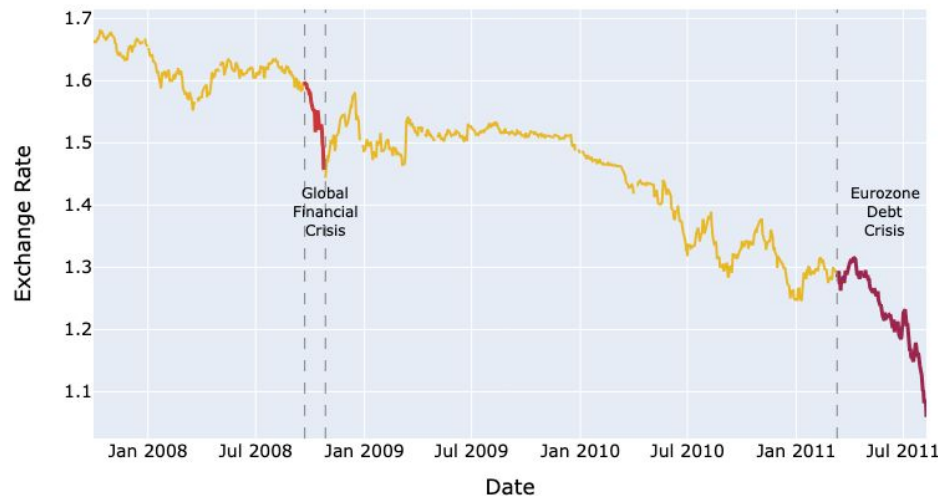
- The 2008 GFC resulted in weakening of the Euro against the Swiss Franc as investors started to favor Swiss franc as a safe-haven currency. The surge in demand for 'CHF' led to **36% loss** in Euro's value against the Swiss Franc. This negatively impacted Swiss exports and their economy.

Eurozone debt Crisis:

- A handful of European countries **borrowed heavily** during an economic boom, and the global financial crisis of 2007 made it **difficult to pay off** those debts which resulted in further weakening of the Euro during the Eurozone debt crisis of **2010-11**.

The beginning:

- Right after introducing the Euro, **EUR/CHF** exchange rate was **pegged at 1.6**
- In 2003, the Euro **strengthened** - the main reason was US's desire for a **weaker dollar** to stimulate economic revival.
- Additionally, euro performed relatively well to create economic stability and opportunities in the European market.
- **Euro became the second most traded currency next to USD**



Flash Crash 2015

SNB Peg:

- The 2008 GFC prompted the **Swiss National Bank** to **peg the CHF** to the **EUR at 1.2000** on September 6, 2011, **artificially devaluing** the franc to support Swiss exports to the Eurozone.
- **EUR/CHF rate climbed ~9% from 1.1098 to 1.2068 in one day**
- The Swiss National Bank removed the CHF peg to the Euro in 2015, as sustaining the 1.2 peg became costly amid global Euro depreciation, resulting in an immediate drop from 1.2 to 0.8.
- **EUR/CHF exchange rate dropped 20% in one minute**



