UK's ECONOMIC POLICIES IN 2022

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Abstract

This article examines how the UK, a prosperous country, became involved in an unstable economic and financial situation, and explores the causes of the fall in the exchange rate and the rise in interest rates and their effect on the yield curve. The analysis takes a macroeconomic perspective and focuses on Truss's impact on the United Kingdom. The report reviews the condition of the UK economy before Truss's entry, her fiscal plan, and the roots of her policies. It then delves into the Truss cabinet's intention with its trickle-down policies, historical evidence of their success in the past, and their expected developments today. The study also considers the reasons for the distancing of financial markets, including the role of expectations and uncertainty. Finally, the article explores Rishi Sunak's U-turn, the Bank of England's intervention, and a potential solution to trickle-down economics.

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1 Introduction

A month and a half was the record that Liz Truss set as the shortest period in charge of a Prime Minister of the UK. But, what is hidden behind this fact? What were the causes of that market meltdown in such a short time? We approach this topic from a macroeconomic perspective, taking into account how the interest, inflation and exchange rates evolved during the last quarter of 2022, while considering other significant events in the global economy.

Ms. Truss was elected as the new Prime Minister after Johnson's resignation in July 2022 (Polakow-Suransky, 2022). Truss was elected among members of the Conservative Party, to which she belongs, as she won a leadership contest. She was not going to have it easy. The events shaping the world were conditioned by the war in Ukraine, the energy crisis, a period of high inflationary pressures and consequently, greater interest rates. All those were and still are determinants to English citizens and their budgets.

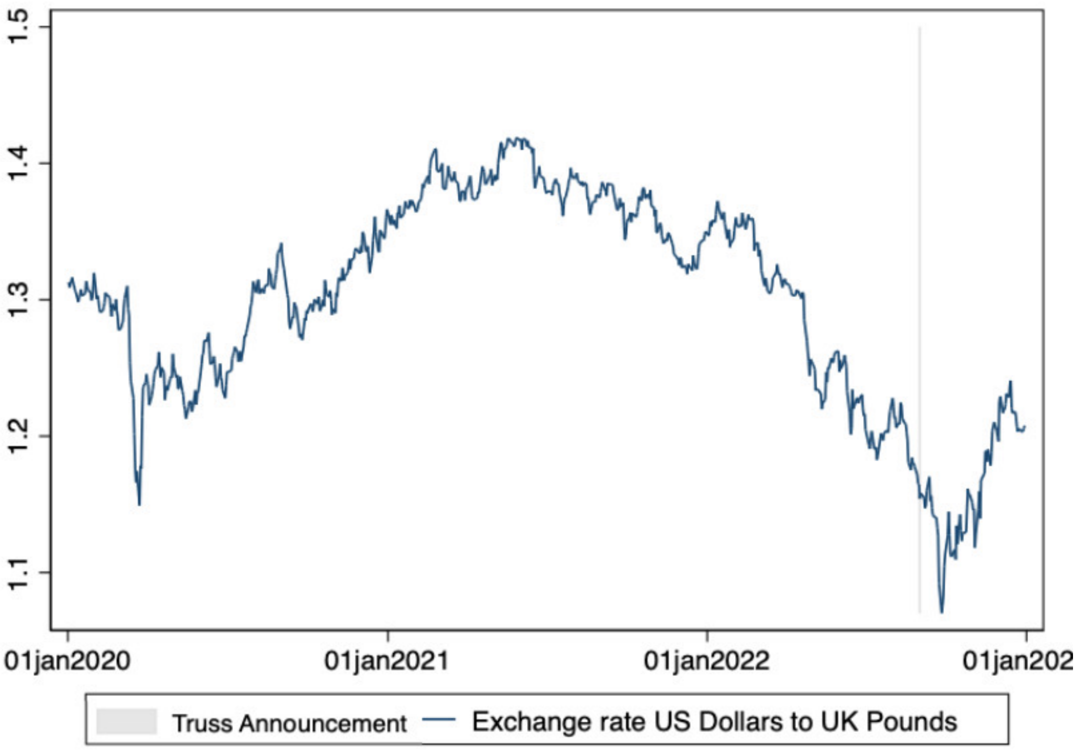
In addition, Brexit is also a significant factor to take into account, as the exit from the European Union has severely affected the UK and its economy. The turnout in the 2016 referendum has spread uncertainty among British citizens and businesses. Some of the repercussions were a drop in investment, around 11 % in the three years following the result, and a fall in the productivity of British companies of between 2% and 5% Bloom et al. (2019).

