



Autumn Market 2023 update

28 September 2023

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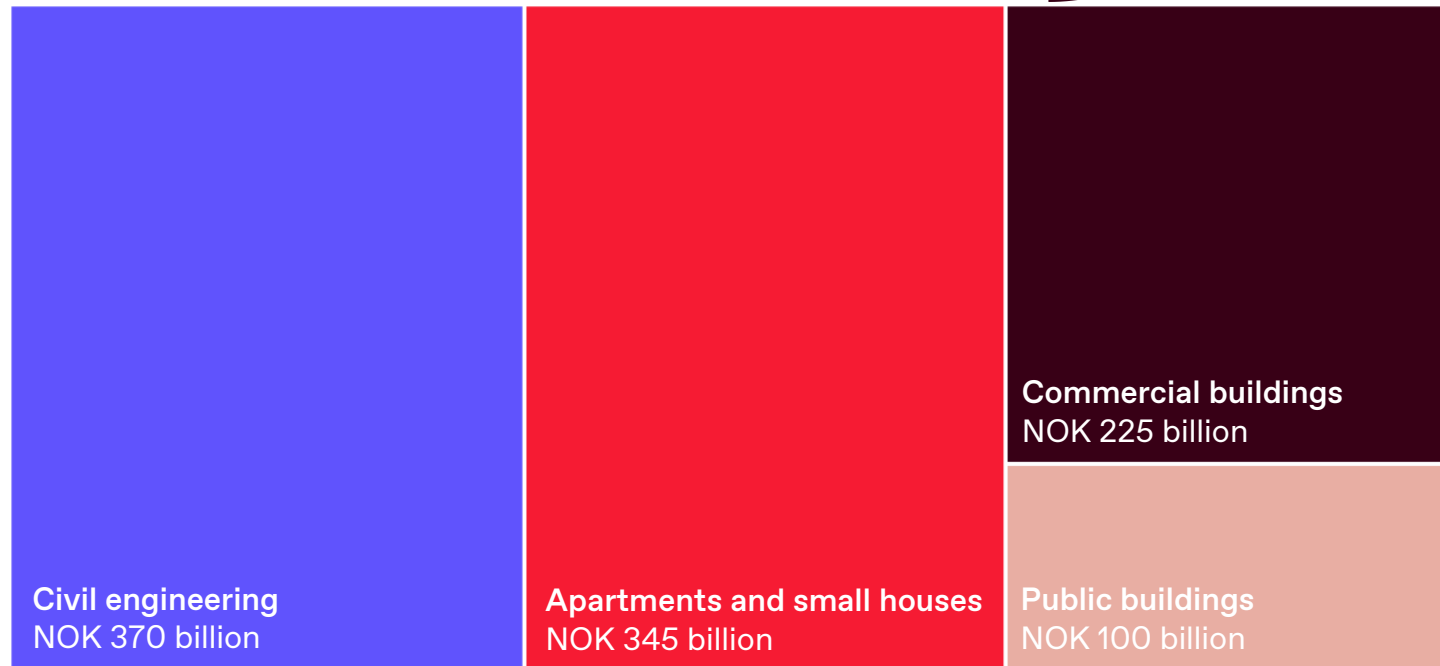
About Veidekke's market report

- Veidekke prepares figures for the Scandinavian markets based on statistics published by Statistics Norway (SSB), Statistics Sweden (SCB) and Statistics Denmark (DST). Other information sources include major construction clients like the Swedish Transport Administration and the Norwegian Public Roads Administration, as well as central and local government budgets.
- Macroeconomic forecasts stem from reputable forecasting institutions like the National Institute of Economic Research (Sweden), Statistics Norway and central banks.
- Veidekke calculates best-estimate forecasts of production levels using a forecasting model that incorporates national interest rate levels and municipal-level data on registered building starts, population growth and unemployment. Sources used for infrastructure forecasting include publicly available information on upcoming major public transport projects.
- Veidekke's contractor activity assessments and construction cost indices are forecasts based on current knowledge. Forecasts may be revised in the event of unforeseen changes in geopolitical circumstances, financial markets or commodity prices.

Our focus: the Scandinavian construction markets

The construction markets in 2022

Production of buildings* and infrastructure in NOK billion



Not included:

- Detached houses and holiday homes
- Primary industry
- Residential refurbishment, work performed "off-the-books" and household DIY

*Total Scandinavian market 2022:
~ NOK 1 040 billion*



* Residential units: All new-builds, rebuilds and additions, excluding detached houses and holiday homes.
Residential units and commercial buildings: Including an estimate of the transparent ROT market for project sizes >NOK 20 million.
The civil engineering market: Only includes new-builds.

Construction markets

Forecasts 2023–2025

Comment

- A 6% drop in 2023 will reverse last year’s strong growth of 15%. In Norway, growth is also expected to be weak this year, while the Swedish and Danish markets are experiencing a downturn.
- The 7% market downturn in 2024 will be relatively evenly distributed between the three countries and will taper off in the course of 2025. The economic downturn is expected to bottom out in all three countries during 2025.
- The visibility of the production forecasts is strongest for 2023 and 2024, and reflects observed construction starts up to and including Q2 2023. If the development of the global economy diverges from expectations, for example, if interest rates develop more favourably than anticipated, this will result in more construction starts and higher production in 2025 than forecast in this report.

Production in the Scandinavian construction markets

Percentage change since previous year, current prices

	2022	2023	2024	2025
Norway	12%	3% (3%)	-5% (-4%)	-3%
Sweden	22%	-6% (-3%)	-8% (-10%)	-1%
Denmark	9%	-12% (-6%)	-5% (-3%)	3%
Scandinavia	15%	-6% (-2%)	-7% (-6%)	-1%
<i>Scandinavia, fixed prices</i>	5%	-9% (-6%)	-9% (-8%)	-3%

Spring 2023 forecasts in brackets

Agenda

- 01 Introduction
- 02 Economic environment
- 03 The construction markets
- 04 Construction costs
- 05 Summary

01

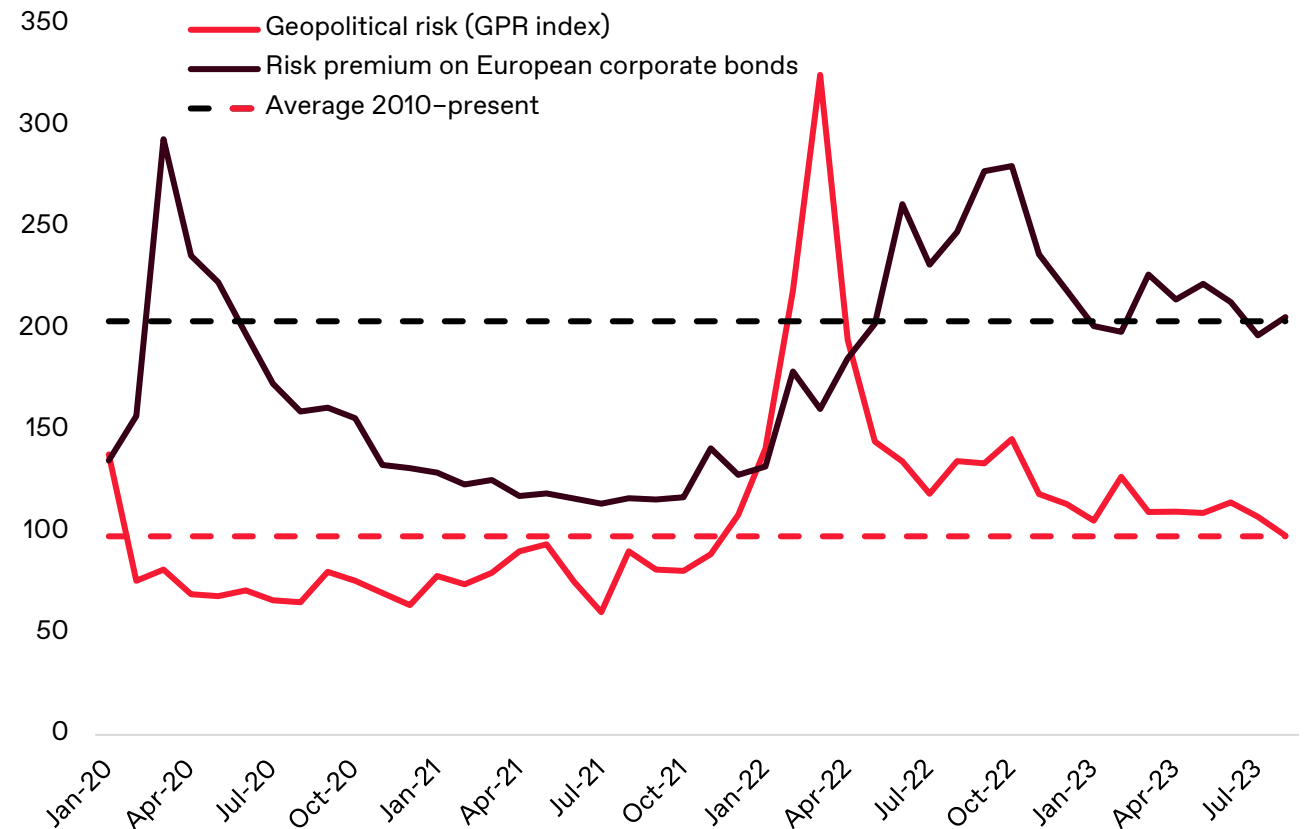
Introduction

Geopolitical turbulence lessens

Geopolitical turbulence and risk premiums on European corporate bonds

Comment

- Geopolitical risk indicators, which quantify the risk of international conflict, have returned to normal levels despite ongoing intense fighting in Ukraine.
- The risk premium on corporate debt in Europe, which reflects uncertainty in the European financial sector, has also stabilised at a historically high average following extensive turbulence last autumn and disruption in the banking sector this spring.
- Indicators primarily provide a snapshot, meaning that new, unforeseen situations may increase the risk of both geopolitical conflicts and financial-market uncertainty.



02

Economic environment

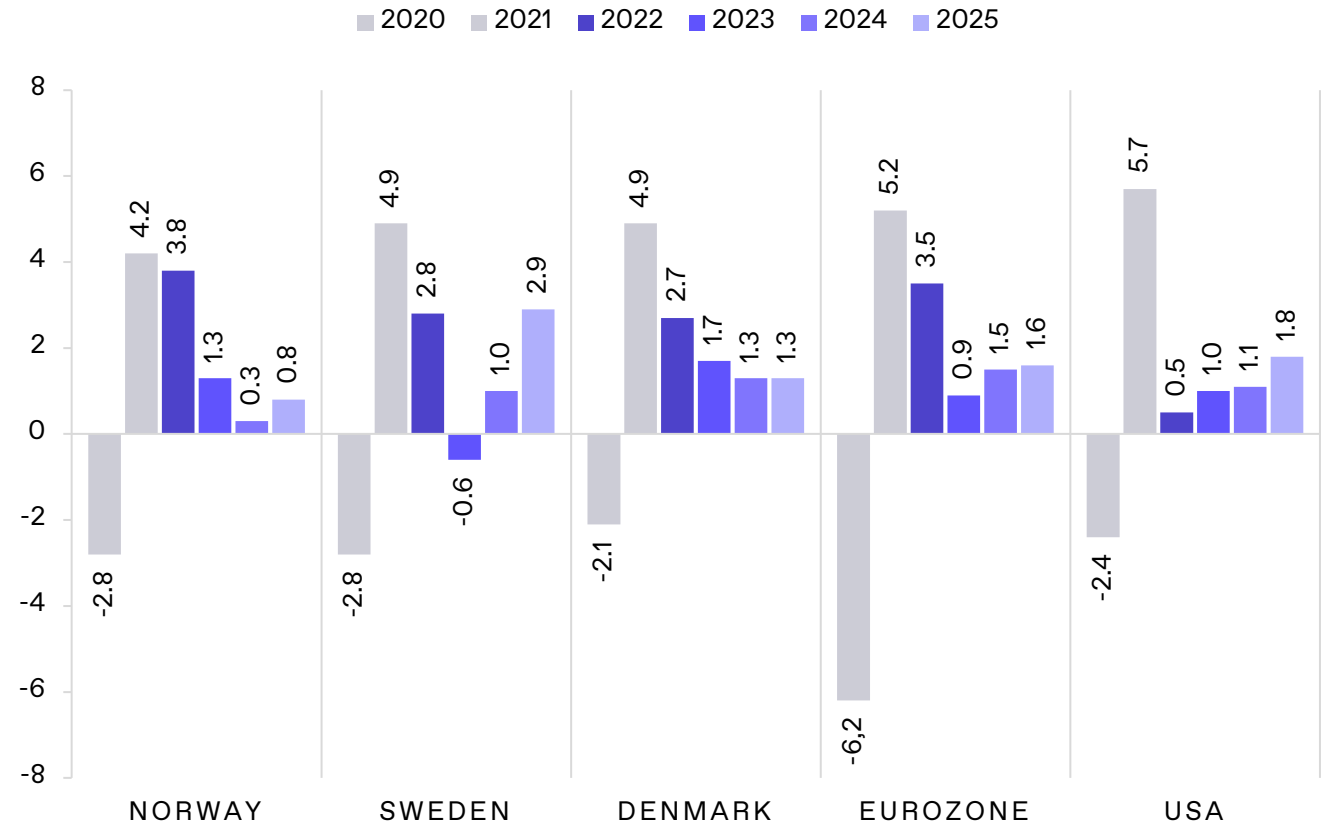
- Growth and the labour market
- Inflation and interest rates
- Demographic factors

