



R.J

CURRENCY FLUCTUATIONS THROUGH THE ALPHA VANTAGE API

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HYPOTHESIS

Hypothesis Context

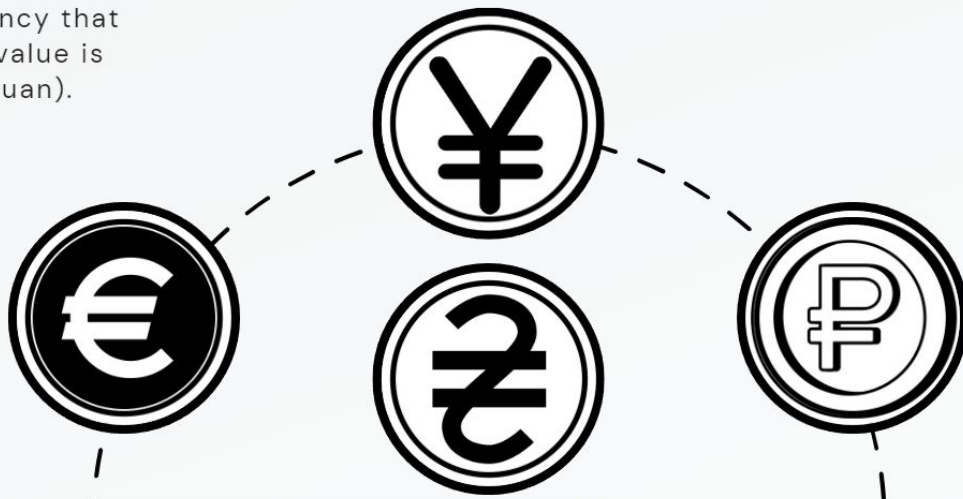
We believe that during the war between Russia and Ukraine, the currency that has shown less fluctuation is the EUR (euro), while the currency that has gained the most value is the CNY (Chinese yuan).

Hypothesis Verification

We will verify this hypothesis by obtaining data from an API (Alpha Vantage API).

Stability Factors

We think the euro has lower fluctuations because Europe is a global power compared to emerging economies



- Euro (EUR)
- Russian Ruble (RUB)
- Ukrainian Hryvnia (UAH)
- Chinese Yuan (CNY)

REASONS WHY WE USE THE US DOLLAR

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- **STABILITY:** MAIN RESERVE CURRENCY.
- **LIQUIDITY:** USED IN MOST INTERNATIONAL TRANSACTIONS.
- **CONFIDENCE:** EFFECTIVE MONETARY POLICY BY THE FEDERAL RESERVE.
- **RESILIENCE:** MAINTAINS ITS VALUE IN CRISES.
- **EASE:** PRACTICAL AND EASY TO USE IN EVERYDAY TRANSACTIONS.
- **GLOBAL ACCEPTANCE:** WIDELY ACCEPTED WORLDWIDE.
- **INFLATION HEDGE:** PERFORMS WELL IN VOLATILITY.



Initially, we aimed to use gold as our reference point, but due to API restrictions, we chose to rely on the US dollar instead. This decision is based on several key factors

5-Year Chart of Gold Value in US Dollars (USD)

Date	Price (closing)	Unit	Variation	
17/10/24	2.692,73	Onza	1.231,20	82,62 %
	86.573	Grams	39,58	
	86.573	Kilo	39.584,16	