With this initial overview of events and the situation ex-ante to Truss, we can now set out the structure of our report, which is divided into four main sections. The first provides an overview of macroeconomic developments in the UK's economy. Consecutively, an overview of Liz Truss's fiscal plans, her trickle-down economics and the corresponding market reaction to them. The third part consists of Rishi Sunak's U-turn, focusing mainly at monetary policy and the yield curve. Finally, we address intermediate economics as a possible solution.

2 Macroeconomic evolution

Data shows that the evolution of the most important economic indicators has not been at its best during 2022. Political instability driven by Covid-19 pandemic, the still lasting Bexit impact, and political instability caused by sanctions over Russia due to its invasion against Ukraine have not helped the UK's situation at all. Among that chaos is not surprising that distrust was being spread over the globe, which has both direct and indirect impact on the British Economy. The most straight association that can be made between the situation described and the country's economy is the depreciation of the pound. Figure 1 shows how the USD/GBP exchange rate depreciated during the last quarters of 2022.

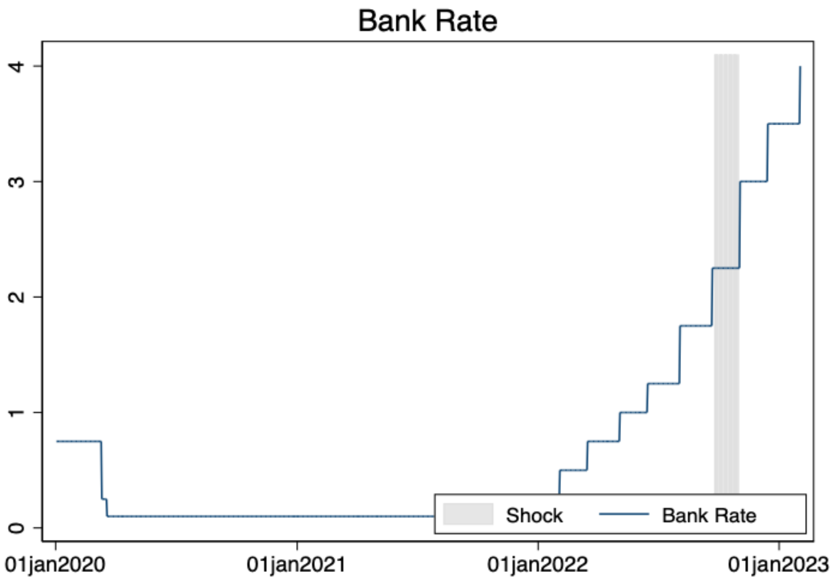
Figure 1: Exchange rate US Dollars to UK Pounds.



Source: own elaboration based on Data from FRED.

Why has the pound dropped? Investors all over the world make profit buying foreign currency expecting an appreciation of it. However, since Truss exposed her procedure for the British economy, financial markets did not support her and investors started selling the pound one of the main reasons, because it would increase the governments' debt and also due to the uncertainty and doubt generated that she would apply the proposal. The grey column in Figure 1 is located in early September, when the Prime Minister announced her outline. Just after that, we can observe the drop of the pound to the lowest level that has ever been, $1.04, against against the dollar.