Less severe economic fluctuations, as planned

Economic growth in Scandinavia and selected countries

Comment

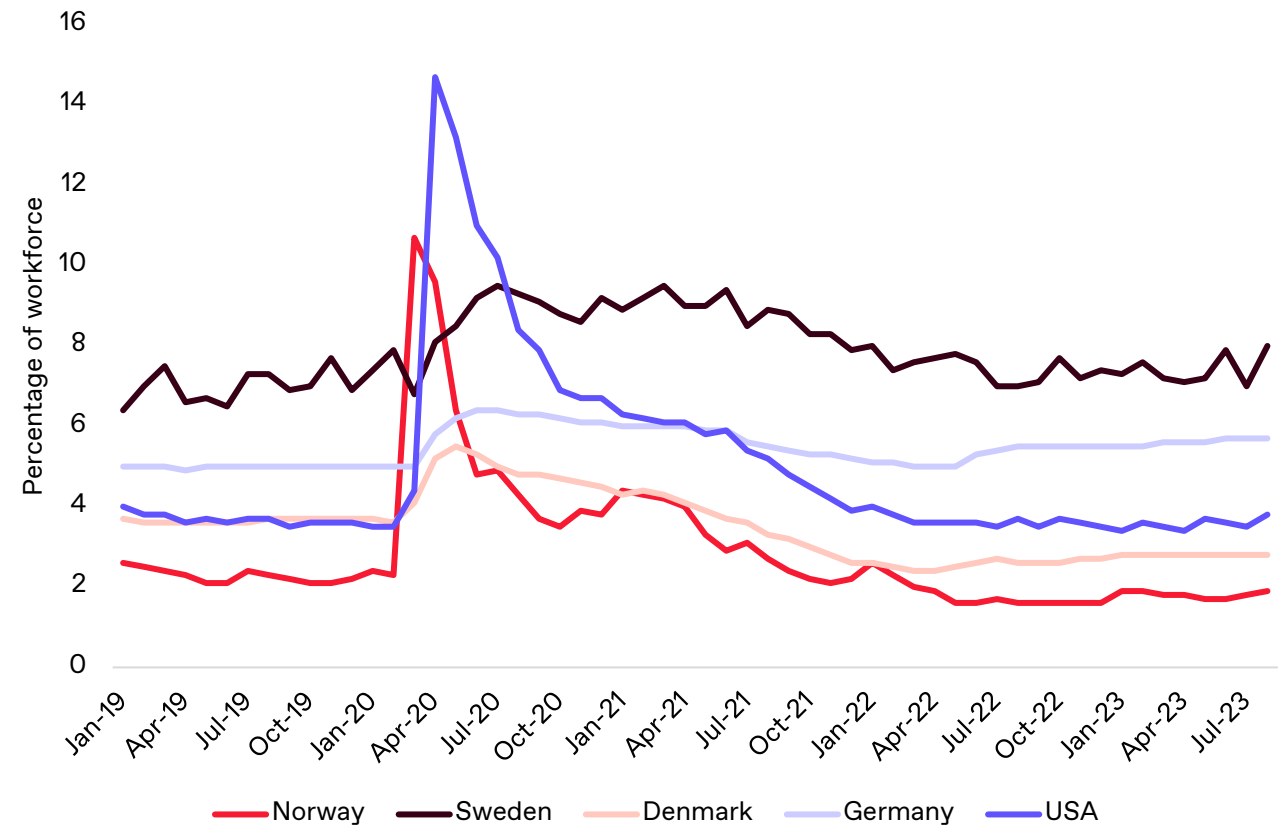
- Global economic growth is expected to remain moderate, with a resulting negative impact on Scandinavian export markets.
- Leading GDP forecasts indicate an economic downturn in the Scandinavian countries in 2024 and 2025, resulting in increased unemployment.
- The Norwegian economy is benefiting from high oil and gas prices, as well as public spending through the central government budget.



Labour markets remain strong

Still few indications of material increases in unemployment

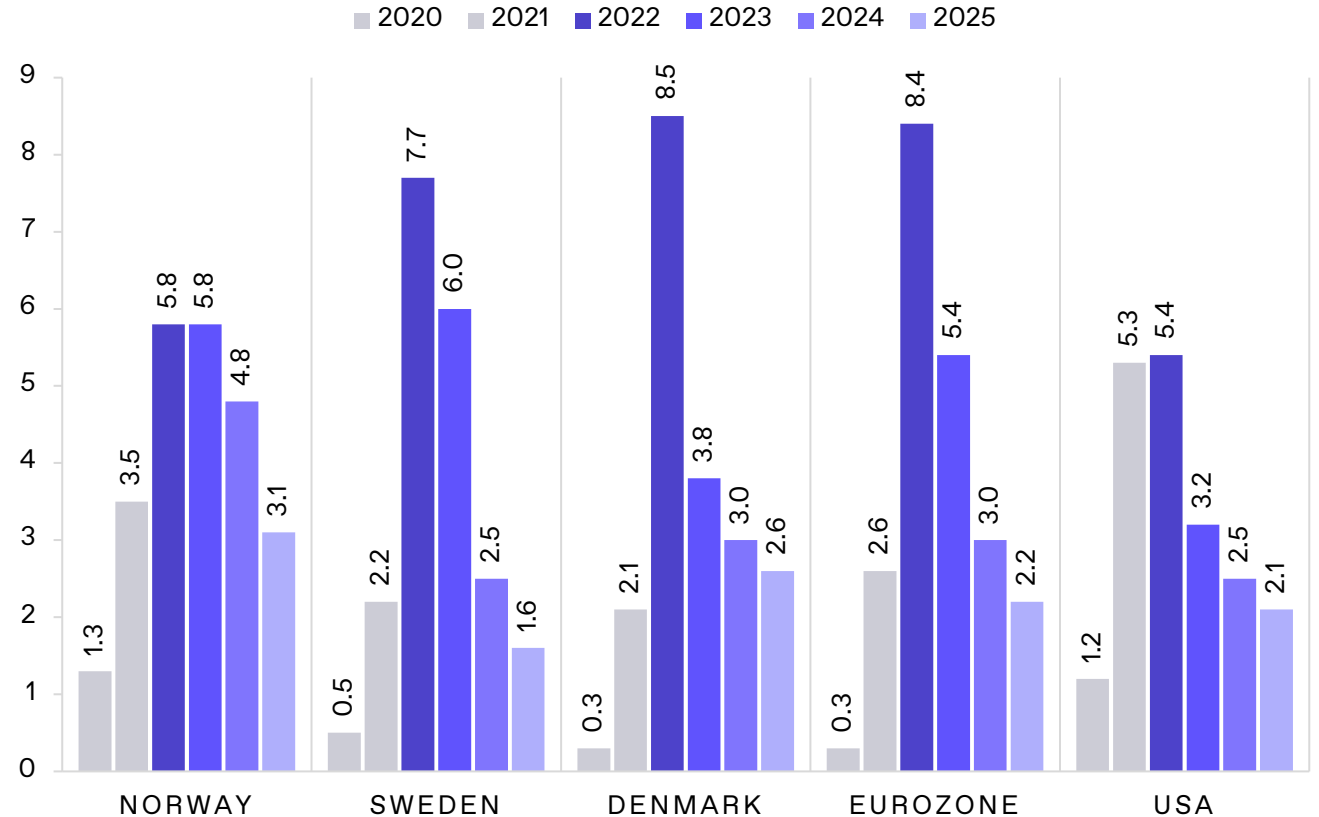
- Low unemployment equates to a lower risk of material demand disruption in private segments such as residential units and commercial buildings.
- To date, higher interest rates and weaker economic developments have not impacted unemployment, although forecasts and trends indicate rising unemployment going forward.
- The continuing robustness of the labour market reduces the likelihood of interest rate cuts during the forecast period.



Inflation and CPI are falling, but it is taking time

Forecasts indicate a downward trend

- Inflation has remained high in 2023 but is expected to fall during the year and to reach central-bank target levels in most countries in 2024.
- In Norway, inflation is expected to remain at 4% throughout next year before falling to 2.6% in 2025.
- In Scandinavia, the prospect of relatively high wage inflation in this year's pay settlements may exert continued inflationary pressure.

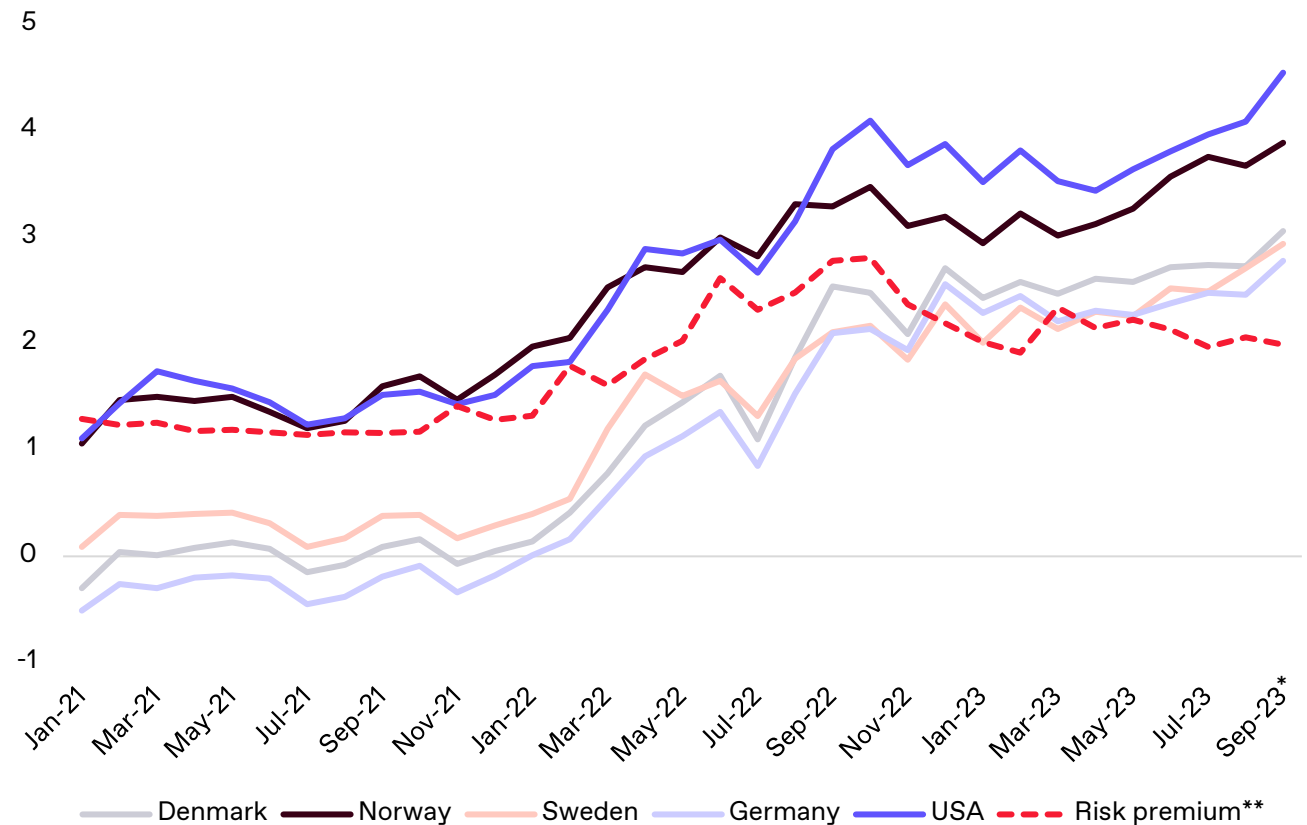


Rising market interest rates?

Market interest rates have risen again, but risk premiums are stable

- Market interest rates have risen in recent quarters. In Norway and Sweden, long interest rates have increased by approximately 0.5 to 1 percentage points since the previous market update in March.
- Due to the current weakness of the Norwegian and Swedish currencies, the development of US and European interest rates is clearly influencing interest-rate setting in Norway and Sweden.
- Although policy rates appear to be peaking, long market rates indicate that finance costs will remain high for households, businesses and the municipal sector for the next few years.
- While not considered likely, interest rates could drop more quickly than expected if international growth and inflation develop differently than indicated in current forecasts.

10-year government bond rate

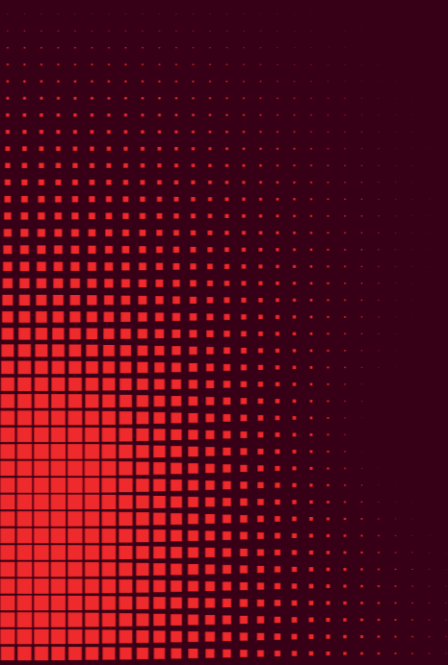


* Data for September 2023 is from 25 September.

