Aningaasaqarnermut Siunnersuisoqatigiit

The Economic Council

Nunatta aningaasaqarnera Grønlands økonomi

2018

The Economic Council was set up by the Government of Greenland in 2009. This is its ninth report.

The Council is headed by a chairmanship of eight people. The chairmanship consists of a Chairman, Vice Chairman and six other members, all appointed by the government. No changes have been made to the chairmanship since the publication of the last report.

Apart from the chairmanship, the council consists of members of stakeholder organisations, the government's administration service and scientific institutions. Members representing organisations and scientific institutions are appointed by the relevant organisations. Other members are appointed by the government. Council members can comment on the report's content, but the chairmanship alone bears ultimate responsibility for compiling the report and its final content.

The secretariat function for the council is provided by the Ministry of Finance and Taxes and Danmarks Nationalbank (Denmark's central bank). The Economic Council's duties consist of making regular appraisals of the state of the economy and sustainability of financial policies.

The chairmanship consists of:

Chairman: Torben M. Andersen, PhD.
Professor of economics at Aarhus University and former chairman of the Taxes and Welfare Commission. He was chief economic adviser to the Danish Economic Council between 2001 and 2003, and is still active as a specialist expert.

Vice Chairman: Ulla Lynge, MSc in Public Administration from Ilisimatusarfik.
Head of the Secretariat, CSR Greenland and has previously worked for the Greenland Government Authorities, the Municipality of Nuuk Sermersooq Business Council and the pension fund SISA.

The other members of the chairmanship:

Anders Møller Christensen, MSc in Economics. Former vice governor of Danmarks Nationalbank. Member of the Consultative Committee for Greenland's Economy between 1988 and 2009.

Anders Blaabjerg is the Head of Statistics at Statistics Greenland and has an MSc in Economics. He has formerly been employed at the Ministry of Finance and Taxes, formerly the Department of Economy.

Søren Bjerregaard, MSc in Economics, head of securities and balance of payments statistics with Danmarks Nationalbank. Previously a member of the Consultative Committee for Greenland's Economy.

Ida Helliesen, BCom, has considerable executive experience from Norwegian trade and industry and from directorships, including Norges Bank and the former "Petroleumsfondet".

Claire Armstrong, PhD in fisheries economics. She is a professor at the University of Tromsø and has an extensive scientific body of work.

Najaaraq Christiansen, MSc in Public Administration from Ilisimatusarfik. Has worked at Statistics Greenland for a number of years.

Members of the Economic Council:

Brian Buus Pedersen, Director at Greenland Business Association (Grønlands Erhverv).

Jess G. Berthelsen, Chairman of SIK.

After the dissolution of KANUKOKA, a representative from the municipalities is expected.

Ken Jensen, Chairman of PK and appointed by IMAK, AK, NPK, ASG and PK

Martin Kviesgaard, Director of Grønlandsbanken (Bank of Greenland) and appointed by the banks.

Gitte Adler Reimar, Rector of Ilisimatusarfik (University of Greenland).

Lars Geraae, Office Manager, Statistics Greenland.

Jørgen Isak Olsen, Permanent Secretary at the Ministry of Fisheries, Hunting and Agriculture.

Jørn Skov Nielsen, Permanent Secretary at the Ministry of Industry, Labour, Trade and Energy.

Nikolai Sten Christensen, Permanent Secretary at the Ministry of Finance and Taxes
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Summary

The healthy economic climate continues. Average growth was 3.5% between 2014 and 2017, and is expected to be around 3% for 2018. Growth within commercial fishing, especially for prawns, has been a significant driver due to favourable prices and growing catches (of prawns). The level of activity is also growing within private consumption, higher investment and minerals.

Progress is accompanied by a significant fall in the number of people registered as unemployed. There are indications of a shortage of labour in many geographical areas and sectors of industry. Unemployment is now at a level where any further fall cannot be expected as a result of economic activity. Labour shortages are thus a limiting factor, and although foreign labour can be brought in, there is a real risk of overheating. Structural problems – qualifications, geographical and financial incentives – are the factors restricting a further increase in employment.

