Dutch State Treasury Agency
Ministry of Finance

Outlook
2024

Contents

Preface and photo theme

“New Horizons” is the photo theme for the Outlook 2024, chosen by my colleagues at the Dutch State Treasury Agency (DSTA). Despite consisting of just two words, the phrase evokes many more and brings with it a variety of associations, appealing to a diverse group of people.

This fall, I visited the museum exhibition “Five Generations of Brueghel” and admired the beautiful painting “Landscape with Windmills” by Jan Brueghel the Elder, painted in the 17th century.

The rolling horizon and diminishing size of windmills, farmers, and carts in the distance, in a typical Dutch landscape inspired by the province of North Brabant, creates a sense of boundless space. As we move forward into the future, the impact of artificial intelligence has begun to emerge in many fields, including art. In the Outlook 2024, alongside traditional photographs, you will also discover works created by generative AI, reflecting this evolving landscape.

Beyond inspiring beautiful art, “New Horizons” is a boundless theme that looks forward to new possibilities, new opportunities, and new vistas. It conveys hope, expectations, and ambition. A steady eye on the horizon implies thinking beyond limits and constraints and embracing opportunities and possibilities, even if this sometimes means going against the current and challenging the status quo. After a year marked by major crises such as war and natural disasters, we continue to long for a better world with positive steps forward on the road to prosperity in the Netherlands, Europe and the world.

I am very curious about what the cabinet formation in the Netherlands will bring us in this respect, and which new winds will blow in from The Hague. What kind of new horizon will we be travelling to? In any case, this year's Outlook offers the necessary (visual) inspiration to ponder the answer to that question.

Meanwhile, the work at the DSTA will continue steadily into 2024, as it did in 2023. Though there are always challenges to encounter, there are just as many opportunities to capitalise on to execute our mandate with excellence every day. With the counsel and commitment of our Primary Dealers, we have succeeded in again meeting the funding need of the Dutch State in 2023 in an effective and efficient manner. In October, we issued our second green bond with a particular focus on 'blue' expenditures. Our investors displayed great eagerness to invest in this bond, which for the first time contained specifically mapped eligible expenditures for the Netherlands in areas such as sustainable water management and climate change resilience.

The DSTA has now accumulated considerable knowledge and expertise to continue the successful issuance of bonds adhering to the EU Taxonomy. Working together with our colleagues, for example from the Financial Markets Directorate in the General Treasury and the Ministry of Infrastructure and Water Management, our shared expertise means we play a leading role in Europe. It gives us a sense of pride to be able to contribute to the development of robust green capital markets. We thank our primary dealers, advisors and investors who have made this possible.

The DSTA is ready to keep the Treasury properly filled in 2024, as we take significant steps in our IT systems to drive excellent analyses of data. Making the right choices based on data means we can execute our mandate with precise decision-making. The DSTA is further expanding its decision-making scope and transparency through the establishment of the Advisory Board, a body composed of a varied group of external professionals who were officially introduced on 1 December. The role of this Advisory Board is to offer independent and strategic advice covering all aspects of the DSTA, including fixed income markets, risk management as well as organisational matters.

In the coming year, the financial world is changing rapidly, interest rate developments are uncertain, and with all the benefits that ever-more important IT systems bring, the complexity and risks also increase; all reasons to continue to broaden our horizon. The 70+ colleagues of the DSTA will rise to the challenge next year with great pleasure and dedication, in close collaboration with our Primary Dealers, investors and advisors. Together, we broaden and renew our horizons!

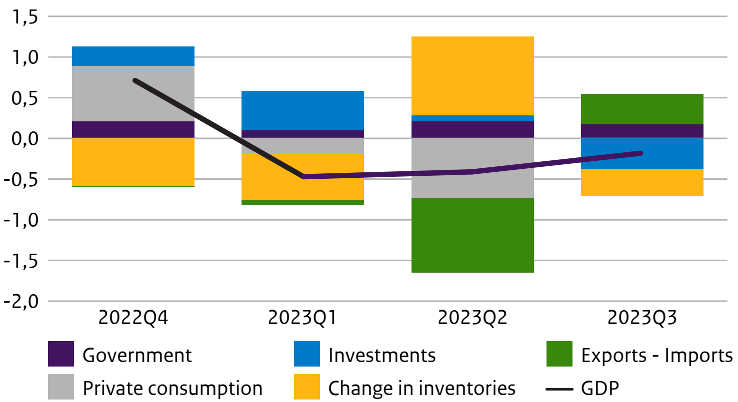
1. Economic and budgetary outlook

1.1 Economic outlook

Modest economic growth expected in 2024 despite economic and geo-political challenges

In the first three quarters of 2023 the Dutch economy showed negative quarter-on-quarter GDP-growth of -0.5%, -0.4% en -0.2% respectively. After the better-than-expected economic recovery of 2021-2023, the Dutch economy had to adapt to new economic conditions. Subsequently the pivot back to economic growth is taking longer than expected. In these first three quarters of 2023, increased government expenditures could not off-set declining exports and investments. The withdrawal from inventories also contributed to the economic decline. Consumer spending decreased as well in the first half of 2023 and remained stable in the third quarter. Figure 1 shows a breakdown of factors influencing Dutch GDP on a quarter-on-quarter basis.

