



Money and Banking

Presented by
Louis Marie Raphael Ekponon

Centre Collégial de l'Alberta

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TABLE OF CONTENTS

I. Introduction	2
II. Economic growth	2
III. Consumer spending	5
IV. The job market	9
V. Inflation	11
VI. Monetary Policy / Interest Rates	13

Module Objective: By the end of this module, the student should be able to:

- Determine the economic and financial factors influencing a currency
- Understanding these factors to make rational and operational investment decisions
- Understand the interactions of banks in the money market and the correlation between different financial markets.

I. Introduction

There are many factors influencing a currency. However, we will base ourselves on 05 important factors to evaluate a currency: economic growth, inflation, monetary policy/interest rates and consumer spending, the labor market.

This module will aim to understand these factors influencing a currency as well as the interbank interactions on the money market and the correlation between the different financial markets.

II. Economic growth

Economic growth measures the change in the amount of goods and services produced in an economy over a given period. However, economic growth is measured by real GDP. There are 3 methods of determining GDP:

- The value-added method
- The method of expenditure
- The method of income

The expenditure method includes all kinds of expenditure (**government, consumption, investment, exports, imports**)

The income method includes all kinds of income (**household wages, company profits, interest, taxes and indirect taxes**)

A strong economy is associated with a **high growth rate**. A high rate of economic growth can potentially mean an appreciation of the currency.

Take the case of the **United States**.

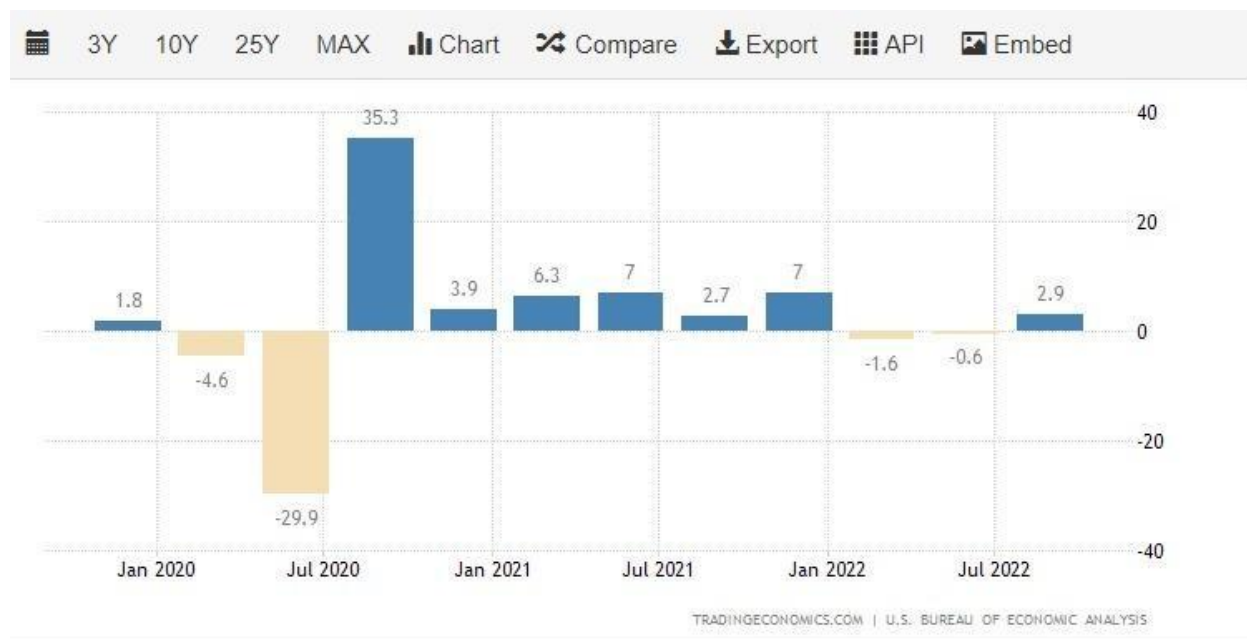


Figure 1: **Growth rates in the United States**

Source: Tradingeconomics.com / US Bureau of Economic Analysis

14:30	 USD	★ ★ ★	PIB (Trimestriel) (T3) P	2,9%	2,7%	2,6%
14:30	 USD	★ ★ ☆	Indice des prix du PIB (Trimestriel) (T3) P	4,3%	4,1%	9,0%
14:30	 USD	★ ☆ ☆	PIB - Ventes (T3) P	4,0%	3,3%	1,3%

Title: Release of quarterly GDP figures (Q3) in the United States on 30/11/2022 at 14:30 UK Time.

