



Spring 2023 Veidekke market update

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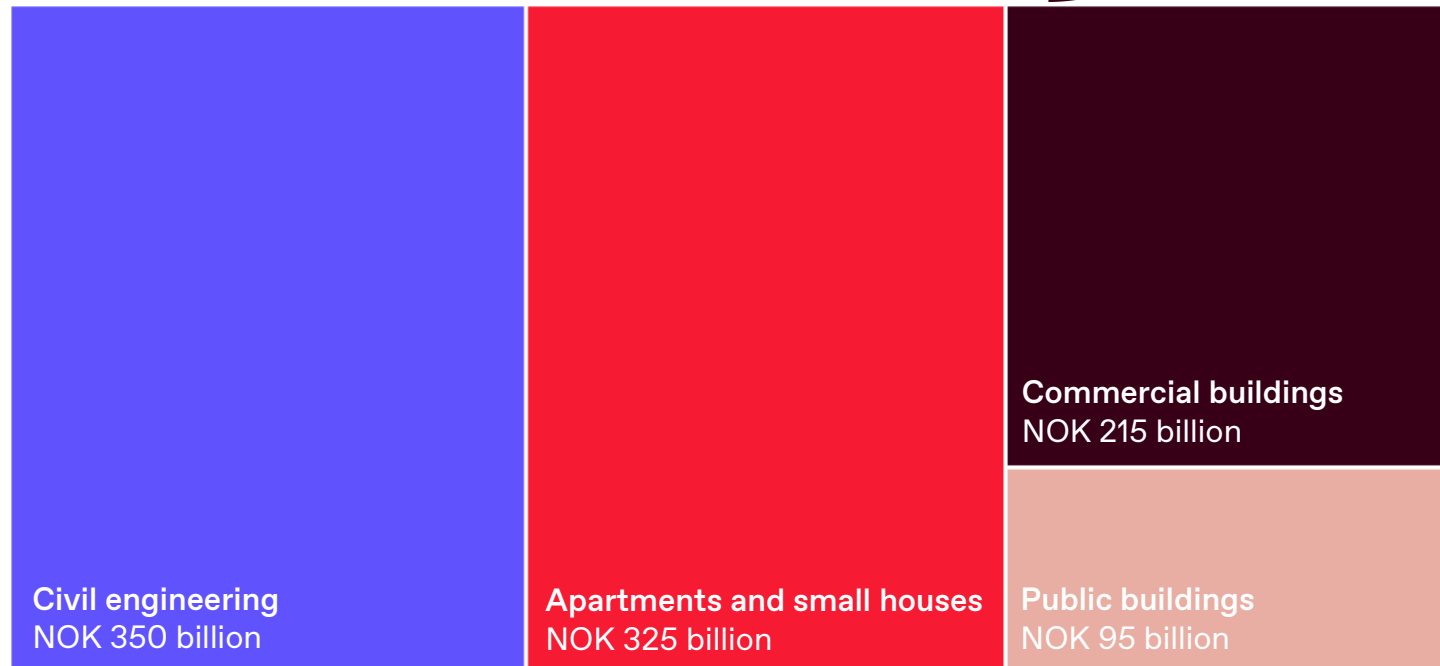
About Veidekke's market report

- 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



*Total Scandinavian market 2022:
~ NOK 980 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 2023–2024

Comment

- While last year’s surprisingly strong market growth of 14% in value terms was strongly inflation-driven, it also incorporated volume growth of 4%.
- Production is expected to fall by 6% in 2023, followed by an additional 8% in 2024. These forecasts – particularly those for 2024 - are lower than indicated in last autumn’s report.
- The sharpest decline will be seen in Sweden, which recorded the strongest growth in 2022. Its robust starting point leaves the industry well-positioned to handle a drop on the anticipated scale. However, the market is vulnerable to further geopolitical unrest and financial turbulence.

Production in the Scandinavian construction markets

Percentage change since previous year, current prices

	2021	2022	2023	2024
Norway	4%	12% (10%)	3% (2%)	-4% (3%)
Sweden	4%	21% (19%)	-3% (-1%)	-10% (-4%)
Denmark	4%	7% (0%)	-6% (-6%)	-3% (8%)
Scandinavia	4%	14% (11%)	-2% (-1%)	-6% (1%)
<i>Scandinavia, fixed prices</i>	-2%	4% (3%)	-6% (-4%)	-8% (-1%)

Autumn 2022 forecast in bracket

Agenda

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

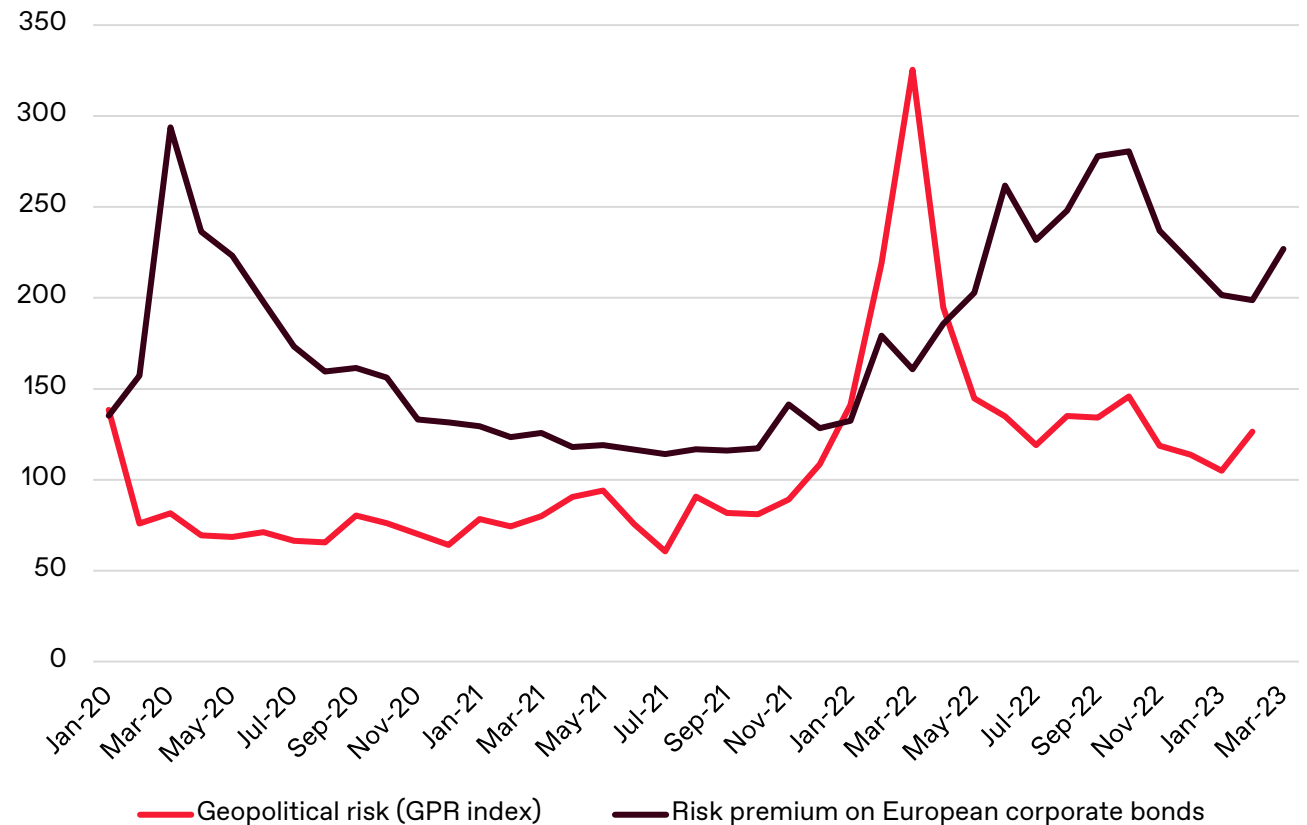
01

Introduction

Less geopolitical unrest, but new financial turbulence

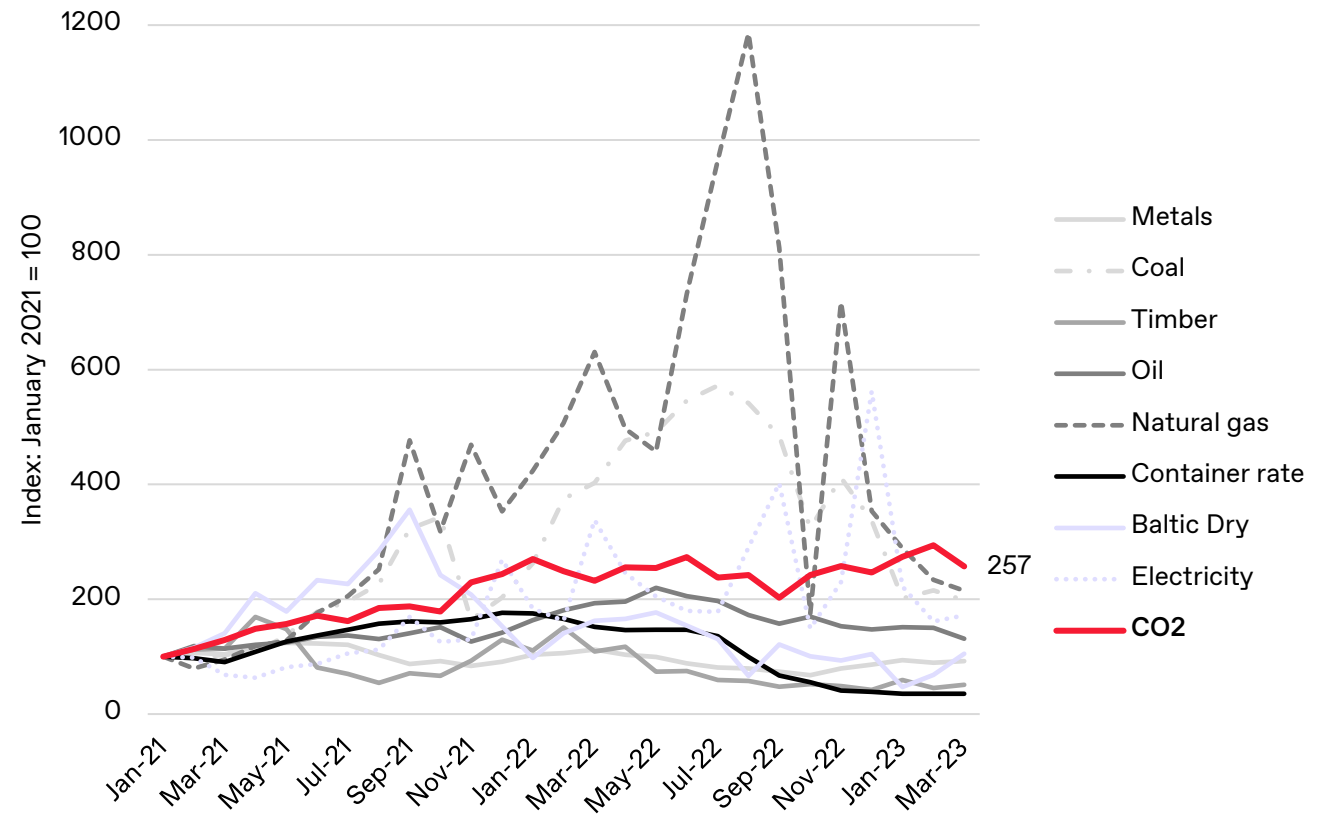
Geopolitical unrest and risk premiums on European corporate bonds

- Despite ongoing, intense fighting in Ukraine, indicators of geopolitical unrest have stabilised.
- Last summer and autumn's serious concerns about the European energy situation have not been confirmed thus far, and the risk of recession has fallen significantly.
- While a more optimistic outlook in recent months has reduced the risk premium on European corporate bonds to approximately 200 bp, turbulence in the banking sector in recent weeks has triggered a new increase.
- Forecasts are based on the expectation that geopolitical circumstances, the pandemic, financial turbulence and climate issues will not have a strong negative impact this year or next. Recent years' experience indicates that this expectation must be regarded as uncertain.



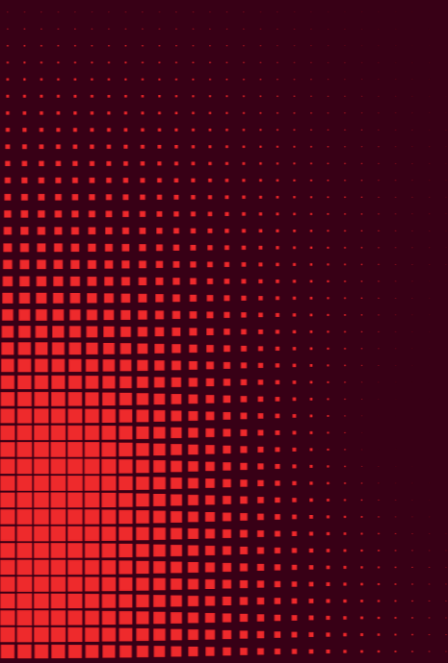
Despite all the turbulence, one area stands out...

- The disruptive events of the past two years have been clearly reflected in international commodity, energy and logistics prices.
- However, one price stands out compared to both recent years and the beginning of 2022, namely the price of EU CO₂ emissions quotas.
- The quota price fell temporarily when the system was challenged following Russia's invasion of Ukraine, but increased again over the autumn.
- The quota price is now over NOK 1 000/tonne in Norway and Sweden. In contrast, the price was NOK 114/tonne in the years 2015-2019.
- CO₂ costs comprise a notably increasing proportion of investment costs in the construction sector, not least with respect to materials. We have to assume that the price increase will give European property and construction companies increasingly powerful incentives to refocus their operations on less emissions-intensive production.



