Dutch State Treasury Agency
Ministry of Finance

Outlook 2021

Photo theme

The photos featured in this Outlook portray Dutch Innovations.

The year 2020 was marked by the outbreak of the COVID-19 pandemic, which has had an enormous impact on global health, the way our societies function and the global economy. To be successful in overcoming a crisis it helps to develop new methods of doing business and working together, and hence it often requires innovations. This will not only be the case for the COVID-19 pandemic, but also for other challenges like climate change. The photos in this Outlook show students, researchers and corporations in the Netherlands working on innovations which are expected to contribute to achieving results on relevant issues or that have done so in the past.

The other way around is also true, a crisis has many downsides, but one of the positive aspects is that it also brings along a momentum for change and innovation.

In the Netherlands, this momentum is amplified by the launch of the National Growth Fund. The government will invest € 20 bn in the upcoming 5 years in projects that will increase the future capacity for growth in the Netherlands. The financing will be allocated towards projects in the areas of knowledge development, infrastructure and research, development and innovation.

The photos in this Outlook portray innovations that originate from the Netherlands, innovations which currently take place or are being developed in the Netherlands and they portray areas in which the National Growth Fund aims to spark even more innovation in the upcoming years.

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Preface

In my preface of last year's Outlook, I mentioned that 2019 was an eventful year and I wondered what 2020 would bring.... Calling 2020 'eventful' too, would be an understatement. Words like 'unprecedented', 'historic' or 'unimaginable' seem more appropriate for the year in which the coronavirus dominated our lives. Who would have thought the world would change so drastically in a matter of months.

In last year's preface, I also mentioned that the amount the DSTA was expecting to finance in 2020, was still relatively modest. At that time, we were looking at an overall funding need of about € 42 bn In March this year, when it became clear that the coronavirus had also reached the Netherlands and the country went into an 'intelligent' lockdown, the DSTA – like every other organisation and company – started working from home for most of its tasks and responsibilities. Two skeleton teams alternate however between home and the office, ensuring continuity of our key processes. At the same time, in order to finance the extraordinary measures announced by the government to support the economy, we had to draw up a completely new funding plan in a matter of days, covering almost three times the funding need we had estimated at the beginning of the year. Looking back at all this I am extremely proud of my team at the DSTA; proud of their flexibility, resilience and professionalism while getting things done under these extreme circumstances.

At the same time, we could not have been able to do all this without our Primary Dealers, who are the linking pin between us and our investors. Their advice, feedback and market insights are indispensable to us and I would like to thank all our Dealers for their continued support.

Even though the future is still uncertain, I am hopeful. The reason for that has to do with the theme of this Outlook, which is "Dutch innovations". History tells us that crises often serve as a breeding ground for great innovations. The pictures in this Outlook show fantastic examples thereof. I am confident that a few years from now we can look back at these difficult times as a period that also sparked great progress in healthcare, science and technology.

I look forward to next year - hopefully a little less eventful; and to seeing all of you again – hopefully in person!

Elvira Eurlings

Agent of the DSTA

1 The economy and the budget

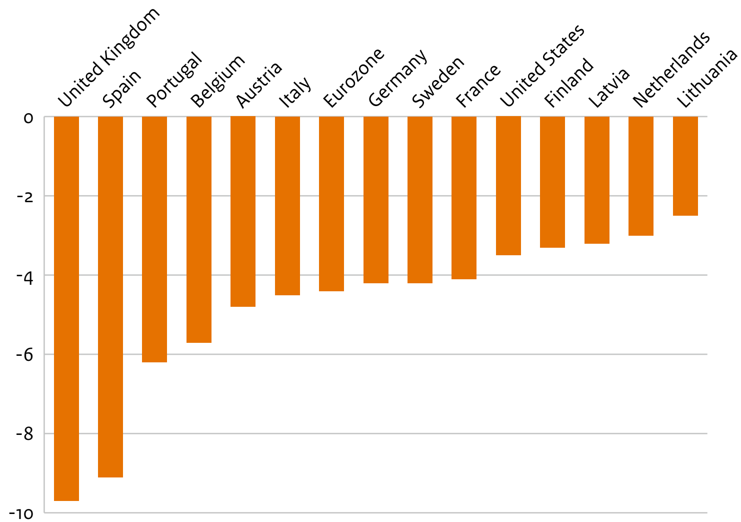
1.1 Economic Outlook

Economic impact coronavirus

In 2020 the COVID-19 pandemic had an impact on the Dutch economy that was unprecedented in terms of its magnitude, particularly in the first half of the year. The latest projections from the Netherlands Bureau for Economic Policy Analysis (CPB)[1] estimate a decline in GDP of 4.2% in 2020. Although this constitutes a very large economic contraction, it is less than was expected halfway through the year and less than the estimates for almost all of the Eurozone countries (see Figure 1). The decline in Coronavirus cases and the gradual relaxation of containment measures over the summer months helped economic activity bounce back relatively strongly in the third quarter of the year. The performance of the Dutch economy in the fourth quarter of 2020 remains to be seen though. The strong rise in the number of infections and the containment measures in place since the middle of October are expected to have a significant impact on production and consumption numbers.

[1] The Dutch economic outlook presented in this section is largely based on the 26 November 2020 update of the Macro Economic Outlook and the Dutch medium-term outlook, both published by the independent Netherlands Bureau for Economic Policy Analysis (CPB). The first publication is part of a regular cycle of economic forecasts during the year on which the government builds its economic and budgetary policies. The publication on the medium-term outlook contains trend estimates for the years covering a new government period, which is foreseen for 2021-2025 (general elections will be held in the Netherlands in March 2021). In the week following the publication of the DSTA Outlook, the CPB will update its projections for the current and next year. The DSTA provides updates of the economic outlook throughout the year in its Quarterly Outlooks.

Figure 1 – International GDP development in % Q3 2020 vs. Q4 2019



Source: CPB, 26 November 2020

This economic uncertainty remains for 2021 and beyond, although the resilience of the Dutch economy exposed in the third quarter allows for careful optimism. In 2021, the CPB expects the GDP growth rate to rise towards 2.8% if Europe manages to sufficiently contain the pandemic (the base-scenario, see Table 1). In case new waves of infections continue to plague the continent while vaccines are not sufficiently effective or available (the COVID start-stop-scenario), this estimate drops to 0.6% in 2021. For the medium term (2022-2025) the yearly GDP growth is estimated to be 1.5% (see Table 2). This estimate includes a downward revision of labour supply as the pandemic is expected to curb cross-border migration.

Furthermore, labour productivity is also revised downwards in these medium term projections as the pandemic leads to smaller additions to the capital stock.

Dutch labour market remains robust

In 2021 the year-end unemployment rate is projected to increase towards 6.1%. At the end of 2020, unemployment still stands at 4.1% of the labour force, which is already a hike from the pre-crisis record low of 2.9% in March 2020. Initially, the rise in unemployment mainly involved workers with flexible and temporary contracts. So far, various support measures of the Dutch government for employers, the self-employed and people working on flexible contracts have helped to avoid a strong additional increase. In the medium-term (2022-2025), the yearly unemployment rate is estimated to be 4.5%, which is still well below the average expectations for the euro area.

Low inflationary pressure and international trade uncertainty remain

The CPB forecasts HICP inflation to fall to 1.2% in 2020 which partly reflects the negative shock to domestic demand and the fall in oil prices earlier this year. It also reflects base effects of the VAT increase in 2019 and the fall in energy related indirect taxes. Domestic demand and wages are not expected to exert strong inflationary pressures in the coming years as inflation is expected to rise marginally towards 1.3% in 2021. Also, despite lingering uncertainties surrounding a “hard” Brexit, growth of household consumption and exports are expected to rebound towards 3.7% and 2.6% respectively in 2021.

Table 1 - Key economic figures for the Netherlands (short-term, base-scenario)

% change y-o-y	2019	2020	2021
GDP	1.7	-4.2	2.8
Household consumption	1.5	-7.0	3.7
Government consumption	1.6	2.7	3.4
Investment (including inventories)	3.6	-7.8	3.4
Exports	2.7	-4.4	2.6
Imports	3.2	-4.8	3.6
Employment (in hours)	2.2	-3.8	1.4
%	**2019**	**2020**	**2021**
Unemployment (% labour force)	3.4	4.1	6.1
Inflation (HICP)	2.7	1.2	1.3