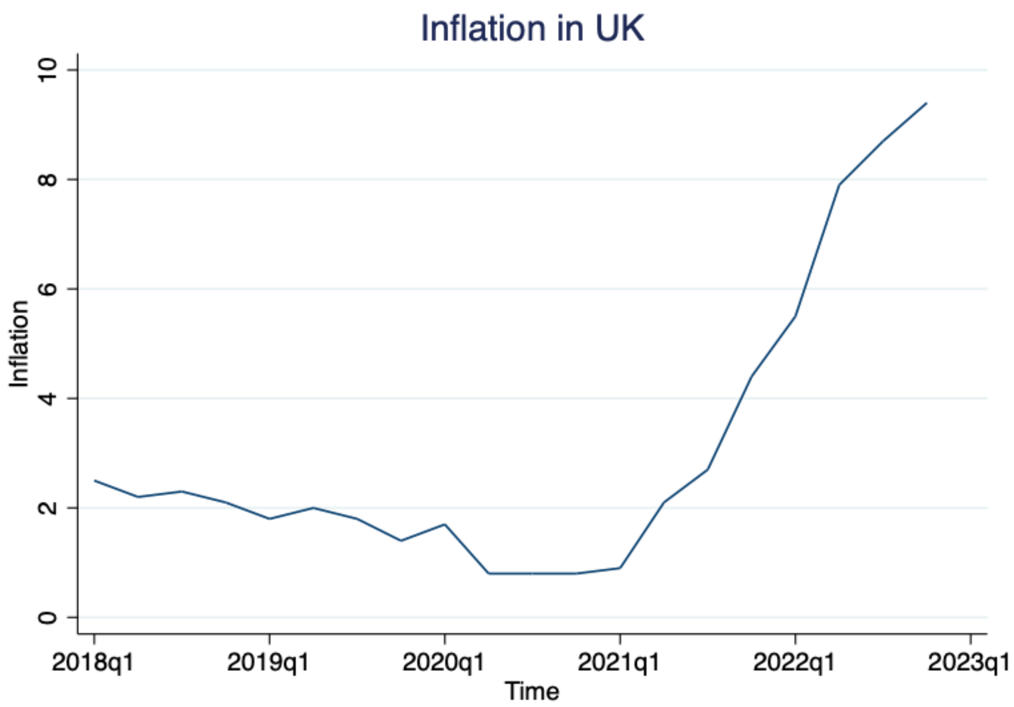
Figure 2: Bank rate in the UK.



Source: Own elaboration based on Data from the Bank of England.

During the third quarter of 2022, GDP fell 0.2%, and economists started to think about a possible recession in the country's economy, which would be a big deal worldwide (Thomas, 2022). Concurrently, the Bank of England was applying a contractionary policy throughout the year by raising interest rates up to eight times (Figure 2). In total, the interest rate was increased by 3 points between January (0.5%) and December (3.5%). The last adjustment has been done in February second reaching (4.0%).

Figure 3: Inflation in the UK.



Source: Own elaboration based on Data from the Bank of England.

Further, the inflation rate of the country was neither evolving positively, it even doubled between the beginning and the end of year (Figure 3). That increase on the general price level of goods leads to a rise in the cost of living, according to the Parliament of the UK.

3 Liz Truss fiscal plans

In early September, Liz Truss was appointed as the UK's new Prime Minister. The initial intention was to follow the example of the expansionary fiscal policies pursued by Margaret Thatcher and Ronald Reagan during the 1990s in the United Kingdom and the United States, respectively. These were consecrated as trickle-down economics, which in theory lead to a large growth of the economy on the labour supply side and entrepreneurs which then, through reinvestment and the "trickle-down" effect, ended up improving the entire economy including the lowest income groups, causing an overall betterment of the whole economy. So this attempt to apply the same policies, and the fact that Truss had on some occasions already copied some of Margaret's outfits[1], raised the question of whether the recent prime minister would be the new "iron lady", as Thatcher was known. (Fry, 2022)

The 23rd of September the chancellor announced the Growth Plan, tacking energy costs to bring down inflation, backing business and helping households. The outline was designed to cancel the corporation tax rise, keeping it at 19% as the government set sights on a 2.5% trend rate of growth. In addition, to cut the basic rate of income tax to 19% in April 2023, one year earlier than planned, with 31 million people getting on average £170 more per year. And finally, Stamp Duty costs that would help people on all levels of the property market and lift 200,000 homebuyers every year out of paying the tax altogether. Treasury (2022)

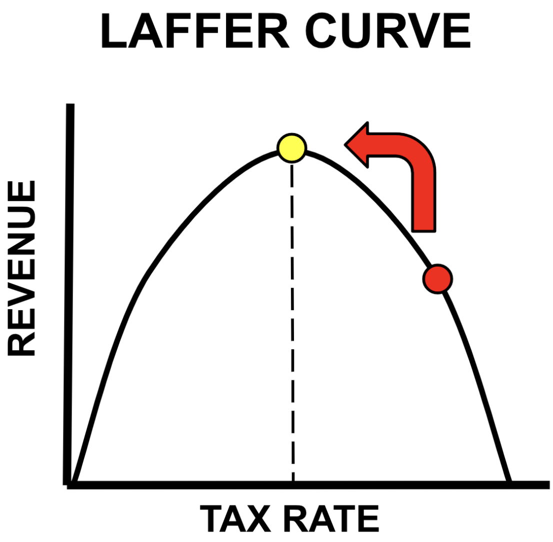
3.1 Trickle-down economics

But what is the theoretical basis for this policy, and how does trickle-down economics work? We address this question on the basis of widely accepted macroeconomic models. The first step in applying trickle-down economics is to reduce taxes on the richest quartiles. This is based on the assumption that the higher incomes of the richest will eventually lead to more investment, the opening of new businesses and more jobs for all. For this to happen, governments predict the following in the behaviour of the wealthy: first, that these higher earnings will be invested rather than saved; and, second, that the substitution effect will be greater than the income effect, in other words, that entrepreneurs will prefer to open new businesses and create jobs rather than spend these new profits on their own consumption.