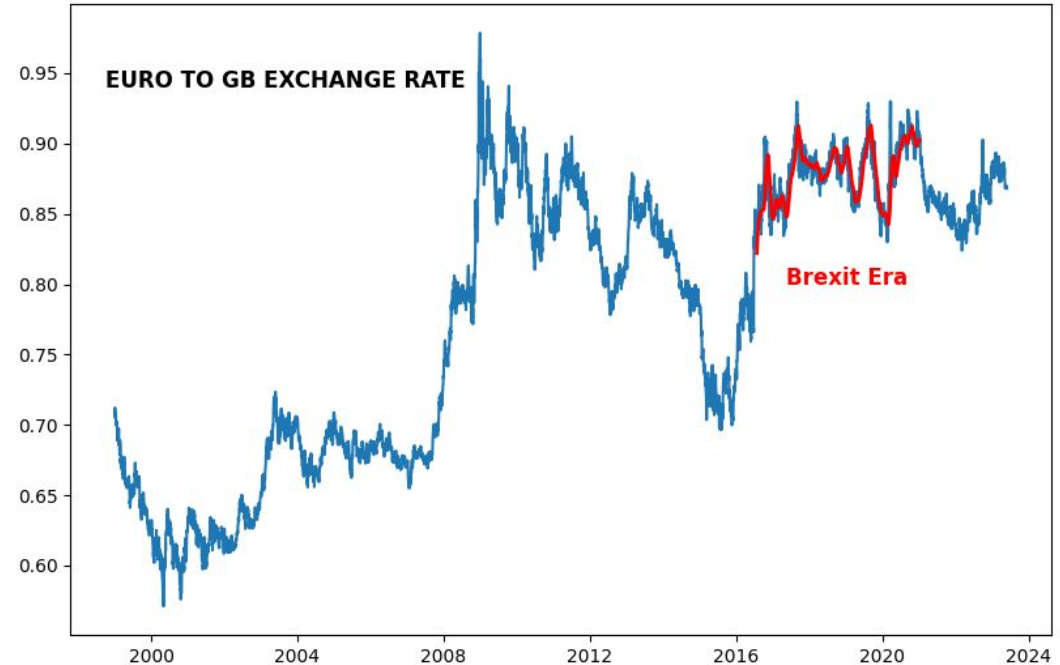
Recent times:

- The Euro strengthened in 2017 due to **robust economic growth** in the eurozone, reduced fears of anti-European sentiment, and the **relative weakness** of the **U.S. dollar** and **British pound**.
- As for the **depreciation of Euro in 2022**, 2 main causes identified are:
 - Europe's **heavy dependence** on **Russian energy** and the associated **economic slowdown** brought about by the **Ukraine invasion**.
 - The role of the **US dollar** as a 'safe haven' during times of **financial and political uncertainty**.

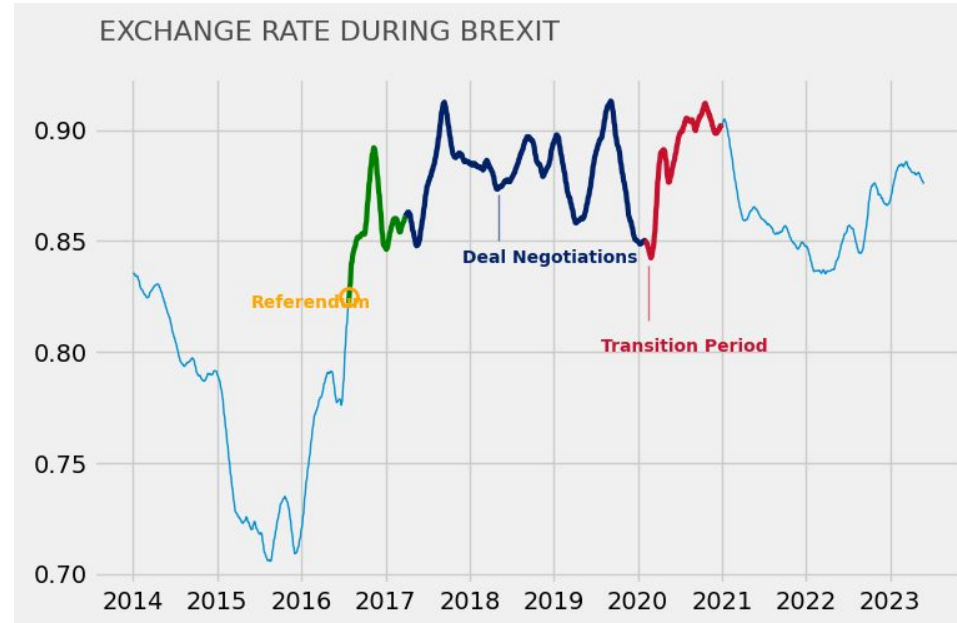
Brexit Era:

Unusual shifts in Euro to GB pounds exchange rates

- **Elevated Euro to GB Rate:**
 - *Market Uncertainty and Risk Aversion*
- **Unusual Volatility:**
 - *Political Events and Deadlines*
 - *Speculative Trading Amidst Uncertainty*



- **Referendum (2016):**
 - Majority voted for Brexit on 23 June 2016.
- **Deal Negotiations(2017-2019):**
 - Article 50 triggered on 29 March 2017, starting the two-year countdown to Brexit. Extension requests in 2019, deal attempts, and extensions until 31 January 2020.
- **Transition and Final Exit (2020):**
 - Transition period started on 31 January 2020, and the UK left the EU single market and customs union on 31 December 2020.



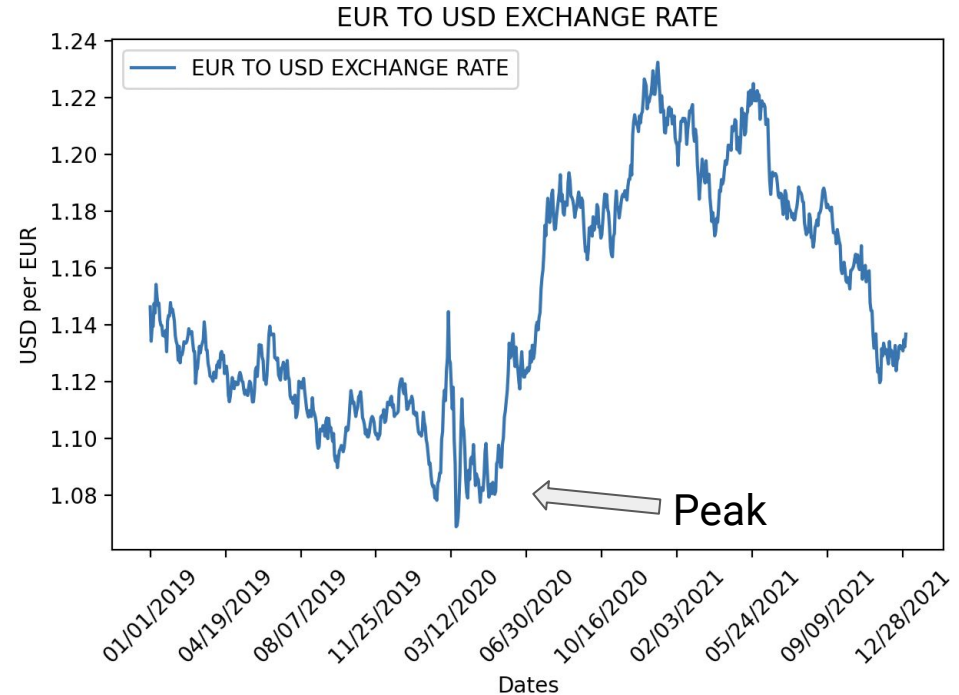
Covid-19

What happened to the US Dollar?

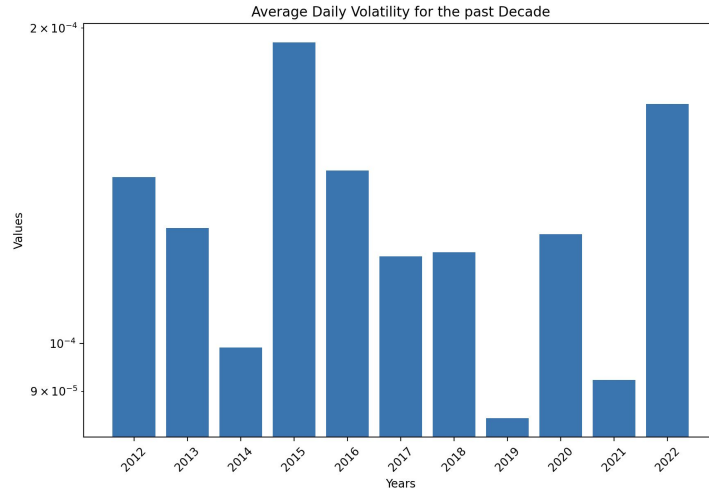
- The dollar was weakest during covid years. Coming out of its peak in the first quarter, wild swings began in Mar, 2020

Why is that?