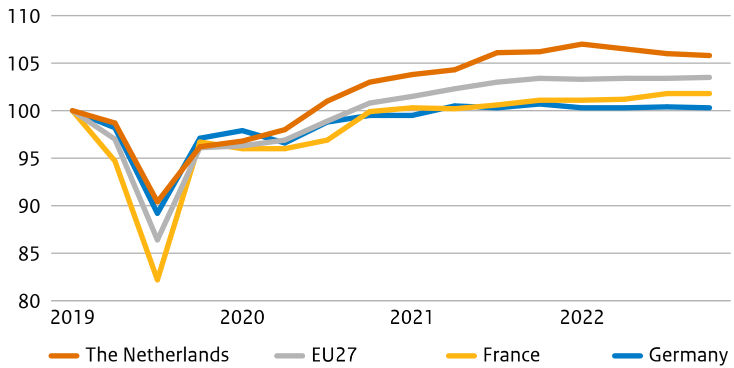
Figure 1 – Decomposition of quarterly GDP growth in the Netherlands



Source: Eurostat, 2023

Across neighbouring countries there are small differences in growth of the economy. Overall, the economy in the European Union grew by 0.1% in the third quarter of 2023 compared to the previous quarter. Figure 2 shows that since the last quarter of 2019, the recovery of the Dutch economy has been stronger than in surrounding countries (Statistics Netherlands, *Centraal Bureau voor Statistiek*, CBS). However, the difference in economic performance between the various countries is now decreasing.

Figure 2 – GDP volume developments based on seasonally adjusted data



Source: Statistics Netherlands, 2023

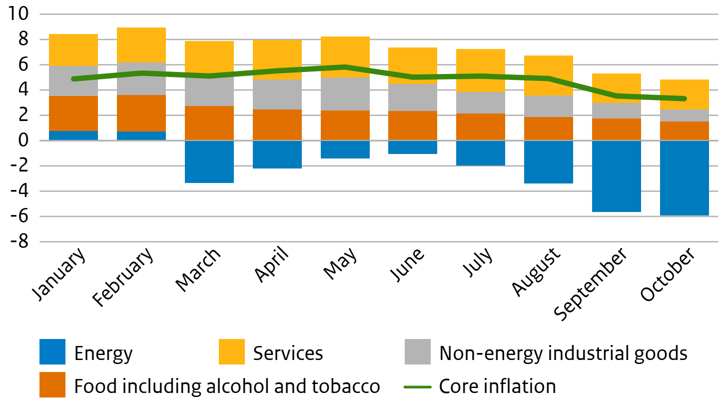
In 2024 the Dutch GDP is expected to grow by 1.5% according to the Netherlands Bureau for Economic Policy Analysis (*Centraal Planbureau*, CPB). The European Commission also expects a mild recovery in domestic demand going forward, led by the decreasing inflation rates, the strong labour market and increased wage growth. Growth is expected to benefit from increased public consumption and investment. However, business investment is projected to remain weak because of the tighter financial conditions laid out by the ECB.

The economic outlook for 2024 obviously comes with a number of uncertain factors. For example, it is still uncertain what kind of budgetary and economic policy a new coalition will carry out. Moreover, geo-political developments can potentially pose serious challenges.

Inflation rapidly decreasing and real wages increasing

In the first half of 2023 inflation levels in the Netherlands were still historically high. Figure 3 depicts year-on-year mutations of HICP-levels. In September and October however, year-on-year inflation figures changed to slight negative numbers. Rapidly falling energy prices explain this decline, as core inflation without energy prices remained at 5.1%. Inflation in November still points towards relatively moderate inflation, with energy prices playing an important role. The estimate of the inflation (HICP) was 1.4% for November. Overall CPI inflation was 1.6% and 4.2% excluding energy.

Figure 3 – Core inflation (in %) and the contribution of components to total inflation (in percentage points)



Source: Statistics Netherlands, 2023

Inflation in the Netherlands is expected to remain at elevated levels in 2024 at 3.9%. The lagging impact of high energy prices on other goods and services is expected to last. Despite these elevated price levels, the CPB expects the purchasing power of the median household to increase by 1.8% in 2024, up from a 1.1% decrease in purchasing power in 2023.

The Dutch labour market continues to be tight. Unemployment is at a relatively stable level. Statistics Netherlands reported an unemployment rate of 3.6% in October, which matches the unemployment rate of one year ago. For 2024 an overall increase in the unemployment rate to 4.0% is expected by CPB. Another indicator is the number of (seasonally adjusted) job openings that is slowly decreasing over the past three quarters; particularly in the commercial services, restaurants and industry sectors.

Partly as a result of the tight labour market, wage increases have accelerated over 2023. Whereas in 2022 nominal wages increased to a lesser extent than prices and hence real wages declined, real wages have started to increase over the third quarter of 2023. In the third quarter of 2023 the largest increase in 40 years was realised in average collectively bargained wages compared to one year earlier (6.1%). In 2024 the collectively bargained wage growth is expected to be 5.6%. Additionally, the number of bankruptcies have gone up in 2022 and 2023 compared to the exceptionally low levels during and after Covid. This means regular business dynamics returned after a period in which government subsidies kept relatively many businesses afloat.