** Difference between European corporate bonds (BBB) and German government bonds (five-year).

03

The construction markets

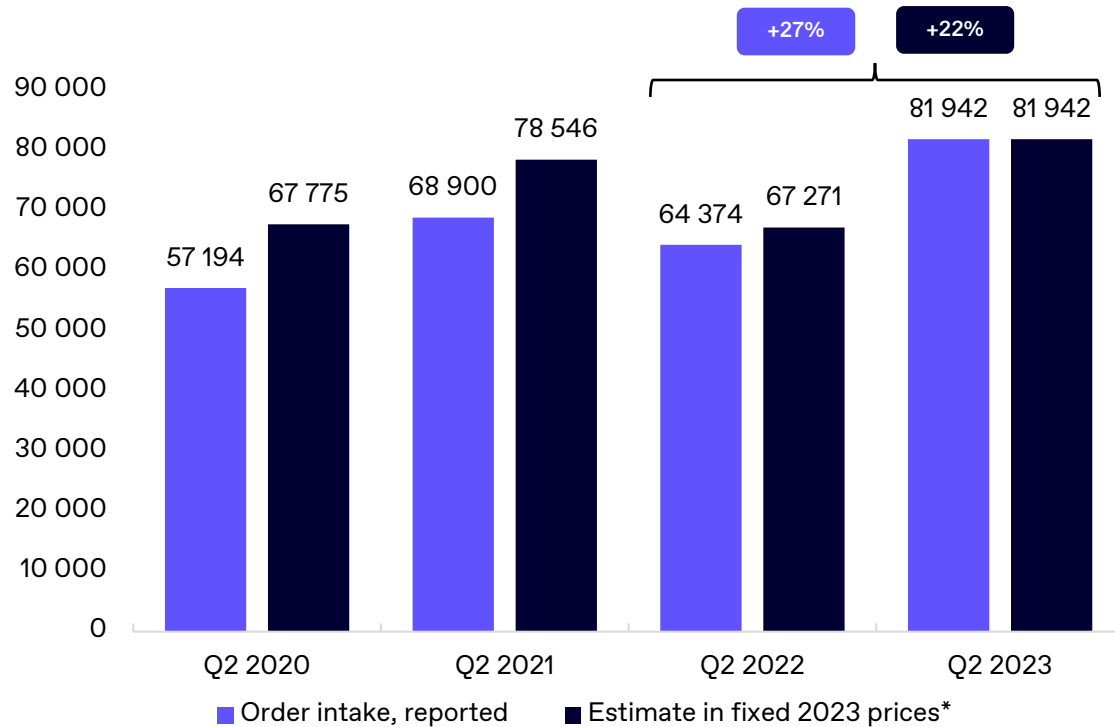


Estimated order intake, construction operation

Stable order intake among major listed companies

Order intake, Nordic construction operations

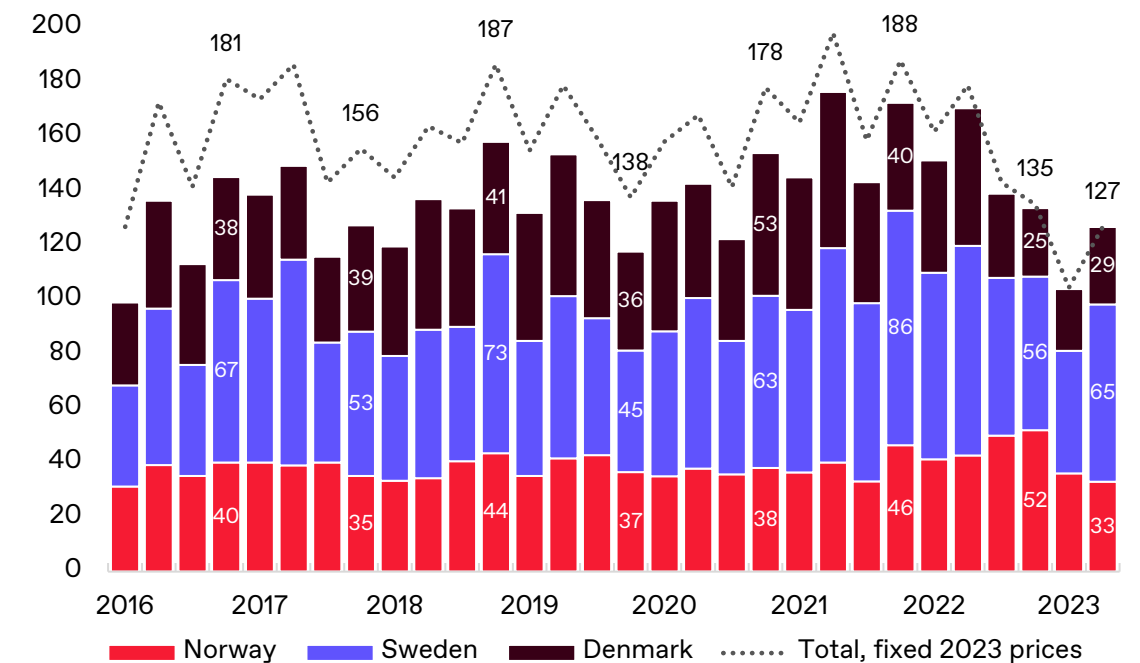
Reporting companies, inflation-adjusted estimates in NOK billion



* Adjusted using construction cost indices for residential blocks from Statistics Norway and Statistics Sweden

Estimated order intake, Scandinavian construction projects

Inflation-adjusted and in NOK billion. Based on registered building permits



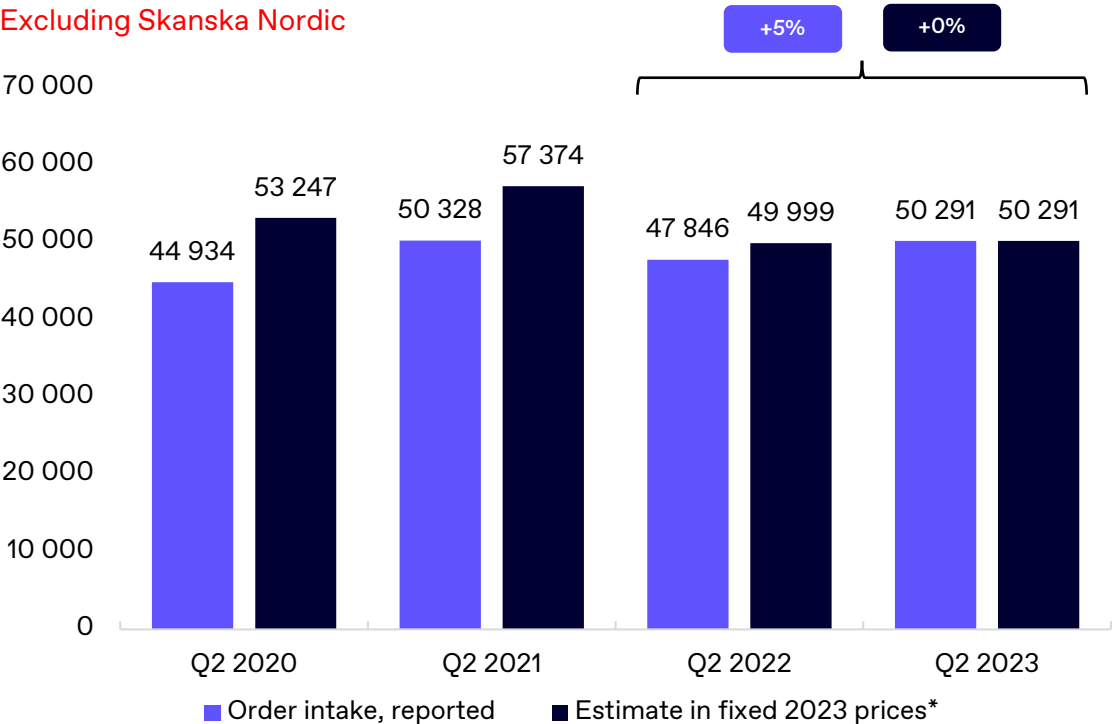
Estimated order intake, construction operation

Stable order intake among major listed companies

Order intake, Nordic construction operations

Reporting companies, inflation-adjusted estimates in NOK billion

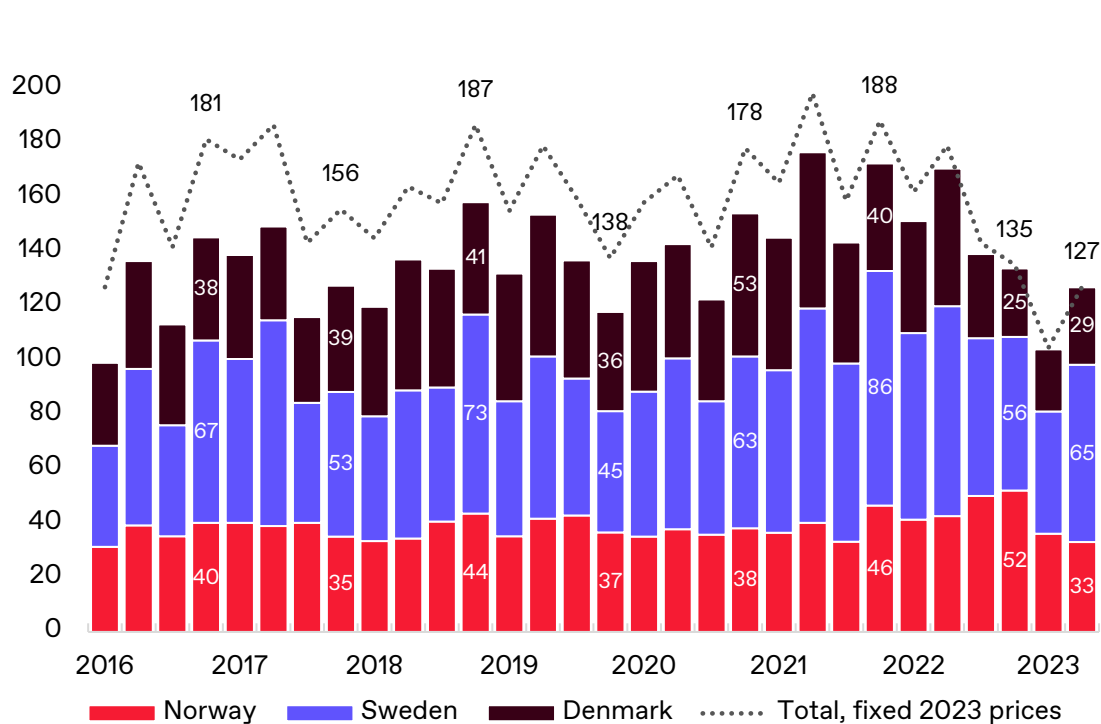
Excluding Skanska Nordic



* Adjusted using construction cost indices for residential blocks from Statistics Norway and Statistics Sweden