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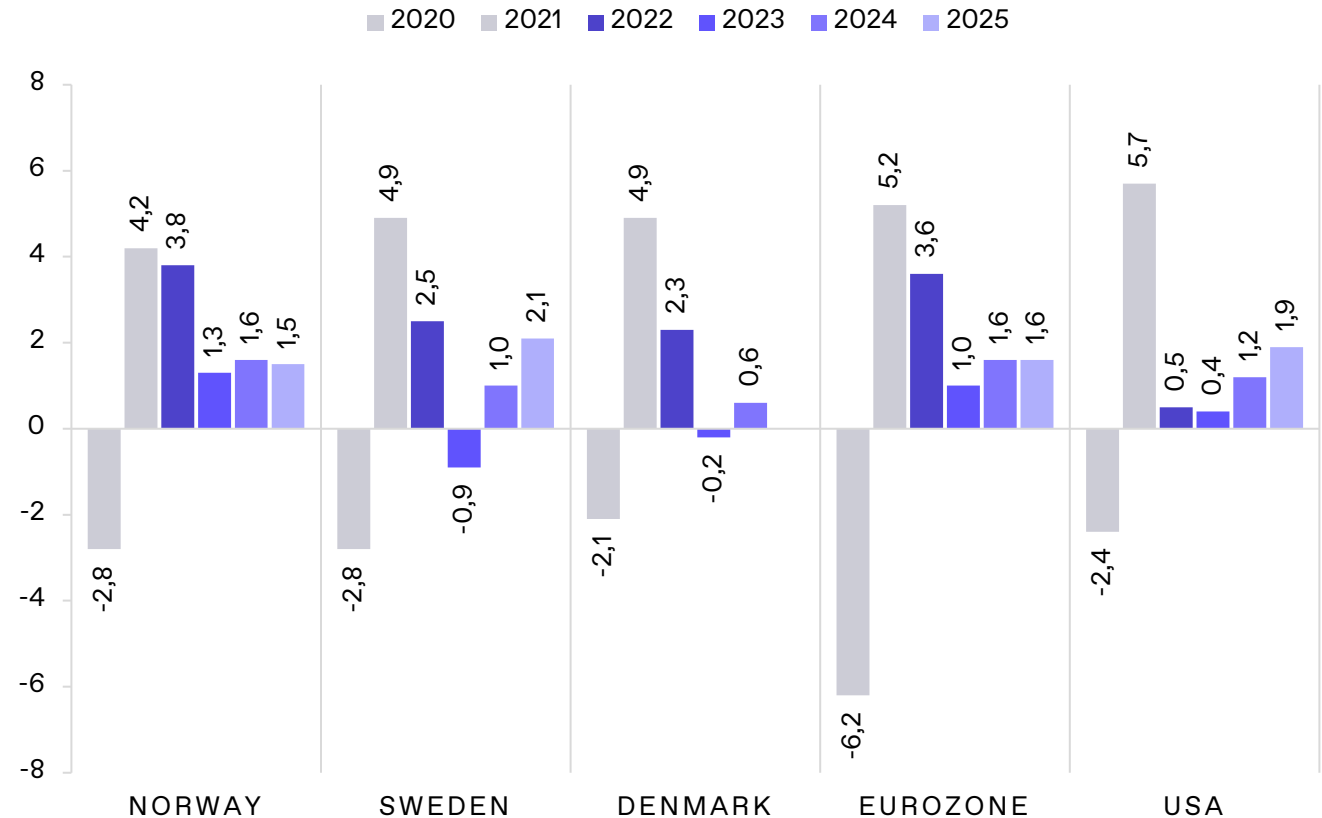
Economic environment



Moving towards an economic downturn

GDP growth is slowing, but not as much as feared

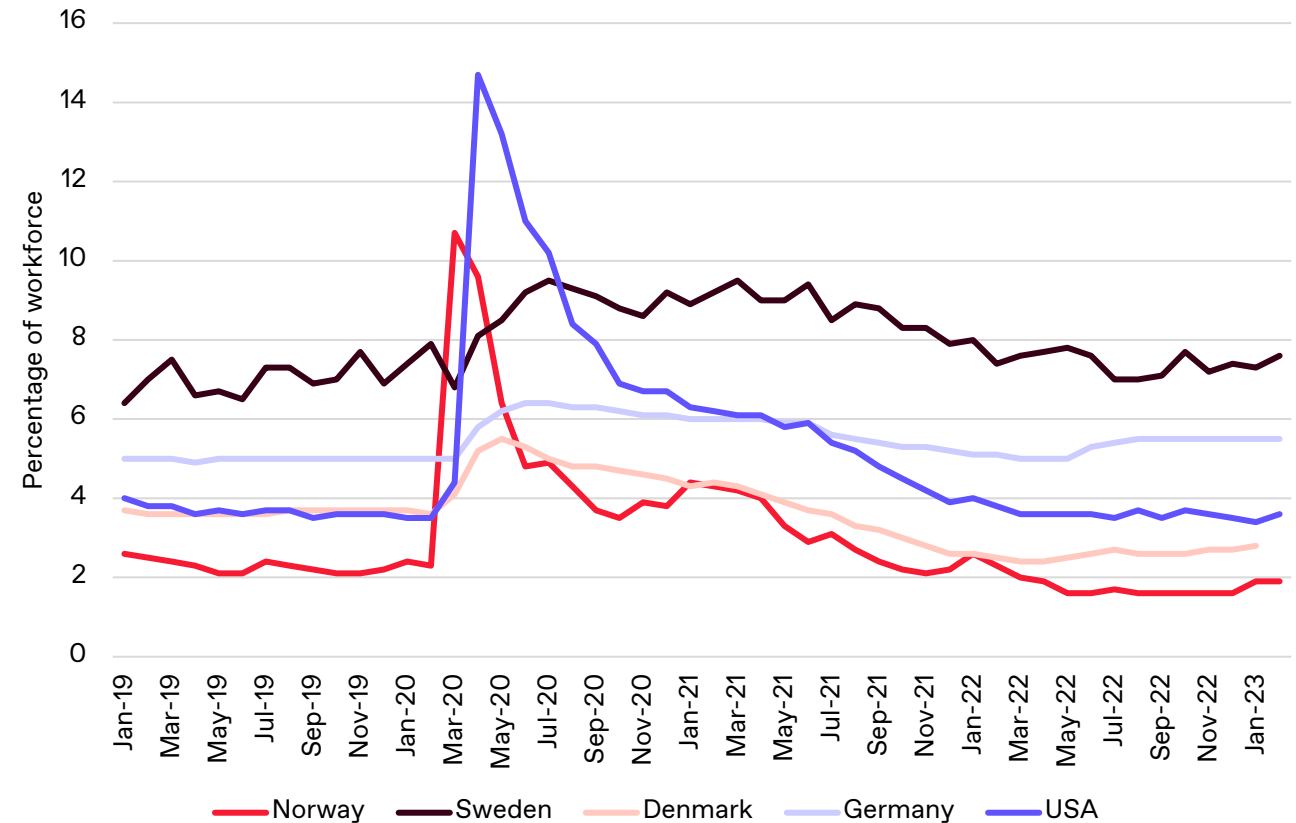
- Leading GDP forecasts indicate a milder economic downturn in 2023 than feared in the autumn of 2022.
- One important explanatory factor is that a mild winter and substantial precipitation have helped keep Europe's energy deficit much smaller than previously anticipated.
- Nevertheless, energy prices are expected to remain high and less predictable than before.
- The economic downturn heralds a reversal of the economic situation in recent years, both internationally and in Scandinavia.
- The Scandinavian countries are well-positioned to stabilise their economies if this becomes necessary.



Surprisingly robust labour markets

Few current indications of higher unemployment

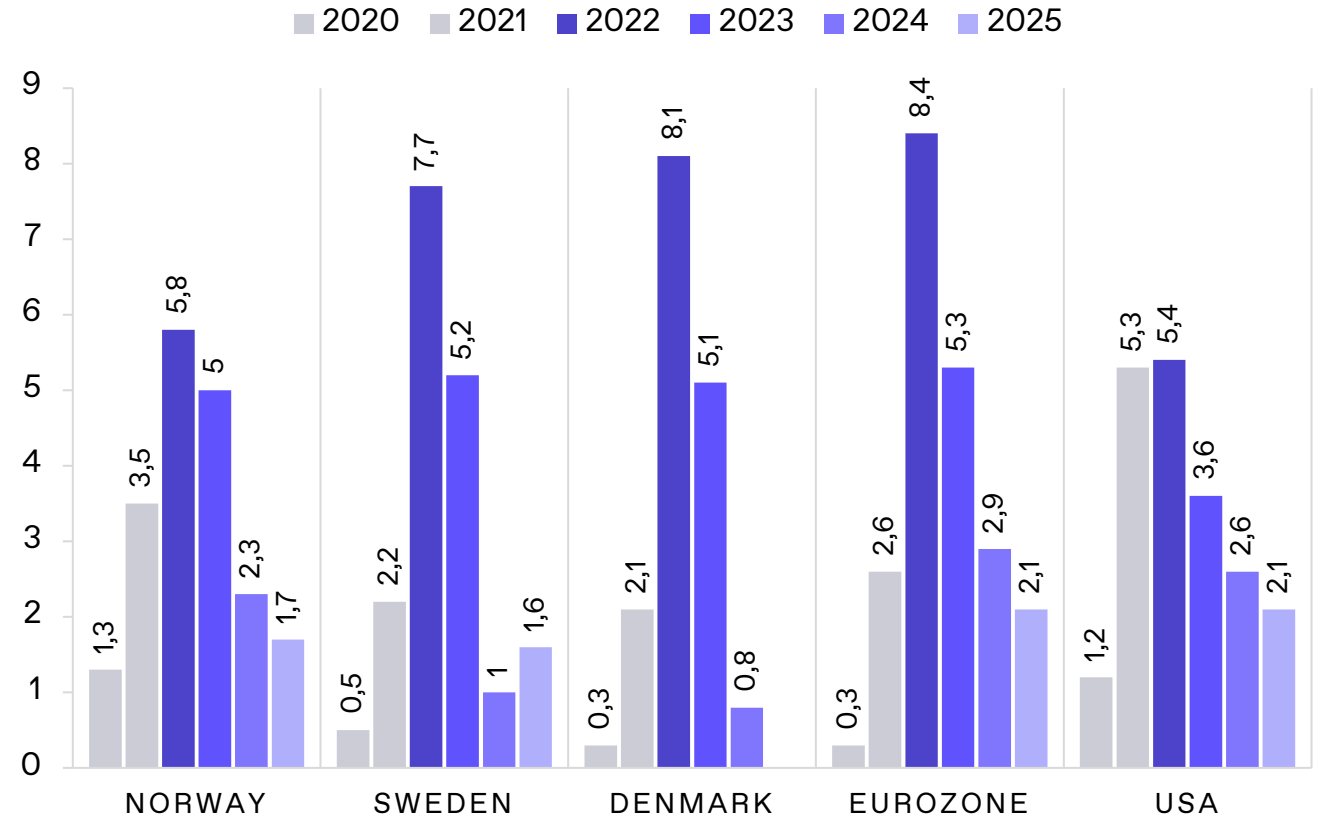
- Low unemployment equates to a lower risk of severe demand disruption in private segments such as residential units and commercial buildings.
- To date, higher interest rates and weaker economic developments have not impacted substantially on unemployment, although forecasts indicate a moderate increase going forward.
- Given strong labour shortages and potentially higher wage inflation, some weakening of the labour market - in both the construction sector and the economy in general - will be advantageous.
- The continuing robustness of the labour market reduces the likelihood of interest rate cuts during the forecast period.



Inflation/CPI

Inflation forecasts indicate a downward trend

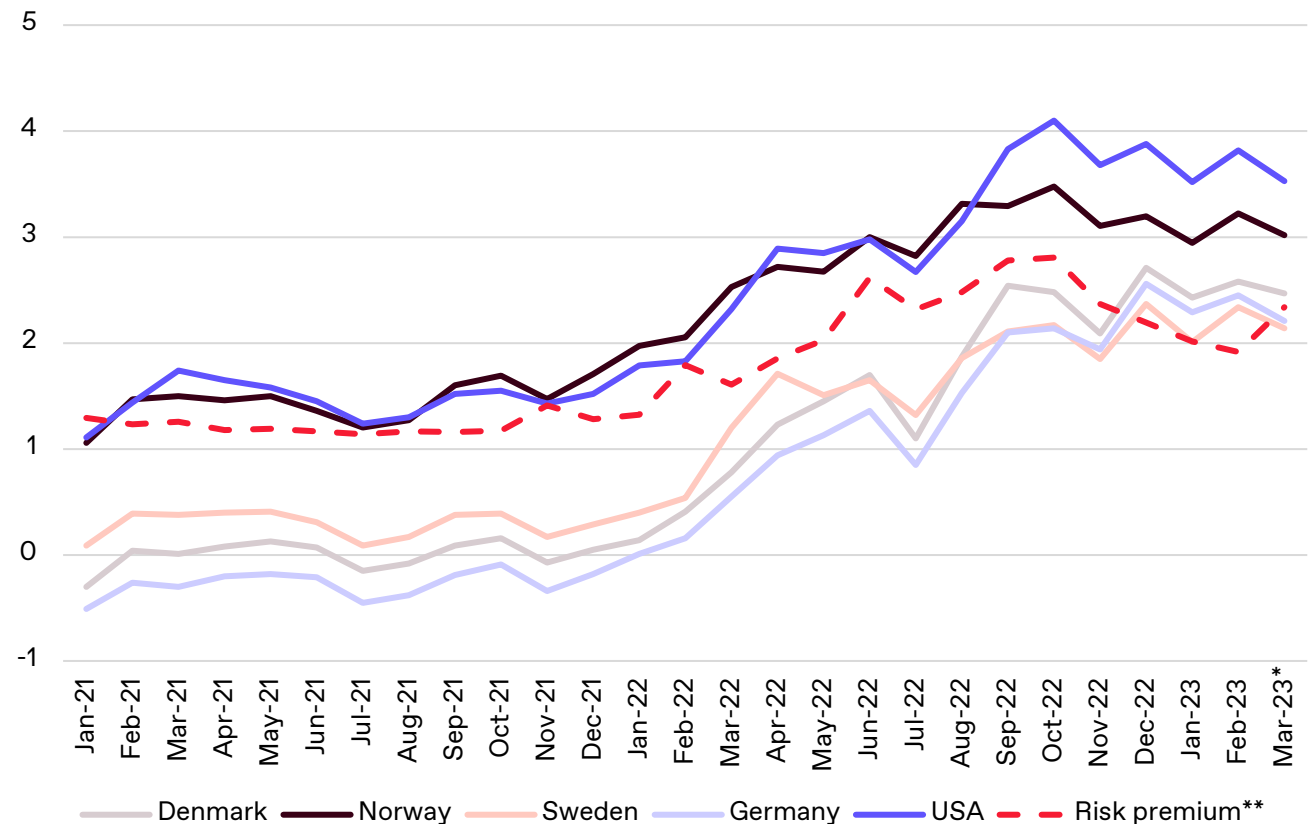
- Inflation remains high at the beginning of 2023, but is expected to fall during the year and to reach target levels in 2024.
- Throughout 2022 and in the early months of 2023, inflation fell somewhat in leading economies like the USA and in the Eurozone, but a return to the 2% inflation target remains some way off.
- In Scandinavia, relatively high wage inflation in this year's pay settlements may exert continued inflationary pressure.



Stable market interest rates?

Flat trend for 10-year central government rates for the past six months, but risk premiums are falling

- Market interest rates have shown a relatively flat trend since the summer of 2022.
- The risk premium on European corporate bonds has now increased somewhat in response to recent uncertainty about the banking sector.
- US and European interest rate levels will define policy rate ranges in Norway and Sweden, as these countries cannot permit excessive deviations due to the risk of further currency depreciation.
- Current market rates indicate that policy rates are at or approaching their peak in many countries, but uncertainty is high.



* Data for March are as at 27 March

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

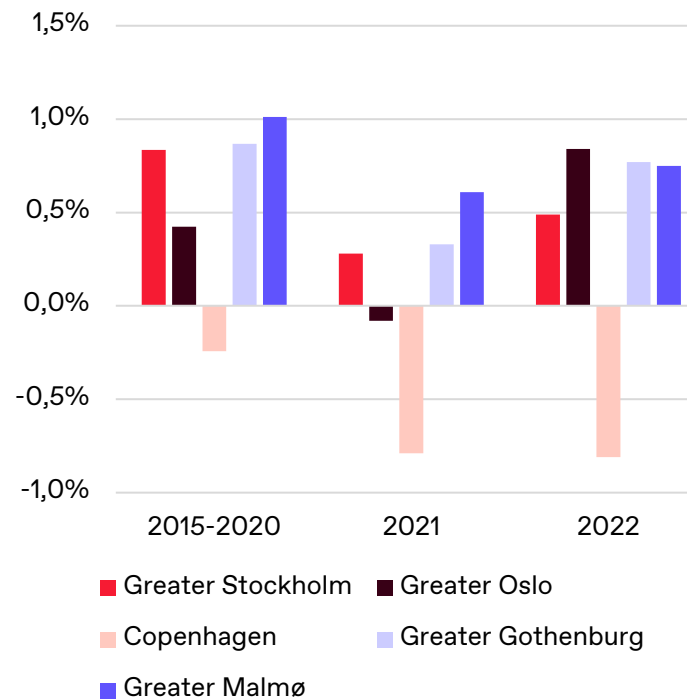
Markets being supported by high migration to cities

Many Scandinavian cities saw increased immigration throughout 2022

- Immigration may be linked to completion of residential units, but is primarily an important driver of demand for new units.
- The trend of high migration to many urban centres in Scandinavia accelerated again in 2022.
- With the exception of Greater Oslo, the Scandinavian capitals recorded some of the weakest growth figures in terms of domestic migration.
- In Sweden, the strongest growth was observed in slightly smaller cities and the periphery of Stockholm, while Norway recorded high growth in almost all urban centres in eastern Norway.
- In Norway, regions such as Stavanger/Sandnes and Bergen experienced stronger immigration than for many years, while Trøndelag registered stable positive population growth.
- We see the high immigration rate as a fundamental driver of the construction market which will contribute to a stronger, more stable market for new residential units in 2023 and 2024 than in the autumn of 2022.