The healthy economic climate is reflected in public finances. The Greenland Treasury made a profit in 2015-2017 and expected to do so again in 2018. Municipal economies are not doing so well, and the provisional accounts show that only Qeqqata Municipality was in surplus in 2017, despite the healthy economic climate. The proposed Budget Act meets the Budget and Accounting Act's requirement for no deficits over the next four-year period (2019-2022), but only just. Given the favourable economic climate, a tighter financial policy will be appropriate to minimise the risk of overheating.

In the longer term, there remains the problem of ensuring a long-term balance between costs and income for the Greenland Government Authorities and the municipalities (finance policy sustainability). The sustainability and growth plan lays down a strategy for solving this problem, primarily based on savings and tight cost control. Ensuring tight budget discipline over a number of years is a major problem. Efforts to do so should be reinforced by getting more people on benefits into permanent employment. This will contribute to more equal distribution of wealth, help solve the sustainability problem and boost the process towards a more self-sufficient economy.

A decisive precondition for doing so is an increase in the population's level of education. Ambitious targets have been set with the field of education. 70% of the population will have a vocational qualification before the age of 35. The reality is different. On the one hand, there are improvements, but on the other, the target is far from being fulfilled. Around 44% of school leavers only have lower secondary school as their highest education by the time they reach 35. A prognosis also shows that given the current pattern of education, 70% of the target will not be fulfilled in 2040. That means that a large part of the workforce will continue to lower secondary school as their only completed education.

More effort and investment is needed in the education area. The Budget Act Bill for 2019 calls for educational reform to put in place a more flexible and cohesive education system. A recommendation for a political decision is expected in 2019 or 2020, after which political negotiations can start. There is a very long horizon in relation familiar and significant problems, not least in school service. The cost of such a drawn-out process is that several years of school leavers can be lost through the education system. The most important limitation to progress in the education field is not the institutional framework for the educational system. In fact, the problems lie in the results, that many pupils fail to gain the basic academic skills in primary and lower secondary schools, and thus the opportunity for obtaining good exam results and the basis for going further in the education system. The challenge is to do something about such problems via collaboration between parents, teachers and politicians to ensure real improvements within the area.

A series of changes have been made to the pensions field in recent years – higher retirement age, mandatory pension contributions and changes in taxation rules. These reforms represent significant progress towards ensuring the financial basis for reasonable pensions for all the elderly. The appropriate basic structure is in place, but the mandatory pension contribution leaves problems due to the exemption of benefit receivers and the difference in contributions for employees and the self-employed.

A bill for a new airport structure has been submitted, but the specific details are currently the subject of political debate. Principal agreement was reached in early September between the Danish government and the Government of Greenland on Danish funding for expanding the airports in Nuuk and Ilulissat, along with enhanced commercial collaboration between Denmark and Greenland. The proposed financial model for the airports means a major reduction of borrowing requirement via the state's capital investment and lower financing costs on the rest of the borrowing requirement, as a result of the state's renewed loan and guarantees. If such a financing structure is realised, it will be of major significance to the socio-economic consequences of expanding the two airports. The financing costs will be considerably reduced, as will the risk borne by the Government of Greenland, and it will make the public finances more robust. The projects are still big in relation to the size of the economy, and gradual expansion will be preferable, helping to reduce the risk, including that of overheating the economy during the startup-phase.

The airport structure also has major political consequences for the regions. The regional perspectives are also a reason for the specific formulation of the package and a decisive part of the political debate on the same. Not all regional problems can be solved by the airports, and an overall regional policy is needed. The regional issues do not only dominate the airport debate, but also a number of other areas, including fisheries policy, the placing of public institutions and compensation between the municipalities. Clarification of opportunities and potential for growth for each region is needed, along with the most appropriate means of achieving them for each area. In the absence of such political considerations, there is a risk of regional issues obstructing the measures necessary to strengthen commercial development, which will delay or prevent development of a more self-sufficient economy.

Commercial fishing is the country's main industry, and our fisheries policy is the corner stone of our commercial policy. Maritime resources are a common resource and must be utilised to ensure maximum benefit to all. A major criterion for doing so is setting quotas that ensure sustainable fishing. Quotas that exceed recommendations can give short-term gains, but will mean long-term costs for fishermen and society. We therefore find it worrying that quotas well in excess of recommendations have been set for a number of species. There has been a major increase in the number of fishing licences, which in relation to quotas and the possibility of streamlining the industry, is inappropriate. It ties up more resources in the industry than necessary, which reduces efficiency and thus benefit to society. A self-sufficient economy with higher levels of welfare means that ways of achieving greater efficiency must be utilised to release resources for other sectors, and building up a better industrial base. The current economic boom underlines the importance of avoiding inefficiently tying up resources in a given industry or activity. More fundamental changes in fishery legislation are up for political discussion, including the allocation of quotas. Commercial policy should be designed to ensure maximum efficiency and value-creation, and the question of distribution comes under the structure of taxation and duty systems, along with education policy.