Source: Investing.com



Chart 2: DXY (USD Currency Index) price following the release of third quarter GDP figures on 30/11/2022.

Source: TradingView

Analysis and Interpretation:

- In our first chart, we have the growth rate in the United States. We can see that we have moved into a temporary period of recession from the second quarter, but a less and less severe recession (-1.6% for Q1, -0.6% for Q2) confirmed by the figures in the third quarter (2.9%) still showing **the strength of the US economy**

and that it was a short recessionary period, if not an almost non-existent recession.

- The following figures show the release of GDP data in the third quarter. Quarterly (Q3) GDP will be the focus of our analysis. **2.9%** represents **the final current result in Q3**, **2.7%** represents **the expected figures** and **2.6%** represents **the previous result revised in advance**. To give an opinion on the current situation of the US economy, we **will compare the figures released with the expected figures**. The growth rate for Q3 in the US came out higher than expected (**-2.9% vs. 2.7%**). This shows that the US economy is still performing well.
- Chart 2 shows the DXY price following the release of the Q3 GDP figures. As we can see, the USD has **appreciated sharply**. green candle framed in black materializing a large flow of buyers).

Each component of real GDP (expenditure, income, value added) constitutes a percentage of economic activity. **Consumer spending** will be the subject of our second study because it represents a significant percentage of a country's economic activity (i.e. more than 50 %) and therefore, influences the currency of the country in question.

III. Consumer spending

In an economy, we need the **consumer** because it is on this basis that companies could develop their activity continuously and would allow the government to collect revenues greater than their expenditures, thus allowing the creation of any kind of infrastructure deemed necessary for the proper functioning of the country, which would contribute to considerable economic development. The state of health of consumer spending is thus measured through **retail sales** (resulting from retail trade).

Booming retail sales mean healthy consumer spending. Otherwise, says unhealthy consumer spending.

Let's see together with an example!!