Housing market picking up after a year of decreasing prices

As a consequence of the increasing interest rate levels of 2023, the Dutch housing prices decreased year-on-year. Despite this decrease on a year-on-year basis, housing prices are picking up on a month-on-month basis with a 0.7% increase in October compared to September. A similar trend is visible in the number of transactions: while the number of transactions in the first 10 months of 2023 was 6% lower than the same period in 2022, the number of transactions in October of this year was 5.7% higher than in September of this year.

Table 1 – Key economic indicators for the Netherlands (short-term, base-scenario).

year-on-year % change, unless otherwise specified	2022	2023*	2024*
GDP	4.3	0.7	1.5
Household consumption	6.6	0.6	2.4
Government consumption	1.6	2.4	3.1
Investment (including inventories)	1.0	2.8	0.3
Imports	3.8	1.9	2.1
Exports	4.5	0.8	1.5
Inflation (HICP)	11.6	4.1	3.9
Unemployment (% of working population)	3.5	3.6	4.0

* Estimated **Source:** CPB, Macro Economic Outlook 2024, 2023

Political developments in the Netherlands

On Wednesday 22 November, parliamentary elections were held in the Netherlands for the House of Representatives (*Tweede Kamer*). 15 Parties have entered the new parliament, which was installed on 6 December. The far right PVV (*Partij voor de Vrijheid*) of Geert Wilders came out as the largest party with 23.6% of the votes, representing 37 out of 150 seats in the House of Representatives. The newcomer NSC (*Nieuw Sociaal Contract*) won 12.9% of the votes (20 seats). The new combination of the green party and the social democrats (*GroenLinks – PvdA*) won 15.7% of the votes (25 seats). Parties which formed the previous governing coalition all lost seats. The elections were organised after the Dutch government resigned on 7 July 2023. Following the resignation, a number of the longstanding politicians including prime minister Mark Rutte announced that they would not be available for re-election.

Process following elections

Currently, political parties are in exploratory talks to form a new government with a new coalition of parties. Usually, the aim is to represent a majority in the House of Representatives. After a coalition of parties has adopted a coalition agreement, the political parties will start forming a cabinet. While parties intend to form a coalition without delay, it is not uncommon for these talks to last for multiple months. The previous government was formed after a period of 299 days, resulting in the longest formation period in Dutch history. During the formation of the new government, the current caretaker government remains in position. This caretaker government is limited in its decision-making for certain policy issues which the House of Representatives and Senate have declared controversial. However, for multiple important issues, the current caretaker government has been mandated to continue making decisions. These issues include climate policy and migration.

Budgetary impact
The actual budgetary impact of the plans of the new government can only be thoroughly analysed once the government is formed. The CPB will assess the budgetary impact of a new coalition program using the macroeconomic indicators applicable at the time.

1.2 Budgetary outlook

A stable and robust outlook for 2024 and years thereafter

On 24 November, the government published an update of the budget memorandum for the 2023 budget. In comparison to the 2024 Budget Memorandum which was published on 19 September 2023, the budget deficit for 2023 is expected to deteriorate by 0.2% to -1.8% of GDP. Reasons for the higher budget deficit over 2023 are decreases in tax and premium revenues of 0.4% in comparison to the Budget Memorandum expectations. The effect is alleviated by lower spending on Covid-19 measures and by postponing certain expenses related to the support for Ukraine to 2024. Still, the current expected total revenues over 2023 of EUR 382.3 billion exceeds the expectations in the initial 2023 Budget Memorandum by EUR 15.8 billion.

The expected budget deficit for 2024 is 2.9% and this is expected to remain the same for 2025. In the Budget Memorandum, specific targeted measures are included to improve purchasing power of the lower- and middle-income households, such as an increase of the rental subsidies and an increase of social benefits at the same pace as the minimum wage. In addition, expenditures are expected to increase due to the inflationary impact on wages and prices as well as higher interest expenditures and decreasing revenue from natural gas sales. At the same time, the tax revenues are expected to increase due to 'endogenous growth' of tax and premium revenues, as a result of general economic conditions. One reason for this endogenous growth is the increase of nominal consumption due to inflation and the subsequent increase in VAT revenues.

Since the publication of the 2024 budget in September 2023, a number of amendments have been discussed in parliament. These amendments will be adopted through voting by departmental budget. Most of these departmental budgets have already been approved to date, where others will be discussed in January. If all the amendments are to be adopted by parliament, the budget deficit for 2024 may rise by 0.2% to 3.1%, whereas the EMU-balance for 2025 increases by 0.1% and the balance for 2026 remains unchanged. An official update of the 2024 EMU-balance, based on the latest macro-economic parameters, will be published with the spring budget.

Despite the increasing deficit, the EMU debt-level remains well below the European Union-agreed threshold of 60% of GDP. The figures presented in the 2024 Budget Memorandum are in line with previous years as the EMU-debt level for 2023 is expected to reach a level of 47.3% of GDP for 2024 and of 48.8% for 2025 if the amendments are adopted and implemented. The diverging patterns between the EMU debt and EMU balance can be attributed to higher inflation which leads to a higher nominal GDP, thereby outpacing the growth of the deficit (the denominator effect).

In the longer term, the budget deficit is expected to be around 3.0% in the coming years with a larger deficit in 2026 (3.6%) due to a one-off conversion related to military pensions. The deficit is expected to quickly come back to 2.6% of GDP in the following year. The EMU debt in the period up to 2028 increases from 47.6% to approximately 53% of GDP.