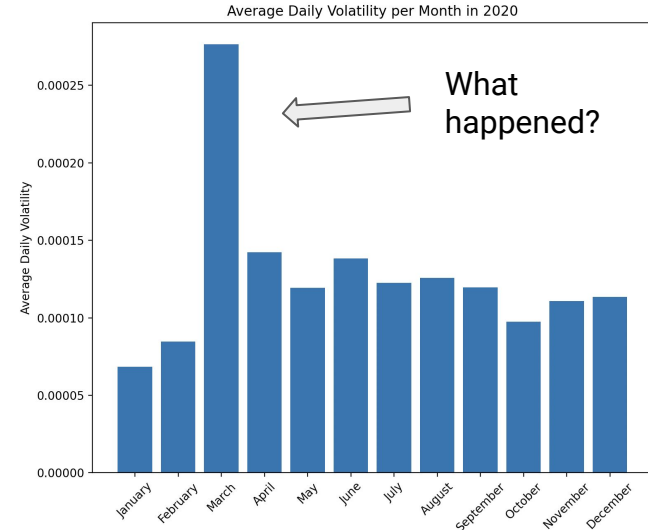
- **Investor Panic:** Fear, Uncertainty, Liquidating Assets (Massive drops in USD, Panic affects returns negatively)
- **Shutdown:** Halt to Economic Activity (Minimize Spread, Biggest Drop in GDP since Great Depression)
- **Lower Interest Rates:** Inverse proportion to strength of a currency (Lower interest rates in US to stimulate and encourage economy)



Covid-19



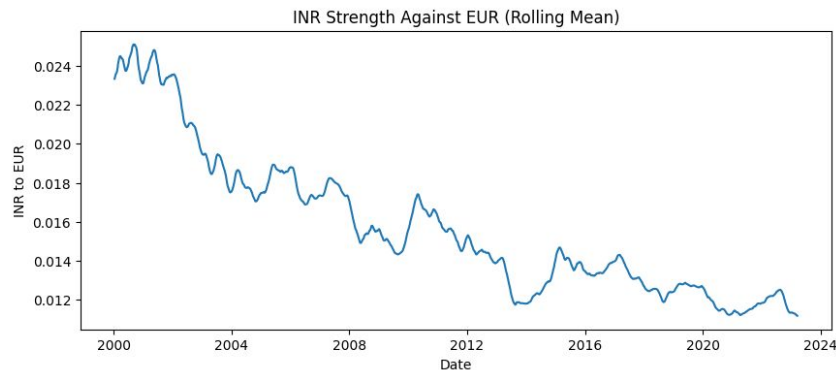
- **Volatility:** Covid was [stated](#) to have a big effect on volatility in the markets, although based on the findings, even in 2020 there isn't a big difference from historical data



- **Outlier:** ALTHOUGH, in March, volatility in the market was at its peak. An outlier from the rest of the months. In March, economic shutdown was announced, leading to uncertainty and panic.

Why is Euro getting stronger compared to India even when India's GDP is increasing?

- **US Monetary Policy:** Aggressive interest rate hikes strengthened the dollar, impacting INR/EUR.
- **Oil Prices:** High oil import costs weaken INR (2013)
- **Foreign Investment:** Outflows weaken INR
- **Current Account Deficit:** Higher import values put pressure on INR.
- **Economic Indicators:** Current account deficit impact INR
- **RBI Intervention:** Forex reserve usage to manage INR volatility against major currencies.