Net migration to cities

% of population

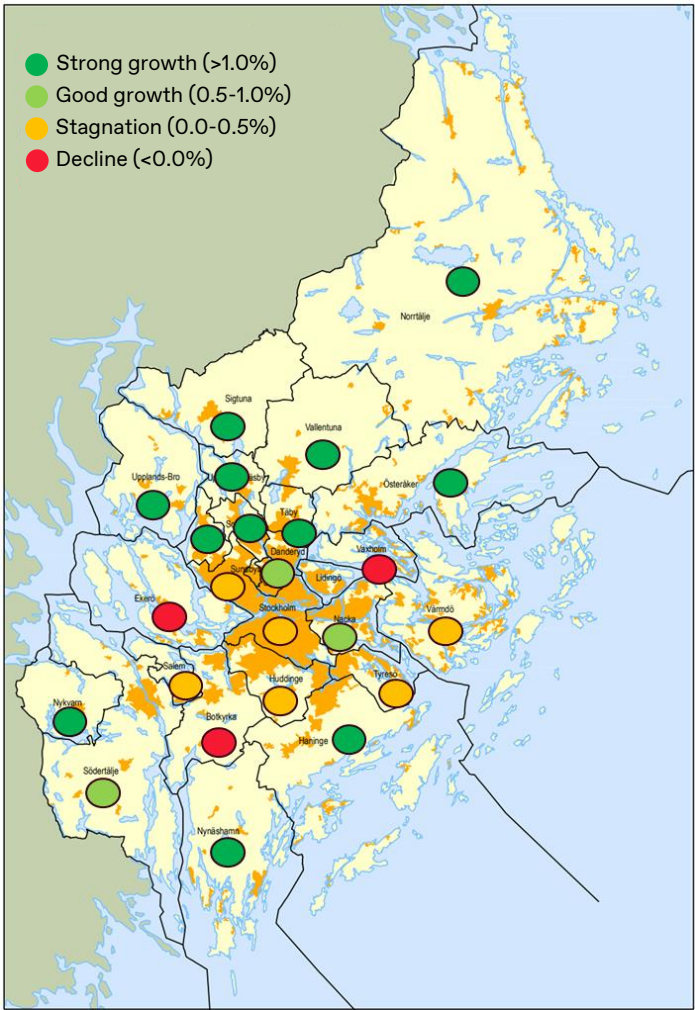


Net domestic migration, rankings 2022

% of population

	2016-2020	2021	2022
Romerike	1.7%	2.2%	2.6%
Hamar/Ringsaker	1.0%	1.6%	1.5%
Cities in Vestfold county	0.8%	1.1%	1.4%
Cities in Østfold county	0.9%	1.0%	1.3%
Uppsala	1.5%	1.3%	1.1%
Greater Trondheim	0.7%	0.6%	0.9%
Greater Oslo	0.4%	-0.1%	0.8%
Stavanger/Sandnes	0.1%	0.1%	0.8%
Greater Gothenburg	0.9%	0.3%	0.8%
Greater Malmö	1.0%	0.6%	0.8%
Greater Bergen	0.2%	0.1%	0.7%
Greater Stockholm	0.8%	0.3%	0.5%
Copenhagen region	-0.1%	0.0%	0.3%
Copenhagen	-0.2%	-0.8%	-0.8%

Suburbs growing strongly, for example in Stockholm



Strong internal differences in net immigration between central and peripheral areas in Stockholm County

Municipalities...	Population 2022	Net immigration 2022	Apartment blocks started in 2022
...that are growing	956 153	+1.4%	5 491
...that are stagnating	1 314 777	+0.0%	4 464
...that are in decline	169 097	-0.5%	161
Stockholm County	2 444 027	+0.5%	10 116

Net immigration measured as domestic immigration as a percentage of the population.

03

The construction markets

Accuracy for 2022

Forecasts and results one year later

Comment

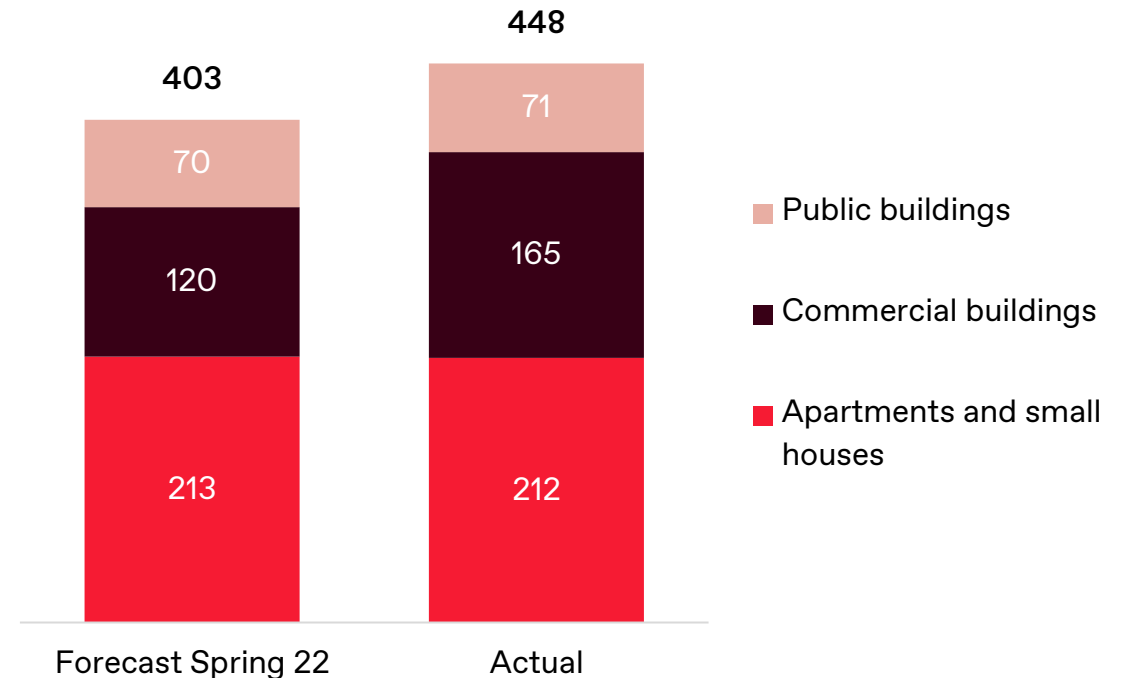
Estimated order intake in 2022

- The estimated order intake for the construction markets in Norway and Sweden was approximately NOK 450 billion in 2022 – about 10% higher than Veidekke's March 2022 forecast of NOK 400 billion. The final 2022 figures for the civil engineering sector and Denmark are not yet available.
- The commercial buildings sector performed surprisingly well in both countries, with the industrial, warehouse and office buildings segments achieving record activity levels in 2022.
- Developments in the apartments and small houses and public buildings segments were generally as expected in both countries.
- Last year's developments confirm that it is difficult to prepare reliable forecasts when logistics and commodity prices are being affected by major geopolitical changes and a pandemic. We did not expect such a strong development in the midst of the Russian invasion, rising interest rates and threatening crises in the European energy markets and industrial production.

Data for Norway and Sweden only.
The 2022 figures for Denmark provided by Statistics Denmark are so provisional that they have been excluded.

Forecasts and accuracy for 2022

Estimated order intake, NOK billion

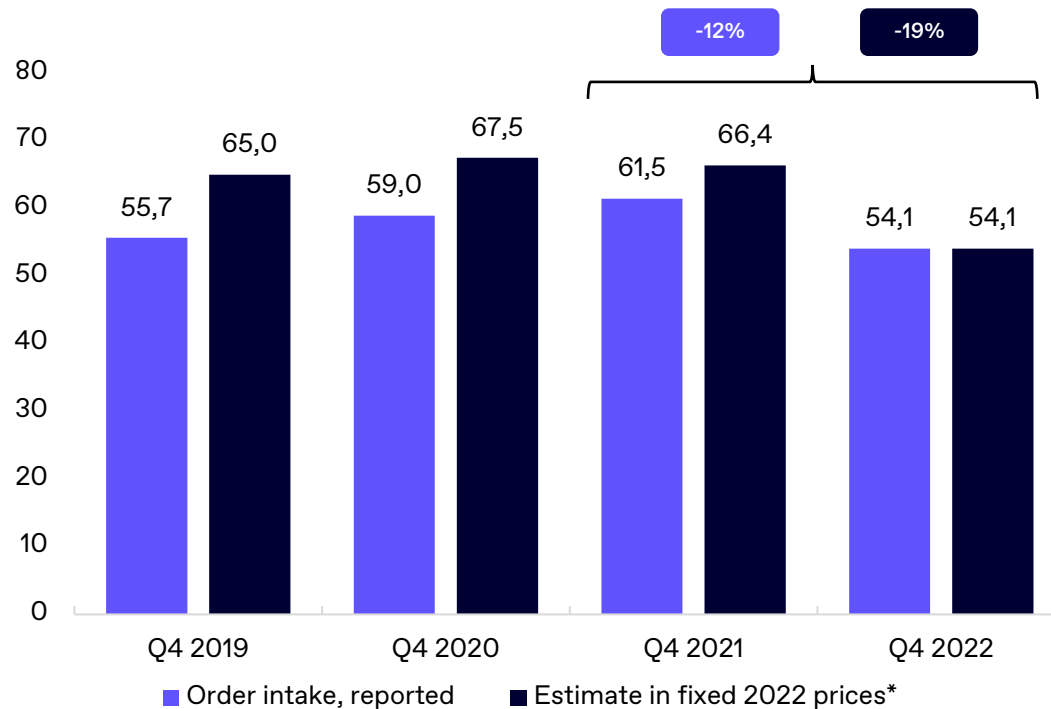


Estimated order intake in the construction markets

Acceptable even when adjusted for inflation

Order intake, Nordic construction operations

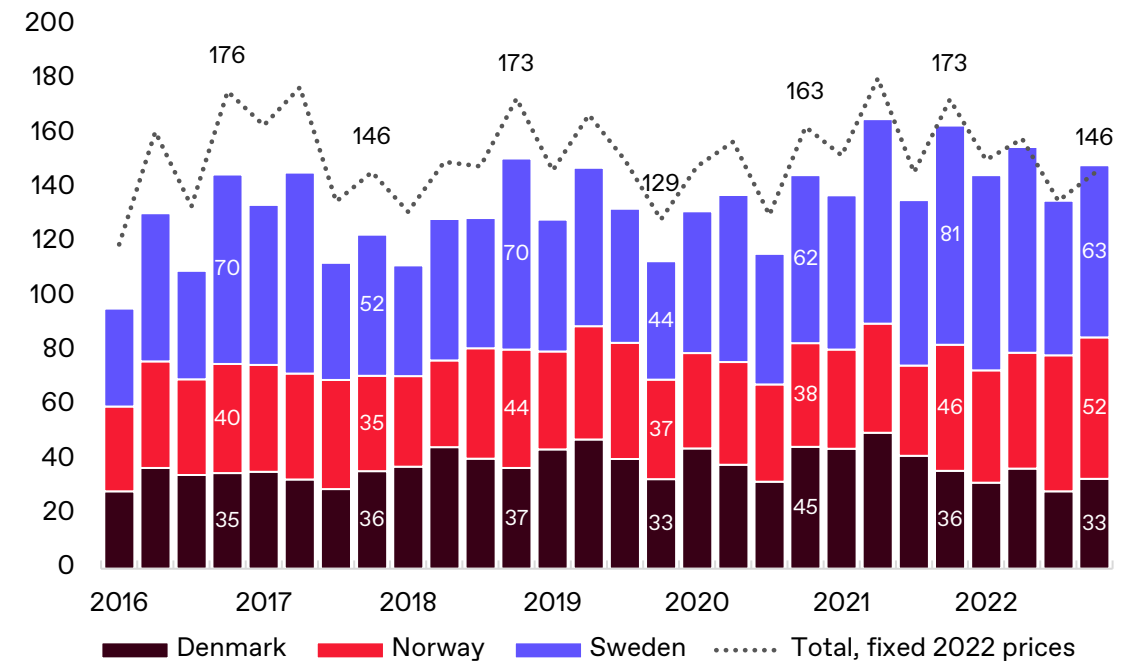
Reporting companies, reported figures and inflation-adjusted estimates in NOK billion