Table 2 – Key budgetary figures for the Netherlands (% GDP)

	2022	2023	2024	2025	2026	2027	2028
EMU balance Budget Memorandum 2024	-0.1	-1.6	-2.9	-2.9	-3.6	-2.6	-3.2
Impact of proposed amendments	n/a	-0.2*	-0.2	0.0	0.0	0.0	0.1
EMU balance following proposed amendments	**n/a**	**-1.8***	**-3.1**	**-3.0**	**-3.6**	**-2.6**	**-3.1**
EMU debt Budget Memorandum 2024	50.1	47.6	47.3	48.6	50.4	51.3	52.9
Impact proposed amendments	n/a	-0.1	0.1	0.1	0.2	0.2	0.1
EMU debt following proposed amendments	**n/a**	**47.6**	**47.3**	**48.8**	**50.6**	**51.4**	**53.0**

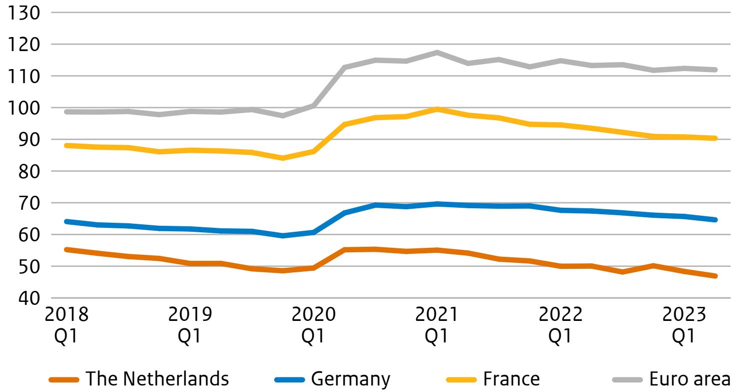
Sources: 2022 numbers: Statistics Netherlands; quarterly report on state budget, 22 September 2023; 2023 numbers: Ministry of Finance, letter to Parliament on 24 November 2023; 2024-2028 numbers: Ministry of Finance, Budget Memorandum 2024 and Ministry of Finance, letter to Parliament on 31 October 2023.

* These data points include the impact of the November update of the Budget Memorandum.

The budget shows stability in an international comparison

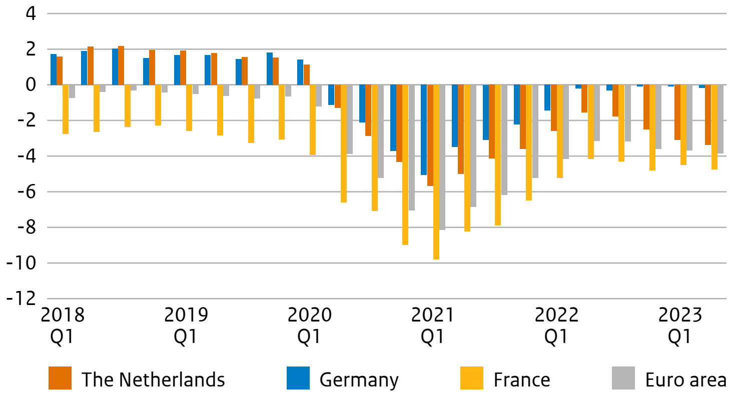
Figures 4 and 5 below shows a comparison of the EMU-balance and debt for the years 2018-2023 for the Netherlands, Germany, France and the entire Euro Area average. The Dutch level of government debt (% of GDP) remains below the Euro area average, below the debt levels (% of GDP) of France and Germany and below the Euro area-norm of 60% of GDP. This has been the case in the last five years, as is shown in figure 4 and figure 5.

Figure 4 – EMU debt (% of GDP)



Source: European Central Bank, 2023

Figure 5 – Government balance (% of GDP)



Source: European Central Bank, 2023

Pension reforms

New Dutch pension system ratified in 2023, transition takes until 2027
In 2023, the Dutch House of Representatives and the Senate approved the '*Wet toekomst pensioenen*' (or WTP) which effects the 2019 Pension Agreement. The new law has three primary goals: a supplementary pension that reflects markets better and can increase pensions faster in case of positive developments, a clearer pension accrual, and a pension system that better reflects the modern dynamism in the Dutch job market.

The WTP is based on the defined contribution system (DC), rather than the historically more usual defined benefit (DB) system. In the DC system, pension funds can increase pension benefits faster if returns on investments are high, or instead lower them faster if returns are lower. Henceforth, pension contributions are now calculated as all invested contributions including the return on these funds. Finally, the difference in pension build-up between young and old contributors has been removed from the system.

Pension programs will still be managed on a collective basis, with pension providers adhering to a shared investment policy to keep costs down for their participants. Furthermore, the Dutch government and social partners have reached a consensus on the official retirement age, provisions for early retirement, choices for pension plans, and benefits for survivors' pensions.

The law formally took effect on 1 July 2023, although there is a transition period during which arrangements should be made between pensioners and pension institutions. These arrangements include the new contracts and – most importantly – the method of dividing the accumulated pension capital from the DB system to individual participants in the DC system. The end of the transition period is 1 January 2028. The DSTA is closely monitoring these developments in order to assess the impact of the new pension law on the market for the DSL's and DTC's.