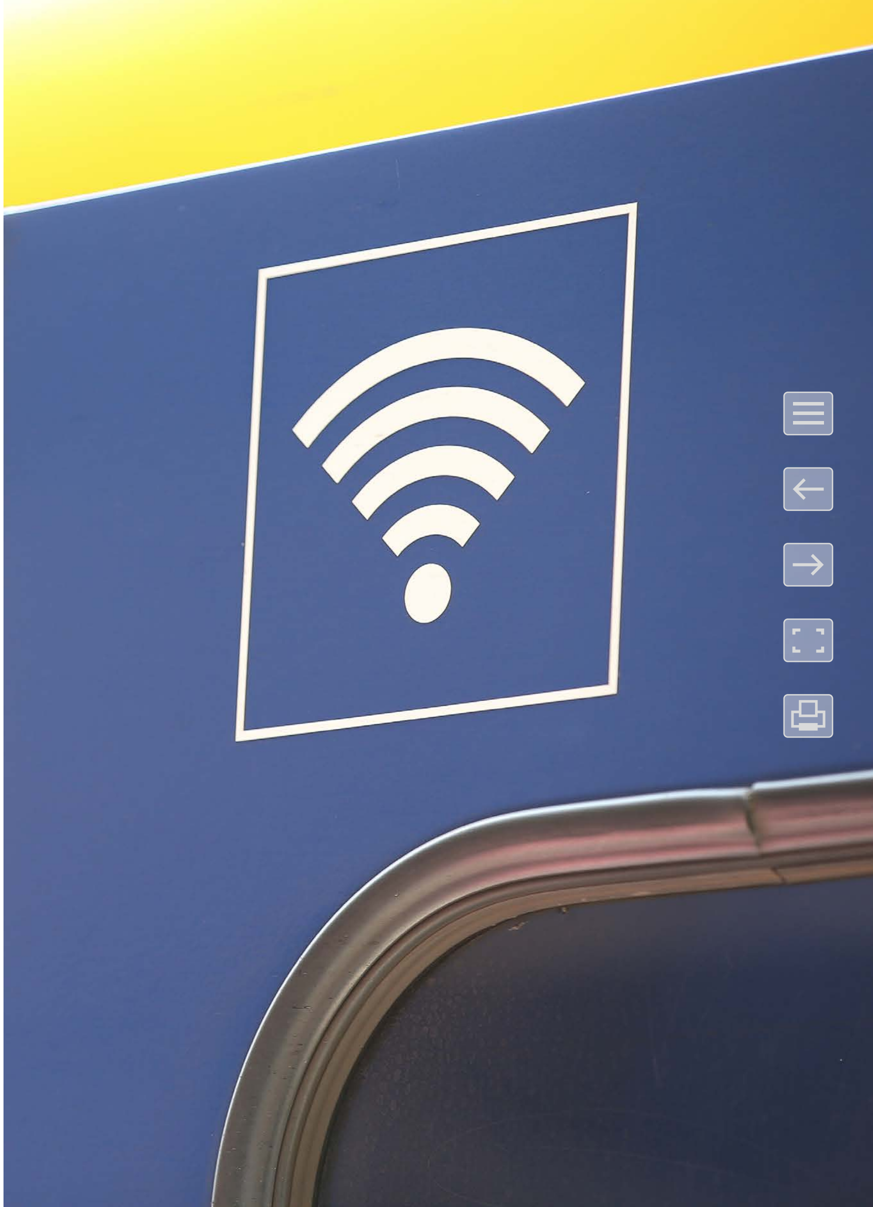
Source: CPB, 26 November 2020

Table 2 – Key economic figures for the Netherlands (medium-term)

% change y-o-y	2009/2013	2014/2017	2018/2021	2022/2025
GDP	-0.4	2.1	0.6	1.5
Household consumption	-0.8	1.4	0.0	2.4
Government consumption	0.8	0.7	2.4	1.3
Investment (including inventories)	-3.7	5.5	0.6	1.4
Exports	2.2	5.0	1.3	3.6
Imports	1.7	5.3	1.6	4.3
Employment (in hours)	-0.6	1.6	0.6	0.9

%	2009/2013	2014/2017	2018/2021	2022/2025
Unemployment (% labour force)	7.3	4.9	6.1	4.5
Inflation (HICP)	2.0	0.5	1.7	1.5

Source: CPB, 26 November 2020



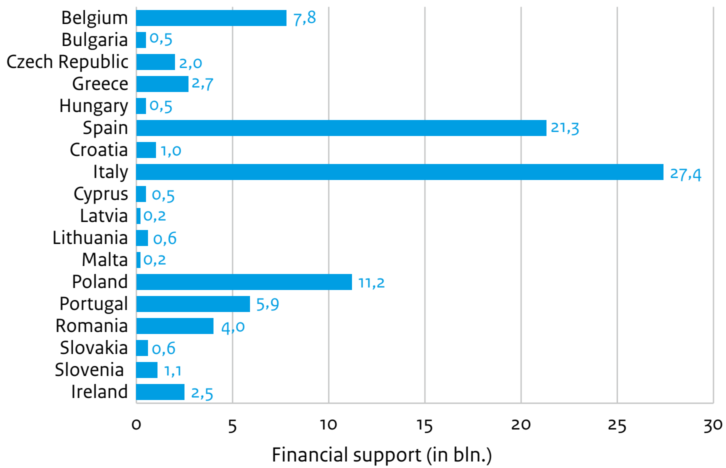
A European response to the coronavirus

Member States of the EU have reacted swiftly to the enormity of the challenges posted by the COVID-19 crisis. The autumn forecasts of the EC projects a fall in EU GDP by 7.4% in 2020, with economic activity barely returning to its pre-crisis level by the end of 2022 and risks tilted to the downside. To address the impact of the pandemic and its social-economic consequences, to support a swift recovery and to help build a more resilient economy, the EU is implementing various (financial) support programmes.

The "SURE" programme

On 19 May 2020, European Member States agreed to create the temporary 'Support to mitigate Unemployment Risk in an Emergency' (SURE) programme. This European instrument is available for Member States that need to mobilise significant financial means to fight the negative economic and social consequences of the coronavirus outbreak in their country. It can in total provide financial assistance up to € 100 bn in the form of loans from the EU to the affected Member States to address sudden increases in public expenditure for the preservation of employment and health related costs. At present, the council has approved loans for a total amount of € 90.3 bn for 18 applicant countries (see figure 2). To finance the instrument, the EU is issuing bonds, the first of which was issued on 20 October for an amount of € 17 bn. After the second and third issuance on 10 and 24 November 2020 respectively, a total of € 39.5 bn of social bonds has been raised by the EC. The creditworthiness of the EU regarding loans issued under SURE is supported by its own resources stemming from the EU-budget as well as by € 25 bn in additional bilateral guarantees from all EU members in proportion to their gross national incomes.

Figure 2 – Amount of financial support decided upon by the EC under SURE (in bn €)[2]



Source: European Commission, 16 November 2020. Numbers may differ due to rounding differences.

[2] The SURE-support for Ireland was not officially finalised at the end of November.

The Next Generation EU initiative

On 21 July 2020, EU leaders agreed to a recovery instrument (Next generation EU- NGEU) of € 750 bn to combat the adverse effects of the coronavirus. Its main element is the Recovery and Resilience Facility comprising of € 672.5 bn of funds to support public investment and structural reform: € 312 bn of which in grants and € 360 bn in loans. The remainder is used to top up existing EU programs, such as ReactEU, the Just Transition fund and the Agricultural fund for Rural Development. To finance the NGEU, the EC is empowered to borrow up to € 750 bn on the capital markets between 2021-2026. Furthermore, flexibility in the state aid rules has been granted so governments in the EU can provide liquidity to the economy to support citizens and save jobs. In addition, the 'general escape clause' within the Stability and Growth Pact has been activated to allow for maximum flexibility to countries' budgetary policy. These economic support measures complement the monetary stimulus provided by the European Central Bank's through its € 1,350 bn Pandemic Emergency Purchase Programme (PEPP).

1.2 Budgetary outlook

Budget deficit is expected to narrow

In 2020, the general government budget is forecasted to reach a deficit of -6.2% of GDP (see Table 3).[3] Automatic stabilizers on both the revenue and expenditure side, such as higher spending on social transfers and lower tax revenues, contribute firmly to this estimate. According to the CPB, the deficit will narrow gradually towards -4.6% in 2021 as revenues are expected to increase in line with the projected recovery in the global economy and promising messages of potential vaccines. The discretionary measures implemented by the Netherlands to financially facilitate firms and the self-employed have been extended until July 2021. Both the automatic stabilizers and discretionary measures protect employment, especially in the sectors most affected by the pandemic, support household disposable income, absorb liquidity shocks and aim to move growth in the Netherlands back to pre-pandemic levels.

Government debt increases, but stays below 60%

The Dutch State secured itself of healthy public finances in the period before the pandemic which allow for the current extraordinary and temporary government expenditures. The November update of the Budget Memorandum 2021 forecasts the EMU-debt as a percentage of GDP to be 57.4% in 2020. This estimate has been revised downwards from numbers projected in September 2020 because of the better than expected EMU-balance and GDP levels in Q3 2020. Furthermore, the DSTA has chosen to unwind several in-the money swap portfolios with counterparties which also had a reducing effect on the EMU-debt.

The CPB expects the government debt to increase to 59% of GDP in 2021. This means that in the base-scenario the Dutch EMU-debt level is expected to stay below 60%, even though the EU has decided to loosen the European budgetary rules laid down in the Stability and Growth Pact. However, the CPB does estimate the government debt to rise above 60% in 2021 in their COVID start-stop-scenario.

Table 3 - Key budgetary figures for the Netherlands (% GDP)

	2019	2020	2021
EMU-balance	1.7	-6.2	-4.6
EMU-debt	48.7	57.4	59.0

Source: Ministry of Finance, 30 November 2020

[3] The Dutch budgetary outlook presented in this section is largely based on the December Budget Memorandum 2020 that was presented by the government on the 30th November, as well as the Dutch medium-term outlook, published by the Netherlands Bureau for Economic Policy Analysis (CPB) on 26 November 2020. The DSTA provides updates of the budgetary outlook throughout the year in its Quarterly Outlooks.