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

Estimated order intake, Scandinavian construction projects

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

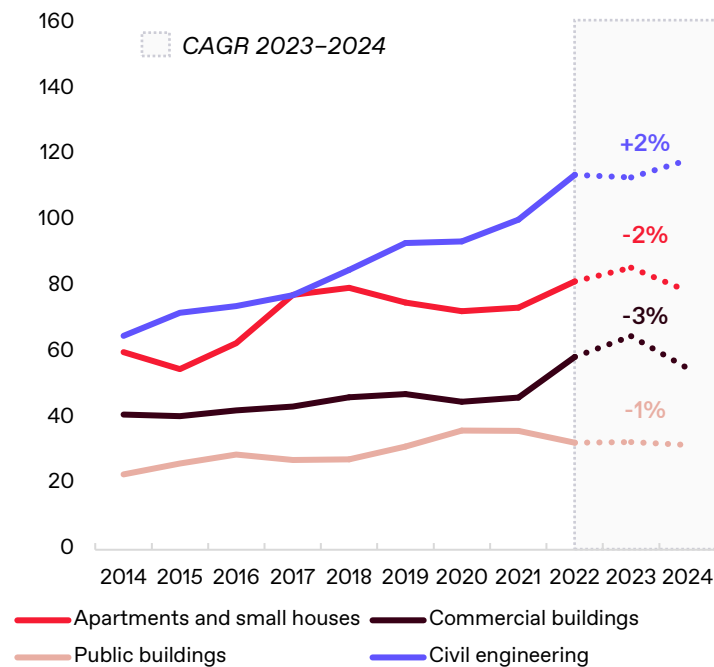


The Scandinavian construction markets

Historical figures and forecasts, current prices

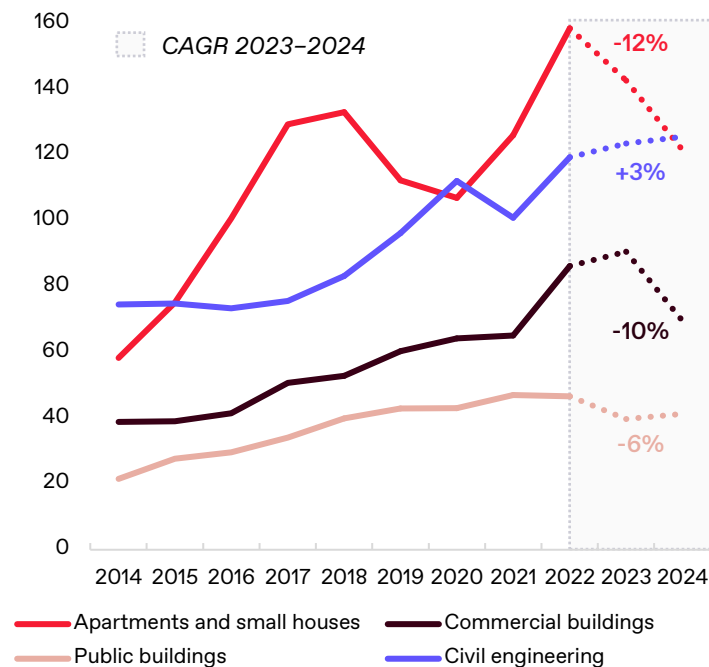
Norway, production by sector

NOK billion, current prices



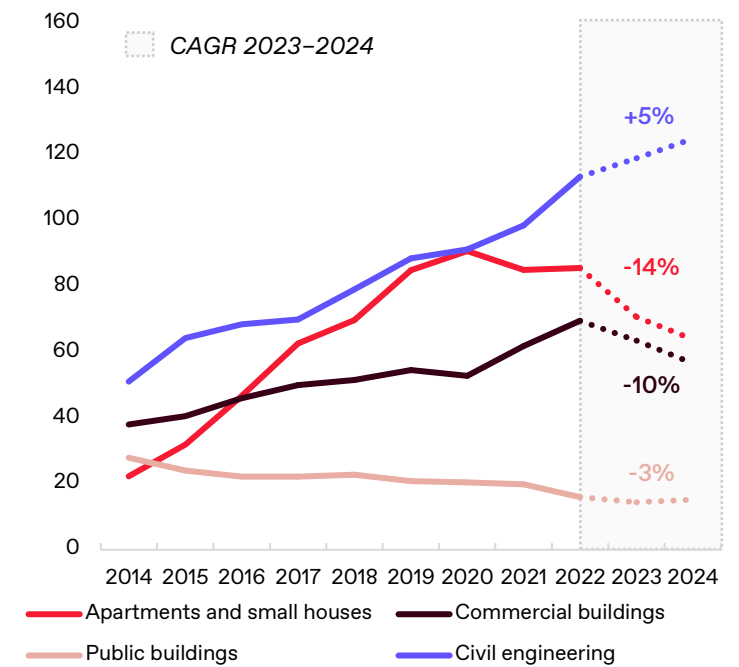
Sweden, production by sector

NOK billion, current prices



Denmark, production by sector

NOK billion, current prices

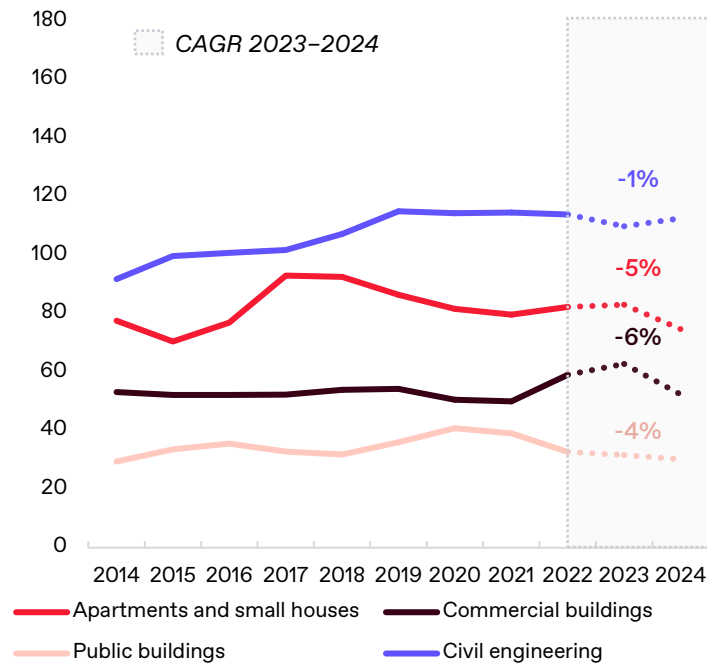


The Scandinavian construction markets

Historical figures and forecasts, fixed prices

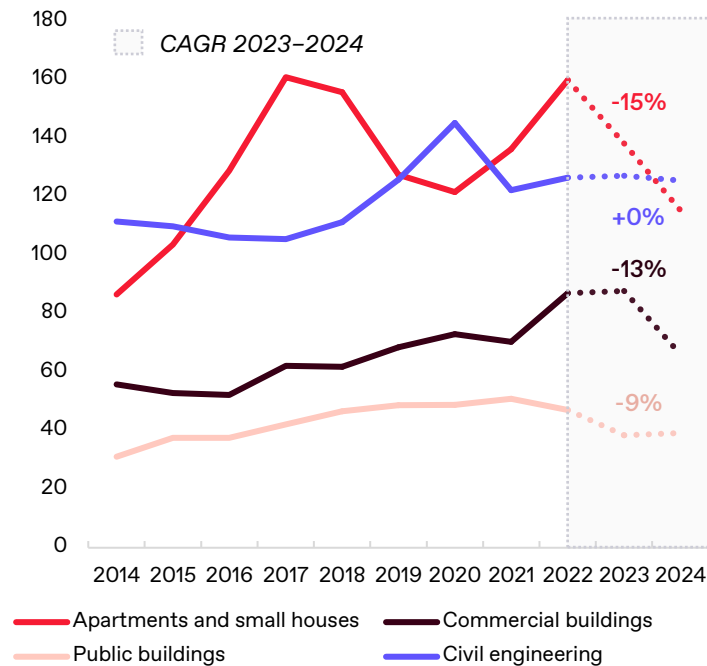
Norway, production by sector

NOK billion, fixed prices



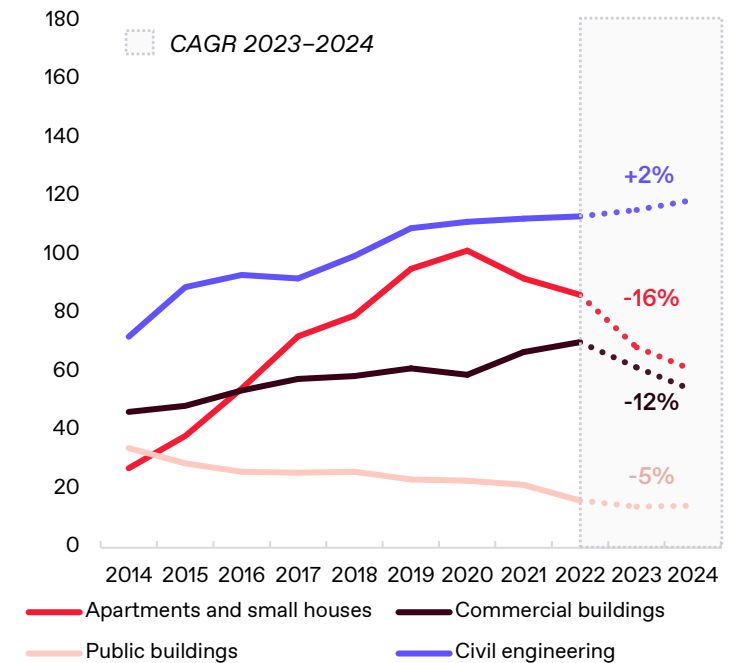
Sweden, production by sector

NOK billion, fixed prices



Denmark, production by sector

NOK billion, fixed prices



Buildings

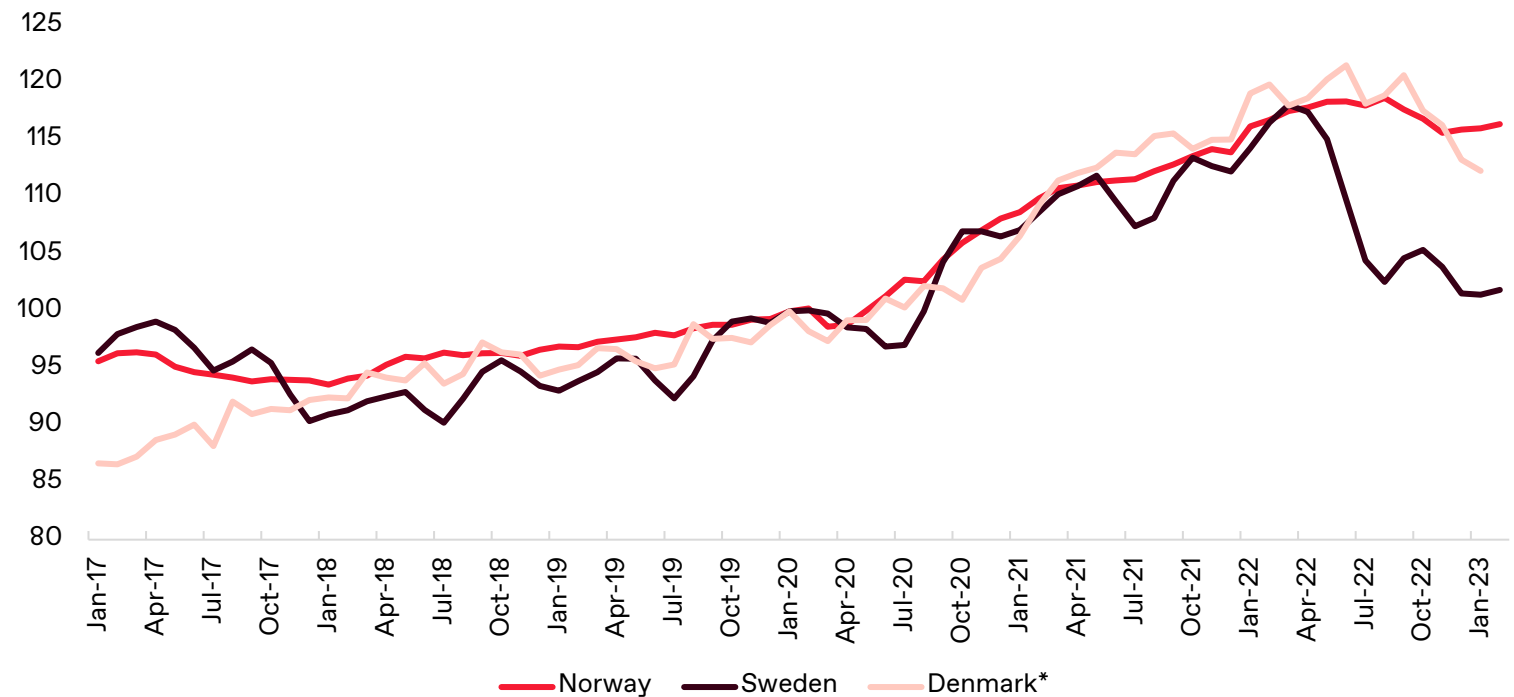
Recent stabilisation in the secondhand residential market

Residential prices, index

- Residential prices in Norway and Sweden appear to have stabilised following last year's price drop, but uncertainty remains high.
- In Sweden, the correction was significant, with prices falling back to 2020 levels in nominal terms. Norway has only experienced a marginal correction thus far.
- The secondhand housing market has a very significant impact on the market for new residential units. In the absence of further downturns in the secondhand market, we expect to see positive knock-on effects in the months ahead.
- Rising interest rates are likely to help prevent further strong housing price inflation. Based on factors such as reduced uncertainty, strong labour markets and population growth, we expect the market for new residential units to stabilise compared to last year's strong fluctuations.

Prices, secondhand residential units in Scandinavia, apartments

Index: January 2020 = 100



* Advertised price

Apartments and small houses, Norway and Sweden

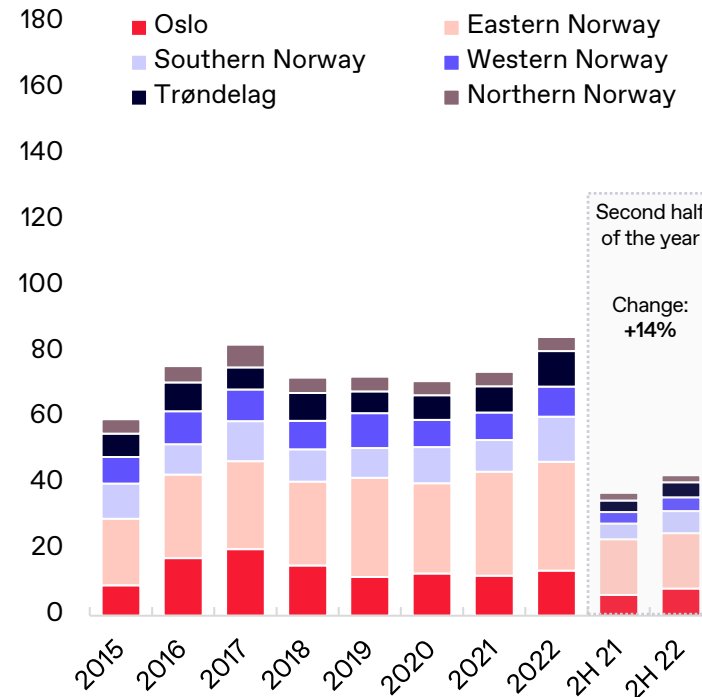
Estimated value of order intake up to and including Q4 2022

Comment

- In Norway, the number of building starts involving apartments and small houses was satisfactory throughout 2022, and the estimated order intake was 14% higher than in the autumn of 2021. Indicators such as new residential unit sales last autumn and building starts in the first few months of 2023 suggest that the anticipated drop in building starts has begun.
- In Sweden, a clear correction was already apparent in both the secondhand and new residential unit markets in the spring of 2022, and the autumn saw a substantial drop in the estimated order intake for this sector. 2023 is expected to be a weak year for the residential sector, albeit not as poor as the autumn of 2022.
- The residential sector is vulnerable to further setbacks such as increased interest rates and unforeseen events that create financial uncertainty for households.

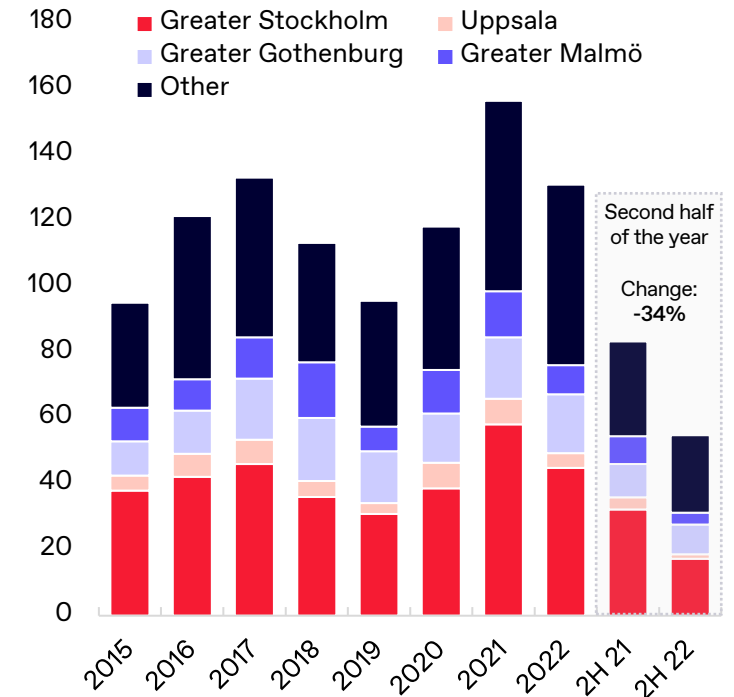
Norway, estimated order intake

NOK billion



Sweden, estimated order intake

NOK billion



New residential unit sales in Norway

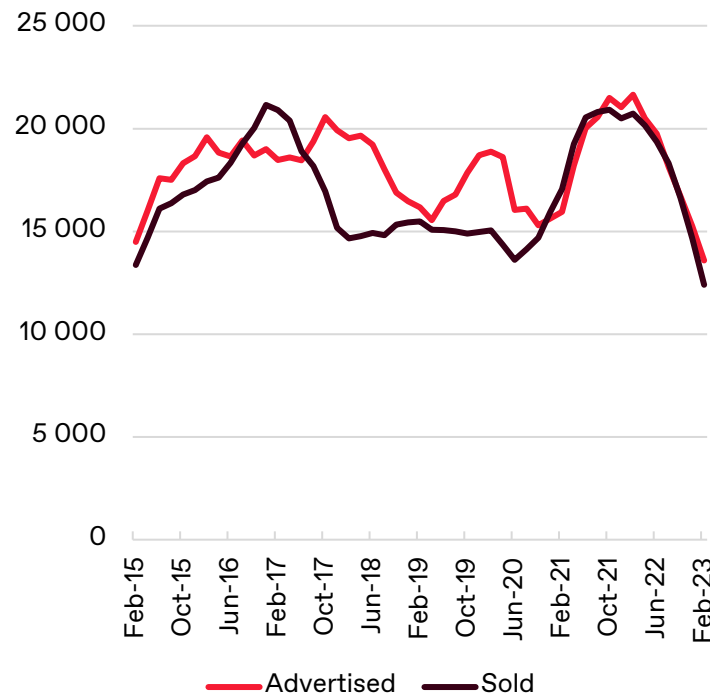
Are stocks exhausted (in the short term)?