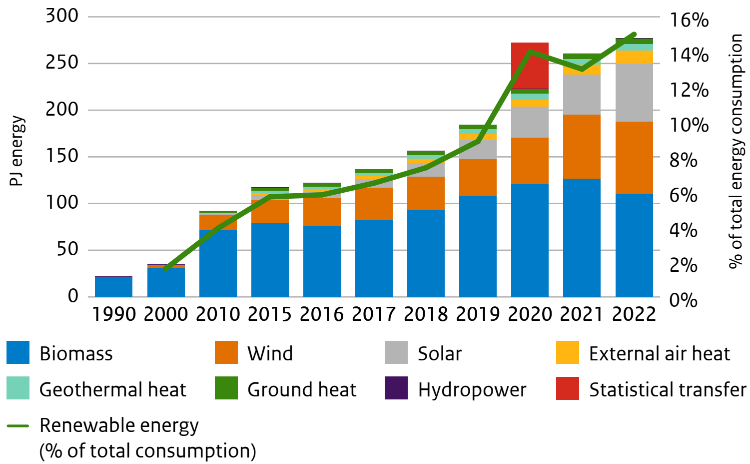
2.Climate outlook

Climate mitigation: Emission reductions for 2030 within reach, other targets are well underway but require acceleration

The commitment to reduce Dutch emission of Greenhouse Gas (GHG) by 55% in 2030 (compared to 1990 levels) has been put into law with the revision of the Climate Act in July 2023. To compensate for any potential future setbacks, the government has introduced policy measures aiming at a 60% GHG reduction. Recently, the Netherlands Environmental Assessment Agency (*Planbureau voor de Leefomgeving*, PBL) reported that the commitment for reducing GHG by 55% in 2030 has come within reach for the first time since the publishing of an annual report, which started in 2019.[1] Currently however, reaching the committed goals still partially depends on factors outside of government control, e.g. the weather and imports of electricity. Other climate related targets, such as for energy consumption, are not within reach yet and require additional efforts according to an additional publication by PBL.[2] Under the renewed Energy Efficiency Directive (EED) and the Renewable Energy Directive (RED III), targets for energy consumption and the share of renewable energy in the mix have recently been sharpened. Additional measures are required to reach these new targets.

Energy from wind and solar sources has increased significantly in 2022.[3] At the end of 2022, the total amount of installed capacity for solar electricity was 19 143 MW, an increase of 4 232 MW since the end of 2021. Installed capacity for energy from wind increased from 7 769 MW at the end of 2021 to 8 831 MW at the end of 2022. The share of renewable energy in total energy consumption is estimated at 15% in 2022. Figure 6 shows the development of renewable energy in the Netherlands over time.

Figure 6 – Development of renewable energy



Source: Statistics Netherlands, 2023

A recent study by Statistics Netherlands shows that Dutch people are generally worried about climate change and that these views are stable over time.[4] 93% of Dutch people think the climate is changing and 60% of people believe this is completely or partially the result of human behaviour. Notable differences between views of the last study in 2020 and the most

[1] PBL, 26 October 2023. Climate and Energy Outlook 2023 (*Klimaat- en Energieverkenning 2023*). Link.
[2] PBL, 26 October 2023. Energy saving requires extra efforts; share of renewable energy substantially increases (*Energiebesparing vraagt extra inzet; aandeel hernieuwbare energie stijgt flink*). Link.
[3] CBS, 12 October 2023. Renewable Energy in the Netherlands 2022 (*Hernieuwbare energie in Nederland 2022*). Link.

[4] Statistics Netherlands, 28 November 2023. *Climate change and the energy transition: views and behaviour of Dutch people in 2023 (Klimaatverandering en energietransitie: opvattingen en gedrag van Nederlanders in 2023)*. Link.

recent study are an increase in people who are very worried about future generations (from 31% to 34%) and a decrease of the share of people who think the government should have a climate policy (from 85% to 82%).

Climate adaptation: An intensified implementation program in light of new scenarios

The goal of climate adaptation is to prepare and adapt the Netherlands to risks which arise from a changing climate. Adaptation includes strengthening dikes, broadening rivers and making cities and villages greener.

Two recent publications have stressed the importance for climate adaptation in the future as Dutch weather and the Dutch climate are expected to worsen. In October, the Royal Netherlands Meteorological Institute (*Koninklijk Nederlands Metereologisch Instituut*, KNMI) published its periodical update of climate scenarios.[5] The KNMI concludes that the Dutch temperature is already 2.3% higher than over the 1850-1900 period. In all scenarios, the KNMI expects the effects of climate change to worsen. Early warning systems for weather extremes will become more important. Both in scenarios with high and low GHG emissions reductions, sea levels will rise significantly or even severely.

The second publication, an interim report by the research program on rising sea levels (*Kennisprogramma Zeespiegelstijging*) confirms the KNMI scenarios on higher sea levels.[6] This publication also projects that the Netherlands must accept the salinization of existing sources of fresh water. It also points towards the necessity to keep plenty of North Sea sand available for future coastal defence, to prepare for the reinforcement of dikes and to scale up other approaches aimed at flood prevention.