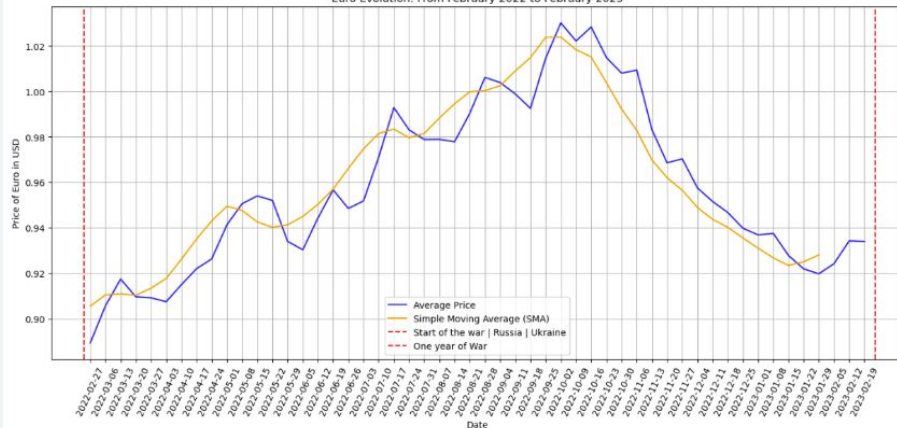
Here we have some evidence from this chart found on the "Bullion Rates website", where we can see that the currency fluctuations are relatively stable compared to gold.



EURO EVOLUTION: 2017 - 2024

- Euro (EUR)

Euro Evolution: From February 2022 to February 2023



Euro and Graph

When the graph rises, the euro devalues; when it falls, the euro strengthens

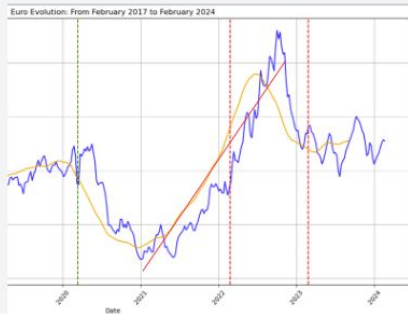
Simple Moving Average (SMA)

We use (SMA) to smooth out price fluctuations, allowing us to identify long-term trends and minimize the impact of sharp variations.

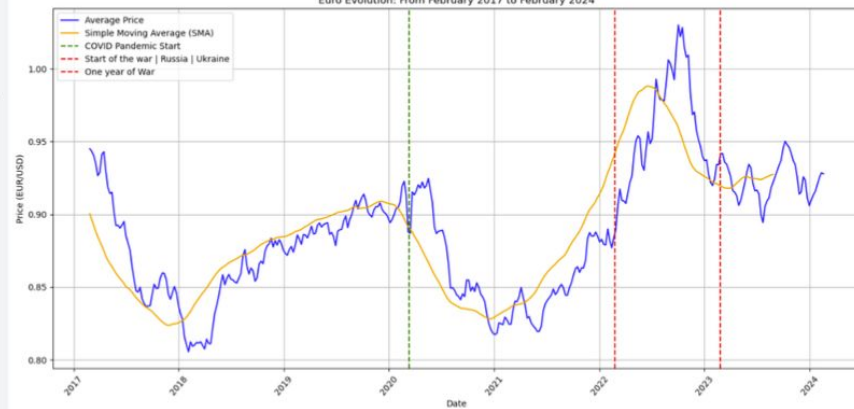
War Impact:

The war in Europe sped up the euro's devaluation, changing its normal trend. Mid-year fluctuations increased because of sanctions on Russia, which had a big impact on Europe.

Euro Evolution: From February 2017 to February 2024



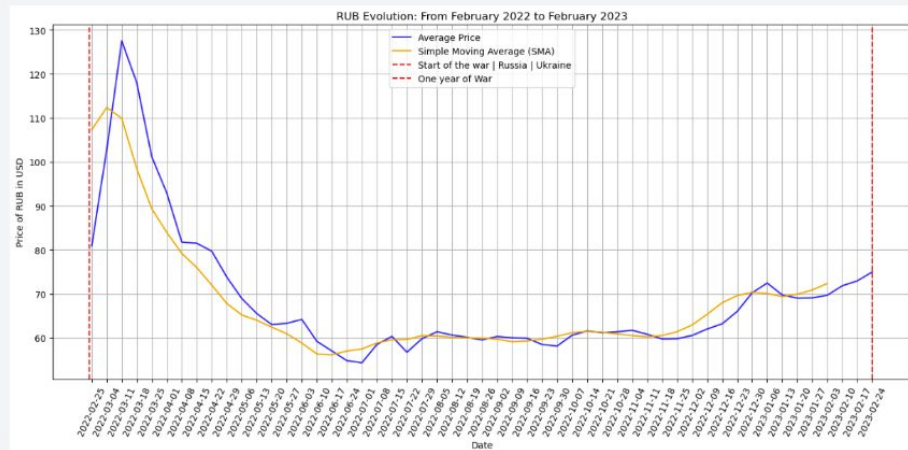
Euro Evolution: From February 2017 to February 2024