The current economic situation clearly illustrates the structural problems of the employment market. Even though employment levels are not high, there is a shortage of labour – a clear sign of structural problems. The fact that many employable people are on public benefits at a time when there is a severe labour shortage is paradoxical. Meanwhile, there are also many people who are under-employed, working only a few hours or only part of the year. Unemployment problems and low employment levels are linked to a very great degree to the lack of qualifications needed on the employment market, but limited mobility across the country and low financial gains from working are also contributory factors.

Geographical mobility on the employment market is moderate. There are no clear indicators of migration from towns with relatively high unemployment levels to those with better employment prospects. As such, the geographical barrier is a major obstruction to increasing employment.

There are only modest financial gains to be made from taking work for many people. This is due to what is referred to as the 'interaction problem' between taxation and granting criteria for social benefits. Public assistance, child and housing benefits and daycare fees are earnings-related to target benefits to the most needy. That also means that an increase in income (from finding a job or working more) will trigger a reduction in such benefits. Along with the general level of taxation, an increase in earnings will usually mean no increase in net income. The overall effective marginal taxation can therefore be quite high, and in some instances 100%.

The net income of a single parent with two children will not increase until an income of in excess of DKK 93,000 is earned, whilst a couple with two children will have to earn a joint income of around DKK 132,000. The total marginal taxation is therefore 100%. Taxation plus reduction of various social benefits means that net income does not increase from increased earnings. The structure of social benefits removes the financial incentive to take low-paid or short-term jobs.

A single person with no children on an income of DKK 200,000 will need an increase of e.g. DKK 1,000 to be able to increase their net income by DKK 160 after tax and downscaling of subsidies and social benefits. Total marginal tax is 84%, and the gain from working more or finding a new and better-paid job is modest. If a single parent has two children, the total marginal tax will be a little lower at 64%, but downscaling of subsidy and benefits will extend over a longer earnings period.

There are large groups who have no or only modest financial incentive to find work, or work more, or move in search of work. That represents a major barrier to increasing employment. There have been suggestions in the political debate on an employment deduction or job premium to reduce such problems. There can be justification for introducing such schemes, but in such instances, it should be as part of overall reform of social benefits to reduce the interaction problems. What's involved is a complicated interaction between many schemes, and a sustainable solution requires cohesive reform.

Chapter 1 Economic prospects

In terms of the economy, 2017 was a good year after an excellent 2016. Economic growth (adjusted for price rises) was a little over 1% after growth of no less than 7.7% in 2016. From the very high level in 2016, there was a slight downturn in parts of the fishing industry, whilst private and public sector consumption rose along with a large element of investment.

Growth accelerated in 2018 and is expected to be around 3% due to an expansion in commercial fishing, especially for shrimps, rising private consumption, higher investment and mining. Progress is accompanied by a big fall in the number of registered jobseekers, meaning a shortage of labour in many areas, implying the risk of it being harder to implement investment projects without delay or direct extra expense.

Economic growth of around 3% is also expected in 2019. The export of minerals will boost growth and some of the planned airport projects are expected to be started. The risk of the Greenlandic economy overheating means that initiating the airport projects simultaneously cannot be recommended. A more gradual approach is needed instead. A bonus from this strategy will be that it will be possible to benefit from the experience gained from the first project in the second.

Table 1.1 Supply balance, annual real growth in %.