In November 2023, the government updated its Strategy for climate adaptation (*Nationale Adaptatiestrategie*, NAS).[7] Highlighting the importance of the KNMI scenarios, this strategy shows which measures are being put into place in the upcoming years and which extra measures will be required. Among others, measures are aimed at achieving future proof fresh water supplies, climate robust agriculture, heat resilient cities and strong and resilient infrastructure. The Dutch government has decided on a new and intensified implementation program to reach the objectives of the NAS.

[5] KNMI, 9 October 2023. Climate Scenarios 2023 (*KNMI'23-klimaatscenario's*). Link.
[6] Research programme on rising sea levels, 9 November 2023. Intermediate findings of the research programme on rising sea levels (*Tussenbalans van het Kennisprogramma Zeespiegelstijging*). Link.
[7] Ministry of Infrastructure and Water, 17 November 2023. National programme for implementation of climate adaptation (*Nationaal Uitvoeringsprogramma Klimaatadaptatie*). Link.

Green Bond retrospective

In 2023, the DSTA issued a new 20-years Green DSL 3.25% January 2044 through a Dutch Direct Auction (DDA). This auction followed on a revision of the DSTA Green Bond Framework, now incorporating the proposed EU Taxonomy which was adopted in June 2023. This new Green Bond Framework particularly focuses on water investments which, among other objectives, aim to make the Netherlands more resilient to flood risks. These are so-called 'blue expenditures'.

The expenditures for each investment have been mapped against the revised EU Taxonomy of June 2023. Eleven out of twelve eligible economic activities in the Framework meet the required screening criteria. Moreover, all twelve eligible activities meet the substantial contribution criteria. The Green DSL 2044 is the first of its kind: a triple-A sovereign issuance that has 'blue' activities which are mapped to the EU taxonomy.

Issuance of the Green DSL 2044 took place on 17 October with substantial interest.[8] Five minutes after the order book was opened, the book exceeded € 10 billion. Eventually, the order book was more than 3.5 times oversubscribed. The DSTA issued the Green DSL 3.25% 15 January 2044 for an amount of € 4.98 billion. Of this amount, 76% was allocated to 'real money' accounts and 24% was allocated to 'other' accounts. Through this issuance, the DSTA remains committed to supporting and developing a robust domestic and international green capital market. In 2024, the DSTA will reopen the Green DSL 2044.

[8] The DSTA has published a one-pager on the recent 20-year green DDA at https://english.dsta.nl/.

3. Funding and issuance

3.1 Looking back on funding in 2023

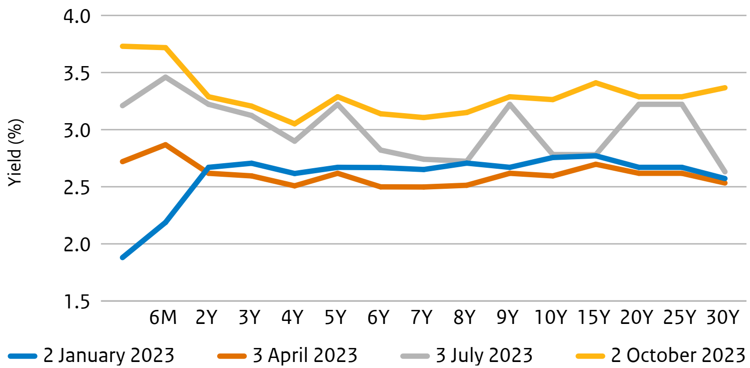
In December 2022, the DSTA estimated its preliminary funding need for 2023 to amount to approximately € 100 billion. This estimate was surrounded by a high degree of uncertainty due to several factors that impact government finances, such as the cap on energy prices, projected inflation, and a slowdown in economic growth. The DSTA announced that the capital market issuance would be approximately € 50 billion (nominal amount). Due to variations in tax income and social security contributions, lower than expected spending on the energy price cap and underspending (i.e. the government being unable to carry out all planned expenditures), the estimate of the funding need for the Dutch State decreased during the year to an amount of € 74.9 billion. Consequently, the call on the capital markets was revised slightly downwards to at least € 46 billion.

Despite the uncertainties about the funding need, the DSTA continued to ensure liquidity across the curve by creating a balance between the call on the capital markets and the money markets in 2023. Issuances in 2023 have contributed to lengthen the average maturity of the debt, swap and cash portfolio towards levels well above the targeted minimum of 7.9 years at the end of the calendar year and a minimum of eight years in 2025.

The interest rate environment for Dutch debt on both the capital and the money markets continued to change drastically over the course of 2023. Figure 7 shows the yield curve of Dutch State securities in 2023, which is a graphical representation of the relationship between the interest rate and the maturity of debt securities issued by the Dutch State in 2023.

The yield curve provides information about the expectations of future inflation, economic growth, and monetary policy. The yield curve of Dutch State securities has increased overall and became inverted in long-term versus short-term maturities, as from the second quarter. This means that investors expect lower interest rates and lower inflation in the future, which may indicate a slowdown in economic growth or a recession. While interest rates moved significantly during the year, the DSTA was able to obtain fair prices during its auctions. The DSTA remained committed to its core values: transparency, consistency and liquidity in executing its funding plan while being flexible when needed.