Estimated order intake, Scandinavian construction projects

Inflation-adjusted and in NOK billion. Based on registered building permits

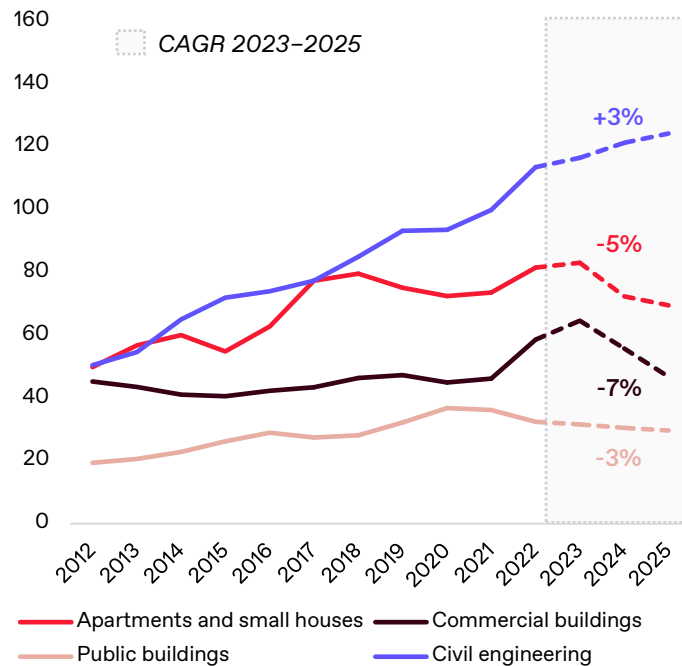


The Scandinavian construction markets

Historical figures and forecasts, current prices

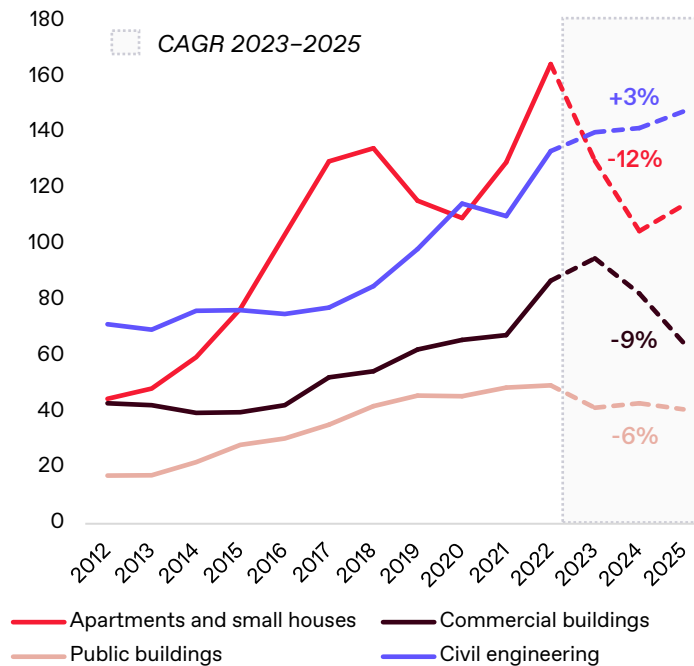
Norway, production by sector

NOK billion, current prices



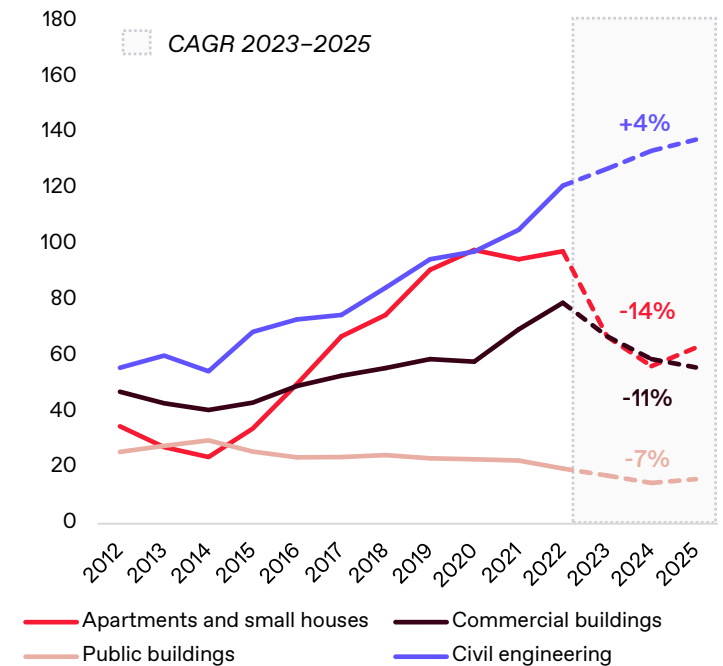
Sweden, production by sector

NOK billion, current prices



Denmark, production by sector

NOK billion, current prices

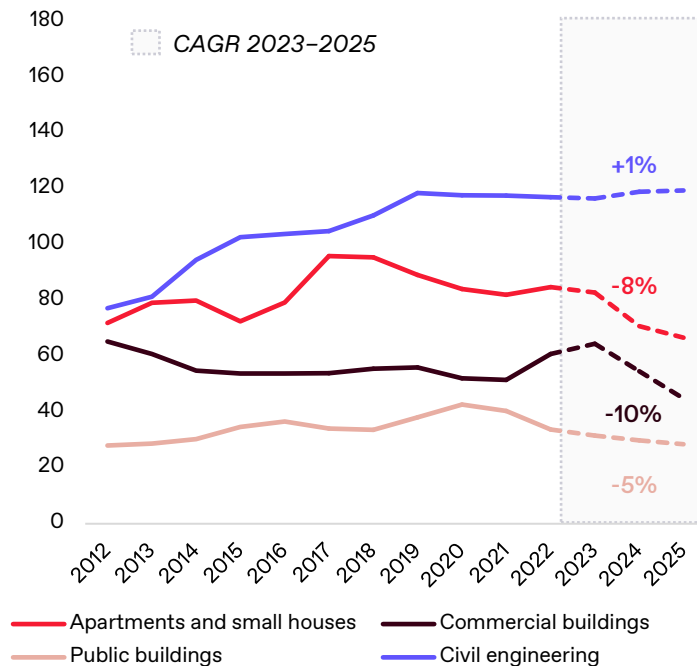


The Scandinavian construction markets

Historical figures and forecasts, fixed prices

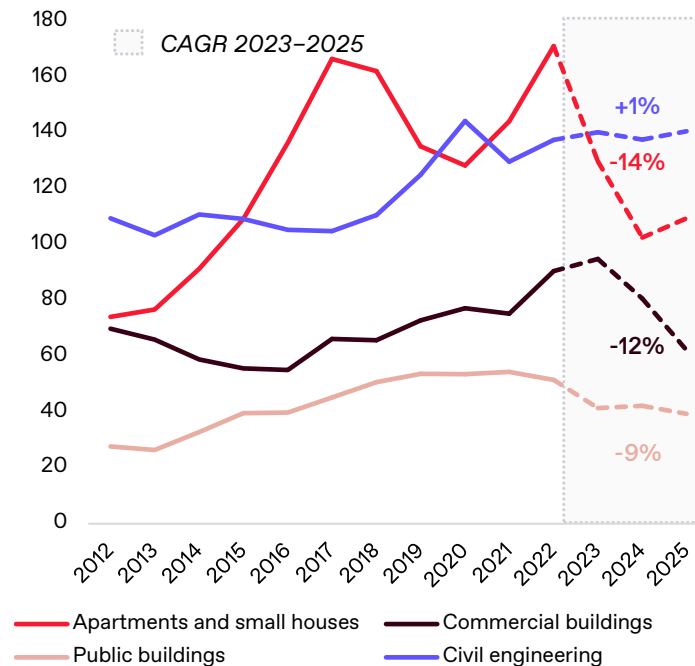
Norway, production by sector

NOK billion, fixed prices



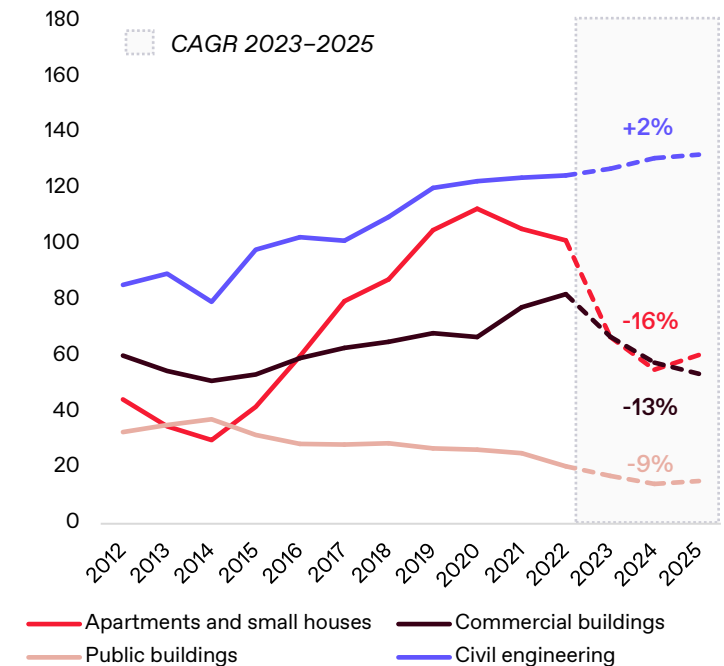
Sweden, production by sector

NOK billion, fixed prices



Denmark, production by sector

NOK billion, fixed prices



Construction

Recent stabilisation in the secondhand residential market

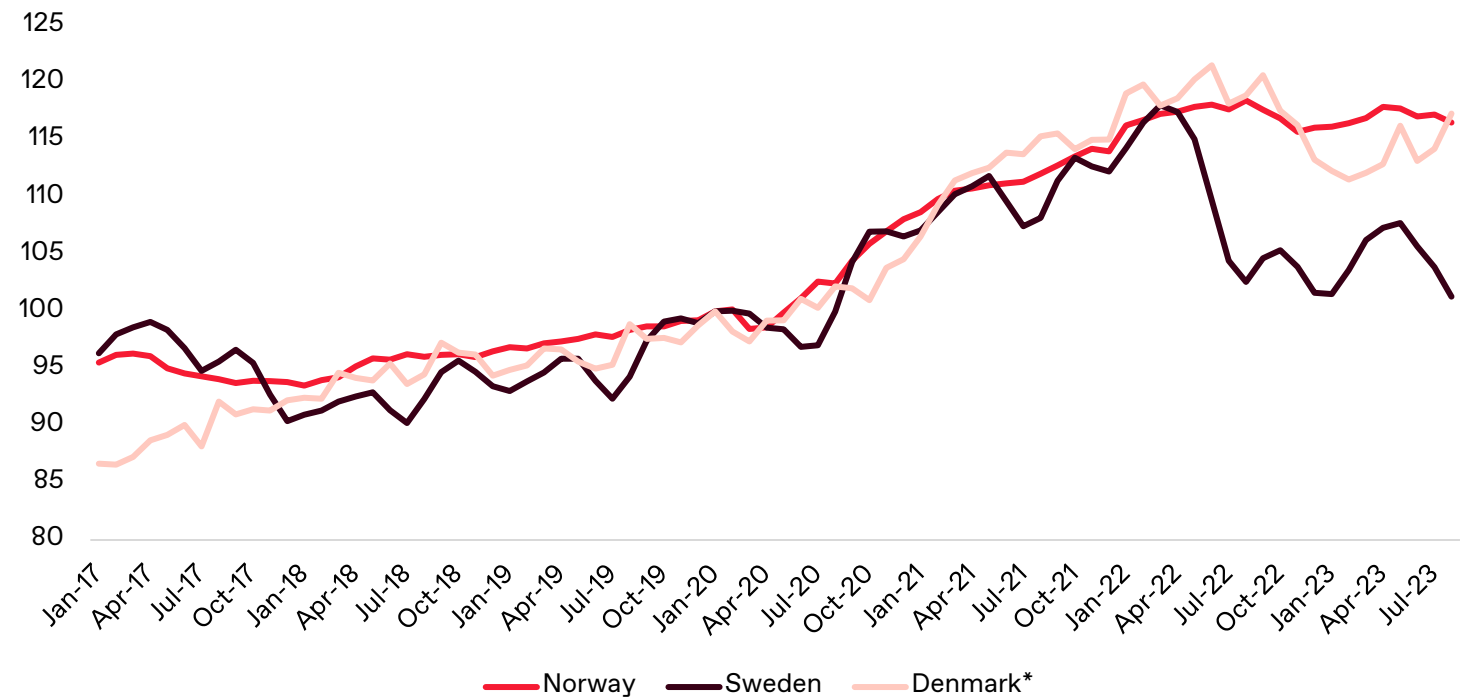
Residential prices, index

Comment

- Residential prices in Norway have remained relatively flat following last year's slight drop.
- In Sweden, this spring's increase has been reversed in recent months, with prices returning to year-end 2022 levels.
- In Denmark, residential prices appear to have stabilised, although the supporting data are less certain and more indicative* than in the other countries.
- Prices are expected to fall somewhat in the autumn, and higher interest rates may reduce demand more than indicated by ordinary seasonal fluctuations.
- In view of the strong economic bases and powerful demographic drivers of the three Scandinavian countries, residential prices are not expected to vary significantly unless unforeseen circumstances arise.

Prices, secondhand residential units in Scandinavia, apartments

Index: January 2020 = 100



* The statistics show the most recent price of apartments taken off the market due to being sold or withdrawn from sale.

Apartments and small houses, Norway and Sweden

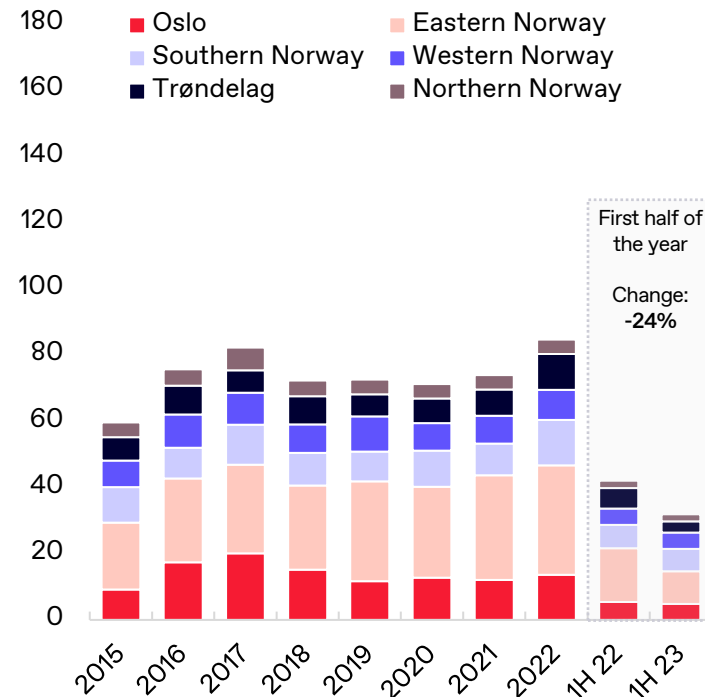
Estimated value of order intake up to and including Q2 2023

Comment

- In Norway, the number of building starts involving apartments and small houses was satisfactory, especially during the second half of 2022, resulting in high production in 2023. The number of building starts dropped by 24% in Norway in the first half of 2023.
- In Sweden, a clear correction was already apparent in both the secondhand and new residential unit markets in the spring of 2022. Thus far in 2023, there has been a marked drop compared to the same period last year.
- Some improvement is expected in these markets compared to the very low figures seen in the first half of 2023. In the absence of a new stimulus in the form of lower interest rates, however, building starts will remain at historically low levels going forward.

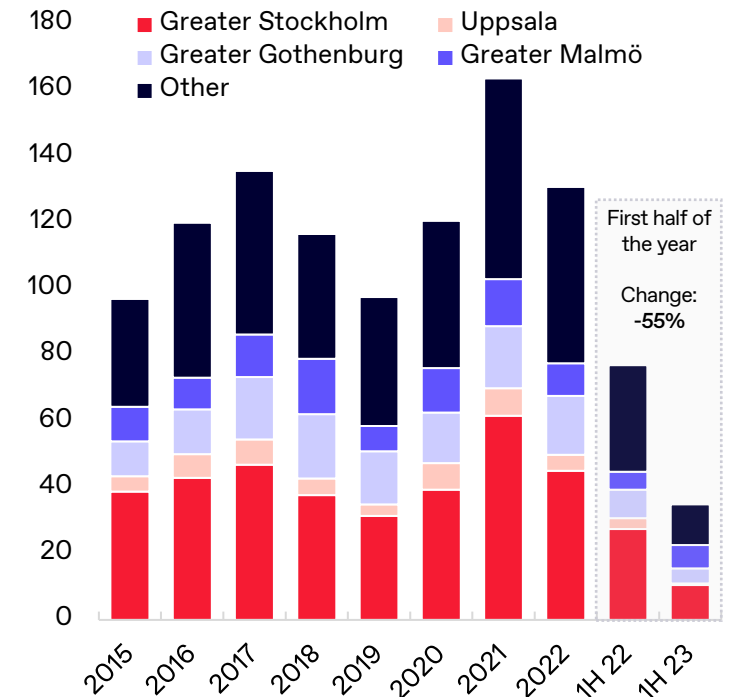
Norway, estimated order intake

NOK billion



Sweden, estimated order intake

NOK billion



New residential unit sales in Norway

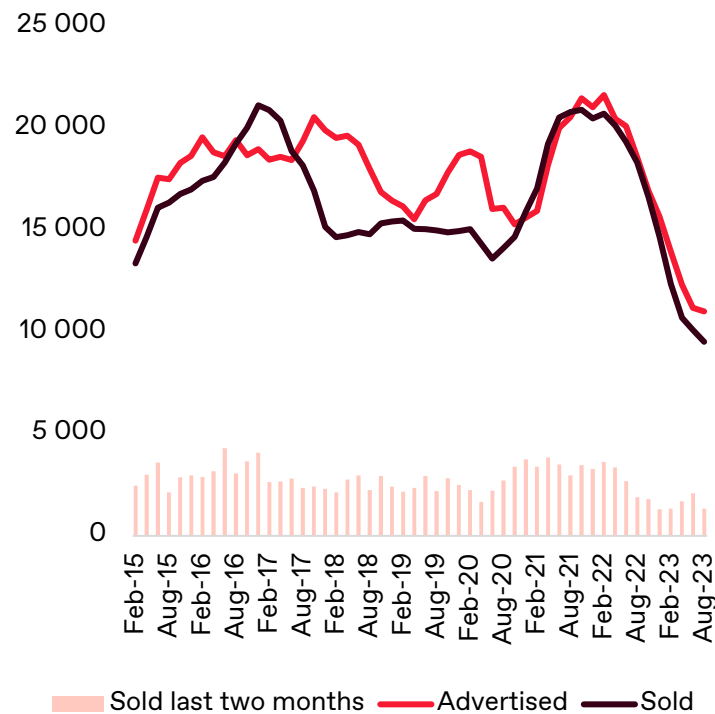
Positive trend this spring following a powerful drop last autumn

Comment

- New apartment sales fell strongly in the second half of 2022, but have since recovered somewhat, including in Q2 2023. While the first report after the summer indicated a further fall, this represents a normal seasonal fluctuation.
- The fall in the 12-month rolling sales total as shown in the figure is primarily attributable to last autumn's drop. The fall is thought to have bottomed out.
- If current positive forecasts for the Norwegian economy prove correct, sales are expected to rise to around 12,000–15,000 in the next few years.
- New residential unit sales have matched the volume of advertised units for sale. Overall, therefore, no stocks of unsold units have accumulated.