Comment

- Sales of new apartments fell strongly in the autumn and have stabilised at a low level in the first few months of 2023.
- The decline must be viewed in light of a very strong performance throughout 2021 and the first half of 2022.
- Explanatory factors for the drop include strong sales in 2021/2022, higher interest rates and prices, increased uncertainty about personal finances and reduced supply of projects for sale.
- While the number of unsold units in production or completed has increased somewhat, the total supply of unsold units fell from December to February.
- We expect the decline to slow and that we will see moderate improvement as 2023 progresses.

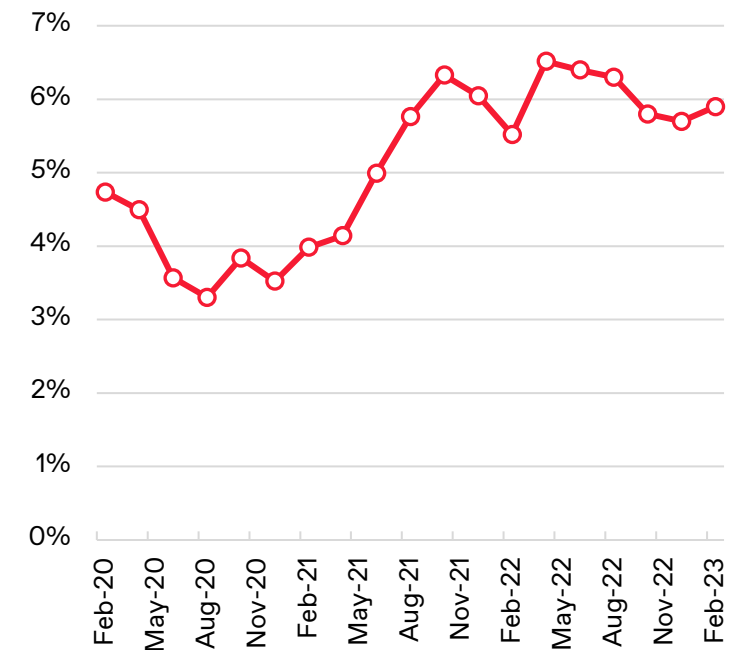
Ready-for-sale and sold apartments

Number of units, 12-month rolling total



New residential unit prices (apartments)

Year-on-year percentage change in price per m²



Commercial buildings in Norway and Sweden

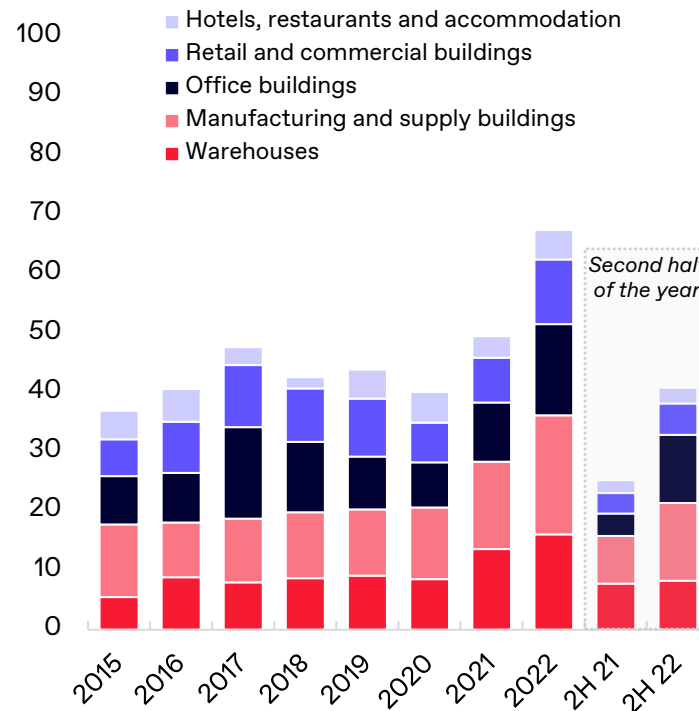
Logistics and industrial operations are driving the sector

Comment

- The estimated order intake for commercial buildings in Norway and Sweden was a very positive surprise in 2022.
- While the industrial and logistics segment recorded particularly strong growth, office buildings, retail and other segments also expanded from 2021 to 2022.
- We expect lower activity levels this year and next as a result of interest rate rises and weaker economic developments.

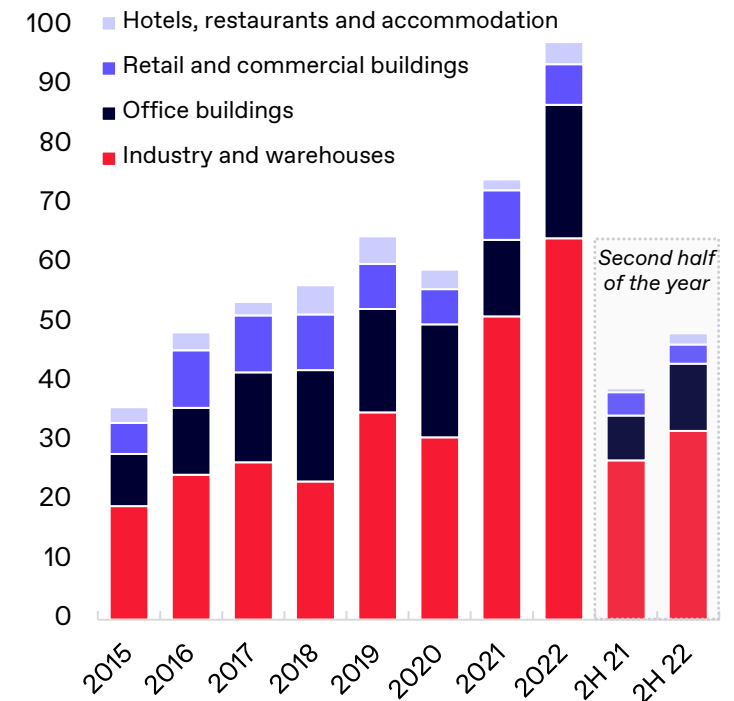
Norway, estimated order intake

NOK billion



Sweden, estimated order intake

NOK billion



Public buildings in Norway and Sweden

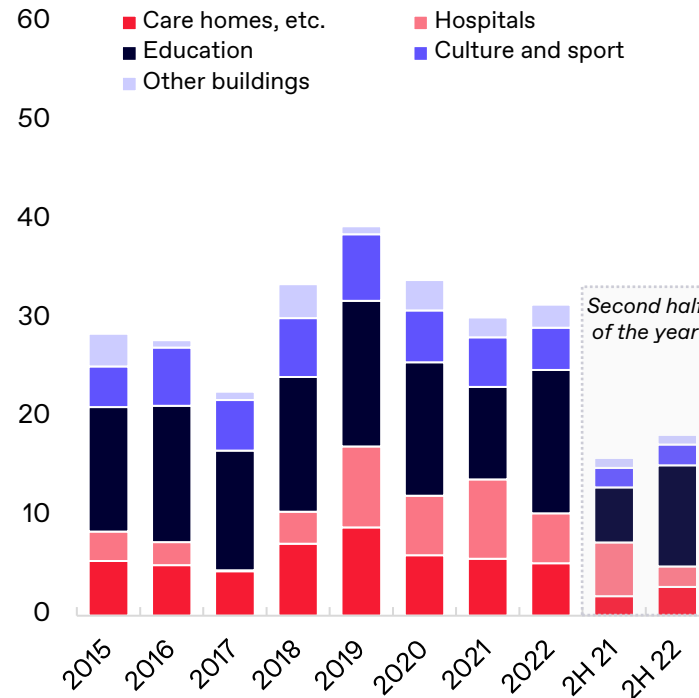
Weak during Covid-19 pandemic in Norway, more activity in Sweden

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, the market benefited from an increase in hospital building starts, while the care homes sector shrank.

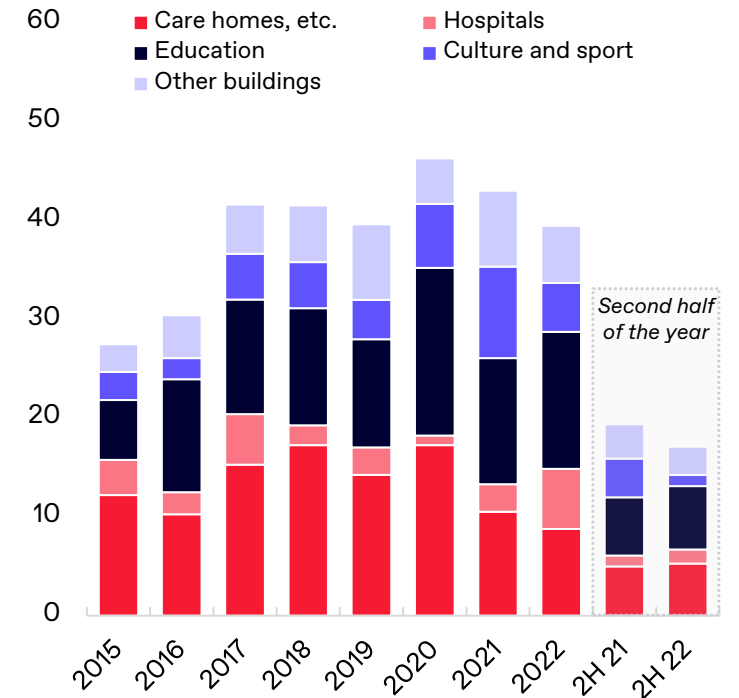
Norway, estimated order intake

NOK billion



Sweden, estimated order intake

NOK billion



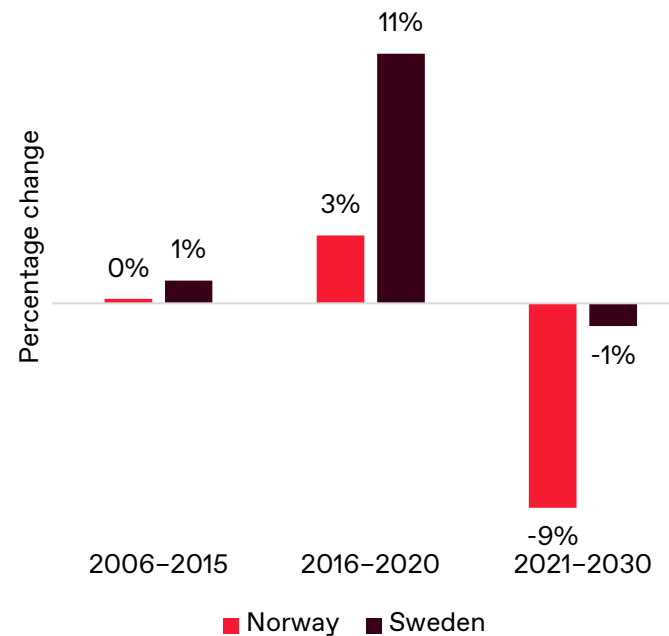
Structural changes in the public buildings segment

Reduced demand for new school buildings in both Norway and Sweden

- Demographic trends are an important driver in the public buildings segment, alongside the general financial situation of municipalities.
- The number of schoolchildren has grown strongly in recent times, particularly in Sweden.
- Demand for schooling will taper off in Sweden in the years ahead, while a strong drop is forecast in the number of schoolchildren in Norway.
- These demographical changes are clearly reflected in demand for new school buildings, which was very high in both countries in the period 2016-2020.
- The new-build schools market is expected to shrink substantially in the 2020s, particularly as municipal investment budgets feel the impact of increasing numbers of the elderly.
- The refurbishment market is unlikely to experience a corresponding downturn due to high demand for upgrades to old school buildings.

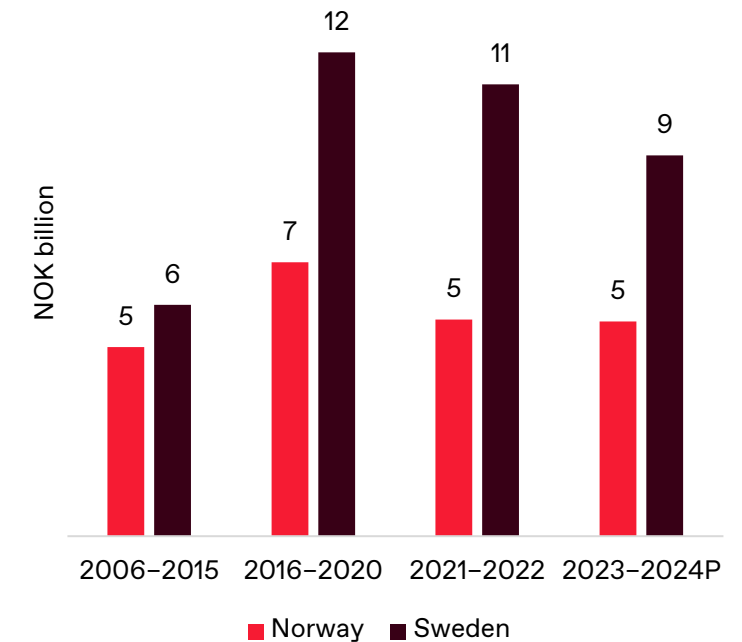
Children of primary and lower secondary school age

Percentage change in number of schoolchildren over the time period



Order intake, new school buildings

Estimated order intake and forecast, 2023-2024



Infrastructure

The civil engineering market in Norway and Sweden

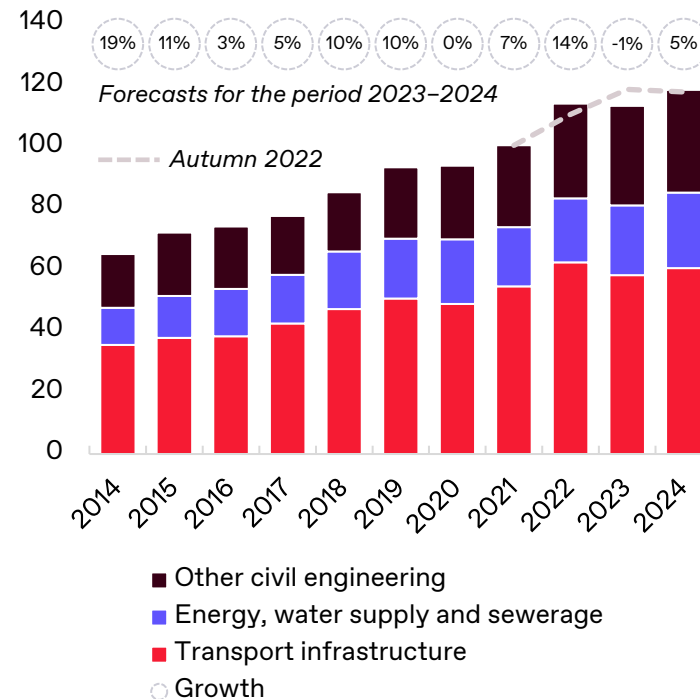
The market remains strong

Comment

- Strong growth in 2022 is primarily attributable to construction cost increases of 12%-15%; more normal increases are expected this year and next.
- Norway: growth of -1% in 2023 and +5% in 2024.
- Sweden: growth of 4% in 2023 and 2% in 2024.
- In volume terms, this implies a flat development for the rest of the forecast period.
- Common trends in Norway and Sweden:
 - Decline in the transport infrastructure sector, from a very high production level.
 - Positive development expected in the energy, water supply and sewerage segment.