RUB EVOLUTION

Russian Ruble (RUB)

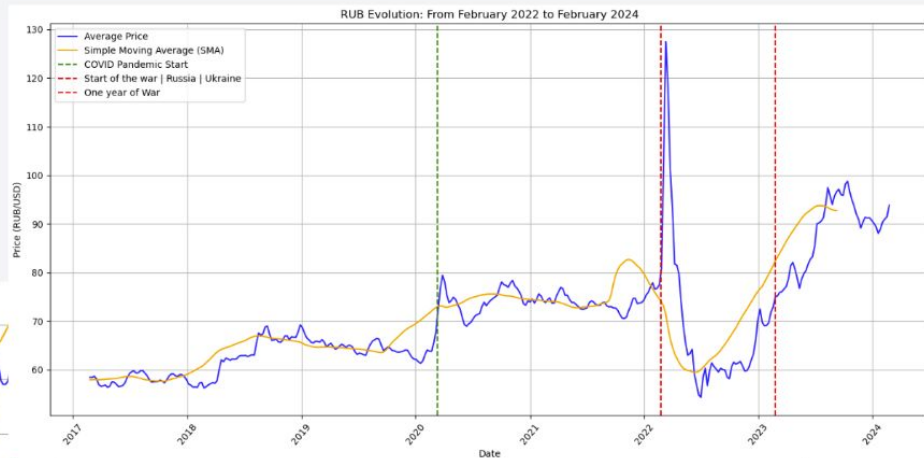
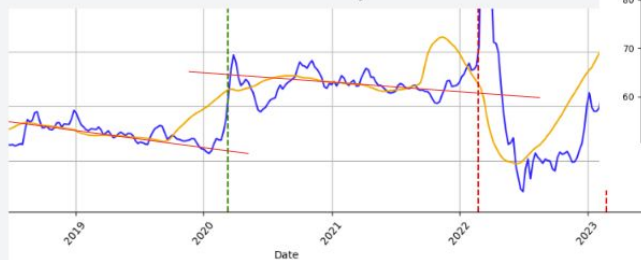


Ruble in the Context of War

The value of the Russian ruble decreased significantly at the beginning of the war, followed by a sharp rise. This rise is seen as artificial because the Russian government intervened by buying its own currency using state funds.

Impact of Global Crises on the Ruble

During the COVID-19 pandemic, the value of the ruble experienced a significant devaluation. This shows how global events can greatly impact the Russian economy