From a more macroeconomic perspective, this trickle-down tax cut, which Truss wanted to implement, would generate in the short and medium term more investment by large companies and more consumption by households. Therefore, this boom in both supply and demand sides would induce in the long term to greater

[1] "All the times Liz Truss has been accused of dressing like Margaret Thatcher" The Mirror, 6 September 2022.

Figure 4: Laffer Curve.



Source: Own elaboration.

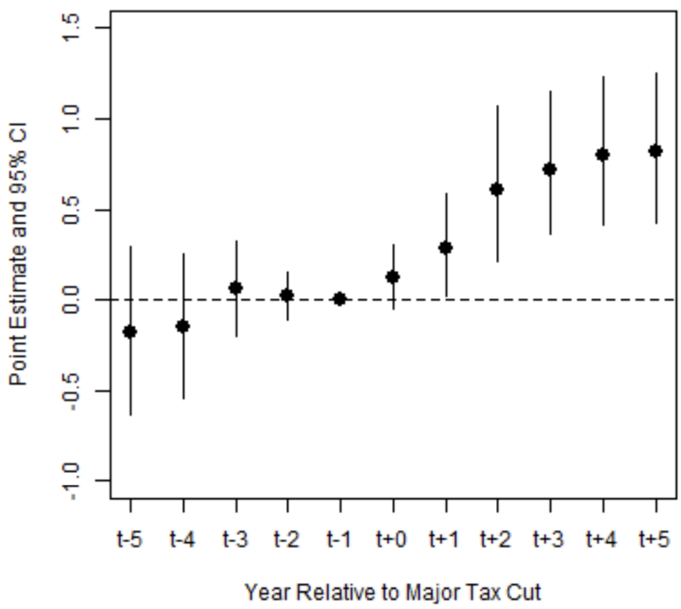
economic growth and more innovation in all sectors. In the foreground, these all look like positive externalities.

Moreover, the other theory underpinning these policies, the Laffer Curve, has not yet been mentioned, which we have plotted in Figure 4. The Laffer Curve states that there is no linear relationship between taxes and tax revenues, because too much taxation will reduce the incentive to consume. So, we know that both too low taxes and too high taxes will lead to low tax revenues, so governments have to find the middle point with the highest tax revenues represented in the figure as the yellow dot. Therefore, what this theory has to do with trickle-down economics is the assumption that in a country where there are too many taxes, which is represented as the red dot, lowering taxes would incentivise an increase in consumption, which would counteract the lower taxes and cause the state to end up earning more revenue.

At this point, we realise that Truss and Kwarteng firmly believed that trickle-down economics and the Laffer curve effect of tax cuts could support the heavy borrowing of the state and even pay it off. So the idea was to have a sustainable long-term debt through higher tax revenue. But did this plan work as they imagined? Of course it did not. And the worst thing is that before Truss became prime minister we already had examples from the past that predicted what has happened in the UK. So we will now present historical evidence and studies that reject the trickle-down economics hypothesis.

There is a large literature studying the effects of fiscal reforms on several outcomes. For example, Hope and Limberg (2022) considers data from 18 OECD countries over the last fifty years to examine the impact of tax cuts for the rich on the following three variables: income inequality, economic growth and unemployment.