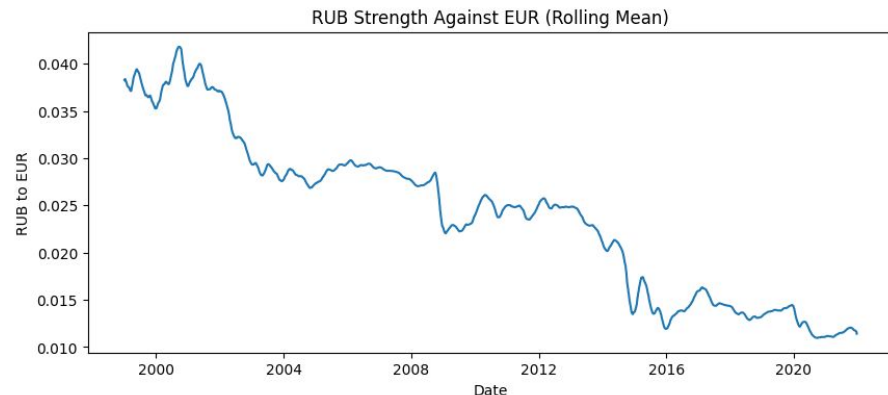
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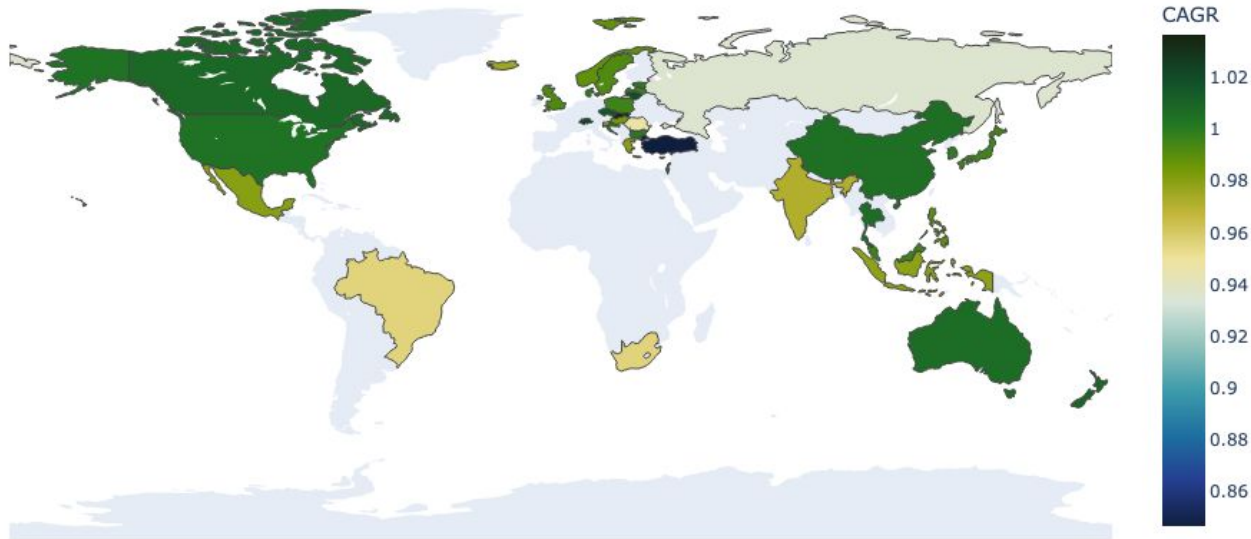
Why is Euro getting stronger compared to Russia even when Russia's GDP is increasing?

- **Foreign Trade:** Decline in exports and rise in imports, increased demand for foreign currency.
- **Sanctions and Geopolitics:** EU embargo on Russian oil following Ukraine invasion impacts Ruble.
- **Monetary Policy:** Central Bank's soft policy linked to weakening Ruble and inflation.
- **Sanctions and Oil Price Caps:** Western sanctions and oil price caps reduce export affecting Ruble.
- **Shift to Yuan:** Transition to Chinese yuan in transactions due to budget deficit and war costs.



Relative Growth of Currencies with respect to Euro

Compound Annual Growth Rate (CAGR) of various currencies w.r.t. Euro



Top 3 Countries:

- 1) Slovak Republic
- 2) Switzerland
- 3) Lithuania

Worst 3 countries:

- 1) Turkey
- 2) Russia
- 3) Romania