Figure 7 - Dutch curve at the start of every quarter in 2023 (yield in %)



Source: Bloomberg

3.1.1 Capital market

First quarter
The DSTA started off the year in January with the reopening of the DSL 0.00% 15 January 2026. Including the non-comp option that was exercised in its entirety, an amount of € 4.01 billion was raised at an average yield of 2.58%. Also, in January the DSL 2.00% 15 January 2054 was reopened which raised € 1.99 billion. On 7 February the new 10-year benchmark bond, the DSL 2.50% 15 July 2033, was launched by way of a Dutch Direct Auction (DDA). In this DDA an amount of € 5.99 billion was issued at a yield of 2.66%. At closing of the DDA, the bids in the book had reached € 20.6 billion, resulting in a bid-to-cover ratio of 3.44. Of the total amount allocated 70% went to real money accounts and 30% went to 'other' or so-called fast money accounts (e.g. hedge funds). After consultation with its Primary Dealers, the DSTA reopened in February the DSL 0.00% 15 January 2038 which raised € 2.48 billion. In March the DSTA reopened the DSL 0.75% 15 July 2027 and the DSL 0.00% 15 January 2052 which raised a total amount of € 4.31 billion.

Second quarter
The DSTA announced in its Q2 Quarterly Outlook that it expected a similar cash deficit for 2023, leaving the borrowing requirement unchanged. On 4 April the DSTA launched the DSL 2.50% 15 January 2030 through an MTS-auction. Including the non-comp option that was exercised in its entirety, an amount of € 5.21 billion was raised at an average yield of 2.56%. Also, in April the DSTA reopened the DSL 0.00% 15 January 2052. Although the non-comp option was not exercised in its entirety, an amount of € 2.19 billion was raised at an average yield of 2.68%. In May the DSTA reopened the DSL 0.75% 15 July 2028 which raised € 2.20 billion, and in June - after the initial issuance earlier in the year - the DSL 2.50% 15 July 2033 which raised € 2.0 billion bringing the total outstanding amount of this DSL to € 8.02 billion. Furthermore, the DSTA reopened in June the DSL 2.00% 15 January 2054 which raised another € 1.68 billion.

Third quarter
In the Q3 Quarterly Outlook the DSTA announced that the estimated funding need for 2023 was revised downwards to € 86.4 billion due to a lower expected cash deficit. This was due to lower energy prices as well as higher tax revenues, among other things. The expected issuance on the capital market was maintained for a total amount of around € 50 billion. In the third quarter, the DSTA reopened for the second time the DSL 2.50% 15 July 2030. Including the non-comp option that was exercised in its entirety, an amount of € 2.58 billion was raised at an average yield of 2.95%. After consultation with its Primary Dealers, the DSTA reopened in September, for the second time in the year, the DSL 0.00% 15 January 2026 which raised € 2.49 billion. Also, the DSTA reopened for the second time the DSL 2.50% 15 July 2033 which raised € 2.14 billion bringing the total outstanding amount of this DSL to € 10.16 billion.

Fourth quarter
The DSTA announced in its Q4 Quarterly Outlook that the expected funding need for 2023 was further decreased to € 74.9 billion. The main reasons for the lower funding need were variations in tax income and social security contributions, lower than expected spending on the energy price cap and underspending (i.e. the government being unable to carry out all planned expenditures). Given the updated estimated borrowing requirement, the DSTA lowered its expected call on the capital market in 2023 to at least € 46 billion. On 17 October the DSTA launched its new 20-year green bond DSL 3.25% 15 January 2044 via a DDA. In this DDA an amount of € 4.98 billion was issued at a yield of 3.35%. At closing of the DDA, the bids in the book had reached € 18.2 billion, resulting in a bid-to-cover ratio of 3.67. Of the

total amount allocated 76% went to real money accounts and 24% went to 'other' or so-called fast money accounts. Furthermore, the DSTA reopened in October for the third time the DSL 2.50% 15 July 2033 bringing the total outstanding amount of this DSL to € 12.16 billion. In the Quarterly Outlook the DSTA announced it would be designating one remaining auction moment in November as optional. However, the DSTA decided not to exercise this option. In the end, the total capital market issuance in nominal terms in 2023 (up to and including November) was € 46.31 billion. The actual cash inflow from these issuances was around € 5 billion lower than the nominal amount, due to below par issuances. The weighted average yield of the issuances in 2023 was 2.79% which is a significant increase in comparison with recent years, as can been seen in figure 9.

Figure 8 – Cumulative capital market issuance in 2023 (€ billion)