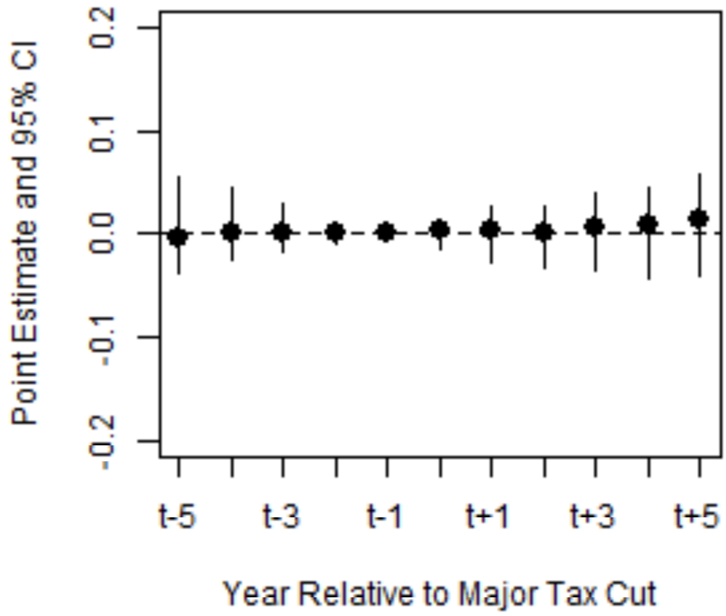
Figure 5: Top 1% income shares increase.



Notes and source: Effect of major tax cuts for the rich on top 1% income shares after matching on treatment trajectory and covariates Hope and Limberg (2022).

Regarding income inequality, the results of the study show that there is a strong correlation between each major tax cut reform and an increase only in the income share of the richest (Figure 5). More precisely, three years after the reform, the income share of the richest 1% increased by almost 0.6% points; in five years, by more than 0.8% points. The results show that large tax cuts lead to a significant increase in inequality overall in both the short and long term.

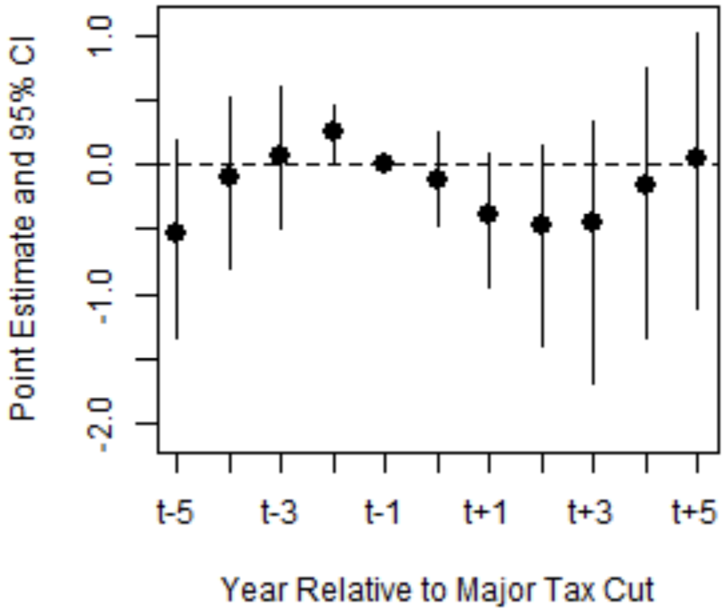
Figure 6: Real GDP per capita.



Notes and source Effect of major tax cuts for the rich on real GDP per capita after matching on treatment trajectory and covariates Hope and Limberg (2022).

In relation to the economic growth that politicians promise to bring about with these policies, the results indicate that the tax reforms do not lead to any higher economic growth, so there is no trickle-down effect (Figure 6). Therefore, supply-side theories that claim that tax cuts on the rich will induce labour supply responses that will boost economic activity and benefit the low and middle income population do not match up to reality. Gechert and Heimberger (2022) document a meta-analysis on 42 primary studies showing there is evidence for publication selectivity in favour of reporting growth-enhancing effects of corporate tax cuts, even though there is a theoretical ambiguity. Once this deviation is removed, the authors conclude, on the contrary, that tax cuts for companies do not have economically relevant or statistically significant effects on economic growth.

Figure 7: Unemployment rates.



Notes and source: Effect of major tax cuts for the rich on unemployment rates after matching on treatment trajectory and covariates.

Finally, when Hope and Limberg studied the effects on unemployment (Figure 7), they were able to show that, initially, it is true that unemployment does fall in the short run with lower taxes on the rich. However, it returns to its original value about five years after the reform, which means that in the medium and long term there is no sufficiently significant result either.

To summarise, the three fundamental pillars of trickle-down economics fall down in the long run and do not lead to any long-term growth, which is exactly what Truss promised. Countries' GDP does not change significantly, unemployment remains unchanged after five years and the only element that really changes, and for the worse, is the income of the richest population with the consequent increase in inequality. So, the fatal consequences of the Truss cabinet announcing its fiscal plan were predictable, especially given the UK's current situation, with high inflation and cost of living and an already huge public debt.