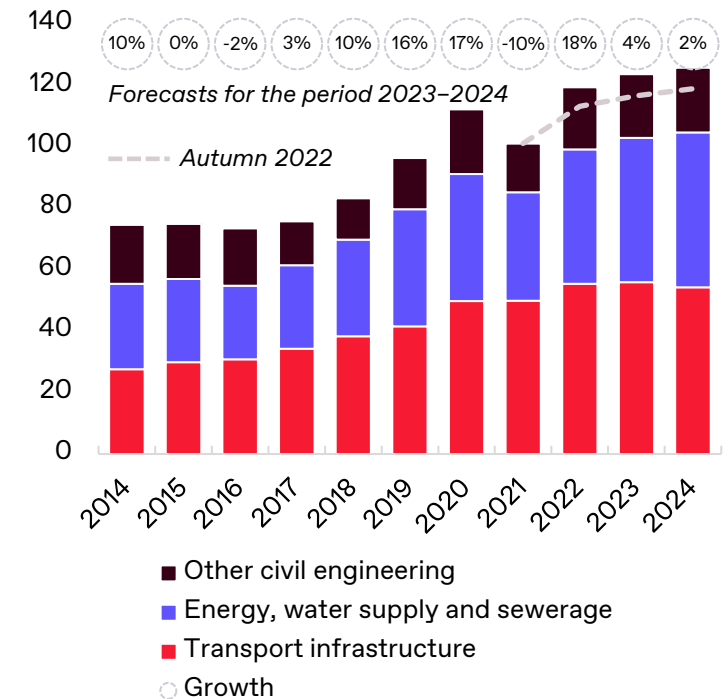
Production by civil engineering segment

Norway, NOK billion, current prices



Production by civil engineering segment

Sweden, NOK billion, current prices



Transport infrastructure in Norway

Continuing high activity despite a slight decline

Comment

Roads

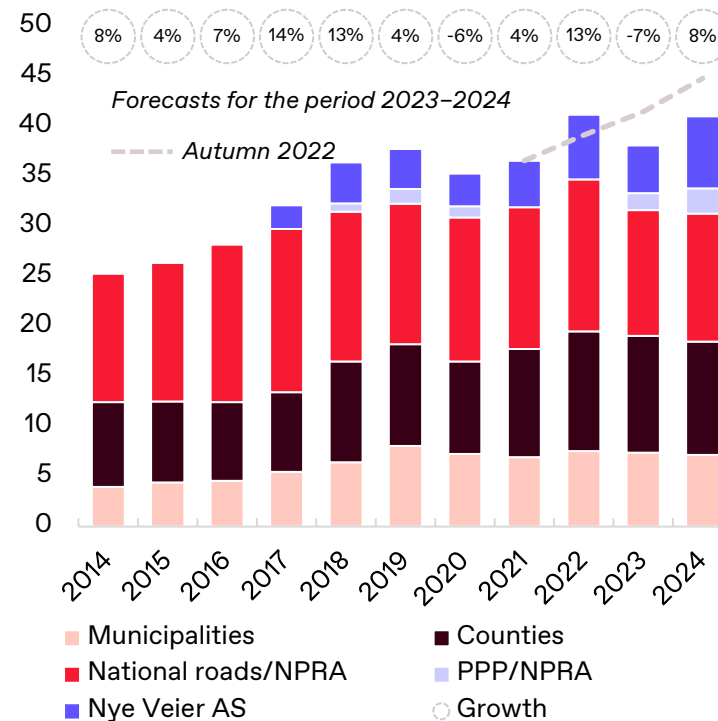
- Substantial drop in national road investment this year following reduced budget allocations to the Norwegian Public Roads Administration and lower production by Nye Veier AS.
- Upturn in 2024 linked to execution of new public-private partnerships (Rv. 555 Sotrasambandet and E10/rv. 85 Hålogalandsvegen) and increased production by Nye Veier.

Railways

- Lower expected investment by Bane NOR as no major new projects are due to start this year.
- Building start dates have been set in 2024 for three major new contracts relating to the Dovre line and the Østfold line. Other contracts are approaching completion.
- High pace of development on the Fornebu line. Several contracts have started and several are expected to start in 2024.

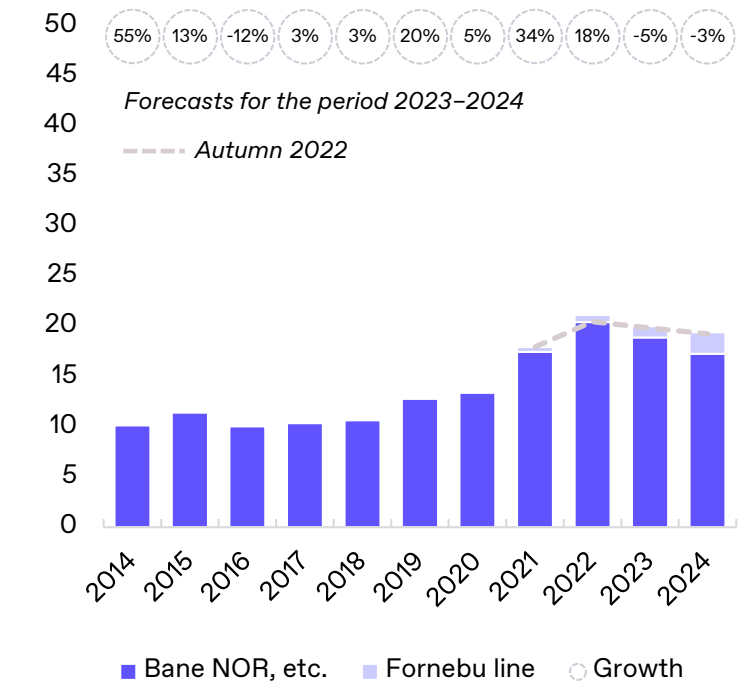
Roads market, production

NOK billion, current prices



Railways market, production

NOK billion, current prices

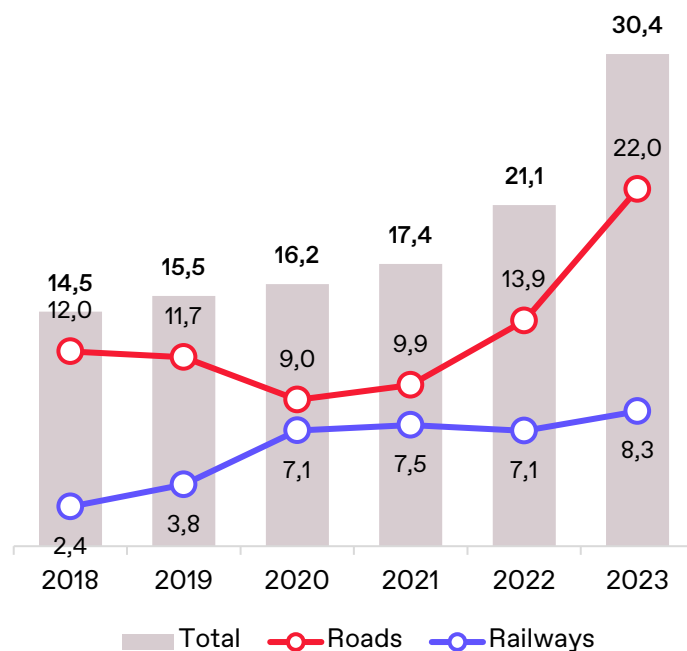


Transport infrastructure projects in Norway > 500 million

Published development plans

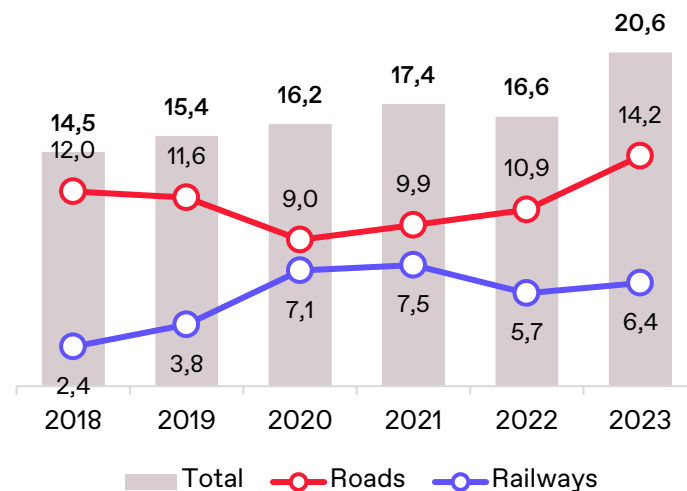
Norway, March 2022

Project value in NOK billion



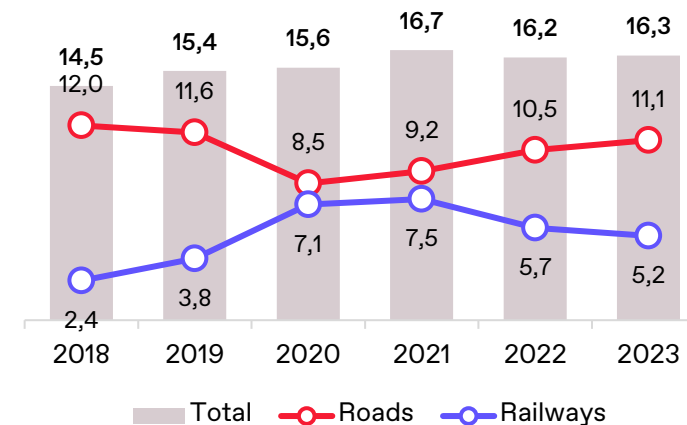
Norway, September 2022

Project value in NOK billion



Norway, March 2023

Project value in NOK billion

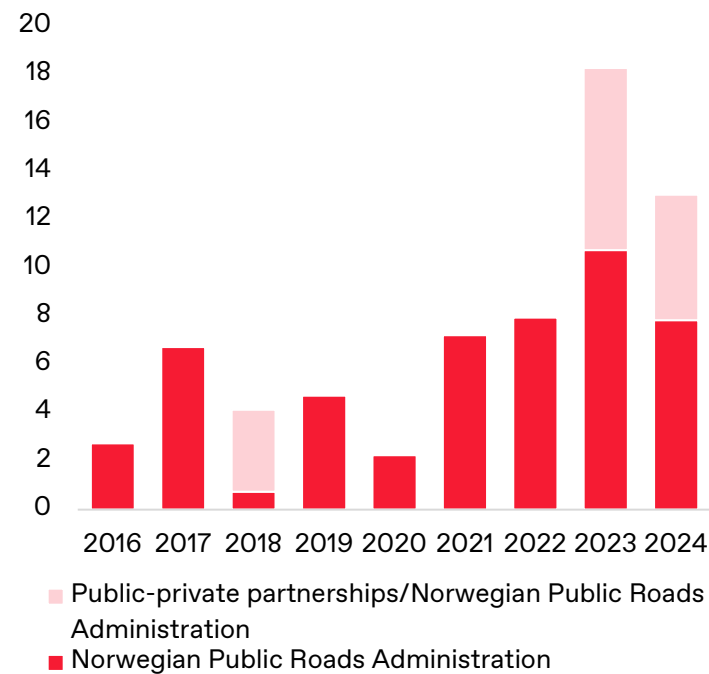


Transport infrastructure projects in Norway > 500 million

Development of start-up value*

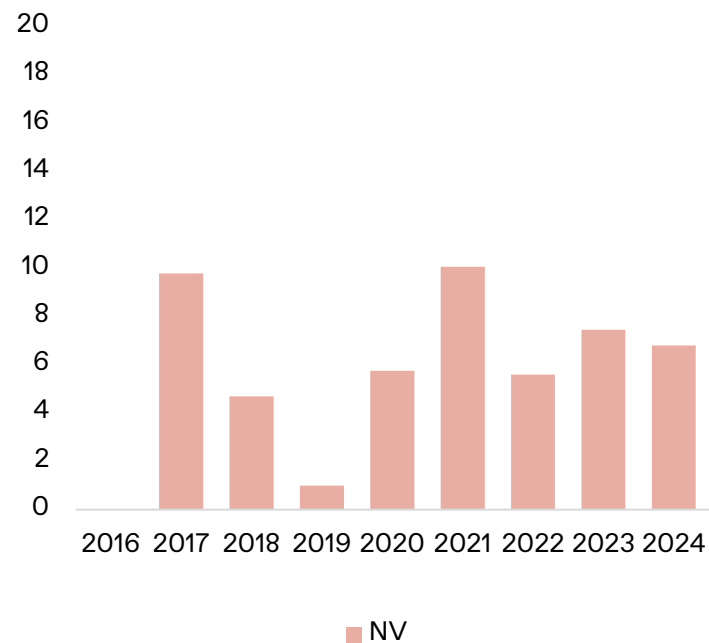
Norwegian Public Roads Administration

Start-up value after start-up year, NOK billion



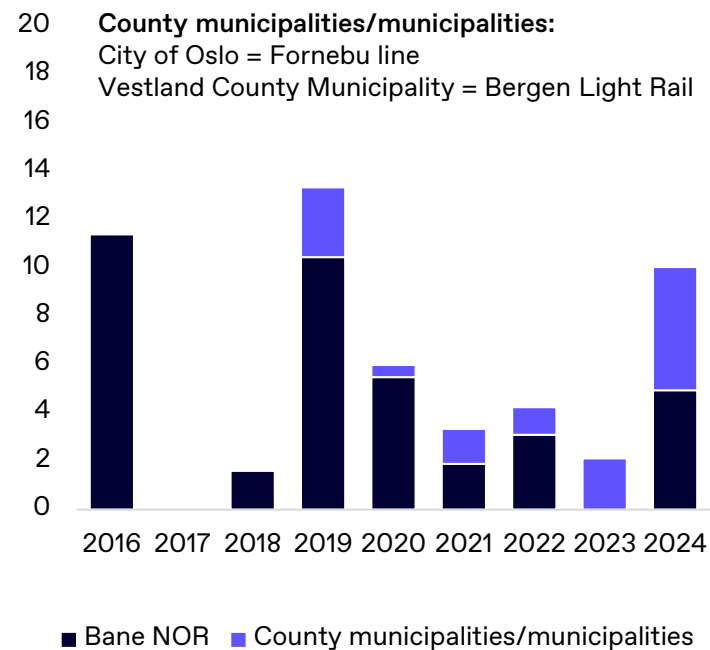
Nye Veier AS (NV)

Start-up value after start-up year, NOK billion



Railways

Start-up value after start-up year, NOK billion



* Actual/estimated contract value after start-up year

Transport infrastructure in Sweden

Continuing high activity despite a slight decline

Comment

Roads

- Many large central government construction projects are scheduled for completion in the period 2020-2024, including the E4 bypass in Stockholm.
- The number of major new construction projects* has been declining since 2018.
- This trend will result in reduced central government production activity in the years ahead.
- Completion of residential units (which is often correlated with municipal roads development) will also decline in the period to 2024.