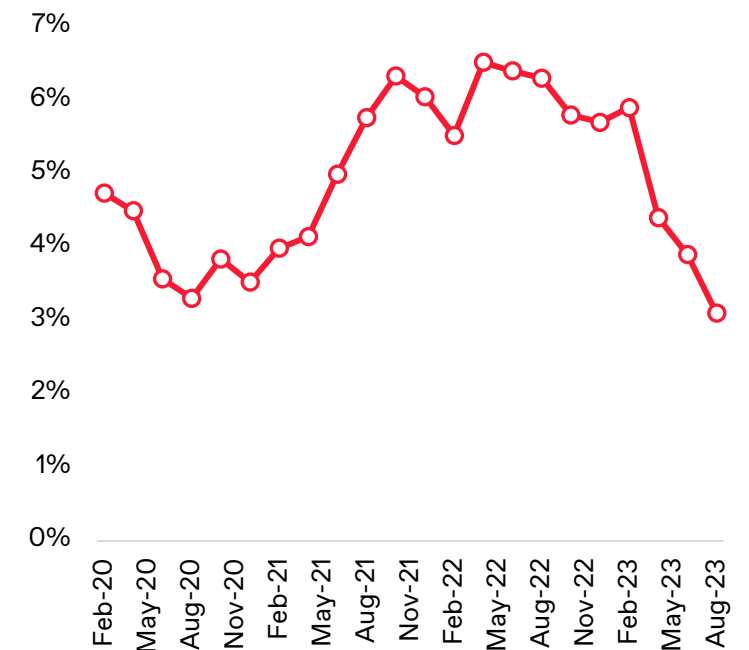
Ready-for-sale and sold apartments

Number of units, 12-month rolling total and last two months



New residential unit prices (apartments)

Year-on-year percentage change in price per m²



Commercial buildings in Norway and Sweden

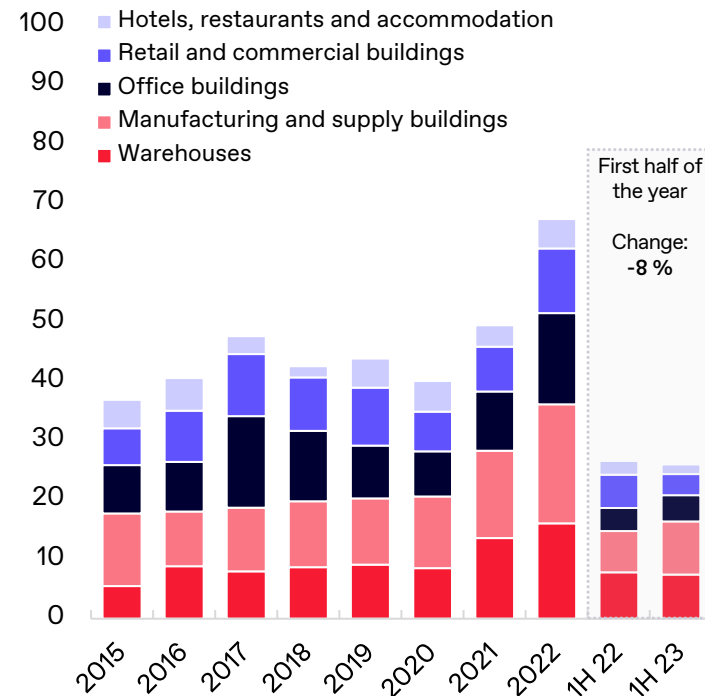
Logistics and industrial operations are driving the sector

Comment

- The commercial buildings segment has performed surprisingly well in recent years. Moreover, Sweden again recorded a high level of building starts in the first half of the year.
- In Norway, the number of building starts in the first half-year was on a par with the same period last year, but the strong second half of 2022 is not expected to be repeated.
- Higher interest rate levels and the prospect of weaker economic development both nationally and internationally are expected to result in a decline in the sector compared to the peak seen in 2022.

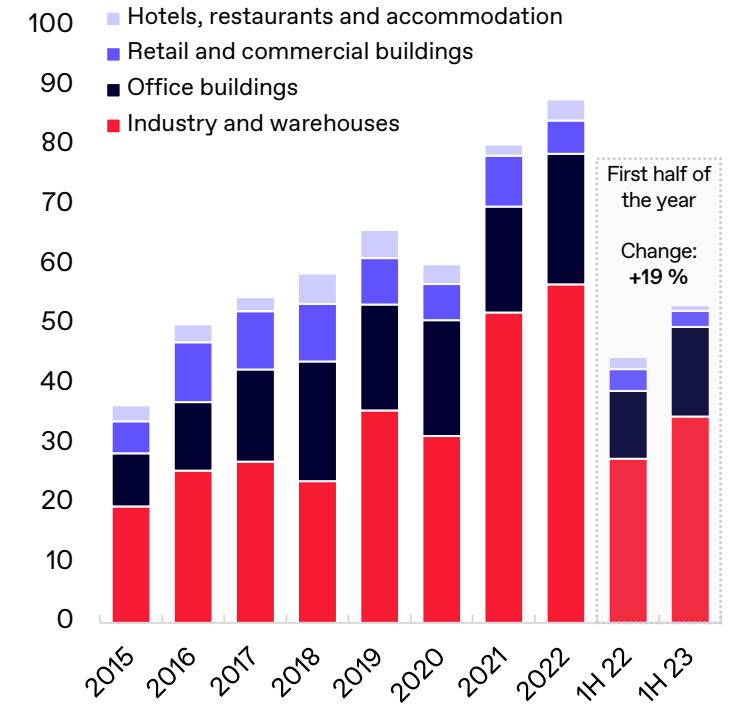
Norway, estimated order intake

NOK billion



Sweden, estimated order intake

NOK billion



Public buildings in Norway and Sweden

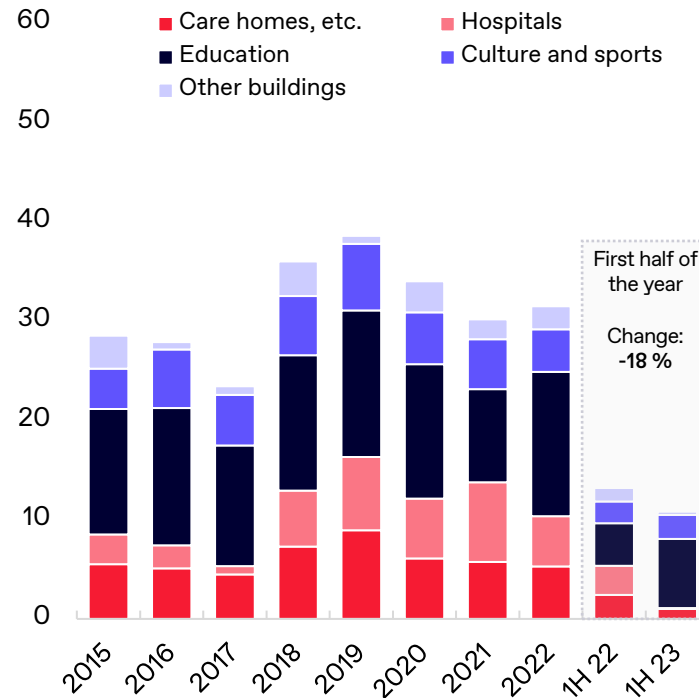
Weak during Covid-19 pandemic in Norway, more activity in Sweden

Comment

- In value terms, building starts in the public buildings segment remained relatively stable in 2022. With an inflation adjustment, however, there was a decline in both countries.
- In Norway, the drop was due to a reduced number of new hospital projects, although there was a substantial increase in the educational sector in particular.
- In Sweden, volumes remained stable throughout the first half of the year, despite significantly lower construction activity in the hospitals sector.

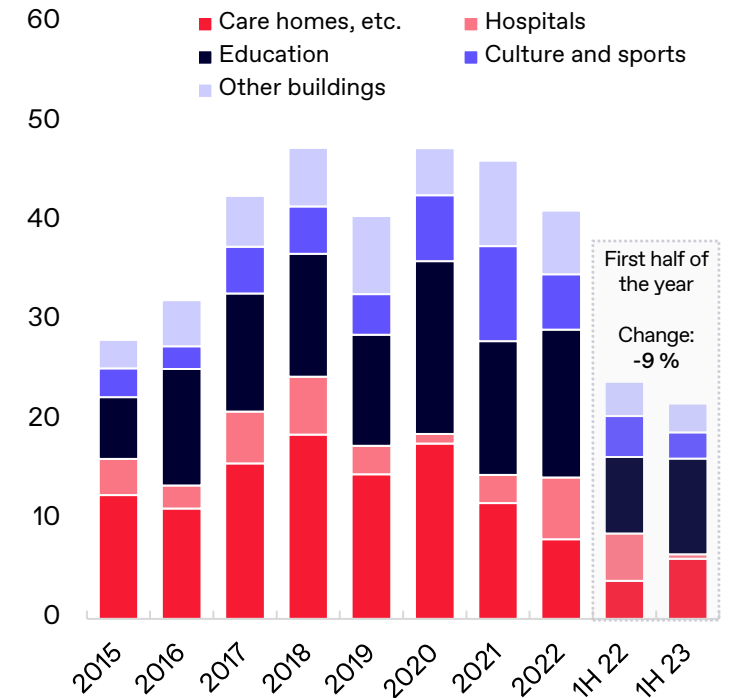
Norway, estimated order intake

NOK billion



Sweden, estimated order intake

NOK billion



Infrastructure

The civil engineering market in Norway and Sweden

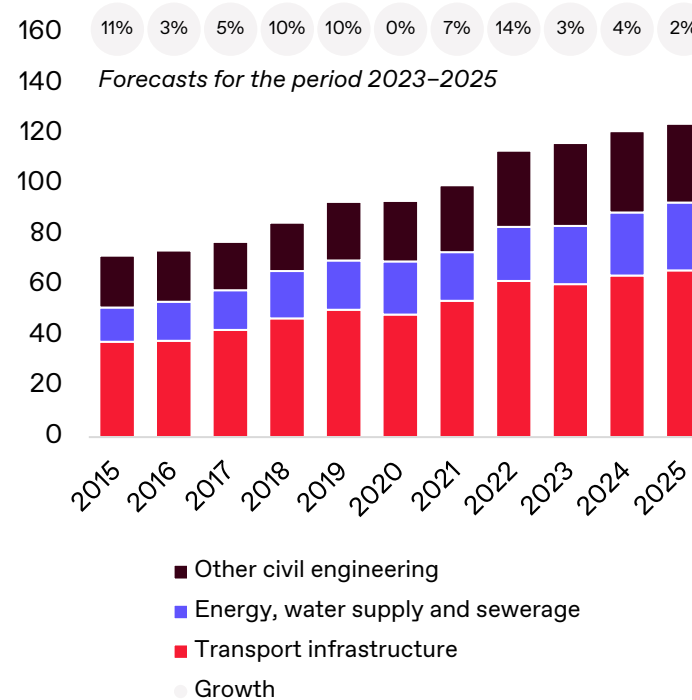
The market remains strong

Comment

- Strong growth in 2022 is primarily attributable to construction cost increases of 12–15%. More normal increases in both volumes and prices are expected during the forecast period.
- Trends in Norway:
 - 3% annual growth rate in the period 2023–2025
 - Transport infrastructure: growth in road investments, decline in railway investments
 - Positive trend in the energy, water supply and sewerage sector
- Trends in Sweden:
 - 3% annual growth rate in the period 2023–2025
 - Transport infrastructure: high, stable market activity
 - Increasing investment activity in the energy, water supply and sewerage sector
- Flat market developments in both countries, measured by volume.