	Share of GDP in 2016	2012	2013	2014	2015	2016	2017	2018	2019
							Forecast		
Private consumption	39.0	-1.4	-1.8	2.3	0.0	3.8	1.2	1.9	2.6
Public consumption	42.9	1.0	4.1	-0.2	-0.4	3.5	0.7	0.6	0.6
Gross investment	25.1	-38.6	-20.9	-22.2	16.0	11.1	2.7	5.2	18.9
Export of goods and services	39.0	-3.9	2.4	11.8	-10.5	12.8	-2.3	11.0	2.9
Total final use	145.9	-13.9	-3.8	-1.2	-0.3	7.1	0.5	4.3	5.2
Import of goods and services	45.9	-30.0	-6.6	-11.5	-1.8	6.4	-1.7	7.0	9.7
Gross Domestic Product	100.0	1.4	-1.7	5.3	0.3	7.7	1.2	2.9	3.0

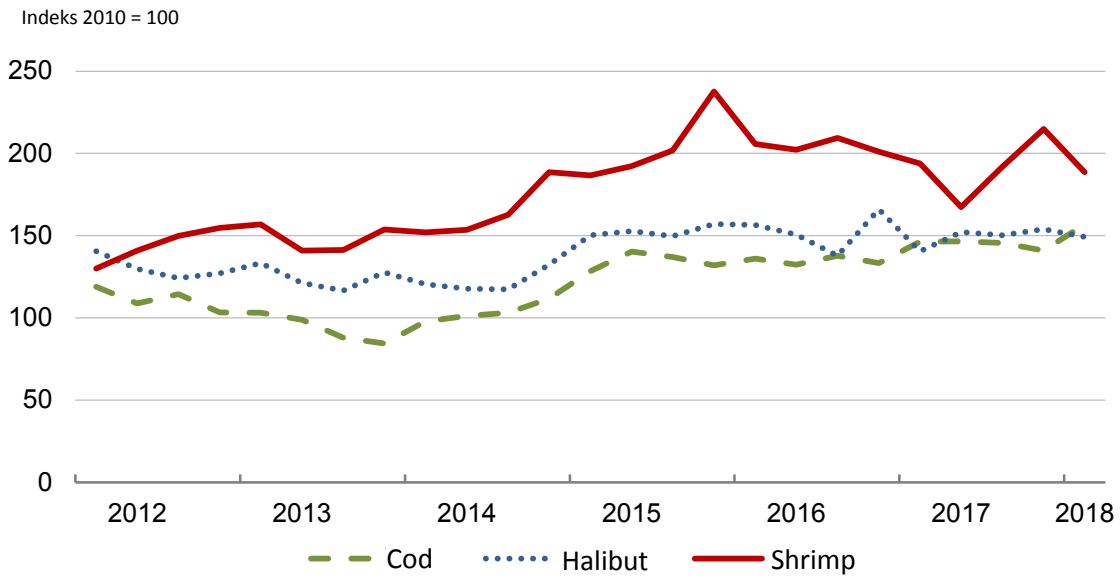
Note: 2012-14 final figures; 2015-16 provisional figures; 2017-19 Economic Council estimate. Real growth indicates progress adjusted for price rises.
Source: Statistics Greenland and our own calculations

The upward trend cannot disguise that there are still considerable unresolved structural problems in the form of a very narrow industrial base and a poorly-educated workforce. A drop in the price of fish and shellfish will rapidly create major economic problems. The same applies to a drop in catches of the most important species of fish. A fact of life for commercial fishing is that volumes and/or prices fluctuate over time. A fall in amounts or prices will affect the earnings of commercial fishing and put the public finances under pressure. The massive importance of fishing to the public finances is emphasised by duties on catches of shrimps, mackerel and halibut have risen from almost nothing in 2008 to approx. DKK 275 million in 2017. Ordinary corporation and income taxes come on top, which will also be affected by a drop in prices or volumes. A wider industrial base is the sure way to avoid fluctuations in the fishing industry dominating growth of the economy as a whole. It will also lead to a higher and more stable level of prosperity.

1.1. Fishing

The fishing industry has had several good years. The price of halibut and cod since 2015 has been around 50% higher than it was in 2010, and the price of shrimps has doubled. See figure 1.1. By way of comparison, consumer prices during the same period rose by around 13%. The favourable price level has remained steady with a few exceptions since early 2018. Shrimp prices fell in Q1 from a very high level in the preceding quarter of 2017. The price of cod rose a little in early 2018, whilst the price of halibut fell slightly.