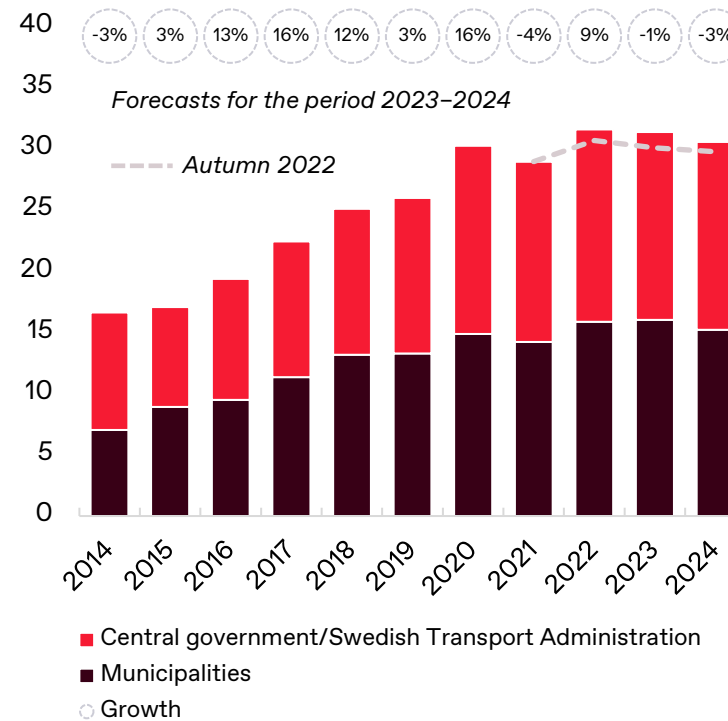
Railways

- Future production activity will be somewhat reduced due to the low number of major new construction projects* started in 2021 and 2022 and the fact that many started projects are approaching completion.

* Exceeding NOK 500 million.

Roads market, production

NOK billion, current prices



Railways market, production

NOK billion, current prices

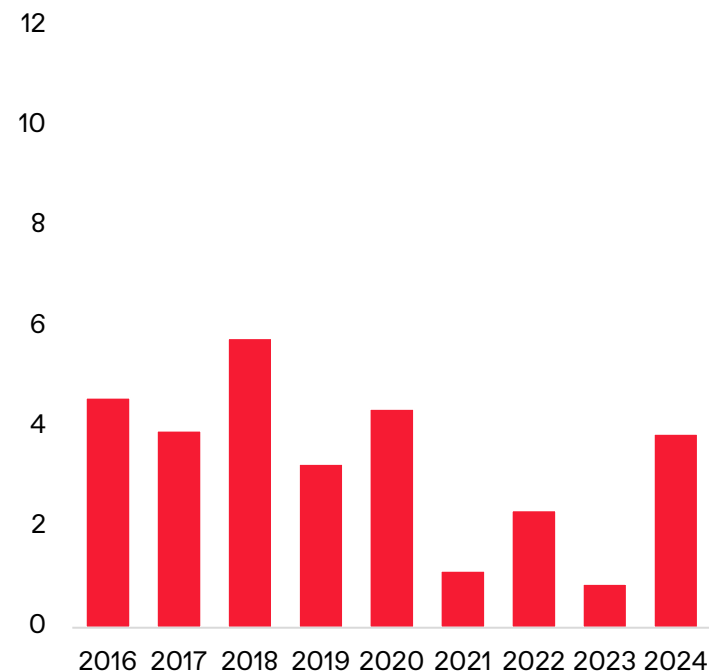


Transport infrastructure projects in Sweden > NOK 500 million

Development of start-up value*

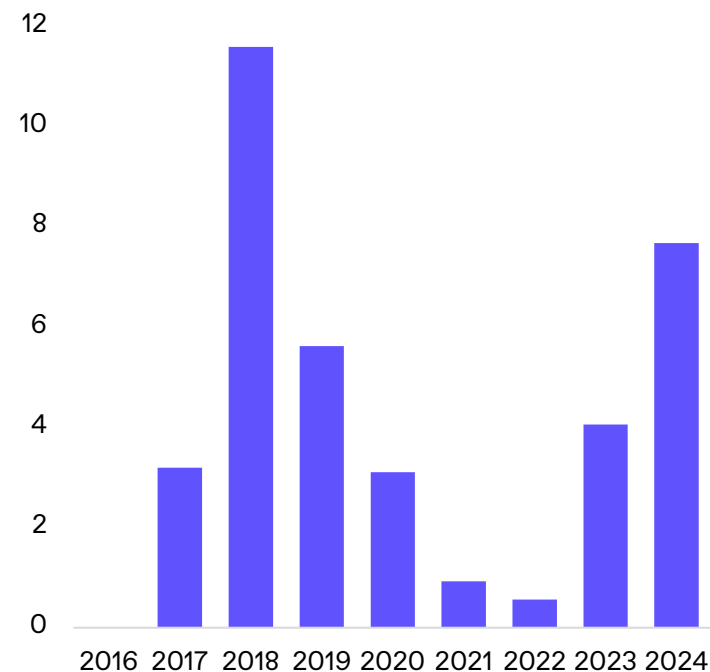
Swedish Transport Administration (Roads)

Start-up value after start-up year, SEK billion



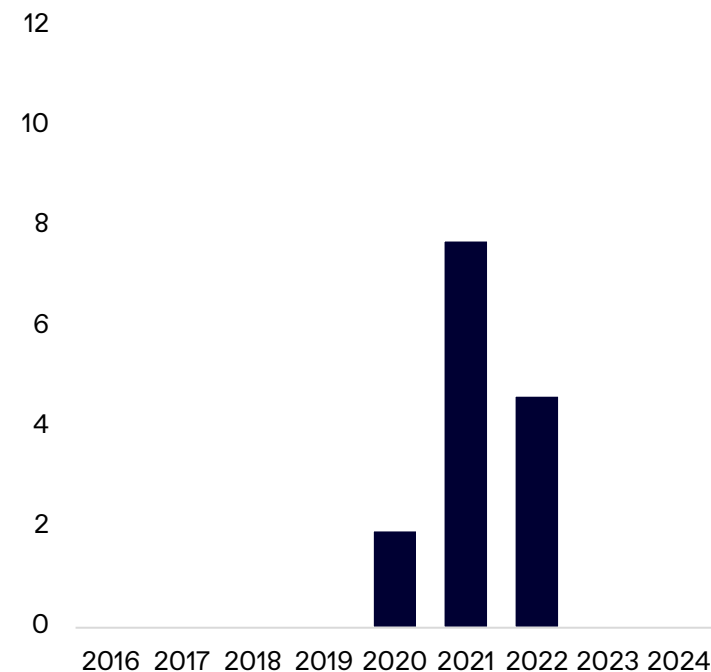
Swedish Transport Administration (Railways)

Start-up value after start-up year, SEK billion



Stockholm Region (Railways)

Start-up value after start-up year, SEK billion



* Actual/estimated contract value after start-up year

Norway: energy, water supply and sewerage

Positive developments

Comment

Energy

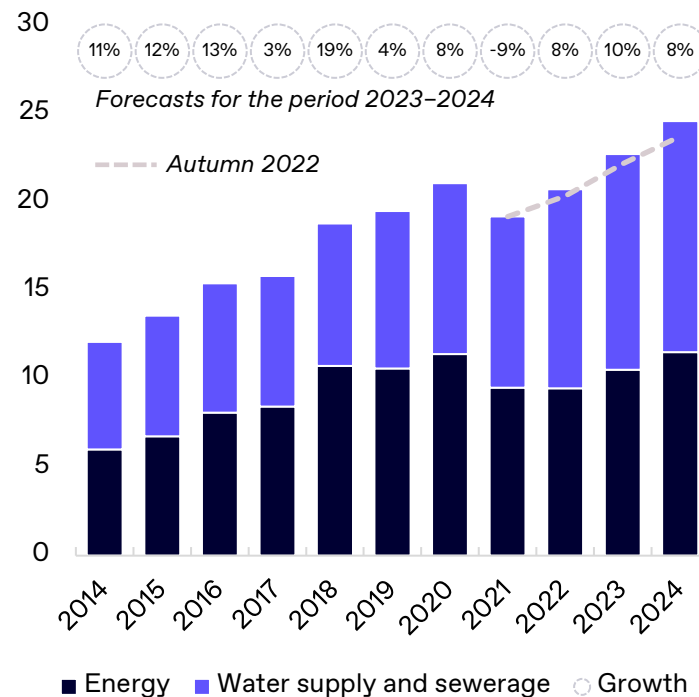
- Energy investment fell in 2021 and 2022 due to a substantial drop in the number of wind power developments (see figure).
- However, an increase is expected in 2023 and 2024, primarily due to higher investment in the distribution grid, as also shown in Statnett's investment plan.

Water supply and sewerage

- Further growth anticipated in 2023 and 2024.
- Upgrading of older treatment plants.
- The Norwegian water sector faces major investment in the next few years to secure clean drinking water and handle waste water.
- Proposed new EU requirements will necessitate substantially higher investment going forward.

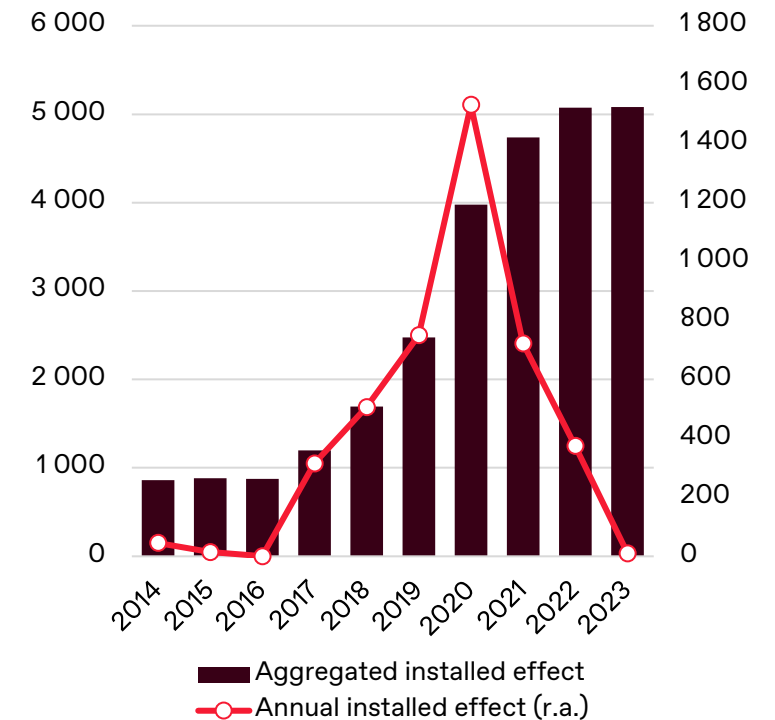
Production

NOK billion, current prices



Production facilities, onshore wind power

Installed effect (MW)



Sweden: energy, water supply and sewerage

Positive developments

Comment

Energy

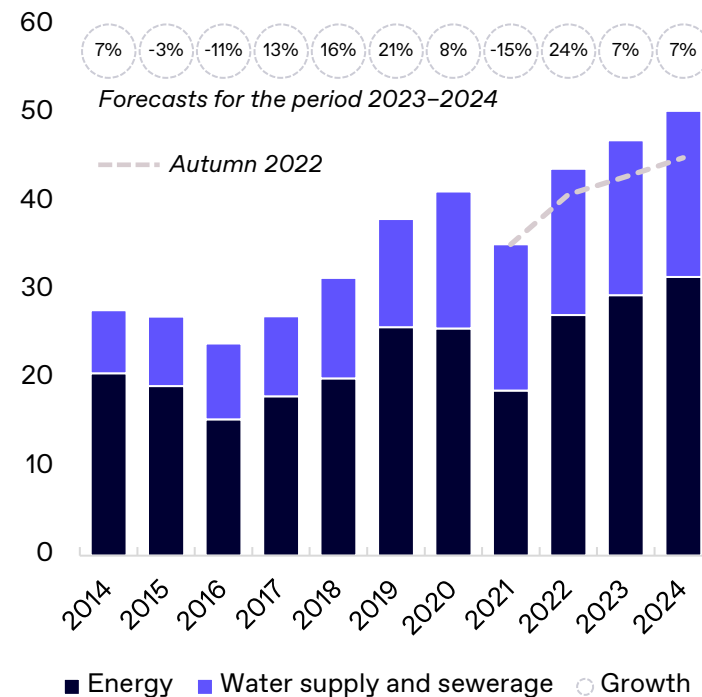
- Wind power development activity is expected to remain high throughout the forecast period.
- Svenska Kraftnät's investment plan describes higher planned investment in the distribution grid in both 2023 and 2024.

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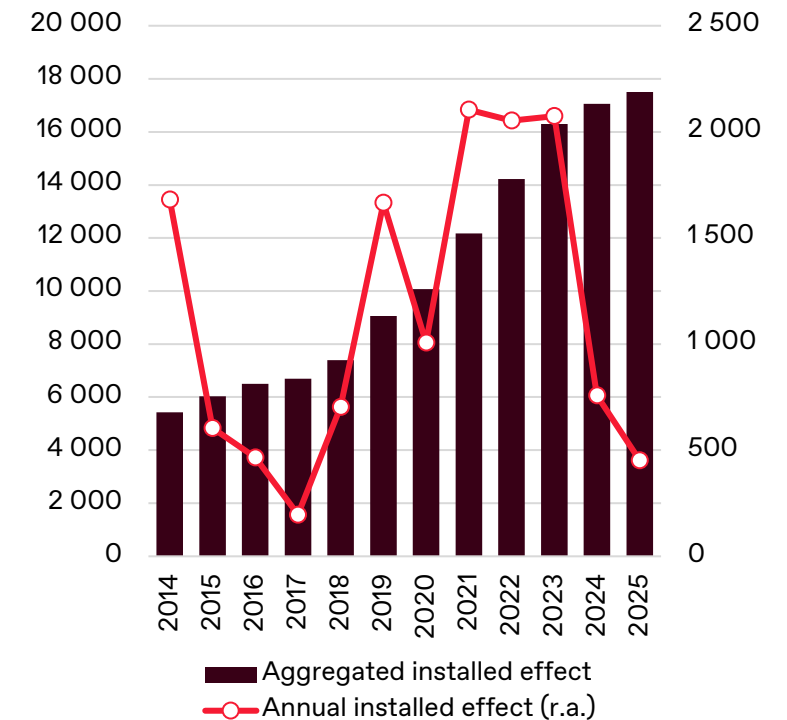
Production

NOK billion, current prices



Production facilities, wind power

Installed effect (MW)



Sweden: energy, water supply and sewerage

Positive developments

Comment

Energy

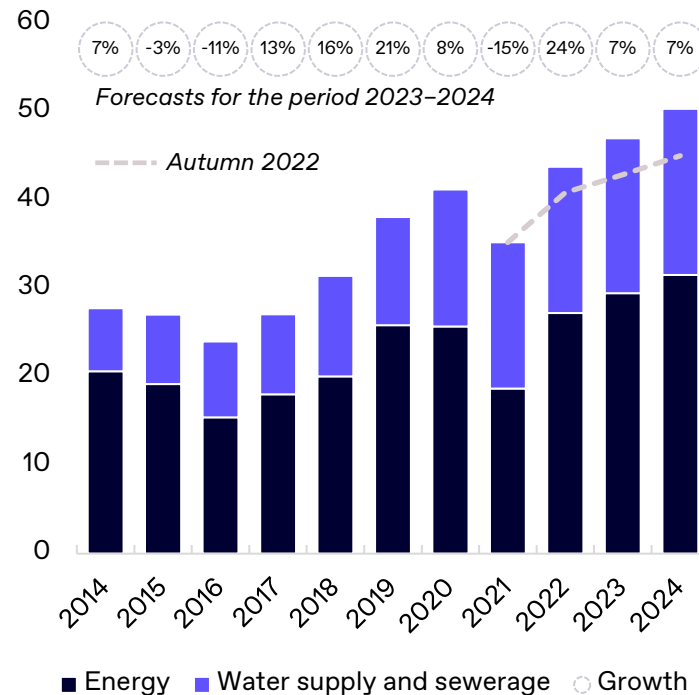
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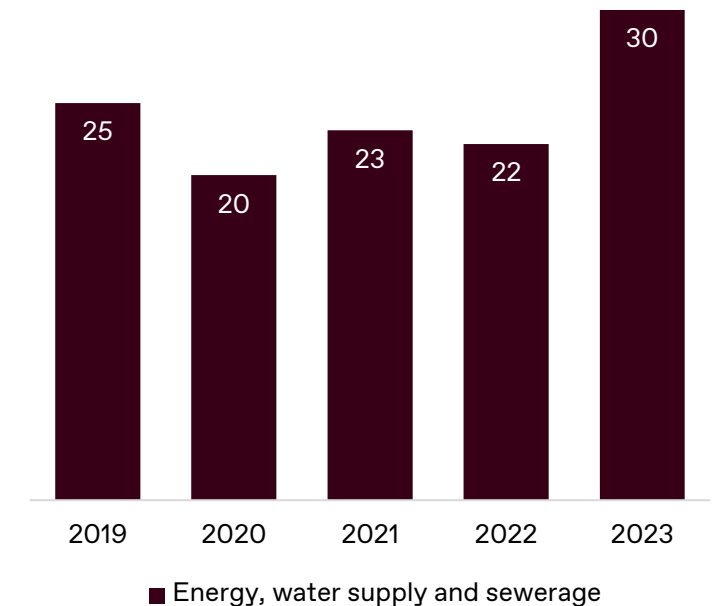
Production