3.2 Markets reaction

In the following, we address what Truss' expectations of the market were and, what the actual reaction was. Truss's initial anticipation of the markets' reaction was, as we know, not worrying. She had in mind a clear growth of the economy and a sustainable debt through the higher tax revenue generated. Moreover, two key points were assumed that we have not discussed before: first, it was assumed that there was a large fiscal multiplier in the UK that would link lower taxes to a large increase in total output; second, the role of expectations was thought to be small, so that the large debt initially conceived would not be of much concern.

Nevertheless, we have all later seen that the markets did not react as Prime Minister Liz Truss had hoped, but what is the economic explanation behind this? Three possible approaches have been taken into account:

3.2.1 Debt sustainability

Given the primary deficit equation:

$$D_t = G_t - T_t \tag{1}$$

and the debt to GDP ratio equation:

$$b_t = \frac{1+r}{1+g} \cdot b_{t-1} + d_t \tag{2}$$

The primary deficit is the difference between government spending and tax revenue. Liz Truss's plan included a big tax cut with the same government spending, therefore, we predict a big increase in the primary deficit. Yet, what makes the debt sustainable is a higher growth of the economy comparing it to the real effective interest rate. In this case Truss expected a higher GDP growth that would make the debt sustainable. However, with the bad reaction of the markets and the experience we have with the trickle-down economics studied, we know that growth did not occur and, in contrast, an increase in real interest did. This was the main discrepancy between Thatcher's theory and the reality of the economy.

3.2.2 Risk premium

The chart below, Figure 8 shows the spread between UK and US bonds. Before October it was negative, meaning that the risk of default was higher in the United States than in the United Kingdom. After the announcements last September, it is observed how the risk increased enormously in the UK. This is another important idea in the market reaction. A higher default risk, due to the big rise in the risk premium was the reason why interest rates went up later on. Nevertheless, relating the topic to the UIP relation[2], interest rates should have gone down because of the fall in the exchange rate between the pound and the dollar. However, they went up in an atypical way, as a result of a larger increase in the risk premium.

Figure 8: Risk premium in UK.

Notes ans source: UK 10 Years / US 10 Years Government Bond spread from World Government Bonds.

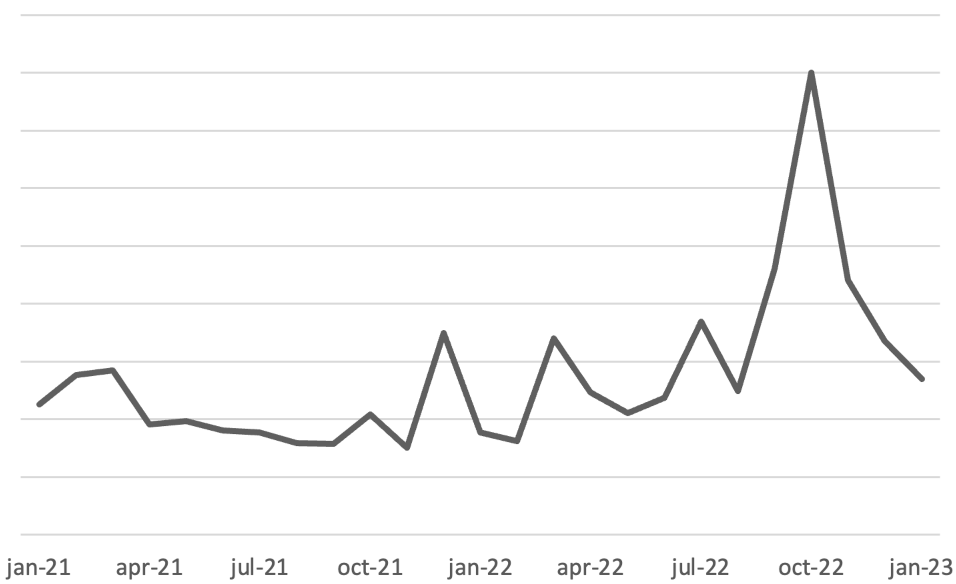
In Figure 8 there is another interesting point to comment on, the reversal of the risk premium after the exit of Truss. As we can see, the rise in the spread between the UK and the US lasts for a few weeks, but then the indicator improves with Sunak in government. So, at least in this area, we do not see a sufficiently substantial scarring effect from the damaging announcement of Truss's plans, as we thought would happen.