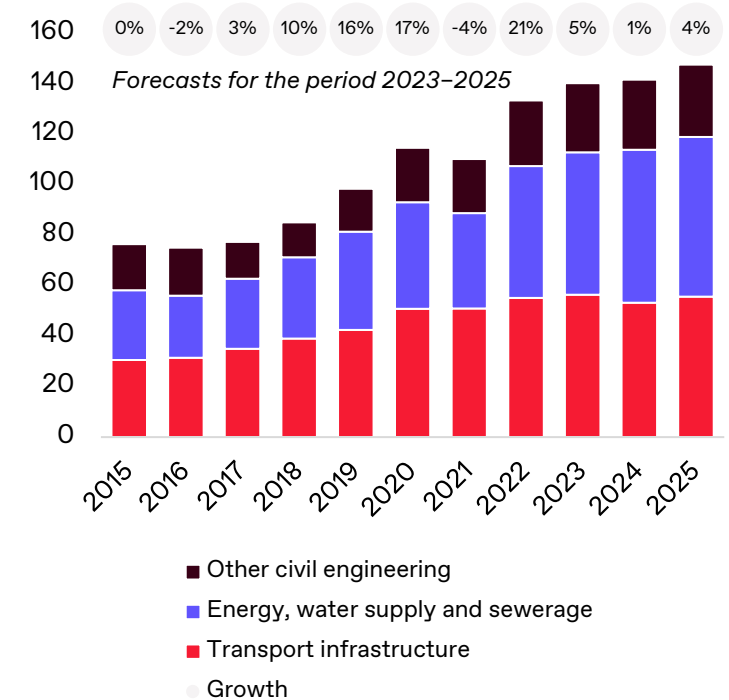
Norway, production

NOK billion, current prices



Sweden, production

NOK billion, current prices



Transport infrastructure in Norway

More roads, less rail

Comment

Roads

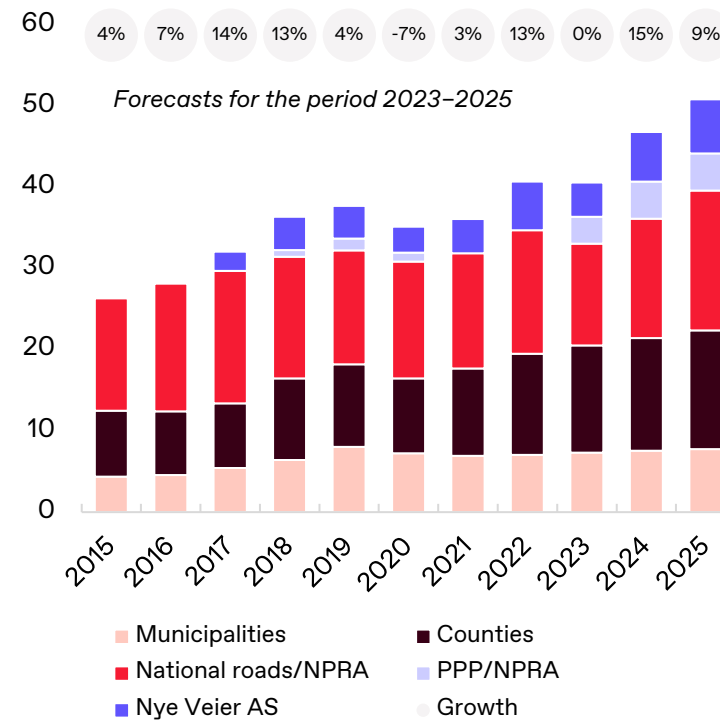
- Further growth expected in 2024 and 2025.
- Many major contracts signed by the Norwegian Public Roads Administration in 2023. These will generate a high future investment volume.
- The start of two gigantic PPP projects in Rogaland and Nordland counties will also drive growth.

Railways

- Few large projects due to start under the auspices of Bane NOR.
- In addition, investment levels in recent years have been well above financial budgets for the first six-year period of the current National Transport Plan.
- As a result, railways investment is expected to be significantly reduced until the end of 2025.

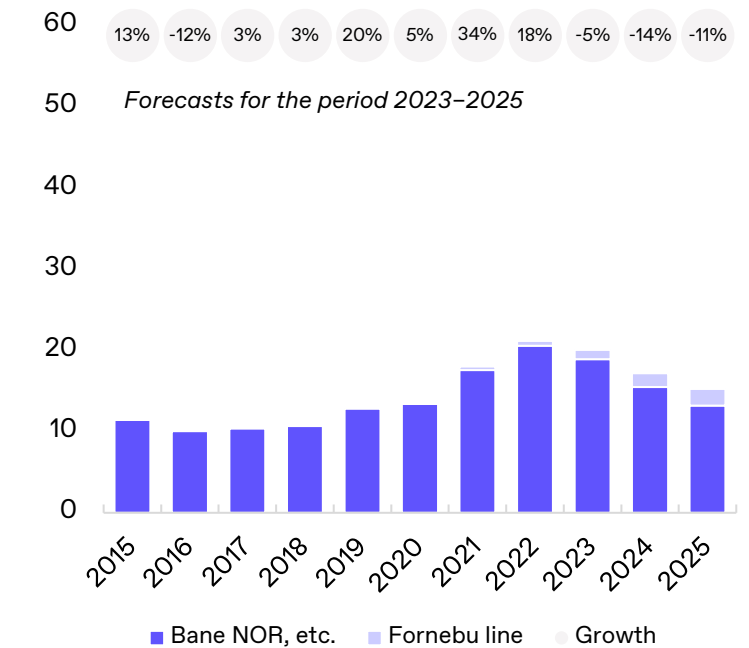
Roads market, production

NOK billion, current prices



Railways market, production

NOK billion, current prices



Transport infrastructure in Sweden

Decline in 2024, weak growth anticipated in 2025

Comment

Roads

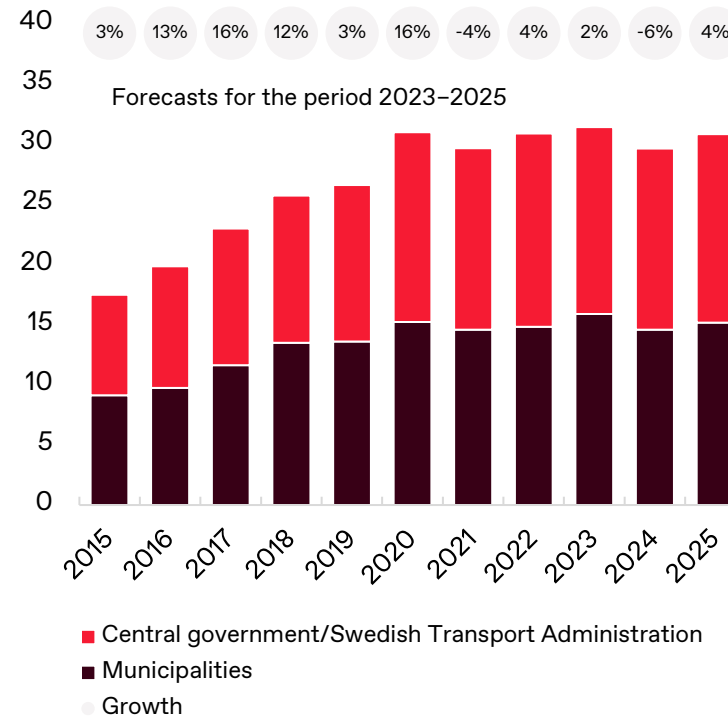
- Substantial drop in the past three years, measured by volume.
- Measured by contract value, more than 2.5 times as many major projects have been completed in the period 2020–2023 as have been started.
- This means a further drop of 6% next year before the trend turns into weak growth in 2025.
- Supported by the Swedish Transport Administration's investment plan, which shows lower investment activity this year and next.

Railways

- Continued prospect of high investment levels until the end of 2025, despite a flat development.
- If they materialise, major rail projects (Ostlänken and Norrbotniabanan) will make a positive contribution towards the end of the forecast period.

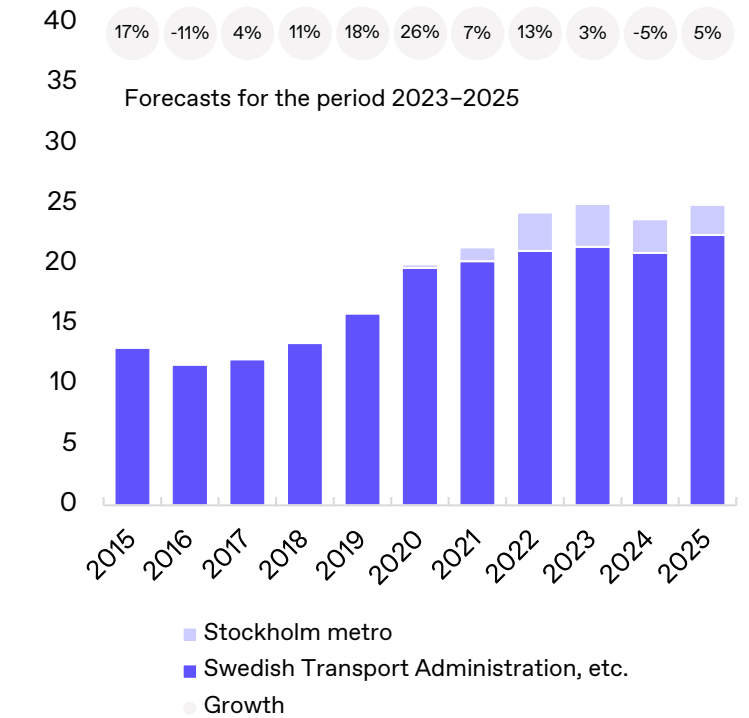
Roads market, production

NOK billion, current prices



Railways market, production

NOK billion, current prices



Norway: energy, water supply and sewerage

Further growth expected

Comment

Energy

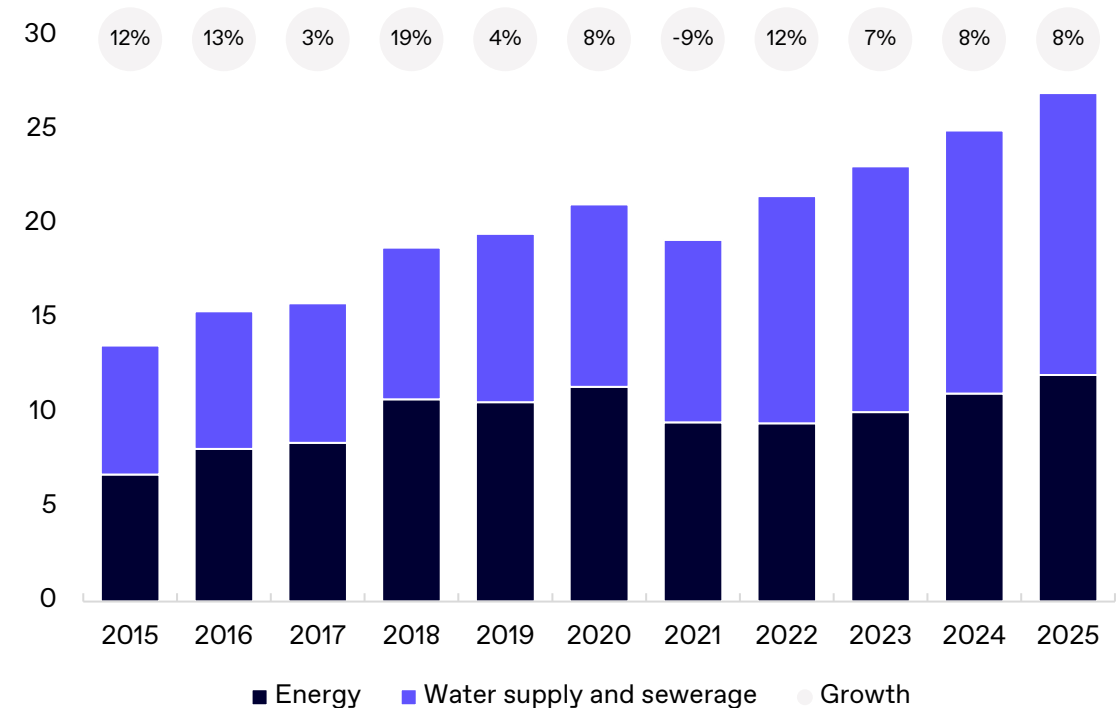
- Volumes dropped in 2021 and 2022, primarily due to a slowdown in the development of new power plants.
- Energy investment is expected to rise during the forecast period as growth accelerates in the distribution grid.

Water supply and sewerage

- Growth of 25% in 2022, powered by the City of Oslo, which has boosted investment by approximately 80% compared to 2021.
- Several NOK billion projects are in the pipeline, including Drammen (NOK 2.5 billion), Fredrikstad (NOK 2 billion) and Sarpsborg (NOK 1.2 billion).
- Municipalities are expected to continue increasing investments in the next few years.

Production

NOK billion, current prices



Sweden: energy, water supply and sewerage

Further growth expected

Comment

Energy

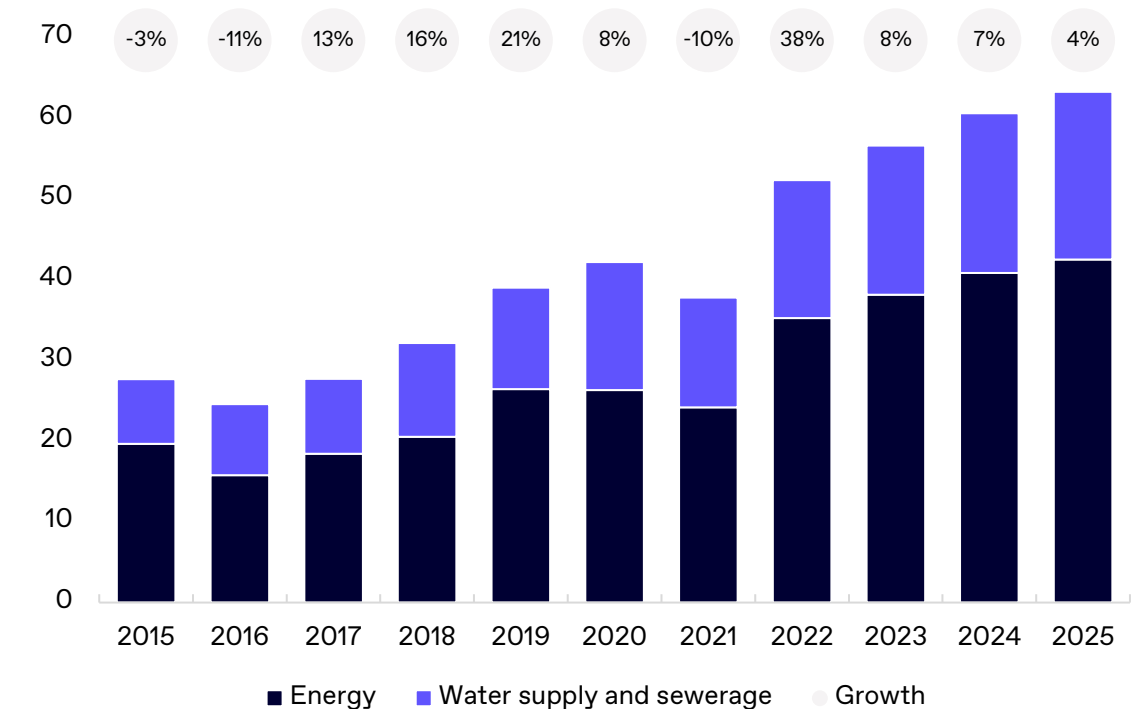
- Somewhat slower pace of wind power development towards the end of the forecast period, compared to earlier years.
- As in Norway, the distribution grid is being upgraded. This is having a positive impact on investment levels in the energy market.
- An annual growth rate of 6% is expected in the period 2023–2025.