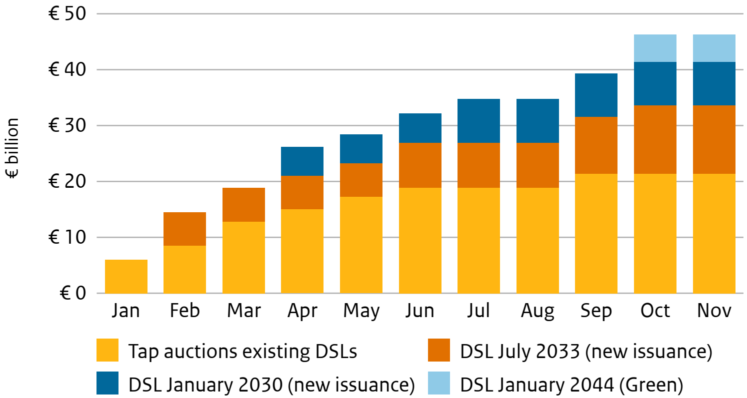
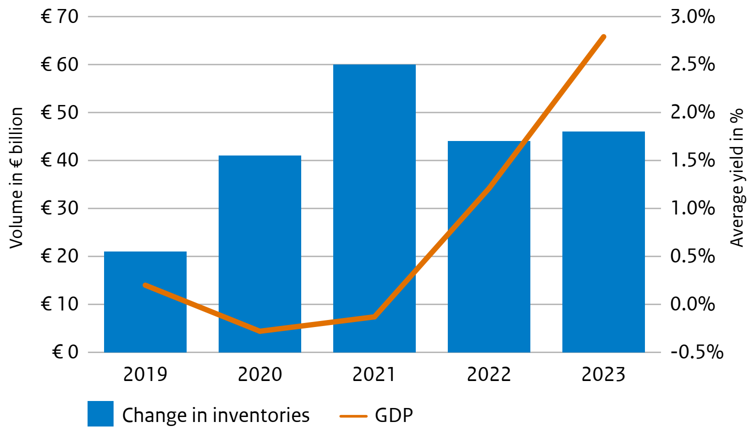


Figure 9 – Yearly average yield of capital market issuances 2019 – 2023 (€ billion)



3.1.2 Money market

The DSTA uses various funding instruments in the money market. Cornerstone of these instruments are the Dutch Treasury Certificates (DTCs). The money market historically serves as a buffer when it comes to accommodating changes in the funding need throughout the year. In 2023, the cash position saw large improvements in the course of the year due to higher tax revenue among other things. Consequently, the DSTA reduced its call on the money market. The end-of-year money market volume is now expected to end up at € 24.4 billion at the end of 2023 which is lower than the estimate that was indicated in the funding plan for 2023. At the same time, the indicated money market volume had initially been set at a relatively high level to accommodate possible improvements in the cash balance. This choice reflects the buffer function of the money market.

The DSTA had regular money market issuances through its DTC programs where auction dates typically contained both a shorter-dated program and a longer-dated program. Figure 10 shows a slight decrease of the outstanding amount of DTCs over the course of 2023. Until 6 December 2023 the weigthed average yield in auctions was 3.24%, which is a significant increase compared with previous years, as can be seen in figure 11.

Figure 10 - Amounts outstanding in Dutch Treasury Certificates in 2023 (€ billion)

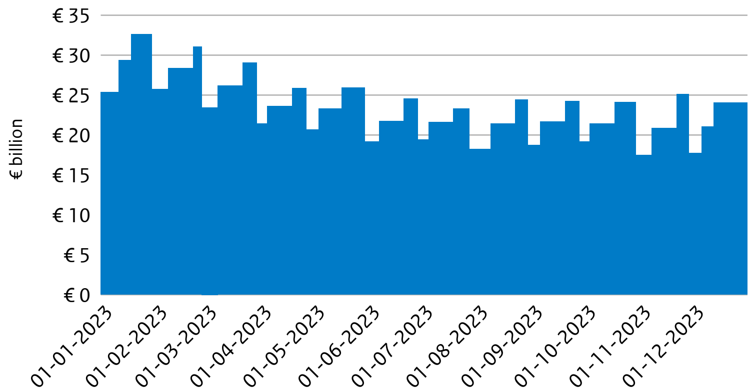
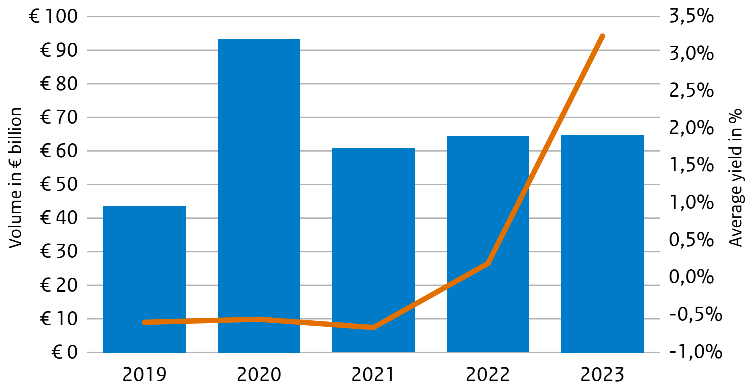


Figure 11 – Yearly average yield of DTC issuances 2019 – 2023 (€ billion)



In addition to DTCs, the Global Commercial Paper program continues to be an important instrument for the DSTA. The program adds flexibility since maturity, currency of denomination and timing of the issuance can be tailored to specifically suit both the investors and the DSTA. Global Commercial Paper is issued as:

- Euro Commercial Paper (ECP), available for non-US investors and issued in euros, US dollars, British pounds, Swiss francs and Norwegian kroner.
- US Commercial Paper (USCP), available for US investors and issued in US dollars.

Until 8 December the DSTA issued cumulatively € 102 billion in ECP and USCP, compared to € 41 billion in 2022, € 39 billion in 2021, € 63 billion in 2020 and € 108 billion in 2019. The majority of this year's issuance was in euros (67% of the total amount). Foreign currencies are hedged against the euro to eliminate foreign exchange risk. The Global Commercial Paper program, with various types of investors with appetites for different maturities, has proven to be of value to the DSTA and its investors.