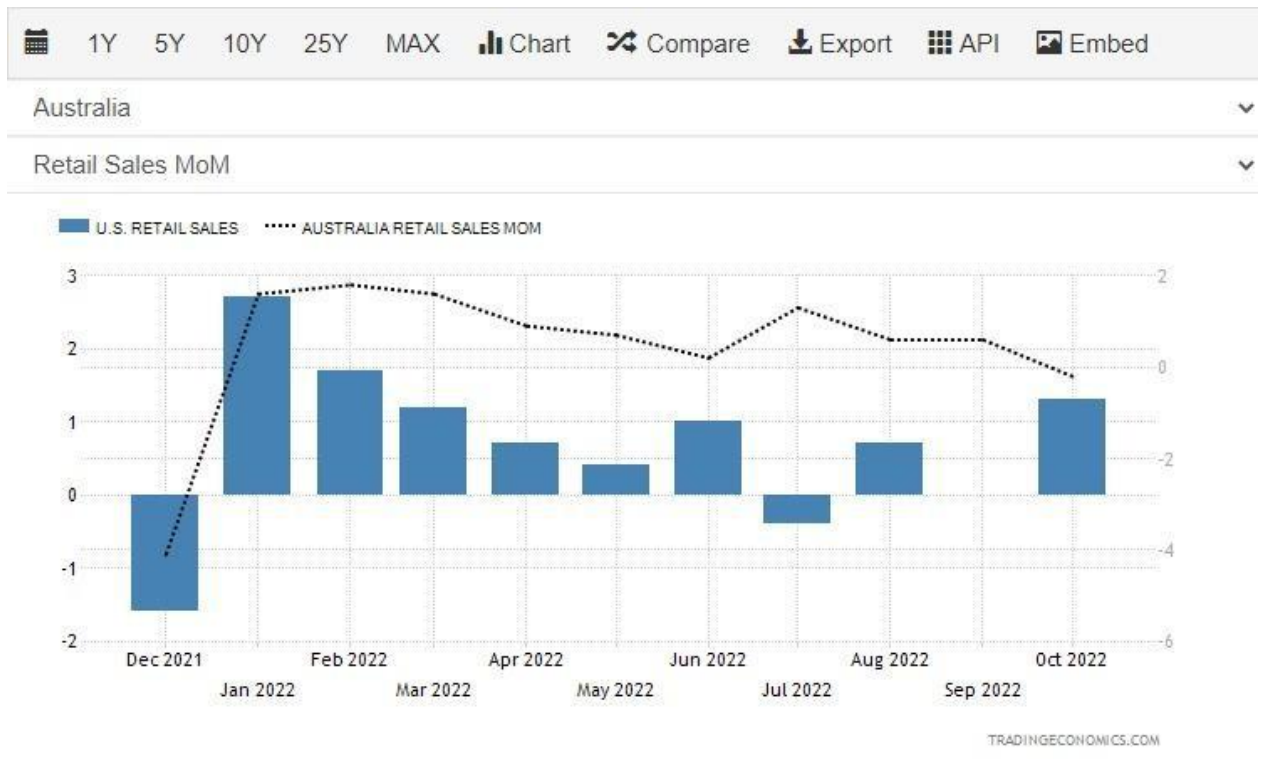


Figure 1: Retail sales in the United States vs. Australia

Source: Trading Economics

14:30	USD	★★★★	Ventes au détail (Mensuel) (Oct.)	1,3%	1,0%	0,0%
01:30	AUD	★★★★	Ventes au détail (Mensuel) (Oct.)	-0,2%	0,5%	0,6%

Title: Figures released on US and Australian retail sales

Source : Investing.com



Chart 2: Aussie (AUD-Australian Dollar) price following the release of retail sales figures on 28/11/2022.

Chart 3: DXY price following the release of US retail sales figures on 16/11/2022.

Source: **TradingView**

Analysis and Interpretation:

- In our first chart, we have a comparison between retail sales in the United States and Australia.
As a result, Australian retail sales are declining compared to those of the United States.
- The following figures show the release of Retail Sales data for the month of October.
1.3% represents **the current result in the month of October**, **1%** represents **the expected figures** and **0.0%** the previous result.
To give an opinion on the state of health of consumer spending, we **will compare the figures released with the expected figures**.
Retail sales for October in the US came out higher than expected (**-1.3% vs. 1%**). This shows that the American consumer is doing well, and that is associated with strong economic growth.
-0.2% represents **the current result in the month of October**, **0.5%** represents **the expected figures** and **0.6%** the previous result.
To give an opinion on the state of health of consumer spending, we **will compare the figures released with the expected figures**.
Retail sales for October in Australia are **well below** expectations (**-0.2% vs. 0.5%**). This shows that the Australian consumer is in bad shape, **and that we associate fears of recession**.
- Chart 2 shows us the AUD/USD exchange rate following the release of the retail sales figures for the month of October. As we can see, the AUD has **depreciated sharply**. (red candle framed in black materializing a large flow of sellers).
- Chart 3 shows us the price of the DXY following the release of the retail sales figures for the month of October. As we can see, the USD has **appreciated sharply**. (framed in black materializing a large flow of buyers).

IV. The job market

The job market is also an important factor to consider when valuing a currency. It tends to be correlated with the business cycle.

In times of economic crisis, there is a tendency to observe a high unemployment rate, while in times of economic expansion, a low unemployment rate can be observed. An economy with a **strong job market** can see its currency **grow**.