Medium-term outlook

Although the Dutch economy is currently performing better than the average of the Eurozone, it is important to take the challenges of future generations into consideration. The CPB estimated the key public finance figures for the years up to and including 2025, alongside their medium-term economic projections (see Table 4). It is worth noting that these numbers are based on the government policies that are in place today. The government is currently taking various measures to boost long-term productivity growth such as investing in knowledge development, infrastructure and research through the National Growth Fund (outlined in the section “Investing in the future”). Furthermore, there are additional costs related to the execution of the Pension Agreement (also outlined in “Investing in the future”). The medium-term budgetary figures also include an increase in the budget for the SDE+ fund as part of the Dutch climate agreement of June 2019.

Table 4 shows that the structural EMU-balance, which is the EMU-balance corrected for the business cycle and one-offs, is currently less negative than the EMU-balance as the Netherlands finds itself in a cyclical downturn and the output gap is hence negative.

Table 4 - Key Figure public finances for the Netherlands 2021-2025 (% GDP)

	2021	2022	2023	2024	2025
EMU-balance	-4.6	-2.4	-1.6	-1.2	-1.2
Structural EMU budget-balance	-2.7	-1.4	-0.9	-0.7	-0.7
EMU-debt	59.0	59.5	59.8	59.8	59.7

Source: CPB, 26 November 2020

Investing in the future

National Growth Fund

On 7 September 2020, the Dutch government launched the so-called 'National Growth Fund'. The purpose of the fund is to ensure and support economic growth for future generations in the Netherlands. Over the next five years, a total of € 20 bn will become available for public investments in three main categories: knowledge development, physical infrastructure, and research, innovation and development. An independent committee has been established to assess each investment proposal in order to ensure an objective allocation of means, in line with the purpose of the fund. After five years, the fund will be evaluated and could be extended. Considering the current state of the economy, the government decided against budget-cuts to finance the fund. Instead, government expenditures will increase and the necessary funding will be gradually borrowed on the capital markets, tapping into the "triple A" borrower status of the Netherlands and the current low interest rate environment

Pension Agreement

On 4 July 2020, the Dutch government and social partners (labour organisations and employer representatives) reached consensus on the implementation of the Pension Agreement made in 2019. This is an important step towards a more modern and robust pension system in the Netherlands.

The Dutch pension system consists of three pillars: 1. A state pension for everyone following statutory retirement (AOW) funded by social security contributions and taxes; 2. Pension funds funded by compulsory contributions of employees and employers; and 3. Private savings (through life insurance policies or otherwise). Reform has taken place across the first two pillars to make the system more sustainable and tailored to this day and age. At the same time, the overall framework and its strengths – such as solidarity, collective investing and compulsory participation – remain intact.

The most notable changes relate to the second pillar. Pension fund entitlements will become more personal and transparent. Individuals will gain clearer insights into the assets they have built up over the years. Their pension will become more individually-based, while risks are still shared collectively. In other words, fluctuations in overall pension assets (due to the economy and the market) will be absorbed collectively, but individual pension rights will become more dependent on age and actual contributions made. It increases the likelihood of indexation in good times and at the same time accepts reduced entitlements when pension fund returns fall short.

Pension funds have to make all the necessary adjustments to the new system at the latest on 1 January 2026. To make the transition, individuals that are negatively affected by the new system will be compensated. In addition, pension funds with a funding ratio of at least 90% will not be obliged to cut pensions for 2020, as was the case in 2019.

As for the first pillar, important decisions have been made on the pace of increase of the statutory retirement age for AOW. In 2020 and 2021 the AOW-age remains 66 years and 4 months, after which it will increase by 3 months per year, until 67 years in 2024. From 2025 onwards the AOW-age will increase by 8 months for each year of increase in life expectancy. Moreover, a larger sum of € 1 bn (previously € 800 mln) has been made available for social partners to make early retirement and other customised pension arrangements with employees.

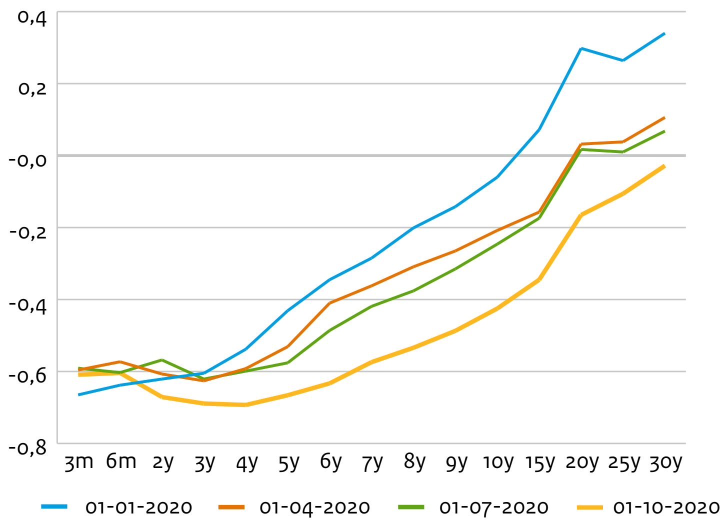
2 Funding and issuance

2.1 Looking back on funding in 2020

In the Outlook 2020 published in December 2019 the DSTA estimated its borrowing requirement for 2020 to be € 42.0 bn. It was announced that the capital market issuance would be € 21–26 bn while expecting the money market ultimo 2020 to end up at € 16-18 bn. However, as the COVID-19 pandemic unfolded, the borrowing requirement drastically changed during the year. At first the funding requirement dramatically increased, after which these estimates were gradually adjusted downwards again from the end of September onwards.

Despite the market turmoil, the interest rate environment for Dutch debt on both the capital and the money market remained in negative territory for the most part. Figure 3 shows the Dutch curve throughout the year with the yield curve being entirely negative at the beginning of the last quarter. While interest rates moved significantly during the year following market developments and monetary operations, the DSTA was, just as in 2019, able to obtain very favourable auction yields. Although 2020 presented an unexpected challenge, the DSTA remained committed to its core values: transparency, consistency and liquidity in executing its funding plan while being flexible when needed.

Figure 3 - Dutch curve at the start of every quarter in 2020 (yield in %)



Source: Bloomberg.

Capital market issuance

The DSTA started off the year in January with the reopening of the DSL 0.50% 15 January 2040 in which it raised € 1.4 bn (including non-comp). This was the first reopening of the DSTA's inaugural Green bond that was initially launched in May 2019. As the DSTA decided to launch its yearly 10-year benchmark bond in March, this created the possibility to reopen the DSL 0.50% 15 July 2026 in February for € 1.5 bn (including non-comp).

On 10 March 2020, just before the COVID-19 virus was declared a pandemic, the DSL 0.00% 15 July 2030 was launched in a Dutch Direct Auction (DDA). In this DDA an amount of € 5.99 bn was issued at a yield of -0.463%. At closing, the book had reached € 17.5 bn in bids, resulting in a bid-to-cover of 2.7. Of the total amount allocated, 69% went to real money accounts and 31% went to 'other' or so called fast money accounts.

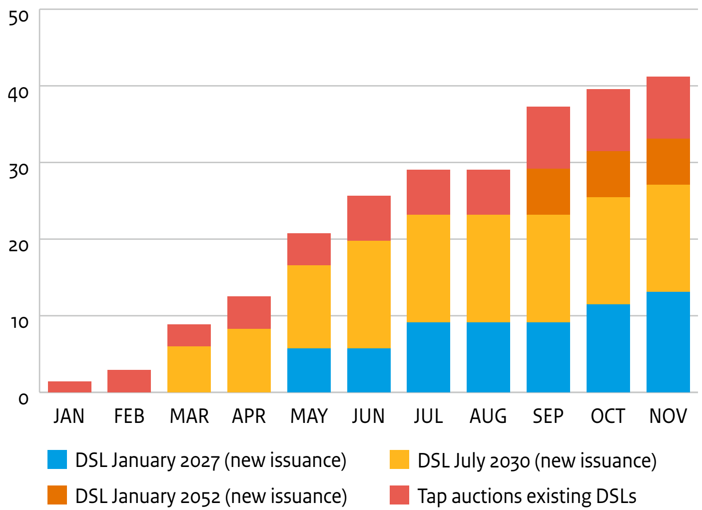
As the COVID-19 crisis emerged in the Netherlands, the Dutch government announced it would implement a massive and broad set of measures, aimed at protecting jobs and mitigating the impact on the economy. Therefore, the estimated borrowing requirement for 2020 rapidly increased. Consequently, the DSTA published its Q2 issuance calendar in which two DSL auctions were announced each month. At the end of April the DSTA published a revised funding plan, in which it estimated a borrowing requirement of € 135.8 bn. It was decided to raise the capital market issuance in 2020 to a minimum of € 35 bn.

Moreover, the DSTA introduced a new 7-benchmark bond, the DSL 0.00 % 15 January 2027, which was launched via the screens of MTS on 26 May 2020 and raised € 5.7 bn (including non-comp). Next to this, the DSL 0.00% 15 July 2030 was reopened with three tap auctions in the second quarter after the initial issuance earlier in the year bringing the total outstanding amount to € 14.0 bn. After market consultation with our Primary Dealers, the DSTA also issued € 1.4 bn (including non-comp) in the 2.75% 15 January 2047 and € 1.4 bn (including non-comp) in the 0.50 % 15 January 2040 Green bond during the second quarter of 2020.