[2]The Uncovered Interest rate Parity states that the interest rates of the home country will be equal to those of the foreign country times the ratio of the current exchange rate between the two countries and the expected exchange rate. If there is a sufficiently significant risk, as in the UK, the premium risk must be added into the equation. Normally, a fall in the current exchange rate means a fall in local interest rates, but with the huge rise in risk, nominal interest rates end up rising. This is according to the theory given in Macroeconomics I at UPF and the assumptions given in the simplified model of the course.

3.2.3 Uncertainty

Uncertainty has also been important and substantial in relation to the market meltdown. To measure this, the EPU index[3] has been used (Figure 9), which is an indicator of economic and political incertitude derived from the number of press articles reporting on economic policy uncertainty AHIR (n.d.). Undoubtedly, there has been a large increase in uncertainty spread across the country in response to the announcements, which was another poor consequence of the announcement by Truss and his cabinet.

Figure 9: Uncertainty in the UK.



Source: Own elaboration based on Data from EPU index.

[3]Economic Policy Uncertainty index, which counts the number of articles containing the terms 'uncertainty' and 'economy', along with other policy terms such as 'deficit', 'spending', 'regulation', 'Bank of England', among others.

4 Rishi Sunak's U-turn

Liz Truss was replaced later in October 2022 by Rishi Sunak. Sunak, the new Prime Minister of the United Kingdom and leader of the Conservative Party is executing a plan that promises to maintain stability in the country. These measures are taking a U-Turn from his predecessor since he is announcing an economic plan with government spending cuts, including tax raises, in a package designed to stabilise financial markets and control inflation.

The British government will work alongside the Bank of England to tackle inflation and provide confidence to consumers and firms. Also, the contractionary fiscal policy is going to reduce borrowing over time and therefore reduce the government debt.