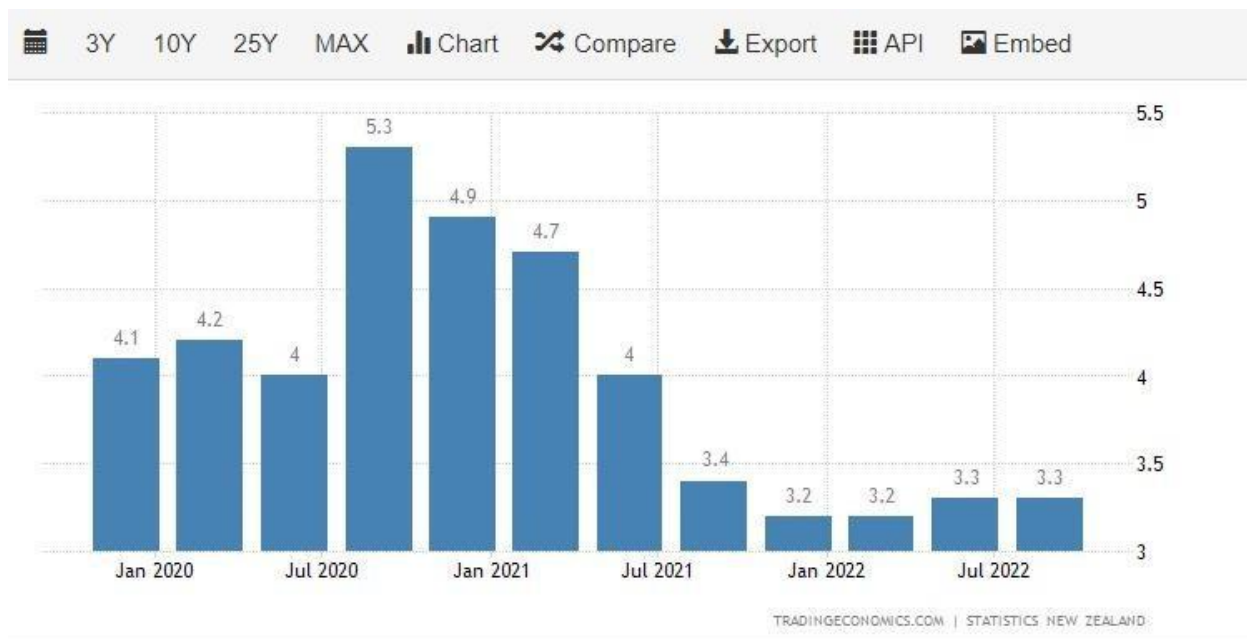


Figure 1: New Zealand's unemployment rate

22:45	NZD	★ ★ ★	Evolution de l'emploi (Trimestriel) (T3)	1,3%	0,5%	0,0%
22:45	NZD	★ ☆ ☆	Indice du coût de la main-d'œuvre (Annuel) (T3)	3,8%	3,8%	3,4%
22:45	NZD	★ ☆ ☆	Indice du coût de la main-d'œuvre (Trimestriel) (T3)	1,1%	1,1%	1,3%
22:45	NZD	★ ☆ ☆	Taux de participation (T3)	71,70%	71,00%	70,90%
22:45	NZD	★ ★ ☆	Taux de chômage (T3)	3,3%	3,2%	3,3%

Title: Figures released on the job market in New Zealand



Chart 2: NZD/USD price following the release of third quarter labour market figures on 30/11/2022.

Source: TradingView

Analysis and Interpretation:

- In our first chart, we have the unemployment rate in the United States.

We can see that the evolution of employment surprised to the upside (1.3% vs. 0.5% expected), while the unemployment rate returned to higher than expected (3.3% vs. 3.2%). However, when we look at the evolution of the unemployment rate in Chart 1, we see that the NZ unemployment rate remains at higher levels despite the better-than-expected results (which must be unfavorable for the NZD because an increase in the unemployment rate potentially means a decrease in the value of the currency).

- Chart 2 shows us the NZD/USD price following the release of the Q3 job market figures. As we can see, the NZD has not seen much major movement but has still been able to maintain its upward trend due to the continued boom in the job market and other factors that will be discussed in the next section such as inflation, interest rates and monetary policy

V. Inflation

Inflation is determined by the general rise in prices. Inflation that is too high is considered bad for a currency, as well as inflation that is too low. This is why there is a target range to contain inflation that will be determined by central banks (see the following slide). **High inflation** sometimes tends to **support a country's currency**, while **low inflation** will also tend **not to support a country's currency**, depending on the **economic context**.

