

MARKET REVIEW

Disparate markets

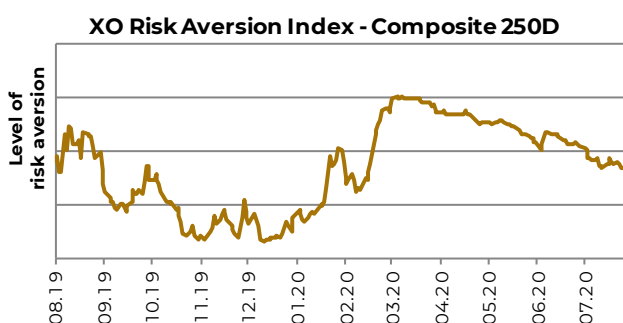
After a very good second quarter, which allowed the markets to recover part of the March decline, the markets are starting the summer in a disparate way. Second wave fears are eliciting pessimism, while statements of support from governments and central banks maintain a form of optimism. Equity markets alternate between bad for Japan and good for China. Nevertheless, for the first seven months of the year, most of the figures remain in vivid red. Europe is the most affected, along with Brazil.

Concerns about the increase in stimuli figures over the month have weighed on interest rates. This allowed the fixed income, bond and real estate markets to perform well over the month.

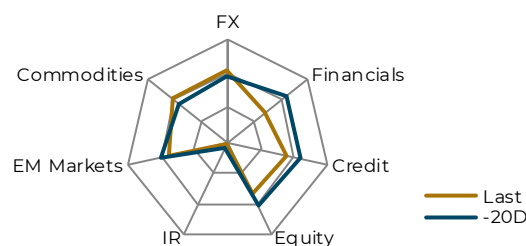
The USD is under strong pressure, losing more than 3% against the major currencies. This trend is beneficial for commodities, especially gold, which had a very good month and remains the best asset of the year.

Our risk indicators are easing slightly on all factors but remain high, with the exception of interest rates.

	Value	July	2020
Equity markets			
Switzerland (SMI)	10 006	-0.39%	-5.76%
United States (S&P500)	3 271	5.51%	1.25%
Europe (Euro Stoxx 50)	6 854	-1.61%	-13.78%
Japan (Nikkei)	21 710	-2.59%	-8.23%
China (Shanghai SE)	3 310	10.90%	8.52%
Brasil (Bovespa)	102 912	8.27%	-11.01%
Currencies			
USD/CHF	0.913	-3.58%	-5.50%
EUR/CHF	1.076	1.08%	-0.86%
GBP/CHF	1.195	1.74%	-6.84%
EUR/USD	1.179	4.87%	5.00%
Other asset classes			
Swiss Real Estate		1.78%	0.11%
Swiss Bonds		0.86%	0.38%
Foreign Bonds		0.95%	3.86%
Commodities		3.80%	-33.89%
Oil	40.27	2.55%	-34.05%
Gold	1 973.23	10.63%	29.58%
Rates / Indicators			
10 years Swiss rate		-0.54%	-0.47%
10 years US rate		0.53%	1.92%
US Unemployment		11.10%	3.50%
US GDP		-9.50%	2.30%
US CPI		1.20%	2.30%



XO Risk Aversion Index - Components



DECLINING INTEREST RATES (1311-2018)

Are negative interest rates a feature of our times = What is their trend in the very long term ? By reconstructing 800 years of interest rate developments, Paul Schmelzing sheds light on these questions. We will go through his study reviewing a few crucial points.

800 years of reconstituted interest rates

Interest rates probably represent the most important economic value. They reflect the health of the economy and the risk of the borrower. Most economic studies focus on a limited period of our economic history using data as early as 1945. Indeed the collection of information is easier in the recent period. Nevertheless, considering a few centuries of interest rates would allow us to apprehend this theme in a broader perspective.

This is what Paul Schmelzing has achieved by collecting information since 1311, i.e. more than 800 years of interest rate history.

In eight centuries, numerous fiscal or monetary regimes have succeeded one another. The data comes from Italian city states (Venice, Milan, Florence), Spanish or British empires, Dutch financial centres.