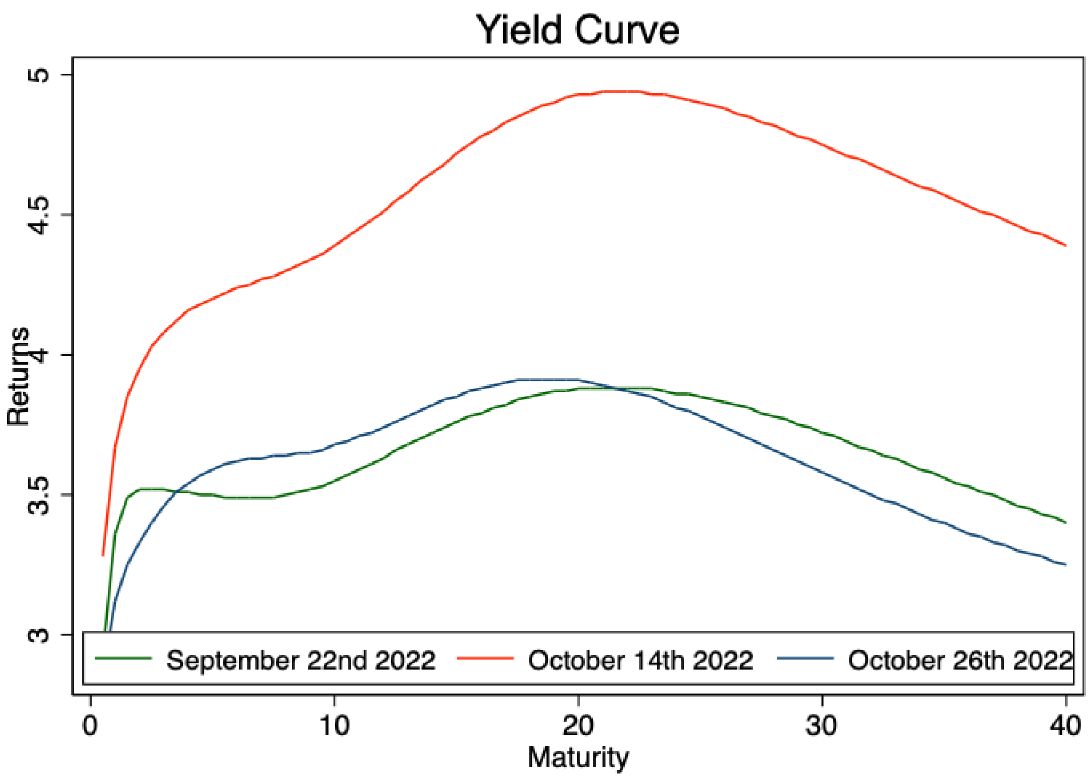
4.1 Monetary policy

As it is mentioned priorly, the Bank of England is working to reduce inflation, its aim is to get the rate of inflation to their target of 2%. In order to succeed in its purpose, since inflation has risen this past year 2022 reaching 10.1% in September 2022, the BoE is conducting a contractionary monetary policy, along with unconventional monetary policy, such as Quantitative Tightening. The implementation of a contractionary monetary policy comes into play when the central bank is selling its bonds, so there is less money supply or money in circulation. As a result, interest rates will be higher, which will raise borrowing costs and slow down the economy. Ultimately, it is expected that an economy with less circulation and flows will eventually lead to lower inflation.

4.2 Yield curve

To analyse the yield curve we have designed Figure 10, in which we have taken the yield curves of four specific days to study market expectations. First on 22 September, the day before the announcement of Liz Truss' tax plan, to get an initial benchmark of how yields were doing. Then we selected mid-October, on 14 October, to see the evolution of these enacted measures. Then 26 October, which is after the election of Rishi Sunak as the new Prime Minister.

Figure 10: Yield curve.



Source: Own elaboration based on Data from the Bank of England.

When comparing 22 September and 14 October we note the upward shift of the yield curve. The underlying explanation is related to debt, first because higher interest rates make borrowing more expensive and there is a higher risk of default, then because the tax cuts measures that were to be implemented were going to be financed with even more public debt. Secondly, when we move from October 14th to October 26th we see a downward shift in the yield curve. Hence we can see the obvious effect of the change of Prime Minister, Sunak is elected and proclaims a more moderate fiscal plan with better expectations in the markets. Finally, it is interesting to compare the start and end dates. We can appreciate how in the short term, the first few years, the yield curve with Sunak is better and starts from a more reliable position. However, after three years, expectations worsen with respect to September. So we see a scarring effect in the UK economy in the medium to long term, probably due to inflation or interest rates, which remain as bad or even get worse.

5 Middle-out economics as a possible solution

Before 1970, the middle class had much more influence and both upper and lower classes did better on average. Afterwards, the already commented trickle-down economics raised and started to get more importance under the idea that better conditions for the richer would eventually lead to overall betterment of the economy, including that of the lower classes (Eric Liu, 2013). Results are crystal clear, the next three decades when those policies were vastly implemented, caused wage stagnation and an inequality enlargement. So, nowadays, it would be interesting to think whether it's time to restart spreading prosperity from the middle-out and not from the top-down, in a sort of virtuous circle, where consumption feeds back itself and growth eventually shows up.

6 Summing up

A brief recap of what we have learned from the situation that has plagued the United Kingdom in recent years, and that has finally been strengthened in recent months, is that the role of expectations is essential when drawing up any type of plan, both fiscal, and monetary.

Liz Truss's plans seemed acceptable as far as the prognosis her party took into account. An increase in growth and little debt, within a context of high interest rates. However, financial markets doubted the plan and its long-term sustainability. This caused the risk of default to skyrocket. Also, as mentioned above, the primary deficit was affected by the tax cuts and therefore the Bank of England had to intervene by raising interest rates. Eventually the interest rates would be higher than economic growth and therefore would make the debt unsustainable.

Something that we have learned from having carried out this study has been from the exposed literature on trickle-down economics. As evidenced above, Truss's proposed plans to cut taxes for British citizens and particularly the richest 1%, not only does not lead to increased productivity, but also to no more job creation in the long run. However, this fiscal measure does promote inequality.

In addition, it must be taken into account that the context that framed the mandate of Liz Truss was conditioned by strong inflation, high energy costs and the war in Ukraine. All this did not make her stay easy. Furthermore, the example that she took from Margaret Thatcher was something that, as has been observed, did not come out completely victorious, since practice has moved away from theory.

The doors are open for the new minister Rishi Sunak with the hope that he will reverse the economic situation in which the United Kingdom is currently in and regain the confidence of the financial markets.

Lastly, we would like to end this report with two questions that might give you food for thought: Is it reasonable that expectations and financial markets have so much relevance and influence on an economy? Do you feel that Truss' policies and fiscal plan would have worked in a country with less size and impact from the markets?

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