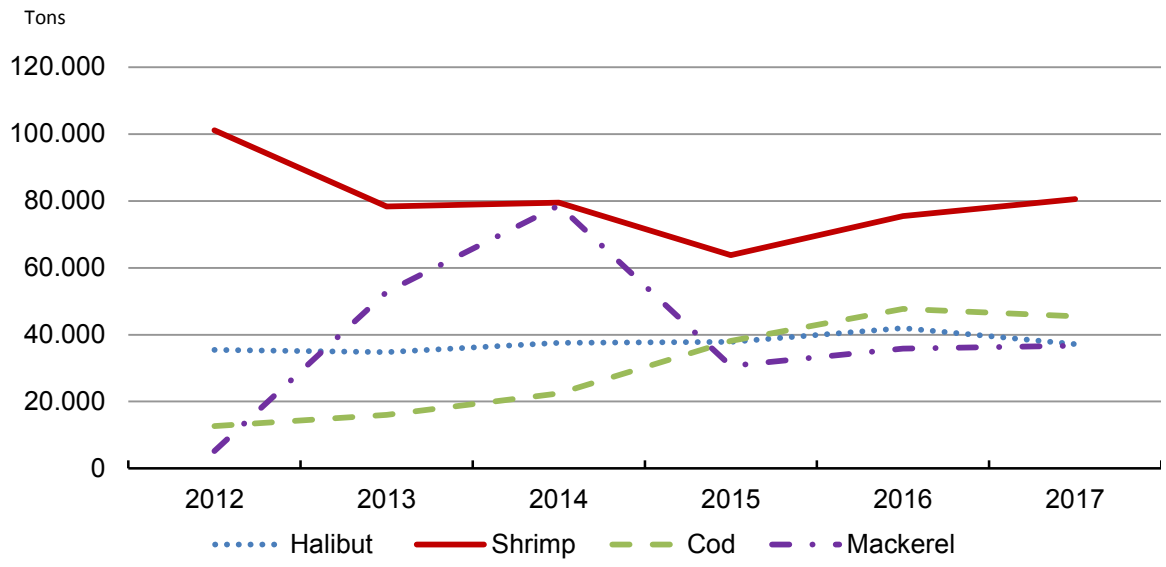
Figure 1.1. Average prices for fish and shellfish



Note: Latest observation Q1, 2018
Source: Statistics Greenland.

In terms of volumes, commercial fishing in Greenlandic waters (inshore or offshore) in 2017 was comparable with 2016 if the catches of halibut, shrimp and cod are weighed together with the value of fishing. That reflects growing fishing for shrimps, but falling volumes of cod and especially halibut. See figure 1.2. But fishing in 2016 was exceptionally good, with an increase compared to 2015 of no less than 16% in amounts caught.

Figure 1.2 Catches by Greenlandic fishermen and vessels in Greenland's waters



Source: Statistics Greenland.

The small drop in fishing as a whole covers the big differences in the development of inshore fishing on one hand, and seagoing on the other. Inshore fishing for halibut fell by 14% to the lowest level since 2013. During the same quarters in 2017, the levels were less than the preceding year, so the downturn has to be ascribed to more factors than the severe winter in 2017. Catches in Ilulissat and Qasigiannguit in 2017 were the lowest this century. But there are certain areas where catches rose, including in an important district such as Uummannaq, and progress was also made in the new fishing grounds for halibut at Paamiut and Qaanaaq.

There was also a modest fall in catches of shrimp and cod in 2017. The volumes caught in the first six months of 2018 for halibut and shrimp were higher than for the same period in 2017, but lower than in the first six months of 2016. On the other hand, catches of cod have fallen further, making it doubtful if the politically-set quote can be fished. This has to be seen in the light of the difference for a quota of 36,500 tonnes and the biological recommendation of approx. 14,000 tonnes.

Catches from seagoing fishing rose by approx. 20% from 2016 to 2017. Growth was biggest for halibut off west Greenland, whilst the economically-important fishing for shrimps in the same area rose by 17%. Statistics for seagoing fishing are only available for Q1 2018 so far. The catch of shrimps was almost 20% higher than in 2017. Fishing for the other species is traditionally modest in the first quarter of the year.

Fishing for shrimps and seagoing fishing for halibut fishing are MSC-certified as sustainable. The same applies to the economically-less important fishing of lumpfish. The biological recommendation and quotas for seagoing fishing for shrimp and halibut have been set very high, which makes it likely that there will be healthy growth for these species in 2018 and the next few years.