Before the launch of the new 30-year bond in the third quarter the DSTA held two tap auctions on the short end of the curve. An amount of € 3.4 bn (including non-comp) was raised in the DSL 0.00 % 15 January 2027 and €2.25 bn in the 0.75 % 15 July 2028. On 22 September the DSTA launched the DSL 0.00% 15 January 2052 by means of a DDA. An amount of € 5.96 bn was raised at a yield 0.028%. The final book consisted of bids amounting to € 19 bn, resulting in a bid-to-cover of 3.2. Of the total amount allocated, 70% went to real money accounts and 30% went to 'other' or so called fast money accounts.

The DSTA announced in its Q4 Quarterly Outlook that the borrowing requirement for 2020 had decreased to € 110.7 bn. Initially, three tap auctions were planned for the fourth quarter, but as the funding need continued to decline it was decided to cancel the reopening of an existing DSL on 10 November. Therefore, two tap auctions remained in the DSL 0.00 % 15 January 2027. An amount of € 2.3 bn (including non-comp) was raised in the first auction while an amount of € 1.6 bn was raised in the second and final auction of the year, bringing the total outstanding amount to € 13.1 bn. In the end, the total capital market issuance in nominal terms in 2020 was € 41.2 bn and the additional cash flow from DSLs not issued at par amounted to € 2.3 bn.

Figure 4 – Cumulative capital market issuance in 2020 (€ bn)

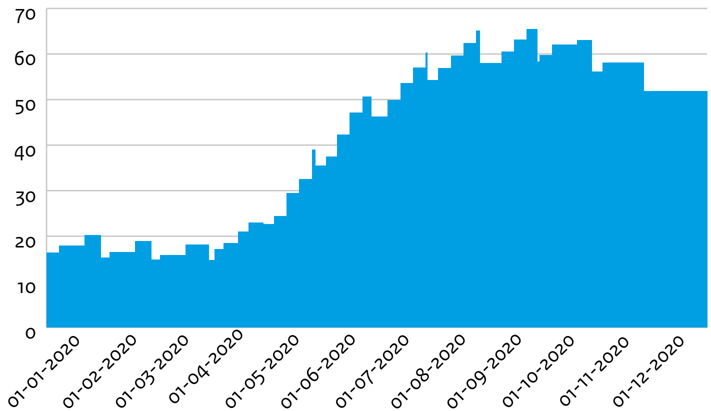


Money market

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 2020, this buffer function proved to be essential to accommodate the sudden large increase in the funding need that was estimated at the start of the COVID-19 pandemic.

Consequently, the DSTA increased its call on the money market by issuing more in its Dutch Treasury Certificate-programme and through issuance of Global Commercial Paper (GCP). Normally issued every first and third Monday of the month, the DSTA decided to hold DTC auctions every Monday from the start of the second quarter. After market consultation with Primary Dealers, 9 and 12 month DTC programmes were also introduced in addition to the 3 and 6 month programs. When the funding need eventually turned out to be lower than previously estimated as the end of 2020 approached, the DSTA scaled back its DTC-issuance while further issuance of GCP was not required. DTC-programmes were issued at negative yields throughout 2020. The weighted average yield in the auctions was -0.56%.

Figure 5 - Amounts outstanding in Dutch Treasury Certificates in 2020 (€ bn)



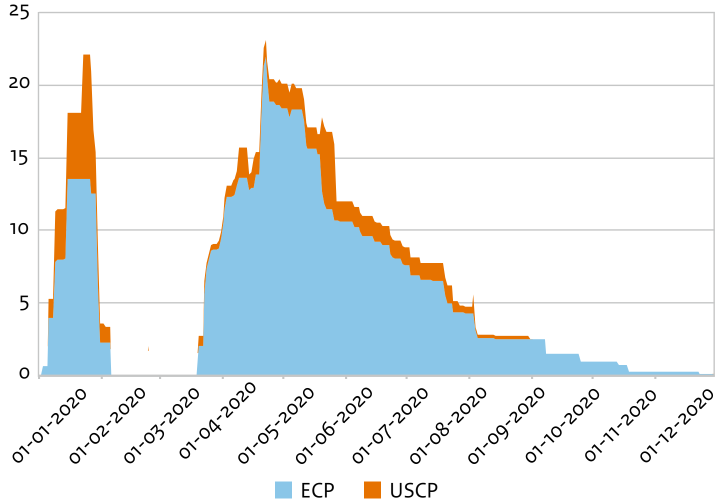
In addition to DTCs, GCP continues to be an important instrument for the DSTA. GCP adds flexibility since maturity, currency of denomination and timing of the issuance can be tailored to specifically suit both the investors and the DSTA.

GCP is issued as:

- ECP, available for non-US investors and issued in euros, US dollars, British pounds, Swiss francs and Norwegian kroner;
- USCP, available for US investors and issued in US dollars.

In 2020 (up to the end of November) the DSTA issued over € 63 bn in ECP and USCP, compared to € 108 bn in 2019, € 180 bn in 2018 and € 97 bn in 2017. Although this amount is lower than in previous years, the maturity of GCP issuances was significantly longer. The majority of this year's issuance was in US dollars (59% of the total amount). The combination of the two GCP programmes, with different kinds of investors and appetite for different maturities, has proven to be of value to the DSTA and its investors. As can be seen from Figure 6, ECP and USCP were heavily used around the time of DSL redemptions and coupon payments in January and in April to finance COVID-19 related expenditures.

Figure 6 - Amounts outstanding in Commercial Paper in 2020 (€ bn)



2.2 Funding plan 2021

Borrowing requirement

The preliminary borrowing requirement for the DSTA in 2021 is estimated to amount to € 95.6 bn. However, this estimate is surrounded by uncertainties concerning the development of the COVID-19 crisis. The DSTA will publish updates during 2021 if new information about the funding need becomes available through regular Quarterly Outlooks and press releases.

As usual at the start of the year, the borrowing requirement for the DSTA consists of three components. Firstly, it is determined by redemptions of long-term debt instruments. In 2021, only one DSL matures and needs to be refinanced for an amount of € 16.5 bn. Secondly, short-term debt instruments outstanding at the end of 2020 will roll over to the next year and also need to be refinanced. The net money market ultimo 2020 (outstanding short-term debt instruments minus cash deposits held at the central bank) is estimated to amount to € 41.1 bn. Thirdly, the expected cash deficit for 2021 as estimated in the Budget Memorandum 2021 published in September, stands at € 37.9 bn. All combined, these developments result in a preliminary borrowing requirement for 2021 of € 95.6 bn, as illustrated in Table 5. Rounding differences explain the residual 0.1 bn.

Table 5 – Estimated borrowing requirement for 2021 (€ bn)

Capital market redemptions 2021	16.5
Net money market ultimo 2020 (excluding cash collateral)	41.1
Cash deficit 2021*	37.9
Total borrowing requirement 2020	**95.6**

*A cash deficit is shown as a positive number because it increases the total borrowing requirement.

The first update of the borrowing requirement will be communicated in the beginning of January to reflect the cash realisations of 2020 which affect the net money market ultimo 2020 estimate.

Distribution between capital and money market issuances

Despite the aforementioned uncertainties about the funding need, the DSTA continues to ensure liquidity across the curve by creating a balance between the call on the capital market and the money market in 2021. The DSTA has begun to gradually shift funding from the money market to the capital market and will continue to do so in 2021 and the coming years. This will contribute to the DSTA's goal to lengthen the average maturity of the debt and swap portfolio towards eight years in the coming years.

Given the current borrowing requirement of € 95.6 bn, the DSTA foresees issuance of DSLs on the capital market for a total of € 50 bn in nominal terms. As is normal practice, fluctuations in the funding need will be absorbed by the call on the money market. More specifically: if during 2021 the funding need turns out to be lower, the DSTA will reduce the current estimated money market issuance while the call on the capital market will initially remain unchanged. Only in a scenario in which the funding need turns out significantly lower than currently estimated, the call on the capital market might be reduced. In case the funding need turns out higher than € 95.6 bn, the DSTA could increase the call on both the money- and capital market.

Capital market issuance in 2021

The aforementioned nominal call on the capital market of € 50 bn will consist of the following issuances:

1. A new 8-year bond, the DSL 15 January 2029, will be launched in 2021 through the MTS platform (also used for tap auctions). The exact auction date and target volume will be decided upon after consultation with our Primary Dealers. The DSTA's objective is to raise the total outstanding amount of this new bond to a minimum of € 12 bn within 12 months via several reopenings. For 2021, the DSTA foresees an indicative amount of € 10 bn in this bond.
2. A new 10-year benchmark bond, the DSL 15 July 2031, will be launched by means of a DDA in February or March. The DSTA is committed to bringing the outstanding volume of this bond to a minimum of € 12 bn by the end of the year, but has the option to raise it further, for instance if market appetite or the funding would allow for it.
3. The DSTA will issue a new 15-year DSL by means of a DDA to facilitate strong market demand in the 15-year segment. The exact maturity date of the bond will be decided upon in close consultation with our Primary Dealers. The DSTA is committed to issue at least € 6 bn in 2021. This will be done by means of the DDA and possibly one tap auction. Within a few years after the initial issuance, the outstanding volume will be increased to a minimum benchmark size of € 10 bn, as is regular practice for longer-dated DSLs.
4. On 26 May 2020, the DSTA launched the DSL 15 January 2027 and raised € 6.0 bn. The DSTA is committed to increase the outstanding volume of this bond to a size of € 15 bn within 12 months after the initial issuance. After several reopenings the outstanding amount in this bond currently stands at € 13.1 bn. Therefore, the DSTA will hold at least one more tap auction in the DSL 15 January 2027 in 2021 to fulfil its commitment.
5. On 21 May 2019, the DSTA issued € 5.9 bn in the DSL 15 January 2040, its first Green bond ever. The bond has been tapped twice in 2020, which raised the outstanding volume to roughly € 9 bn. The DSTA will tap the Green bond once more in 2021 to reach the committed benchmark size of at least € 10 bn. The DSTA expects to issue more than the minimum amount of € 1 bn needed, and has set the target volume for the auction at € 1.5-2.5 bn. The proceeds of this auction will be used to finance green expenditures in line with the Green Bond Framework.