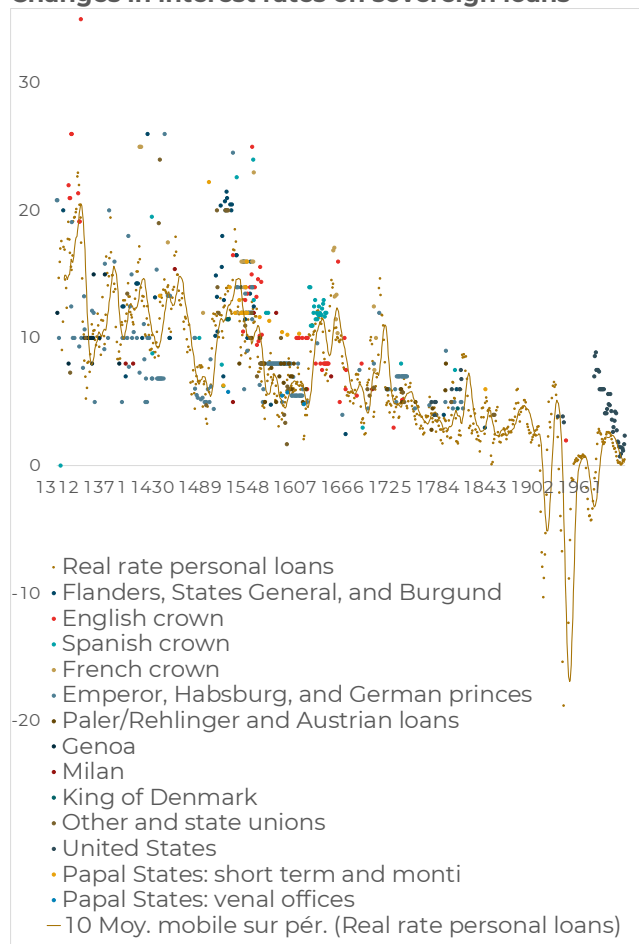
In order to reconstruct a world average annual rate, the author weights the data for each country according to its relative weight in the estimated GDP at the time. This method makes it possible to cover 78% of the advanced economies over the period. In the 14th century, Italy and its cities thus represented 30% of world GDP, while Spain's golden age made it the leading state in the 18th century.

Some examples of nominal rates (in local currency) are worth mentioning:

- 1440: Paumgartner lends to Lewis of Bavaria over 4 years at a rate of 24%;
- 1459: the Medici bank lends to the Duke of Milan, Sforza, at a rate of 15.4%;
- 1494: the Sauli bank lends Charles VIII for the invasion of Italy an amount of 20,000 ducats at 14%.
- 1570 : Has Bernhard von Wallprun lends Maximilian II 20,000 florins at 5%;
- 1578 : The county of Nassau lends to the States General of Holland the sum of 22,000 florins at 4.8% to raise troops;
- 1778: The French government lends the United States 18 million pounds at 5%.

The evolution of nominal interest rates can thus be reconstructed over eight centuries.

Changes in interest rates on sovereign loans



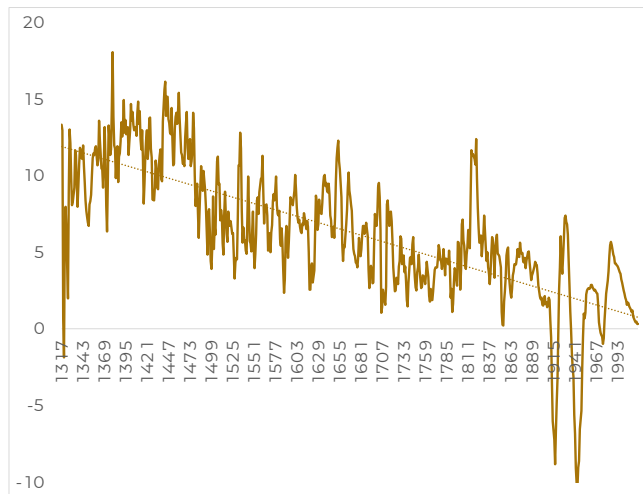
An 800-year drop

The previous graph shows a downward trend over the past 800 years. No stability can be found and this downward movement is found across all monetary regimes, including the emergence of our modern central banking system. Nor does this trend appear to be related to growth or demographic influences. These considerations apply to both sovereign and private lending.

The author also sketches a development in real interest rates. This rate is calculated by subtracting an inflation rate from the nominal rate. For the inflation rate, it is still possible to make an estimate based on extensive historical research. For example, in the Italian city-states

where it can be estimated using the price of agricultural goods, the price of candles or soap.

Real interest rates



Source : Paul Schmelzing

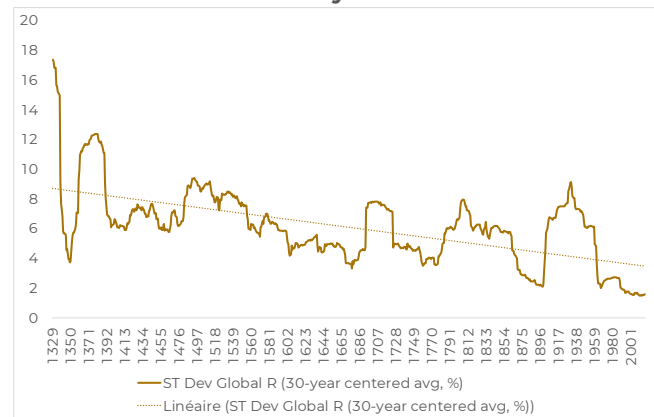
On average the author determines that the annual decline is 1.6 basis points. The "recent", post-Napoleonic period (since 1820) shows an even more significant trend with a 2.3 basis points decline in interest rates per year.

The elements presented allow us to see that negative real rates are not new. The lowest level of interest rates was reached in 1917 (-8.5%) during the First World War. This period corresponds to an inflationary shock in Great Britain. World War II saw a real interest rate of -5.4% in 1944 but was not as low as the annual figure of 1490, the year of monetary growth following the "bullion famine". The period of the French Revolution also saw a period of negative rates before the Napoleonic wars led to a significant jump in these levels in the years that followed.