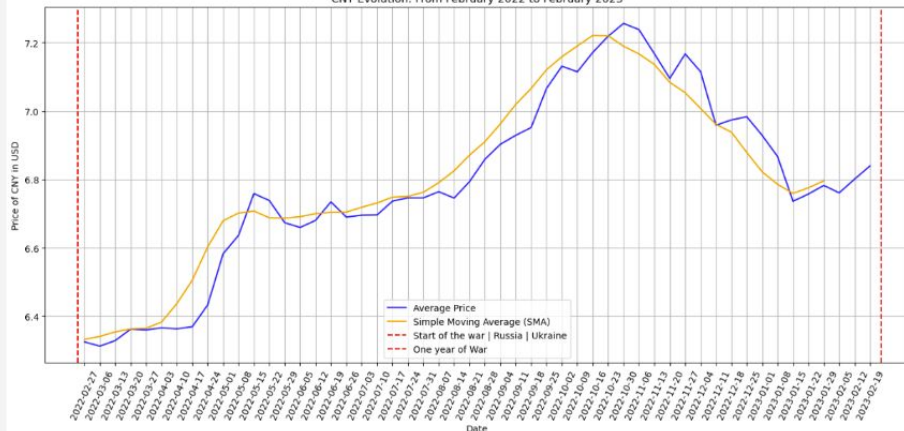




CNY EVOLUTION

Chinese Yuan (CNY)

CNY Evolution: From February 2022 to February 2023

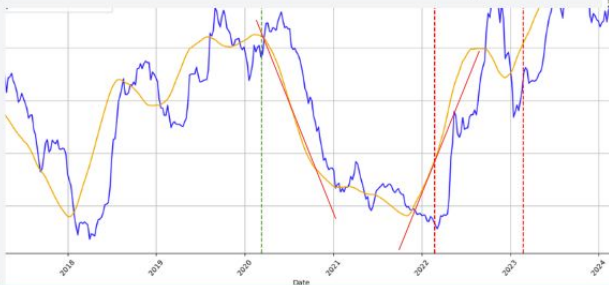


Impact of Global Events on the Chinese Currency

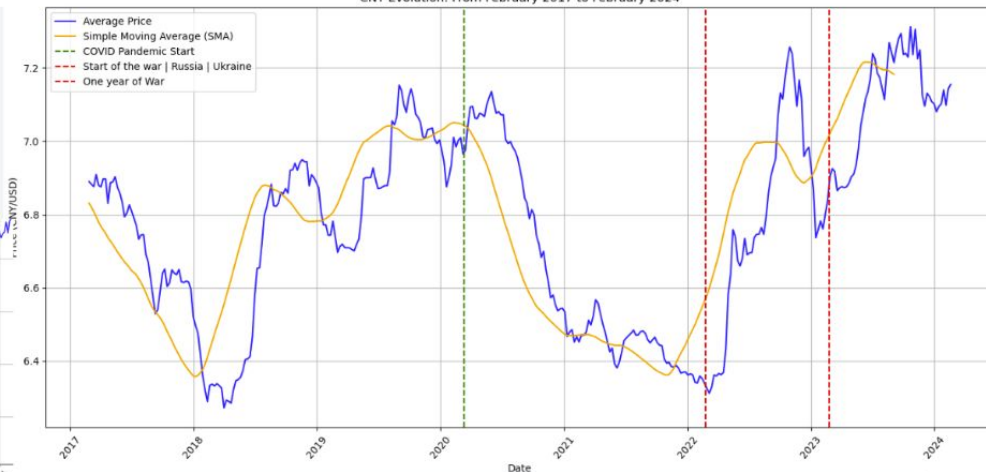
It is interesting to note that during the COVID-19 pandemic, China's currency strengthened. However, during the period of the war, its value significantly decreased. This highlights how global events can have varying influences on a country's economy and currency

CNY Rise and Devaluation

The CNY rise at the end of 2017 due to economic recovery and effective policies. However, in early 2018, trade tensions and negative economic data led to its significant devaluation.