Water supply and sewerage

- Inflation-adjusted investment growth rate above 12% in 2022.
- High investment levels in the first two quarters of the year, which are 10% above the corresponding quarters of last year.
- Increased priority among municipalities and the materialisation of several major projects are expected to secure an annual growth rate of 7% until the end of 2025.

Production

NOK billion, current prices



Road maintenance, Norway

Prospect of high activity levels

Comment

Roads

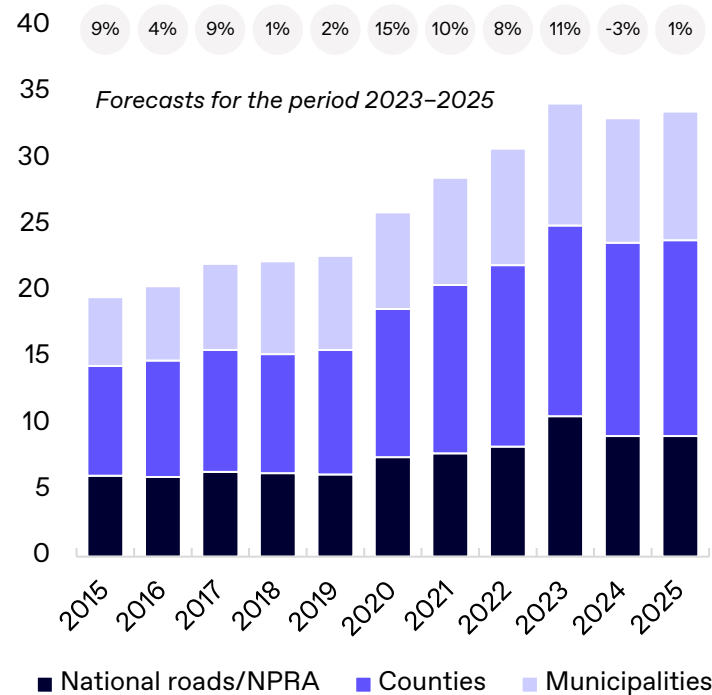
- Three years of strong growth are behind us.
- Activity is expected to flatten out at a very high level during the forecast period, primarily as a result of somewhat lower activity relating to the national roads network.
- This is in line with the National Transport Plan, under which the provisional implementation rate is well above 100% of the financial budget for the first six-year period.

Railways

- Low priority in central government budgets for 2022 and 2023; likely to be at the expense of very large new investments.
- Since new investments appear set to decline, increased activity is expected in the road maintenance segment until the end of the forecast period.

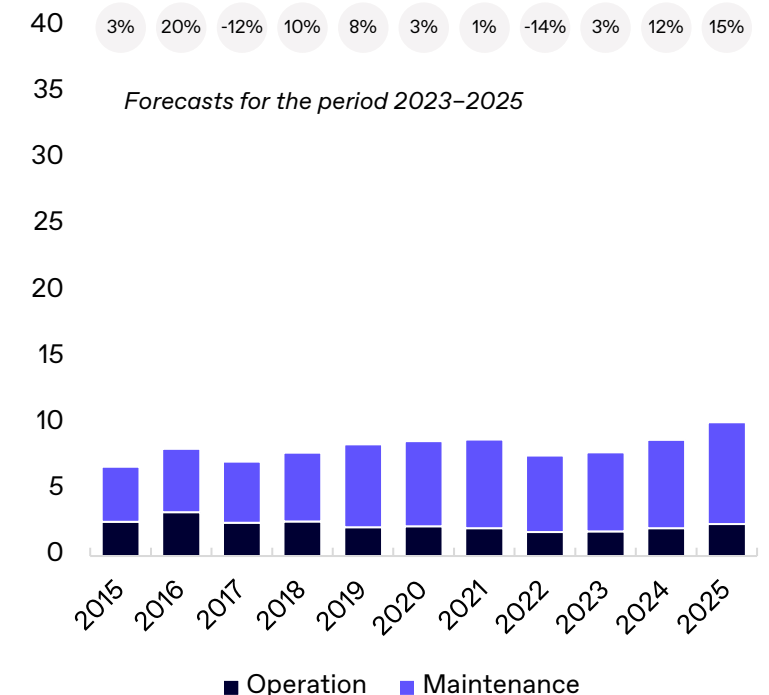
Road maintenance

NOK billion



Railway maintenance

NOK billion



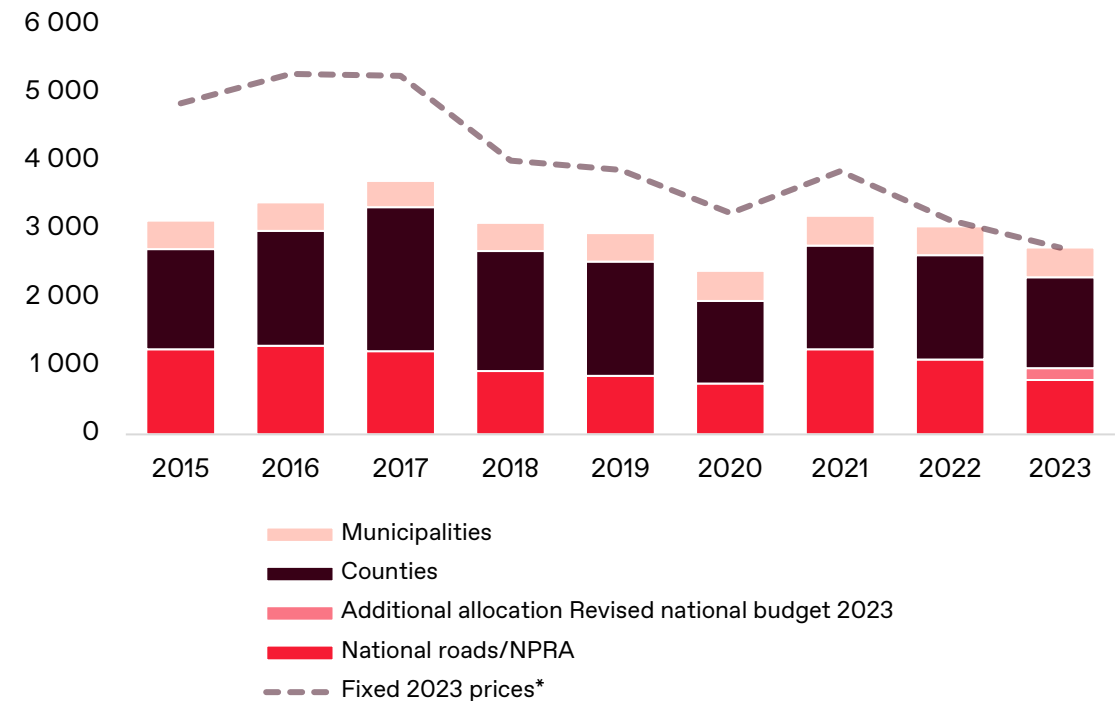
Norway: Asphalt Maintenance

Comment

- Central government budget allocations for the asphalting of national roads were cut by 27% from 2022 to 2023.
- During the same period, expenditure on the asphalting of county roads was cut by 13%.
- Strong growth in Statistics Norway's asphalting price indices for 2021 and 2022 suggests a more moderate development measured by volume.
- Measured in value terms, a reduction of just under 20% is expected in 2023, implying significantly reduced asphalt volumes.

Asphalting of existing road network

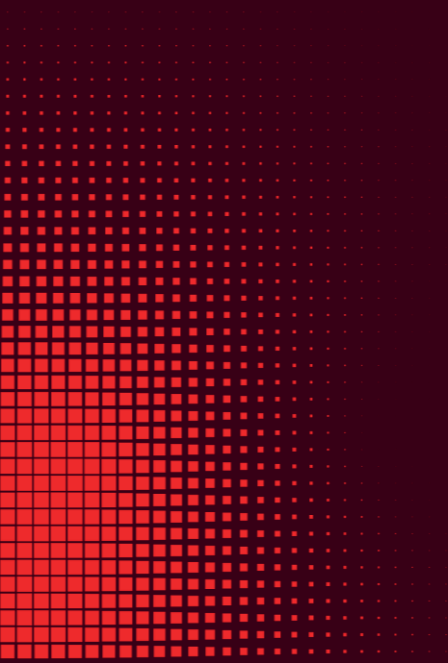
NOK million



* Adjusted for Statistics Norway's price index for paving roads (table 08660)

04

Construction costs



Cost inflation set to fall

Construction cost indices show slower growth than last year

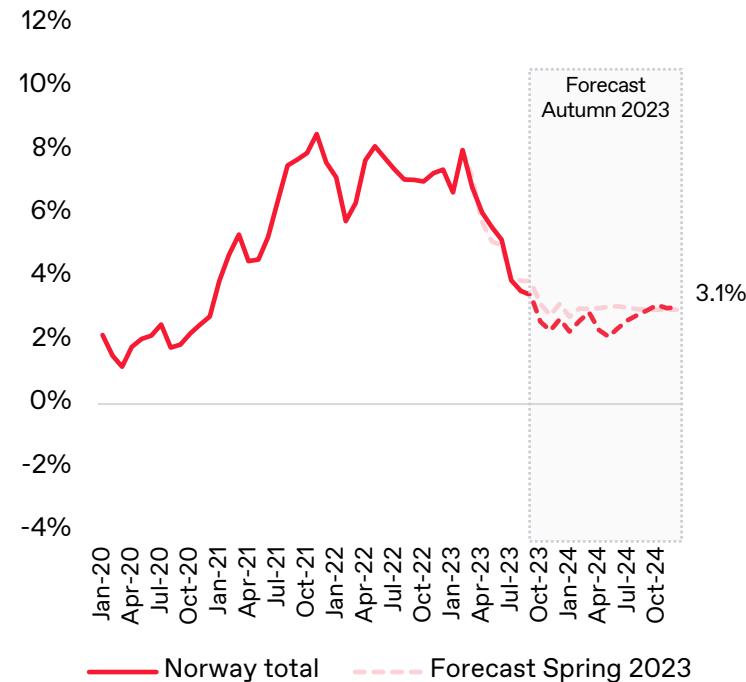
Comment*

- Construction-cost inflation has fallen considerably in recent months and totalled 4.0% in Sweden and 3.6% in Norway when last measured in August.
- The increase over the past three months has been especially low: 0.4% in Norway and 1.6% in Sweden on an annualised basis.
- Veidekke's forecast based on currently known factors is that inflation will stabilise at around 2–3% in 2024.
- Currently known factors indicate more moderate price inflation for input factors like steel and concrete in the year ahead. In 2025, however, wage inflation (which has been higher than normal, particularly in Norway) will have a stronger impact, resulting in anticipated cost inflation of 3–4%.

* These forecasts will be impacted by further developments such as changes in energy and international commodity prices. The forecasts primarily incorporate observed current commodity prices, publicly announced price changes in the supplier industry, anticipated general inflation and wage growth.

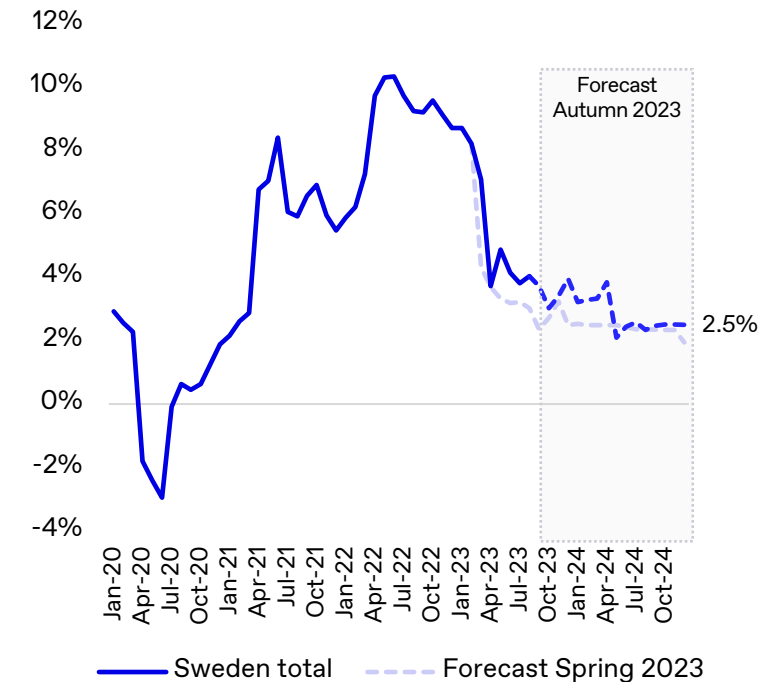
Norway, Construction cost index, residential blocks