The frequency of negative real rates increases over time. Since 1311, 46 years have had a negative real interest rate. 63% of these occurrences are in the 20th century, 6 years in the 17th century.

Interest rate fluctuations, or volatility, follow the same downward trend. Interest rates deviate less and less from this long-term trend.

Real interest rate volatility



Source : Paul Schmelzing

Six historical periods show significant declines in real interest rates:

- 1379-1417 (or 38 years): Period following the Black Death with a decline in agricultural prices but an increase in the prices of intermediate goods;
- 1534-1589 (or 55 years): Period corresponding to a significant increase in silver imports from the New World and an acceleration of inflation;
- 1666-1699 (or 33 years): Period following the peace of Münster between Spain and the United Provinces leading to a commercial and financial resurgence in Holland.
- 1817-1854 (37 years): Period following the Napoleonic Wars and the Congress of Vienna. It coincides with a reduction in debt in England and political and price stability.
- 1873-1909 (36 years): The "long depression", which began with a sharp decline in the financial markets in 1870, followed by deflation and low productivity.
- 1985-2014 (i.e. 29 years): Period of financialisation of the economy.

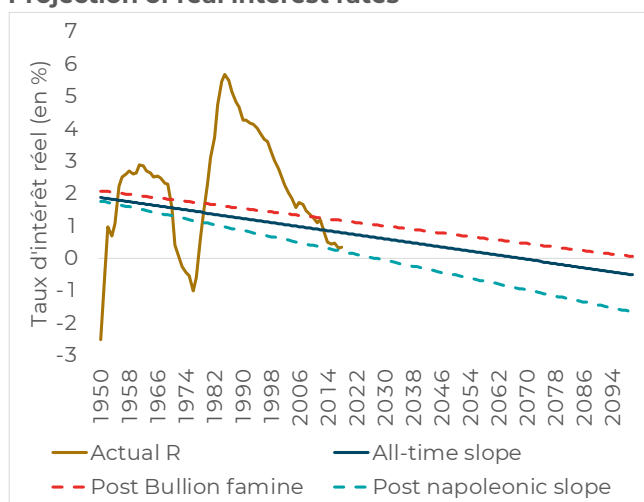
The most important period of decline was the period from 1379 to 1417 with a 58 basis points per year contraction of interest rates, real interest rates falling from nearly 15% to -6% over the period.

Negative real rates for the next century?

Projecting the author's results into the future, real interest rates could enter a sustained period of negative rates even though in the past these periods have lasted between three and four decades.

Based on the long-term data prepared by the author, the evolution of interest rates suggests that real interest rates could reach zero in the 20th and 21st centuries. Three projections are used in the following graph: "all-time slope" representing the average trend since 1311, "Post-Bullion" since 1494 and since 1820 with the "post-Napoleonic" period. These three projections allow us to anticipate a level of negative real rates by 2068 for the general trend. Considering the "post-Napoleonic" period, real interest rates will become negative from 2027 onwards.

Projection of real interest rates



Source : Paul Schmelzing, XO Investments SA

The current environment may therefore not be a passing trend, but rather a return to the historical trend in real interest rates. And this could become an ongoing problem for monetary policy.

Euthanasia of the annuitant or a solution for over-indebtedness?

Negative real interest rates represent (nominal) rates below inflation. This phenomenon is economically unsatisfactory overall since purchasing power is eroding. An investment

with a rate below inflation causes the holder to lose value. This is a form of euthanasia of the annuitant. To get out of this trap, the investor will have to take more risk to find an expected return at least equal to inflation.

On the borrower's side, on the other hand, this can be a solution to over indebtedness. Indeed, inflation eats the debt if the nominal rate is lower than the inflation rate. The Covid-19 crisis will leave states with high levels of debt. This prospect of negative real interest rates could finally be seen as beneficial.

Limits and prospects

This study contains a wealth of historical data and allows us to take a considerable step back in time. Nevertheless, there are some limitations. One of the main drawbacks is certainly that this data does not contain any flaws in the initial periods. Indeed, the "stress tests" consisted rather of payment delay phenomena, particularly in the 14th and 15th centuries. For example, a loan from the citizens of Venice to its city-state in 1171 for which no coupon was paid for 30 years

The second criticism lies in the lack of consideration of monetary effects. Indeed, all these interest rates are relative to a currency in which the loans were taken out. Exchange rates are difficult, if not impossible, to reconstruct between the Milanese ducats of the 14th century or the Dutch guilder of the 17th century. Interest rates also represent confidence in currencies, which unfortunately cannot be taken into account here. Over the last eight centuries, the reference currencies for European or world trade have evolved. The data represent exactly these changes. In some periods the author can only identify loans in Italian currencies, in other periods it is Spanish or Dutch currencies that are the world trade. More recently the GBP, and finally the USD for about a century, the currency in which all assets are valued, hence the importance of USD interest rates. This cycle of reserve currencies continues. Probably the great challenge of our time is to determine which currency will be able to claim to replace the USD as a reserve currency.