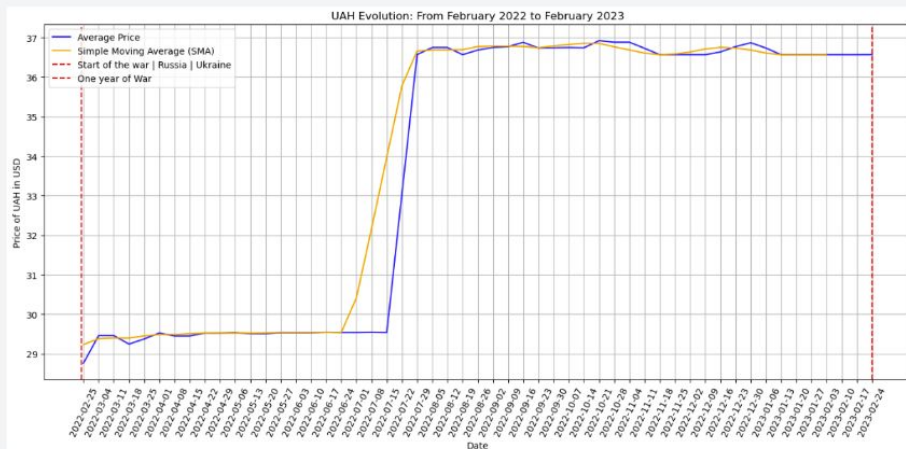
CNY Evolution: From February 2017 to February 2024





UAH EVOLUTION

Ukrainian Hryvnia (UAH)

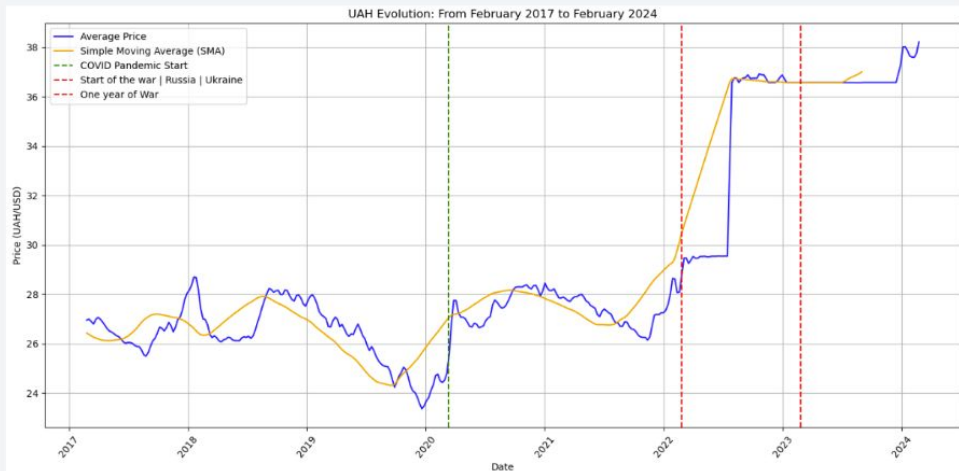
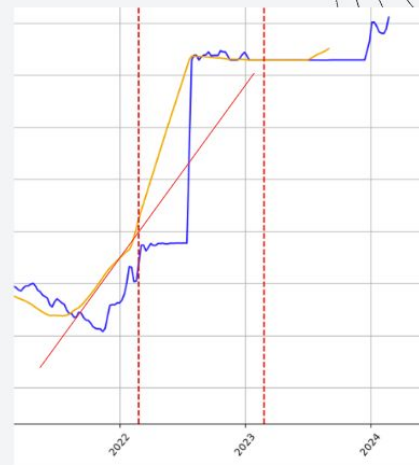


Economic Fluctuations in Ukraine (UAH)

Ukraine has experienced significant economic fluctuations. During the COVID-19 pandemic, its indicators deviated from the usual trend, but the impact of the war is even more evident, showing a notable increase in the data.