Percentage change since same month last year



Sweden, Construction cost index, residential block

Percentage change since same month last year



Norway: Construction cost index, civil engineering

Prices are flattening out

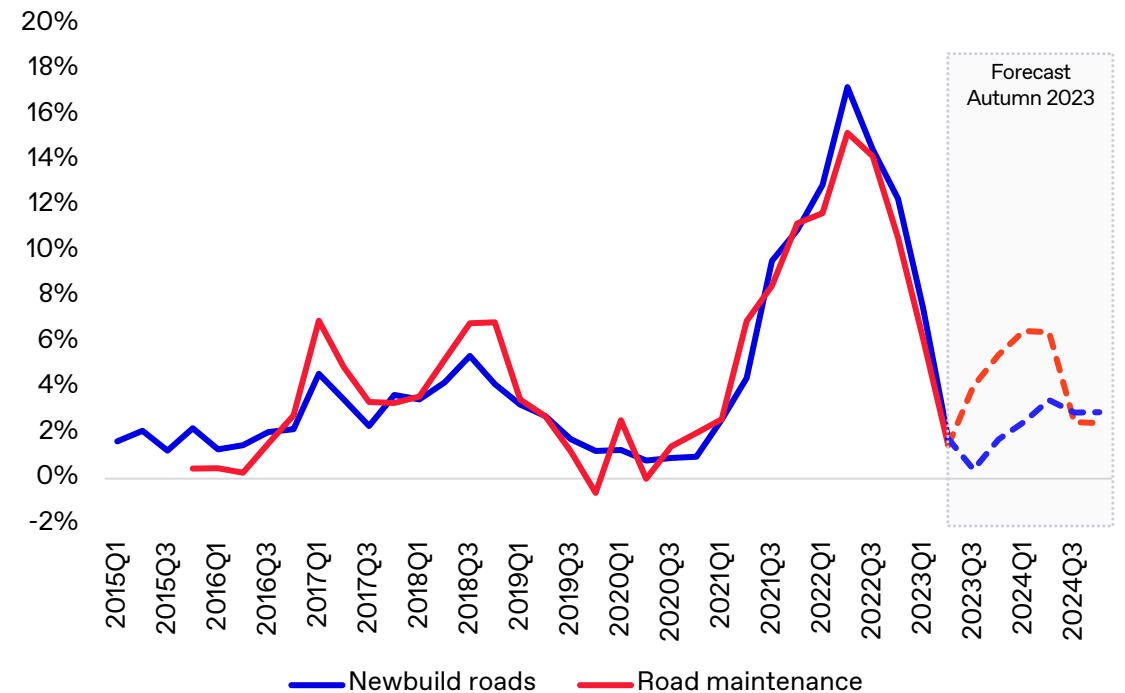
Comment*

- Construction costs in the civil engineering and road maintenance segments increased strongly in 2022, driven not least by substantially higher fuel prices. In the first half of 2023, inflation dropped sharply on the back of stabilising and falling prices for these input factors – particularly fuel. Further strong increases in fuel prices in Q3 have had a significant impact on the operation and maintenance cost index in the quarter.
- Since the civil engineering operation is less reliant on fuel, the impact has not been as severe.
- In relation to both indices, it is worth noting that – on a year-on-year basis as in the graph to the right – last year's volatile developments will result in variability even if a more stable future development is assumed.

* These forecasts will be impacted by further developments such as changes in energy and international commodity prices. The forecasts primarily incorporate observed current commodity prices, publicly announced price changes in the supplier industry, anticipated general inflation and wage growth.

Construction cost index, roads (Norway)

Percentage change since same quarter last year



05 Summary

Construction markets

Forecasts 2023–2025

Comment

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Production in the Scandinavian construction markets

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	2022	2023	2024	2025
Norway	12%	3% (3%)	-5% (-4%)	-3%
Sweden	22%	-6% (-3%)	-8% (-10%)	-1%
Denmark	9%	-12% (-6%)	-5% (-3%)	3%
Scandinavia	15%	-6% (-2%)	-7% (-6%)	-1%
<i>Scandinavia, fixed prices</i>	5%	-9% (-6%)	-9% (-8%)	-3%

Spring 2023 forecasts in brackets



EU Green Deal

Revision of the Energy Performance
of Buildings Directive (EPBD)

28 September 2023

Amna Rasool



The Energy Performance of Buildings Directive

- The Energy Performance of Buildings Directive (EPBD) was first introduced in 2002, as the primary legislation regulating energy requirements for buildings across the EU.
- In December 2021, the European Commission proposed a revision of the EPBD, as one of several measures in the *Fit For 55* package, designed to reduce greenhouse gases by 55% by 2030, and the *EU Green Deal*, which aims to reach zero emissions by 2050.
- The EPBD proposal focuses on speeding up renovation of the EU member countries' least energy-efficient buildings, to kick-off efforts to decarbonise the EU building stock by 2050.
- The negotiation proposal was adopted by the EU Parliament in March 2023 and the Council in October 2022.
- The EU Commission, Council and Parliament are currently negotiating a final legal act through trilogue meetings. Once an agreement is reached, a final directive will be published, likely in late autumn 2023/early 2024.
- EFTA/EEA processing will start thereafter.

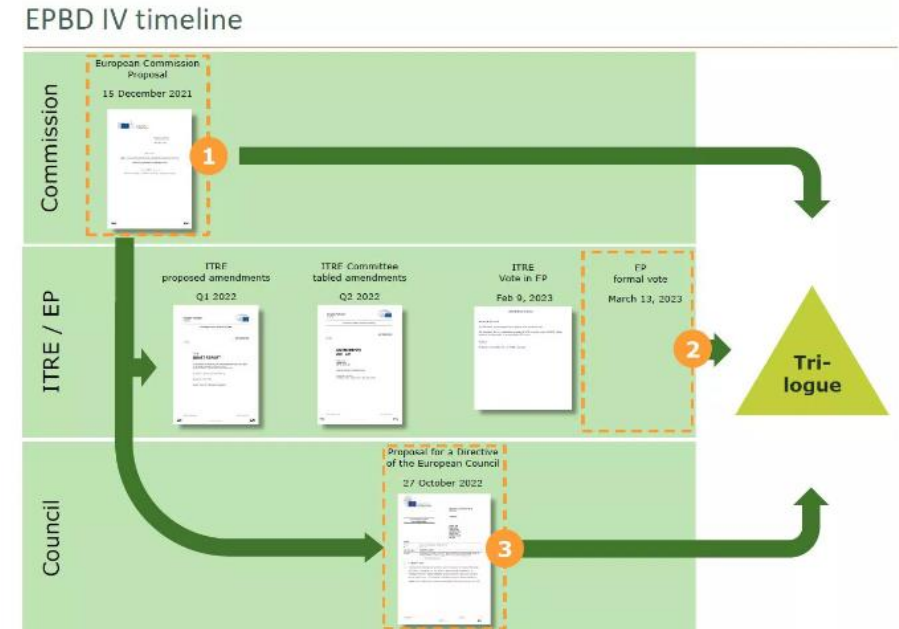


Figure 2: EPBD IV timelines. Source: Energy Efficient Mortgages Hub, 2023

Summary of the proposals

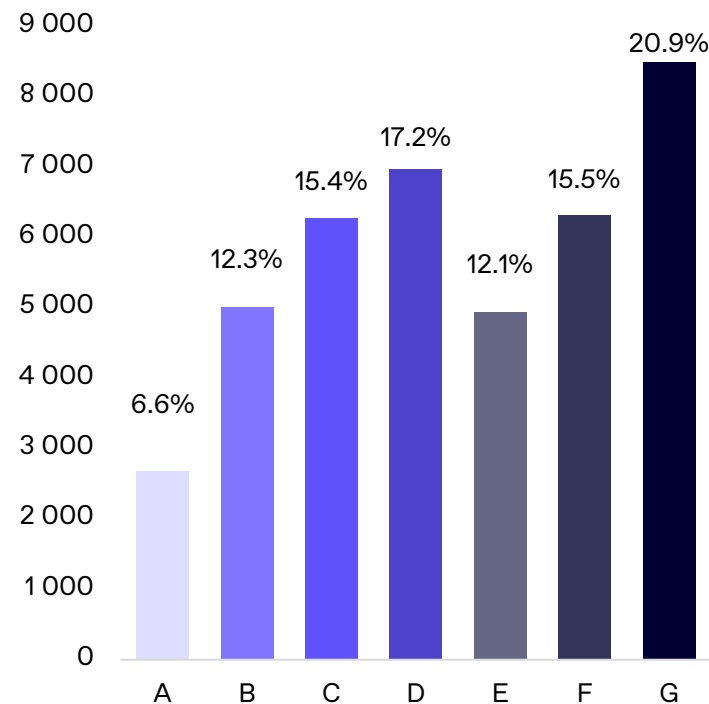
- Provided that the European Commission's proposal is adopted, standardised energy efficiency certificates (EPC) A–G will be introduced in all EU countries. The 15% least energy-efficient buildings in each country are rated “G”, while zero-emission buildings are rated “A”. EPC certification will be mandatory.
- The proposal, which applies to both new and existing buildings, requires that residential buildings, schools, hospitals, offices and other buildings throughout Europe be renovated to reduce GHG emissions.
- The Council and Parliament will both introduce requirements that existing residential units qualify for EPC certificate D by 2033. The Council will also impose zero-emission requirements on all new public buildings by 2028 and all new buildings by 2030.
- The table on the right summarises the proposals from, respectively, the EU Commission, Council, and Parliament.

	Commission (winter '21)	Council (autumn '22)	Parliament (spring '23)
All new public buildings to be emission-free by:	2027	2028	2026
All new buildings to be emission-free by:	2030	2030	2028
Existing residential units to achieve energy efficiency certificate:	F by 2030 E by 2033	D by 2033	E by 2030 D by 2033
Existing non-residential units to achieve energy efficiency certificate:	F by 2027 E by 2030	15% by 2030 25% by 2030	E by 2027 D by 2030
Maximum energy performance thresholds to be based on primary energy use in the 15–25% least energy-efficient homes			

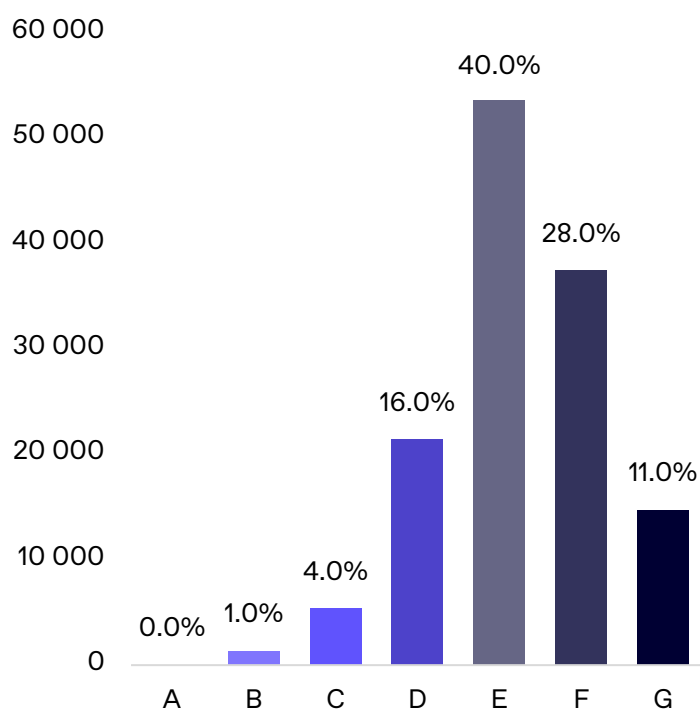
Current situation

National energy efficiency certification, apartment buildings Scandinavia

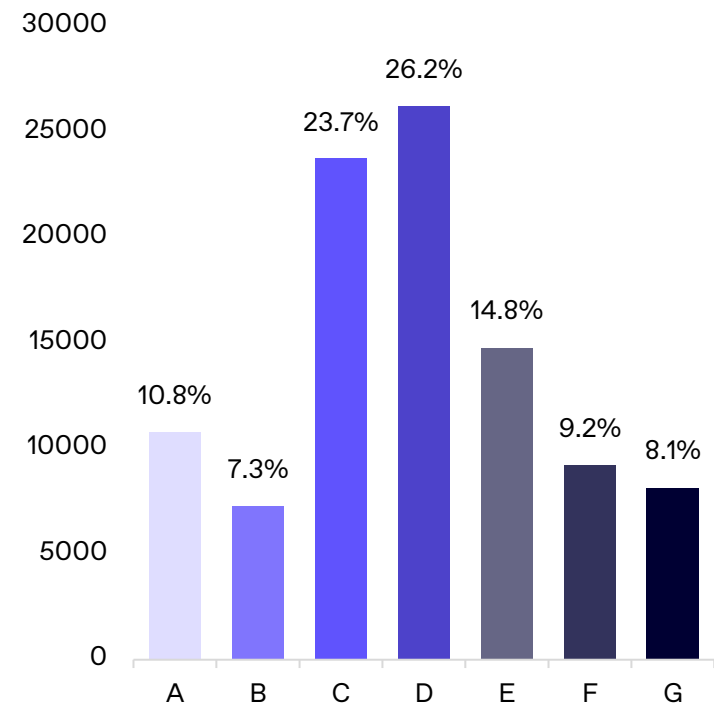
Norway, energy efficiency classification
Number and percentage



Sweden, energy efficiency classification
Number and percentage



Denmark, energy efficiency classification
Number and percentage



Note: The distribution of energy efficiency certificates is presumed to be representative of the entire residential building stock

What could this imply for Scandinavia ?

- Today, new buildings normally receive energy efficiency certificates of between A and C, while older, unrenovated buildings score at the bottom of the scale.
- Assuming that buildings already labelled for energy efficiency are reasonably representative, and that the EPBD does not significantly change the rating and classification, the rehab market will have a sharp uptick, should any part of the EPBD come into force.
- For all apartment buildings to achieve energy efficiency certificate D by 2033, 330,000 apartments in Norway must be renovated. For Sweden and Denmark, the corresponding figures are 2,110,000 and 580,000, respectively.
- Based on a ballpark rehabilitation estimate per residential unit of NOK 500,000**, achieving energy efficiency certificate D for all residential units in Norway in ten years will cost around NOK 166 billion, or NOK 16.6 billion per year. The corresponding figures for Sweden and Denmark are NOK 110 billion and NOK 28.9 billion, respectively.
- The table on the right shows the number of existing apartment buildings and apartments that must be rehabilitated to achieve energy efficiency certificates F, E and D.

	Norway	Sweden	Denmark
F* by 2030			
Apartment buildings	8 494	14 714	8 152
Number of apartments	140 000	300 000	150 000
E* by 2033			
Apartment buildings	14 809	52 168	17 370
Number of apartments	250 000	1 040 000	310 000
D* by 2033			
Apartment buildings	19 752	105 673	32 166
Number of apartments	330 000	2 110 000	580 000

* The energy efficiency grading systems differ from country to country and the current system is likely to change.

** The figure has not been further qualified and is thus just a plausible estimate, meant to illustrate the possible scope.