6. On 22 September 2020 the DSTA launched the DSL 15 January 2052 and raised € 6.0 bn. The DSTA is committed to increase the outstanding volume of the bond to a benchmark size of approximately € 10 bn within a few years after the initial issuance. For 2021, an indicative amount of € 3 bn is foreseen to be issued in a minimum of two tap auctions.
7. In order to be able to respond to market demand and in line with the DSTA's goal to ensure and promote liquidity across the curve, the DSTA opts to leave € 15 bn of the call on the capital market undetermined. The DSTA has the option to reopen off-the-run DSLs in all maturity buckets, irrespective of the already existing outstanding volumes. Moreover, the DSTA could also decide to issue more than the indicated volumes in the 8-year, 10-year and 15-year DSLs that are to be launched in 2021 and in the DSL 2052 and 2027. The DSTA will consult its Primary Dealers on the choices regarding these issuances.

Table 6 – DSL issuance in 2021 (€ bn)

DSL issuance	Indicative amounts
New 8-year DSL	10
New 10-year DSL	12
New 15-year DSL	6
Reopening DSL Jan 2027	2
Reopening Green DSL 2040	2
Reopening DSL 2052	3
To be determined	15
Total DSL funding	**50**

Traditionally, DSL auctions can be scheduled on the second and the fourth Tuesday of the month. In the first quarter of 2021 all of the auction windows will be used. The DSTA will start with the reopening of the DSL 2052, the DSTA's on-the-run 30-year bond, on 14 January for a target volume of € 1 bn to € 2 bn. On 26 January a tap auction for an existing DSL is planned. The

exact DSL to be tapped will be decided upon consultation with our Primary Dealers and will be announced on the Wednesday prior to 26 January. The new 10-year DSL will be launched by means of a DDA in February or March. Depending on the timing of the launch of the 10-year DSL, the DSTA will use the other auction windows to reopen the on-the-run DSL 2027, to tap the 20-year Green bond and hold another tap auction for an existing DSL. More details on the timing of these auctions are expected to be communicated after determining the launch date of the new 10-year bond. Calendars for the remainder of the year will be published shortly before the start of a new quarter.

Table 7 – DSL calendar Q1 2021 (€ bn)

Auction date	Details	Target volume
12 January	Reopening 30-year bond: DSL 15 January 2052	1 – 2
26 January	Tap of an existing DSL	To be announced*
February / March	New 10-year bond: DSL 15 July 2031	4 - 6
February / March**	Reopening 20-year Green bond: DSL 15 January 2040	1.5 – 2.5
February / March**	Reopening 7-year bond: DSL 15 January 2027	1.5 – 2.5
February / March**	Tap of an existing DSL	To be announced*

* Target volume and other details will be announced at a later stage.

** Depending on the timing of the launch of the 10-year DSL.

Money market issuance in 2021

As usual, the DSTA will have regular money market issuances through its DTC programmes. The schedule for 2021 follows the same basic pattern as in previous years, where auction dates typically contain both a shorter-dated programme and a longer-dated programme. Auctions are held on the first and third Monday of the month. Similar to previous years, there will be no DTC-line maturing in December 2021 as this appears to be a less attractive programme for many market participants. Moreover, to better meet investor demand at month end, DTC-programmes do not mature on the last business day of the month, but on the second to last business day. This means for example that the June 2021 DTC programme will mature on 29 instead of 30 June.

Table 8 – DTC calendar Q1 2021 (€ bn)

Auction date	Settlement date	Shorter-dated programme	Longer-dated programme
4 January	6 January	29 April 2021	29 June 2021
18 January	20 January	29 April 2021	29 June 2021
1 February	3 February	28 May 2021	29 July 2021
15 February	17 February	28 May 2021	29 July 2021
1 March	3 March	29 June 2021	30 August 2021
15 March	17 March	29 June 2021	30 August 2021

Note: announcement of all auction details is on the Wednesday prior to the auction date (t-5).

2.3 Policy framework debt management 2020-2025

The purpose of the DSTA's policy framework on debt management is to finance debt at the lowest possible cost at an acceptable risk to the budget. The 2020-2025 framework was announced to be evaluated in its entirety in 2026 and to be internally reviewed every other year, allowing for adjustments if necessary. The first internal review will be carried out in 2021. When the 2020-2025 framework was introduced, the DSTA communicated the intention to allow for more flexibility, whilst adhering to its current principles of consistency, transparency and liquidity. These principles are in line with the international guidelines of the IMF and the World Bank for efficient debt management.

Interest rate risk indicators

The policy framework contains two interest rate risk indicators:

- The average maturity of the debt portfolio, which is defined as the average time to refixing interest rates of debt and swaps. This average will gradually be extended from 6.6 years at the start of the new policy framework towards 8 years, whilst allowing for fluctuations within a range of 6 to 8 years.
- The 12-month refixing amount, which is defined as the nominal amount of debt and swaps on which interest rates need to be refixed within the next twelve months. The annual average of this amount cannot exceed 30% of the State debt.

The average maturity of the debt portfolio deals with medium- to long-term interest rate risk, and contributes to multi-annual stability of interest rate costs. A cap on the 12-month refixing amount avoids undesirable short term interest rate risk and prevents too much concentration in a single year.

Table 9 – Targets and realisations of the DSTA's risk indicators in the 2020-2025 framework

	Target levels 2020-2025	Forecast 2020
Average maturity (end of year)	6-8 years	6.9 years
12-month refixing amount (% State debt)	at most 30%	18.8%

Source: DSTA, 9 december 2020.

Since the introduction of the 2020-2025 framework in 2019, the funding need as well as the level of debt have significantly increased. Despite the challenges, the DSTA has been operating within the interest risk limits at all times. Most of the initial increase in the funding need was absorbed by the money market which serves as the DSTA's buffer. The additional capital market increases were communicated to the market beforehand via an updated funding plan and the Quarterly Outlooks of the DSTA. Started already in 2020 and continuing in 2021, more money market funding will be rolled over to longer maturities, contributing to reaching the target levels of the DSTA's risk indicators.

In DSTA's 2020 Outlook it was already announced that an increase in the 12-month refixing amount was expected from 2019 onwards, as a result of the composition of the remaining swap portfolio. With many payer swaps expiring first, the payer swaps will gradually be outnumbered by the longer-term receiver swaps. In 2020 the initial increase in the money market due to Covid-19 also increased the 12-month refixing amount, which is not desirable from an interest risk point of view. That is why the DSTA has been unwinding receiver swaps during 2020, mainly anticipating on the large number of payer swaps that will expire in 2021. Moreover, if needed in the future, the DSTA is well positioned to enter into new swap agreements to manage interest rate risk as it has implemented Eurex as a central clearing party (CCP) in 2020.

Prepared for the future: TARGET2-T2S-Consolidation and Euro Short-term rate (€STR)

The Euro system has launched a project to consolidate TARGET2 and T2S. The Governing Council of the ECB has decided to extend the timeline of the T2-T2S consolidation project by one year, following discussions with Europe's financial community. The project is now scheduled by the ECB to go live in November 2022. The DSTA is on top of developments to ensure that all ECB deadlines are met and to ensure that it continues to have access to all payment services. Furthermore, from 2022 onwards, EONIA rates will no longer exist. Any contract or payment based on EONIA must be based on another rate by 31 December 2021. In line with market participants, the DSTA has chosen €STR as the successor rate. With some counterparties, the payments are now solely calculated on the basis of €STR and the DSTA will continue to make this transition. In addition, the DSTA will shift from executing EONIA swaps to executing €STR swaps in the first quarter of 2021.

3 Primary dealers and secondary markets

3.1 Primary Dealers and Commercial Paper Dealers in 2020 and 2021

Ever since 1999, the DSTA uses Primary Dealers (PDs) for the promotion and distribution of DSLs and DTCs in both the primary and secondary market of Dutch government debt. PDs are selected for a period of one year and have certain rights and obligations. First and foremost, PDs have the exclusive right to participate in all auctions of the DSTA, including DDAs, tap auctions and DTC tenders. In addition, access to the DSTA's repo and strip facilities for DSLs and DTCs is reserved only for PDs[4]. At the same time, PDs are obliged to provide continuous bid and offer prices for Dutch government securities and must report periodically on their secondary market activities. Residual short-term funding needs are met by means of Commercial Paper (CP), for which the DSTA uses Commercial Paper Dealers (CPDs). CPD's are divided into ECP and USCP-dealers.

Ranking 2020

PDs and CPDs are selected based on their performance in the relevant markets for Dutch state securities in previous years. In addition, the DSTA analyses the business plans and ambitions submitted by the (prospective) dealers. The DSTA ranks its PDs based on a duration weighted system for primary issuance. The weighting factors are assigned in relation to the DSL maturities. The DSTA believes that a weighted issuance ranking provides the right incentives for PDs to achieve a balanced demand for DSLs across different maturities. Furthermore, the weighted issuance method optimally reflects the performance and commitment of a PD vis-à-vis the DSTA, given that bonds with a higher duration entail more risk for a bank and face more challenging market circumstances than shorter-dated bonds. In contrast, DTC and CP rankings are based on unweighted primary market volumes in euro equivalents. Table 10 shows this year's top performers in DSL and DTC. In the ECP and USCP markets ING Bank and Rabobank respectively performed best in 2020.