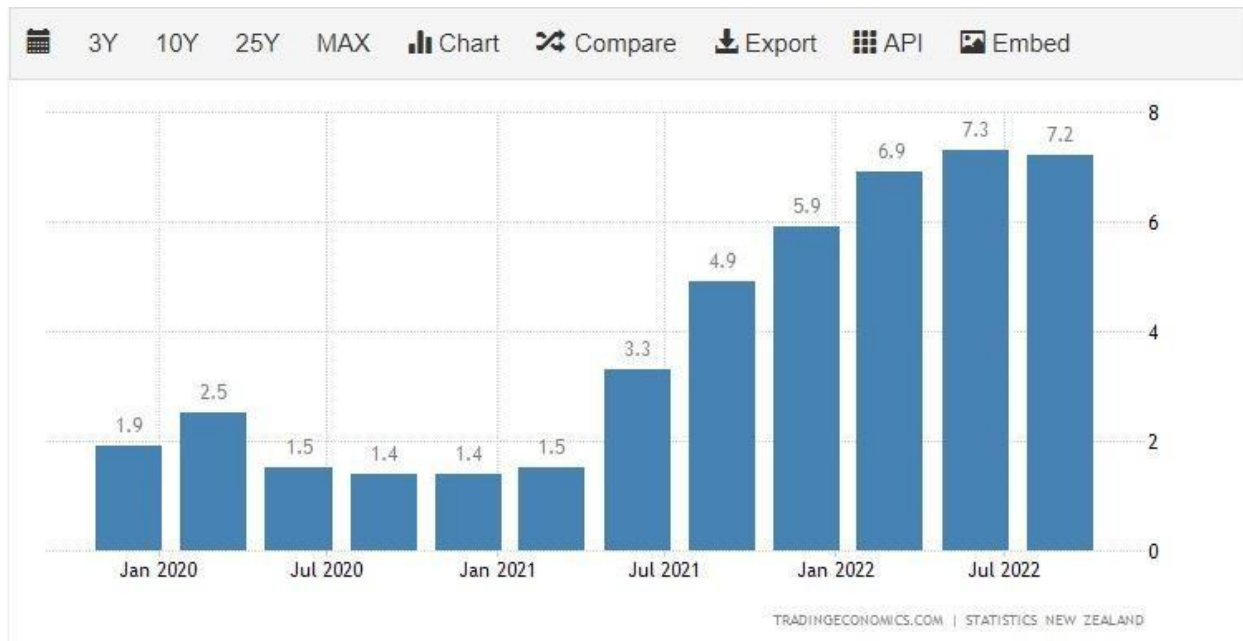


Chart 1: Inflation rate in New Zealand

22:45	NZD	★ ★ ☆	IPC (Annual) (T3)	7,2%	6,6%	7,3%
22:45	NZD	★ ★ ★	IPC (Trimestriel) (T3)	2,2%	1,6%	1,7%

Title: Inflation figure for the 3rd quarter of New Zealand

Analysis and Interpretation :

- Chart 1 shows the evolution of inflation in New Zealand with the feeling that inflation has accelerated upwards from July 2021 and remains present at high highs following the easing measures taken by banks after the wave of the pandemic that wreaked havoc.
- Annual inflation figures for the quarter surprised to the upside, at 7.2% vs. 6.6% which had been expected. While the quarterly CPI for the quarter also surprised to the upside, at 2.2% against 1.6% of expectations. Inflation figures showing solid gains in the third quarter will only **strengthen** the **NZD** with potential central bank interest rate hikes as a green backdrop.

VI. Monetary Policy / Interest Rates

Monetary policy and interest rates are exercised by central banks to promote or counter inflation. However, central banks will not only take inflation into account. They will also rely on any other relevant element to exercise their monetary policy and interest rates, namely economic growth, the labour market, consumer spending, etc.

Case Study

- **A strong economy with a booming labour market and a high inflation rate (above the target range)** will force central banks to adopt **a restrictive monetary policy and thus increase their interest rate**, thus contributing to an **increase in the exchange rate, countering inflation and reducing consumption and investment**.