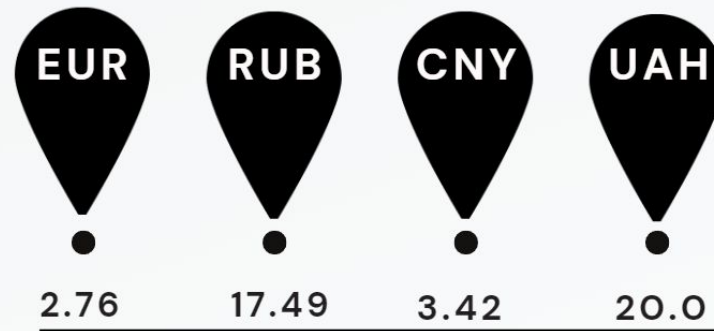
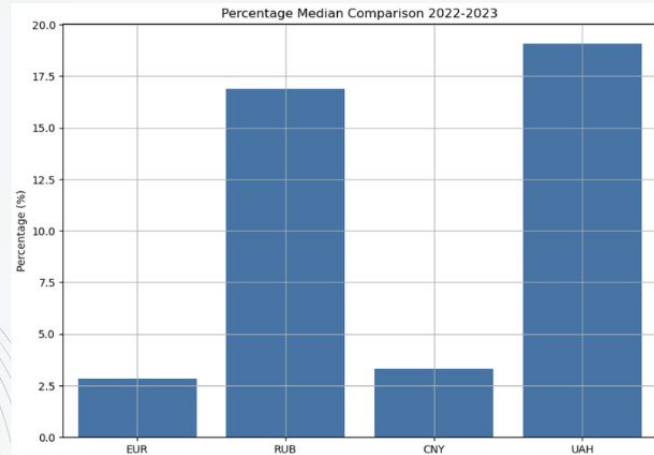
(UAH) At the Start of the War

At the start of the war, the hryvnia (UAH) stayed stable thanks to international help, money sent by people, and the Central Bank's intervention. However, this stability was short and artificial, and eventually led to the currency's devaluation



ANALYSIS OF CURRENCY FLUCTUATIONS DURING THE RUSSIA-UKRAINE CONFLICT

- Base price: February 20, 2022 (the currency value at the start of the war).
- Calculation: Percentage change for each currency using the average of their opening and closing prices relative to the base price.
- Result: The median of those fluctuations over the first year was obtained.



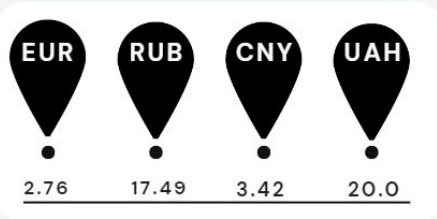
- Euro (EUR)
- Russian Ruble (RUB)
- Ukrainian Hryvnia (UAH)
- Chinese Yuan (CNY)


VERIFY THE HYPOTHESIS

- Euro (EUR)
- Russian Ruble (RUB)
- Ukrainian Hryvnia (UAH)
- Chinese Yuan (CNY)


HYPOTHESIS CONTEXT

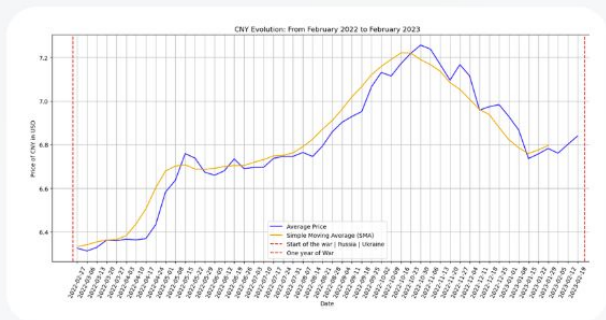
War Russia and Ukraine, the currency that has shown less fluctuation is the EUR (euro), while the currency that has gained the most value is the CNY (Chinese yuan).



The currency that has shown the least fluctuations is the EUR, and we were right! With only 2.76% of fluctuation, the euro stands out as the clear winner, while the most affected currency has been the Ukrainian currency. 

BUSINESS PROBLEM?

Did China strengthen due to its distance from the war? Actually, the opposite occurred. The war led to a significant devaluation of its currency, meaning our hypothesis was incorrect. 





THANK YOU! < 3

-TIME FOR EASY QUESTIONS ? 💬

-CONSTRUCTIVE FEEDBACK 🛠️

-CLAP TIME 🎉 👏