Table 10 – Top Performers in the DSL and DTC market in 2020

	Top 5 PDs for DSLs in 2020	Top 5 PDs for DTCs in 2020
1	ABNAMRO Bank	ABNAMRO Bank
2	Jefferies	Nordea
3	Citigroup	Goldman Sachs
4	Barclays	Citigroup
5	Nordea	HSBC France

Dealer selection and ranking 2021

For 2021, the DSTA will make several changes to its network of PDs. While ING has decided to discontinue its primary dealership in government securities for The Netherlands as of 1 January 2021, Bank of America will join the DSTA's network of Primary Dealers in 2021. In addition, the DSTA has decided to remove the necessity for CPDs to be selected from the group of PDs. Consequently, the DSTA will add Bred Banque Populaire to its list of ECP dealers for 2021. Similarly, ING will continue working with the DSTA as an ECP dealer next year. The DSTA is proud to present the following Primary Dealers and Commercial Paper Dealers for 2021:

[4] An overview of the amount of stripped and restructured securities is available on our website.

Table 11 – List of the DSTA's dealers in 2021, in alphabetical order

Name Bank	PD	ECP	USCP
ABNAMRO Bank	X	X	
Bank of America	X		
Barclays	X	X	X
Bred Banque		X	
Citigroup	X	X	X
Goldman Sachs	X		
HSBC France	X		
ING Bank		X	
Jefferies	X		
NATIXIS	X		
NatWest Markets	X	X	
Nomura	X		
Nordea	X		
Rabobank	X	X	X
Société Générale	X		

The DSTA will continue using a duration weighted system for primary issuance to rank its PDs in 2021. Next year's weighting factors for the different maturity buckets are shown below.

Table 12 – DSL weighting factors for 2021 (per maturity bucket)

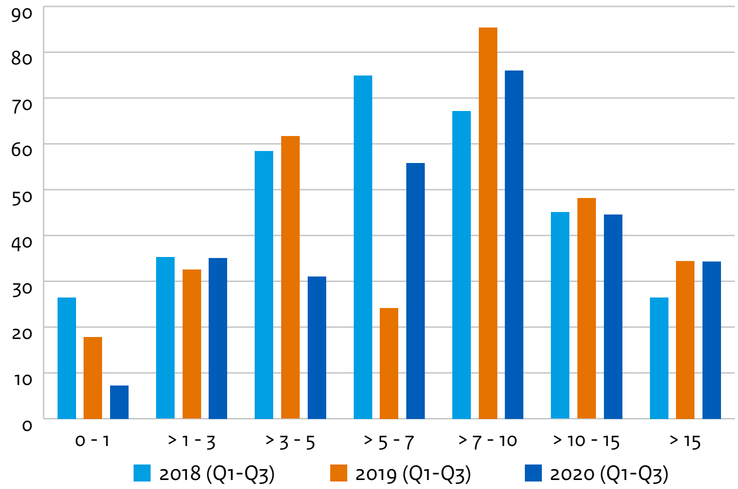
DSL maturing in ...	Weighting factor
2021 - 2023	2
2024 – 2025	4
2026 – 2028	6
2029 – 2030	8
2031 – 2033	10
2034 - 2039	15
2040 - 2046	18
2046 - 2051	20
2052 and beyond	30

3.2 Liquidity and secondary markets

Secondary market transactions

The DSTA requires PDs to provide monthly data on their secondary market activity in Dutch securities. These transaction data contain information on turnover, maturity, type of counterparty and region. Although the data over 2020 only cover trades by the DSTA's 13 Primary Dealers, the acquired data gives a general overview of trends in the secondary market. Figure 7 shows data on DSL turnover in the secondary market by residual maturity. To be able to compare the activity in the consecutive years, the turnover total for each year is based on quarters one to three. Even though the funding need increased sharply during the year, turnover in DSLs was not significantly higher than during 2019. The only exception was the 5 to 7 year maturity segment which saw the turnover more than double compared to 2019. This increase is explained by the fact that issuance in this segment was muted during 2019 but revived in 2020 with the launch of the DSL January 2027 in late May. Overall, turnover in the first three quarters of 2020 stands at € 284 bn and is down by about € 20 bn compared to last year. Turnover volumes in shorter-dated bonds have decreased again compared to last year. DSL turnover in the shortest segment halved in 2020 which was the second year of significant decline in a row. The 3 to 5 year segment also saw turnover sharply decrease. Both observed trends may reflect, in some part, the smaller issuance volume of the DSTA in those segments.

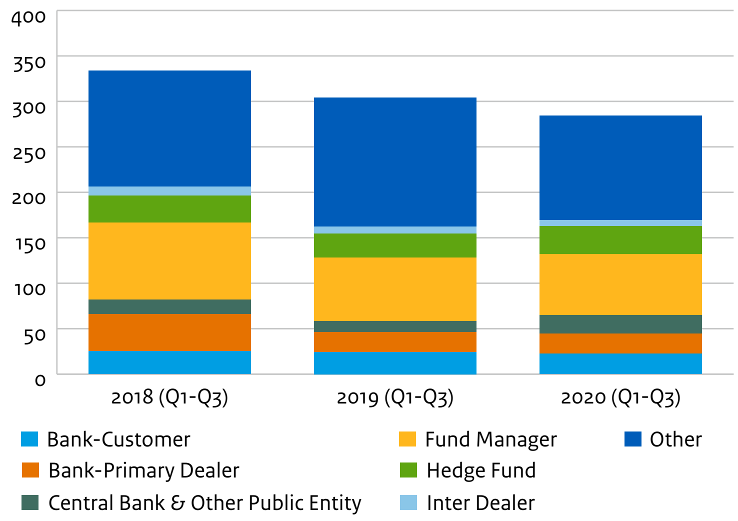
Figure 7 - DSL turnover in the secondary market by residual maturity (€ bn)



Source: DSTA Secondary Market Trade Reports

Figure 8 presents the reported DSL turnover by investor type. It shows that secondary market trading on the interdealer market, which only includes direct interdealer trades without the use of brokers, declined for the second year in a row in nominal terms. This activity now only represents 2% of the total trading activity. In contrast, 2020 saw an increase in trading activity from both hedge funds and central banks and other public entities. Especially this last investor category almost doubled in size both in nominal and in relative terms.

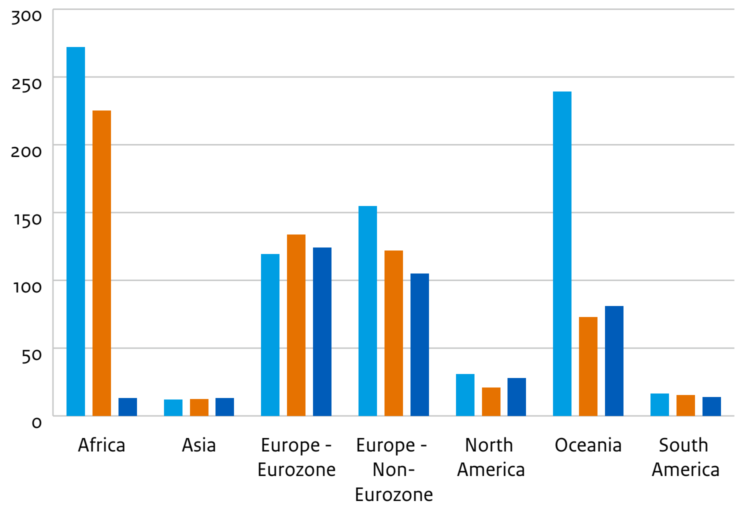
Figure 8 - Data on DSL turnover by investor type (€ bn)



Source: DSTA Secondary Market Trade Reports

A geographical breakdown of secondary market turnover volumes, including inter-dealer transactions, is shown below in Figure 9. In 2020, the Eurozone made up most of the secondary market activity, followed by the non-Eurozone European countries. The latter category mainly consists of Primary Dealers based in the United Kingdom. Even though turnover for the Eurozone fell compared to last year, the relative size has been stable over the last couple of years at around 40-45%. The ratio of non-Eurozone turnover to Eurozone turnover has decreased for the second year in a row. Although the DSTA cannot measure the exact effects of Brexit on this data, it suspects that this is the main reason that this trend is visible as some financial institutions decided to relocate from the UK to within the euro area.