Money and bond yields **increase in value**; stock market indices **lose value** as well as bond prices

- **A weak economy with a declining labor market and a low inflation rate (below the target range)** will force central banks to adopt **an easing monetary policy and thus reduce their interest rate**, thus contributing to **a fall in the exchange rate, promoting inflation, and increasing consumption and investment**.

Money and bond yields **lose value**, stock market indices **increase in value** and bond prices

- **A weak economy with a weak job market and a high inflation rate (above the target range)**, will only put the bank's actions in difficulty because we assume that the primary role of central banks is to fight or promote inflation. Knowing that we have high inflation to begin with, raising rates and favouring a restrictive monetary policy are fuelling recession fears because inflation is already weighing heavily **on the economy and household purchasing power**.

Mixed results for central banks

- **A weak economy with a resourceful job market and a high inflation rate (above the target range), however**, may lead banks to raise rates and adopt a restrictive monetary policy. Why ?

1- High inflation, weak economic growth but resourceful job market gives hope to central banks to raise rates.

Money and bond yields **increase in value**; stock market indices **lose value** as well as bond prices

We will see in a practical way the impact that these different data can have on the different financial markets.

Bottom line: Ultimately, monetary policy and interest rate decisions are based on the emerging economic situation, the labour market and inflation. Of course, there are many other elements, but these last 3 mentioned are more than enough for banks to make decisions about the future of their currency.

Let's take an explanatory example of the situation

Let's work with the different elements impacting the **US Dollar (USD)**

In a context of current uncertainty with the events between Russia and Ukraine, a deteriorating situation in China, the 2nd largest economy, the overall economic situation reveals pessimism. The supply and demand shock (demand exceeding supply) is creating upward pressure on prices, although the surge in energy prices is also having an impact on price increases. As a result, the fact remains that the United States remains the only hope for investors.

Why ?

- 1- Strong economic growth 2.9%
- 2- Fast-growing labour market with unemployment rate remaining at record lows 3.7%
- 3- Inflation rate remains high at 8.1%
- 4- Strong consumer spending despite the weight of inflation
- 5- The Federal Reserve is currently adopting a restrictive monetary policy **with successive hikes of 75 basis points**, making it the first central bank to have started much more aggressively than expected compared to other central banks.

These 5 points illustrate the movements that occur on the various financial markets.



Chart 1: S&P 500 price

Analysis and interpretation:

Here is the price of the S&P500 reflecting the current economic situation as well as the Federal Reserve's action with its key rate and its actions on the money market.

As explained above, in times of monetary tightening accompanied by rate hikes, stock market indices **lose value**.

We can thus see a clear downward trend in the S&P500 marked by lower and lower highs and lower and lower lows (marked by horizontal lines)



Chart 2 : DXY price (USD currency index)

Analysis and interpretation:

Here is the price of the DXY reflecting the current economic situation as well as the Federal Reserve's action with its key rate and its actions on the money market.

As explained above, in times of monetary tightening accompanied by rate hikes, money **increases in value**.

We can thus see a clear uptrend in the interval from 20/05/2022 to 24/10/2022 in the USD marked by higher and higher highs and higher and higher lows.



Exhibit 3: US 10-year bond yield (US10Y)

Analysis and interpretation:

Here is the price of the US 10Y reflecting the current economic situation as well as the Federal Reserve's action with its key rate and its actions on the money market. As explained above, in times of monetary tightening accompanied by rate hikes, bond yields **increase in value**.

We can thus see a clear uptrend in the interval from 20/05/2022 to 24/10/2022 in the USD marked by higher and higher highs and higher and higher lows.

Chart 2: DXY price (USD currency index)

Analysis and interpretation:

Here is the price of the DXY reflecting the current economic situation as well as the Federal Reserve's action with its key rate and its actions on the money market. As explained above, in times of monetary tightening accompanied by rate hikes, money **increases in value**.

Interest rates can be influenced in other ways through interbank interactions in the money market.

They sell or buy securities. When

selling securities

- Decrease in the money supply
 - Rising interest rates leading to higher exchange rates and lower consumption, investment and inflation
- Money is becoming scarce and therefore money is increasing in value

When purchasing securities

- Increase in the money supply
- Lower interest rates leading to lower exchange rates and increased consumption, investment and inflation

Money is no longer scarce and therefore money loses value.