NOK billion, current prices



New projects according to Byggefakta

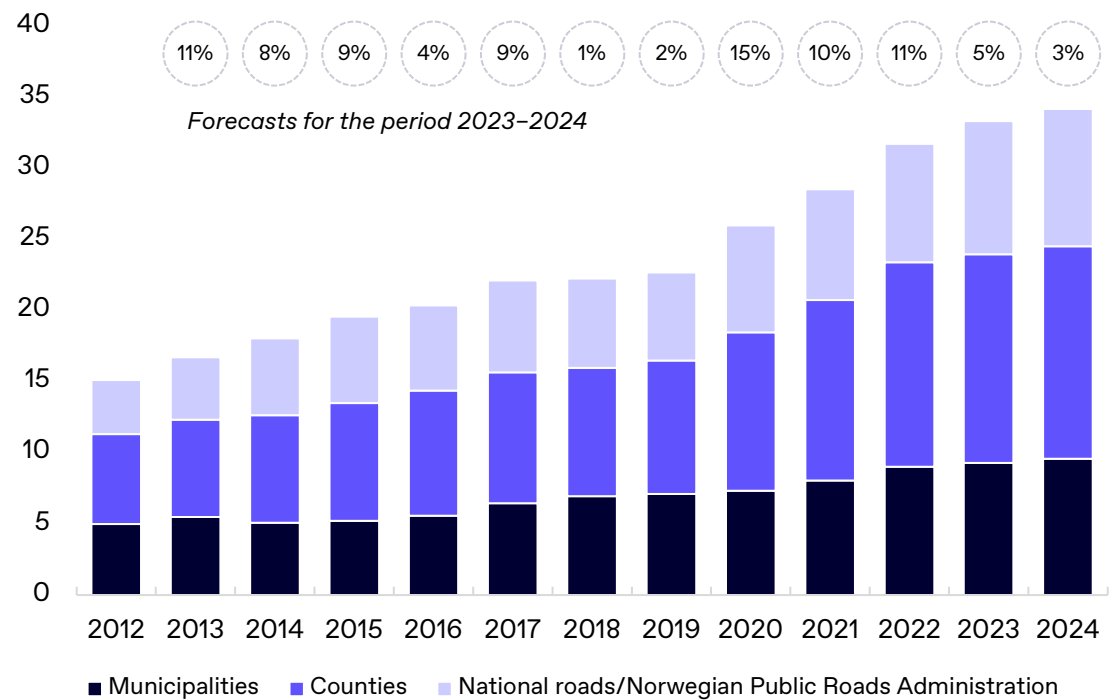
Construction costs by start-up year, SEK billion



Road maintenance, Norway

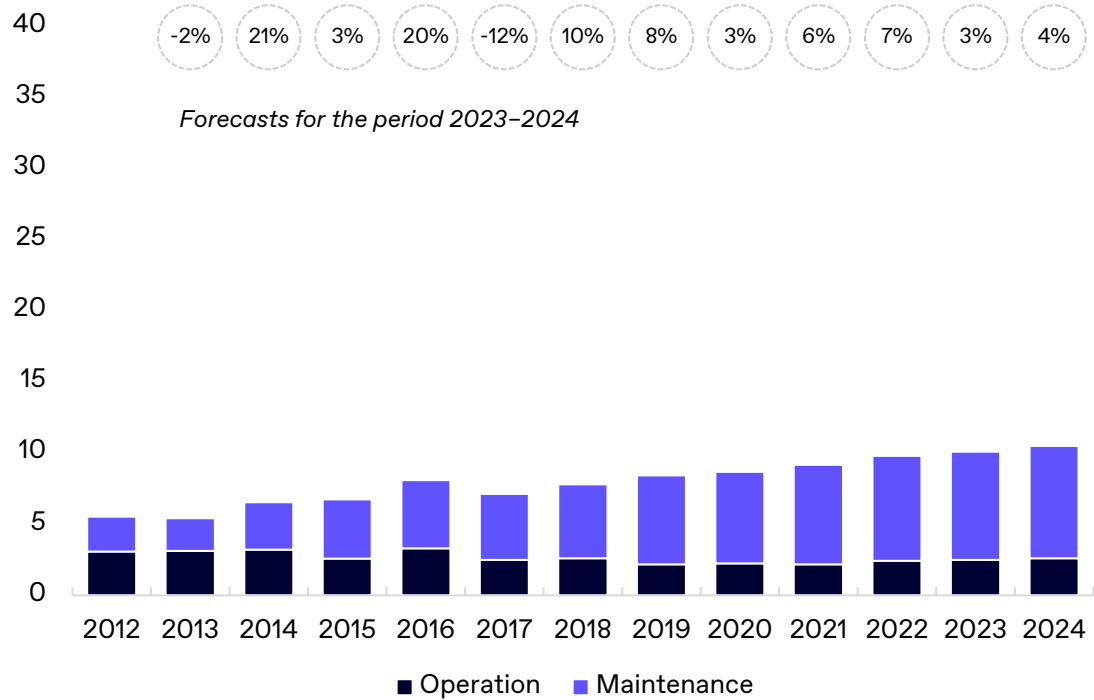
Road maintenance

NOK billion, current prices



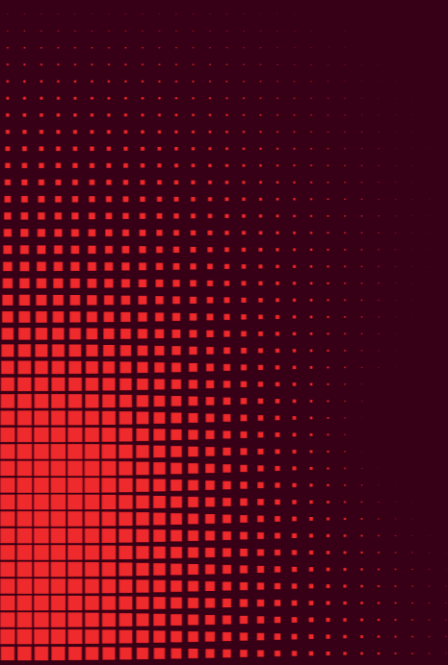
Railway maintenance

NOK billion, current prices



04

Construction costs



Cost inflation set to fall

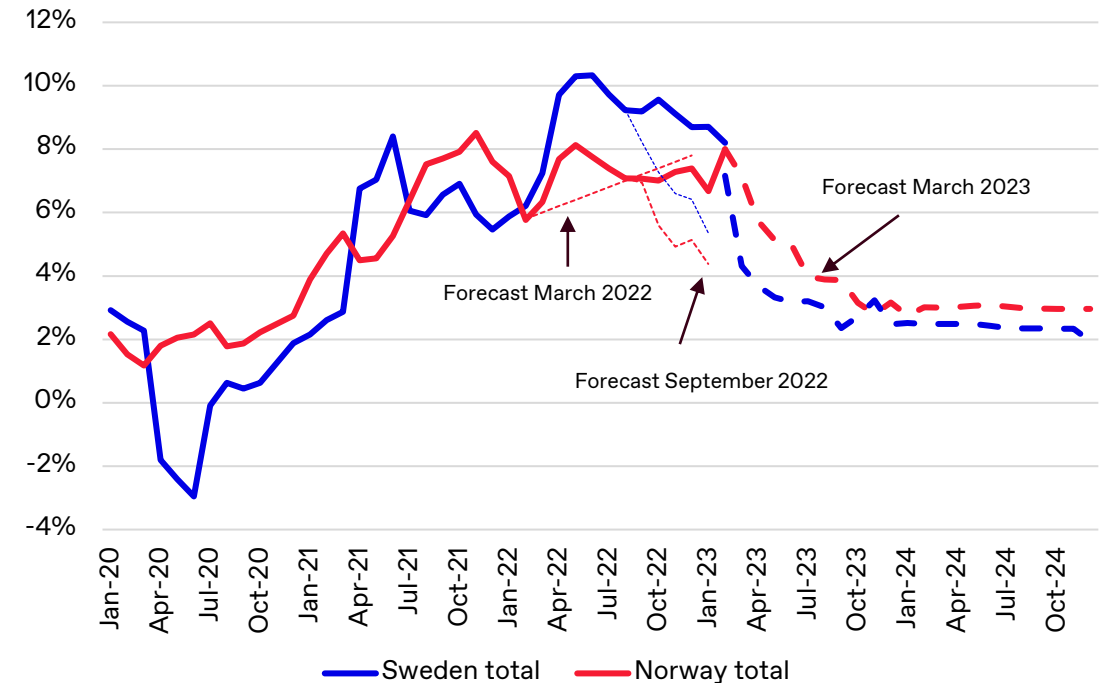
Construction cost indices show slower growth than last year

Comment

- Inflation as illustrated by construction cost indices has remained higher than forecast in the previous report, and stood at approximately 8% in both countries in February.
- Ongoing strong growth in the prices of energy-intensive goods such as concrete, steel, windows and insulation throughout the autumn is an important reason why inflation has remained high for longer than anticipated in the previous report.
- Over the past three to four months, inflation has totalled around 2%-3% annually in both countries. Barring further surprises with respect to the prices of energy and CO2 quotas, we do not expect additional material changes affecting key materials such as concrete and steel products going forward.
- Since labour is a key cost component, increased wage inflation forecasts for both countries indicate that future inflation may exceed historical levels.
- Depreciation of the Norwegian krone may have one-off effects on inflation in Norway unless exchange rates recover.
- Reduced construction activity normally means increased productivity and reduced risk in all execution segments, and thus potential price reductions in the sub-contractor segment. However, since the forecasts do not indicate a strong downturn in the industry as a whole, the effect is uncertain and difficult to measure.

Construction cost index, residential blocks

Percentage change since same month last year



Construction cost index, civil engineering (Norway)

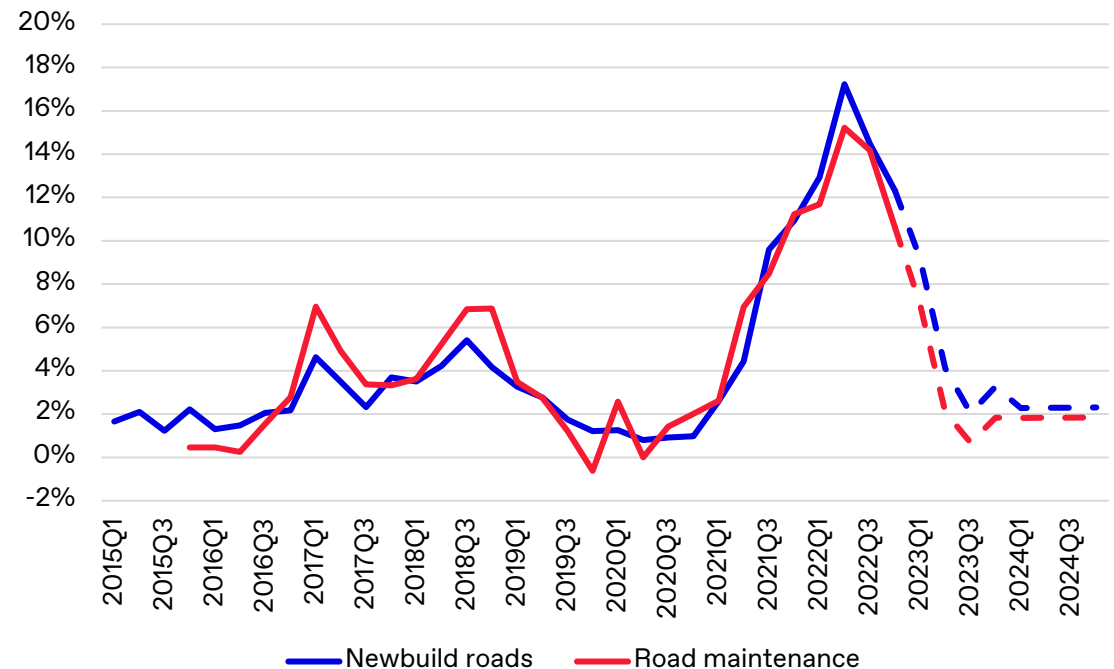
Prices are flattening out

Comment

- Construction costs in the civil engineering and road maintenance segments increased strongly in 2022, driven not least by substantially higher fuel prices.
- At the end of 2022, the year-on-year increase totalled some 12.3%, although most of the increase occurred in the first half of the year. In the second half of 2022, inflation totalled just 1.8% when converted into an annual growth rate.
- In Norway, an increase in concrete costs in January is expected to impact new-build activity in Q1, although a tax exemption for certain types of environmentally friendly fuel may have a mitigating effect.
- In the absence of new inflation drivers, year-on-year growth will drop quickly in 2023 in both the road maintenance and new-build civil engineering projects segments.

Construction cost index, roads (Norway)

Percentage change since same quarter last year



05 Summary

Highlights

Spring 2023

- The economy appears set for a soft landing despite continuing uncertainty about geopolitical and other factors. Important market drivers for Veidekke, such as unemployment and migration, continue to develop positively.
- Inflation is falling, including for construction costs. However, central bank measures to reduce inflation remain incomplete, and we see no reason to expect significantly lower interest rates in the forecast period to the end of 2024.
- We have to recognise that the past few years constituted an economic upturn powered by artificially low financing costs. We cannot expect demand to remain at the same high level when interest rates increase.
- We expect rising interest rates to reduce activity in all construction market segments in 2023 and 2024.
- New residential unit sales showed unusually strong fluctuation in 2022, from very high to very low. Going forward, we expect to see more balanced demand development than last year. Particularly in Sweden, construction volumes are likely to fall substantially compared to preceding years.
- Reduced competition for input factors such as expertise and materials is having positive effects on productivity and inflation. This is particularly true of the construction industry, where flexibility and adaptability are high.

Production, Scandinavian construction markets

Percentage change since previous year, current prices

	2021	2022	2023	2024
Norway	4%	12% (10%)	3% (2%)	-4% (3%)
Sweden	4%	21% (19%)	-3% (-1%)	-10% (-4%)
Denmark	4%	7% (0%)	-6% (-6%)	-3% (8%)
Scandinavia	4%	14% (11%)	-2% (-1%)	-6% (1%)
<i>Scandinavia, fixed prices</i>	-2%	4% (3%)	-6% (-4%)	-8% (-1%)

Autumn 2022 forecast in bracket