Figure 9 - Geographical breakdown of secondary market turnover (€ bn)



Source: DSTA Secondary Market Trade Reports, Q1-Q3 2020

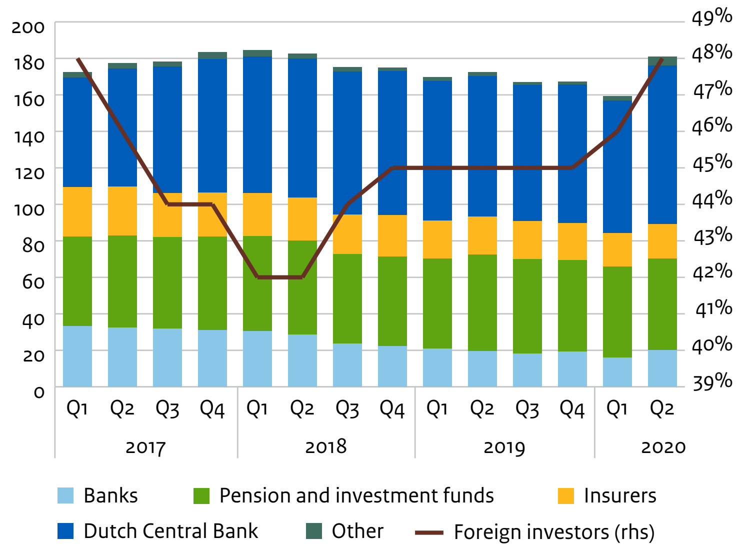
Holdings of Dutch government securities by investor type

The Dutch Central Bank (DNB) publishes quarterly data on Dutch government securities holdings. The data contains information on total investor holdings and holdings per residual maturity.

Figure 10 shows holdings of Dutch government securities split between domestic investors (stacked bars) and foreign investors (brown line). Domestic investors are further divided into various categories. Eligible securities include DSLs, DTCs and ECP. No changes have been made to the pace of the PSPP since September 2019. However, in March 2020 the PEPP was initiated and more net asset purchases became available to the ECB. Even though the ECB, in nominal terms, held more Dutch treasury bonds in the second quarter of 2020, the relative amount remained stable around 25% due to the rise in total outstanding debt. With the Corona virus still present throughout the last months of 2020, the DSTA expects that this relative level of holdings will not go down in the coming year but rather increase.

During 2020 a rise in the holdings of foreign investors is clearly visible. The level, nearing 50% of total debt outstanding at the end of the second quarter, is above the average level of 2018 and 2019. This increase is a clear signal that foreign investors have taken up most of the additional borrowing requirement, a little over 60% of the rise in total debt. The DSTA remains committed to a diverse investor base and therefore remains in close contact with its Primary Dealers and investors to best fit the funding calendars.

Figure 10 –Holdings by domestic (lhs, € bn) and foreign investors (rhs) of Dutch government securities



Source: DNB, Dutch government securities holdings data, November 2020.

Breaking down holdings of Dutch government securities by residual maturity shows that longer-dated bonds are especially popular among Dutch buy-and-hold investors, like pension funds, investment funds and insurers. These parties are generally interested in longer-dated assets to match the relatively long duration of their liabilities. In the second quarter of 2020, pension and investment funds held approximately 28% of DSLs with a residual maturity longer than 10 years, while insurers accounted for 10% in this bucket. In contrast, Dutch securities holdings at domestic banks are more concentrated in shorter-dated DSLs, especially the 2- to 5-year segment.

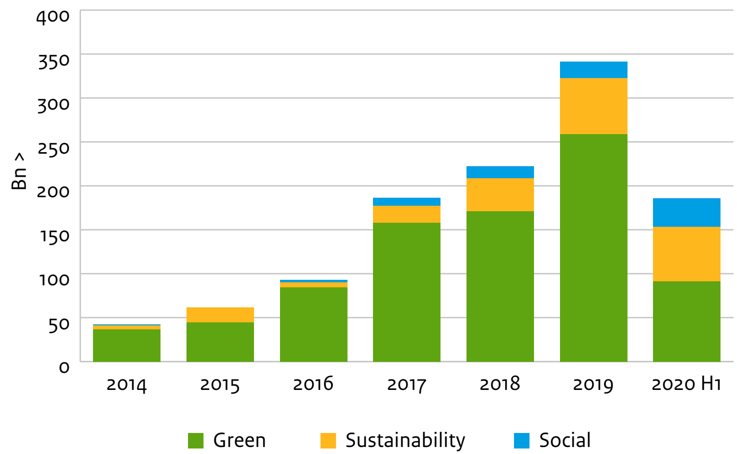
Developments in the green, sustainability and social bond market

The year 2020 will see yet another increase in sustainable issuance volumes worldwide. During the first half of the year sustainable bonds issuance rose to slightly below $ 200 bn compared to $ 341 bn for the full year of 2019 (see Figure 11). Large issuers, including the European Commission under the EU SURE program, will most likely push total issuance in 2020 much higher than total issuance in 2019 making 2020 set to be another record breaking year for global sustainable bond issuances.

The DSTA has been a part of the sustainable bond space since the launch of the inaugural Green bond back in May of 2019. It has since then reopened the Green bond multiple times with the last reopening in June 2020 and has published its first green bond report in May 2020. For the future the DSTA would like to remain active within the Green bond space and will therefore look into possibilities to further expand its Green bond issuances.

In addition to that, the DSTA will always be looking into exploring other types of issuances to be used in the near future. The importance of the role of public issuers in the above mentioned markets does not need to be underestimated and the DSTA feels obliged to at least explore its role in this process.

Figure 11 – Sustainable debt: global state of the market H1 2020



Source: Climate Bonds Initiative 22 October 2020

Statistical appendix

The information presented below reflects the situation at the end of November 2020. Please see our website for the latest statistics.

1 Changes in long-term debt in 2020

In thousands of euros

Positions as at 31-12-2019		289.518.521
New issues in 2020		
Public bonds	41,212,186	
Private placements	0	
Redemptions in 2020		
Regular redemptions		
Public bonds	29,444,799	
Private placements	60,611	
Early redemptions		
Public bonds	357,687	
Private placements	0	
Positions as at 30-11-2019		**300.867.610**

2 Interest rate swaps

Position as of 30-11-2020, in millions of euros

Bucket (year of maturity)	Nominal position as at 30-11-2019 amount	Pay or receive[5] (net)
2020	2,459	Pay
2021	33,304	Pay
2022	8,621	Pay
2023	14,666	Receive
2024	9,964	Receive
2026	63	Receive
2027	1,100	Receive
2028	1,830	Receive
2033	1,888	Receive
2035	1,548	Receive
2036	400	Receive
2037	1,260	Receive
2042	1,180	Receive
2055	33	Receive
Net total	**10,452**	**Pay**

[5] Receiver swaps are swap contracts in which the Dutch State receives a fixed interest rate and pays a floating interest rate. Payer swaps are swap contracts in which the Dutch State pays a fixed interest rate and receives a floating interest rate.

3 Key figures on individual bonds in 2020

In thousands of euros

	Total	Issues	Redemptions	Total	ISIN code
	31-12-2019			30-11-2020	
0.25 pct DSL 2014 due 15 January 2020	15,052,184		15,052,184	0	NL0010881827
3.50 pct DSL 2010 due 15 July 2020	14,749,615		14,749,615	0	NL0009348242
3.25 pct DSL 2011 due 15 July 2021	16,493,985			16,493,985	NL0009712470
0.00 pct DSL 2016 due 15 January 2022	15,380,112			15,380,112	NL0011896857
2.25 pct DSL 2012 due 15 July 2022	15,252,147			15,252,147	NL0010060257
3.75 pct DSL 2006 due 15 January 2023	4,263,000			4,263,000	NL0000102275
7.50 pct DSL 1993 due 15 January 2023	8,241,489			8,241,489	NL0000102077
Principal 15 January 2023	1,565,000			1,565,000	NL0000103000
1.75 pct DSL 2013 due 15 July 2023	17,607,963			17,607,963	NL0010418810
0.00 pct DSL 2017 due 15 January 2024	15,378,277			15,378,277	NL0012650469
2.00 pct DSL 2014 due 15 July 2024	15,315,132			15,315,132	NL0010733424
0.25 pct DSL 2015 due 15 July 2025	15,220,159			15,220,159	NL0011220108
0.50 pct DSL 2016 due 15 July 2026	15,113,051	1,501,000		16,614,051	NL0011819040
0.00 pct DSL 2020 due 15 January 2027	0	13,084,000		13,084,000	NL0015031501
0.75 pct DSL 2017 due 15 July 2027	15,380,926			15,380,926	NL0012171458
5.50 pct DSL 1998 due 15 January 2028	13,028,814			13,028,814	NL0000102317
0.75 pct DSL 2018 due 15 July 2028	12,376,941	2,250,000		14,626,941	NL0012818504
0.25 pct DSL 2019 due 15 July 2029	12,215,587			12,215,587	NL0013332430
0.00 pct DSL 2020 due 15 July 2030	0	14,038,462		14,038,462	NL0014555419
2.50 pct DSL 2012 due 15 January 2033	13,555,900			13,555,900	NL0010071189
4.00 pct DSL 2005 due 15 January 2037	15,723,427			15,723,427	NL0000102234
0.50 pct DSL 2019 due 15 January 2040	5,985,004	3,008,000		8,993,004	NL0013552060
3.75 pct DSL 2010 due 15 January 2042	16,063,910			16,063,910	NL0009446418
2.75 pct DSL 2014 due 15 January 2047	15,170,187	1,370,000		16,540,187	NL0010721999
0.00 pct DSL 2020 due 15 January 2052	0	5,960,724		5,960,724	NL0015614579
2 1/2 pct Grootboek	9,330		682	8,649	NL0000006286
3 pct Grootboek	2,692		5	2,687	NL0000004802

	Total	Issues	Redemptions	Total	ISIN code
	31-12-2019			**30-11-2020**	
3 1/2 pct Grootboek	100			100	NL0000002707
	289,144,932	**41,212,186**	**29,802,486**	**300,554,632**	

4 Short-term debt and Eonia swaps in 2020

In millions of euros

Key figures of T-bills	Total	Issues	Expirations	Total	ISIN code
	31-12-2019			**30-11-2020**	
DTC 2020-01-31	4,880		4,880		NL0013688955
DTC 2020-02-28	4,000		4,000		NL0013908767
DTC 2020-03-31	2,190	1,200	3,390		NL0013995335
DTC 2020-04-30	2,850	1,210	4,060		NL0014040347
DTC 2020-05-29	2,470	1,030	3,500		NL0014120164
DTC 2020-06-29		4,390	4,390		NL0014157844
DTC 2020-07-30		6,050	6,050		NL0014270324
DTC 2020-08-28		7,120	7,120		NL0014433203
DTC 2020-09-29		7,060	7,060		NL0014787046
DTC 2020-10-29		7,010	7,010		NL0014913295
DTC 2020-11-27		6,230	6,230		NL0015041583
DTC 2021-01-28		10,070		10,070	NL0014832073
DTC 2021-02-25		7,560		7,560	NL0014926388
DTC 2021-03-30		6,080		6,080	NL0015063736
DTC 2021-04-29		7,860		7,860	NL0014858250
DTC 2021-05-28		6,420		6,420	NL0015031527
DTC 2021-06-29		5,840		5,840	NL0015285826
DTC 2021-07-29		4,280		4,280	NL0015476839
DTC 2021-08-30		3,810		3,810	NL0015524117
	16,390	**93,220**	**57,690**	**51,920**	

Commercial Paper	Total	Issues	Expirations	Total
	31-12-2019			**30-11-2020**
CP EUR	0	24,257	24,257	0
CP USD	672	36,899	37,434	138
CP GBP	0	739	739	0
CP CHF	0	0	0	0
CP NOK	0	851	851	0
	672	**62,746**	**63,280**	**138**

Other short-term debt	Total	Issues	Expirations	Total
	31-12-2019			**30-11-2020**
Deposit borrow	150	113,295	111,945	1,500
Deposit lend	-375	-136,901	-136,386	-890
Deposit borrow USD	805	3,498	4,303	0
Eurex repo	-155	-167,855	-167,960	-50
Buy Sell Back	0	-10	-10	0
Sell Buy Back	0	12,116	12,116	0

Eonia swaps (position as of 30 November 2020)		
Bucket (year of maturity)	**Net nominal amount**	**Pay or receive (net)**
2020	140	Receive
2021	51,920	Receive

Photo captions

1

The National Growth Fund will invest in research, development and innovation. This photo shows the University library in Delft. (p. 32)

2

The National Growth Fund will invest in infrastructure. This photo pictures an overpass over a highway. (p. 5)

3

The first mobile car navigation device was developed in het Netherlands by the company TomTom. (p. 35)

4

In 2020 windmills on the North Sea provided the Netherlands with clean energy for 2 million. (p. 14 & 19)

5

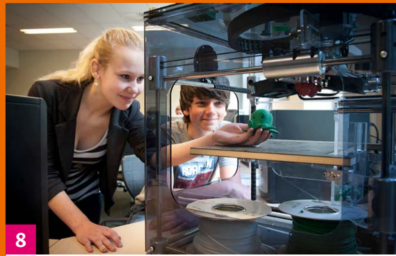
The Stella Era is a solar powered racing car built by students from TU Eindhoven. It won the cruiser class World Solar Challenge 2019. (p. 37)

6

In 1595 the world's first microscope was invented by Sacharias and Hans Jansen in the Netherlands. It magnified up to nine times. In the 17th century, Antonie van Leeuwenhoek developed a microscope that magnified up to 275 times. (p. 27)

7

The Belgian-Dutch biotech corporation Galapagos is specialized in the discovery and development of innovative medicines. In 2020 their first medicine, for the treatment of adults with rheumatoid arthritis, was approved to be sold on the European and Japanese market. (p. 10)



8

The national growth fund will invest in knowledge development. This photo shows students printing an object in a 3D-printer. (p. 25)

9

The Netherlands has more than 17.000 km of water retaining dykes. Knowledge about state-of-the-art dykebuilding is exported to other countries. The photo shows a dyke in the village Andijk. (p. 29)

10

The first revolving door was invented in the Netherlands in 1888 by the company Boon Edam, which is still the global market leader in revolving doors, tourniquets and entrance gates. The photo shows a revolving door at Amsterdam Airport Schiphol. (p. 21)

11

Companies in the Netherlands are highly experienced in building dredgers due to the fact that 55% of the country is under sea level. Because of rising sea levels the global dredging sector is growing. (p. 16)

12

The Maeslantkering is the largest moving flood defence in the world. The flood defence system closes to protect the land when the sea rises due to a storm. (p. 7)

13

The IEEE 802.11 network-protocol was invented in the Netherlands in 1991, this protocol is the basis of wireless communication between computers and therewith a core component of wifi. (p. 8)

14

TU Delft and the KLM designed a new energy-efficient airplane where the passengers are placed in the wings: the Flying-V. In the summer of 2020 the scaled flight model completed a successful maiden flight. The photo was taken during the presentation of the design in 2020. (p. 12)

15

On the High Tech Campus in Eindhoven more than 12,000 researchers, developers and entrepreneurs are working at over 220 companies and institutes, among which Philips, NXP and ASML. The photo shows a lunch-delivery robot on the campus. (p. 3)

16

ASML is one of the world's leading manufacturers of chip-making equipment. The photo portrays two employees working on a chip-making-machine in Velthoven. (p. 23)

18

A demonstration of the capabilities of the Interceptor, a plastic-gathering device built by the Dutch company The Ocean Cleanup. The aim of the company is to catch floating plastic garbage from rivers before it reaches the sea. (p. 41)

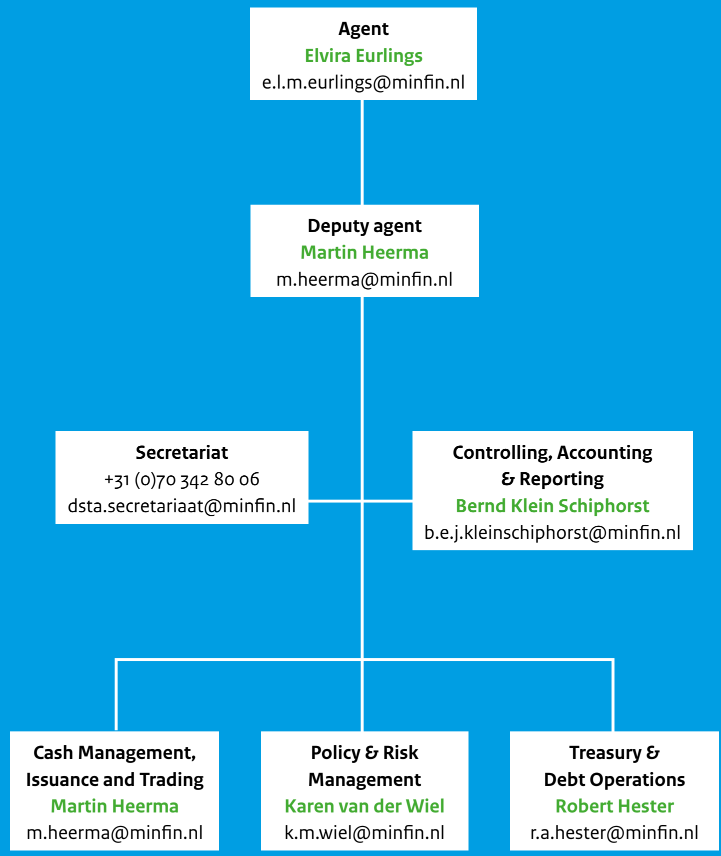
17

A researcher in AlgaePARC in Wageningen. Microalgae have great potential as a photosynthetic catalyst to (re)capture inorganic carbon and convert it into the organic molecules that are the feedstock of all carbon based food and fuel available today. (p. 1)

Highlights of the DSTA Outlook 2021

- Estimated funding need of € 95.6 bn in 2021.
- Estimated capital market funding in 2020: € 50 bn [in nominal terms]:
  - Launch of a new 8-year bond, the DSL 15 January 2029, via MTS platform. For 2021, the DSTA foresees an indicative amount of € 10 bn in this bond;
  - Launch of a new 10-year benchmark DSL (15 July 2031) in February or March, via DDA; issuance volume of at least € 12 bn in 2021, with the option to raise it further depending on market appetite or funding need;
  - Launch of a new 15-year DSL, via DDA; minimum issuance volume of approximately € 6 bn in 2021;
  - At least one more tap auction in the DSL 15 January 2027 in 2021; target volume of € 1.5 – € 2.5 bn;
  - One tap auction in 2021 of the Green DSL 15 January 2040; target volume of € 1.5 - € 2.5 bn;
  - A minimum of two tap auctions in 2021 of the DSL 15 January 2052, for a total indicative amount of € 3 bn;
  - DSL issuances of € 15 bn ‘to be determined’.
- DSL auction windows on the second and fourth Tuesday of the month.
- Fluctuations in funding need will be primarily absorbed via the money market. Only if the funding need turns out significantly lower, the call on the capital market could be reduced. A higher funding need will increase capital market calls, and perhaps also money market calls.
- Regular DTC auctions on every first and third Monday of the month.
- Regular updates of borrowing requirements, funding plan and Dutch economy and budget through Quarterly Outlooks and press releases.

Contacts



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The cut-off date for data in the Outlook 2021 is 30 November 2020, unless otherwise specified.

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