Greenlandic vessels caught a little over 80,000 tonnes of shrimp in 2017 in Greenlandic waters, an increase of 7% compared to 2016 and 26% compared to the most recent low point in 2015. It is therefore clear that the years of steadily falling catches of shrimp have come to an end, and further growth is expected in 2018. The quota has been increased to over 100,000 tonnes, a little under Naturinstituttet's (Greenland Institute of Natural Resources) recommendation of 105,000 tonnes. The quota and recommendation for 2016 was 90,000 tonnes. The government's quotas for shrimp largely follow the biological recommendation, but every effort is made to avoid fluctuations from one year to the next being too big. The quota gives room for an increase in the catch of shrimps of more than 25% in 2018, as the catch in 2017 was below the quota. The flexible quota scheme means that the shortage in 2017 can be added to the quota for this year. There is therefore room for considerable growth in the catch of shrimp in 2018 without putting the MSC certification at risk.

There was also an increase in seagoing fishing catches in other territorial waters, primarily mackerel, herring and blue whiting in 2017.

1.2. Tourism

After several years of stagnation or a drop in tourism, there was an improvement in most areas in 2017.

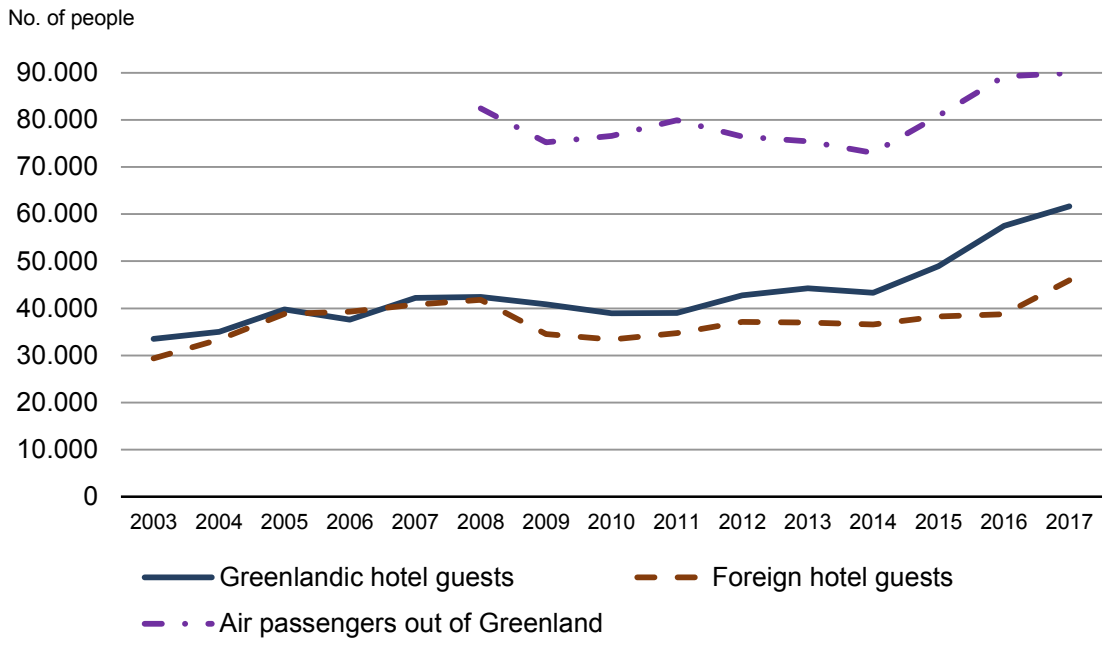
There was significant growth in the number of hotel guests in recent years. The number grew in 2017 by just under 12%, 3.5% of which is due to some existing venues first beginning to report figures in 2017. The adjusted growth is thus just over 8%. During the ten-year period from 2005 to 2014, there was no growth in the number of guests. See figure 1.3. Where growth in 2016 came almost exclusively from Greenlandic guests, it included foreign guests to a high degree in 2017. Given the growth in the number of hotel guests and plans to expand the airports in Nuuk and Ilulissat, there are advanced plans to expand hotel capacity in those towns.

The growth in the number of guests seems to have levelled off in the first 6 months of 2018. The number of hotel guests fell by 6.5% compared with the same months in the preceding year, while there was modest growth of just over 1% in the number of overnight stays.

Cruise ship statistics are currently being audited, as it has been found that port fees were not always registered for all dockings. The audit is expected to result in an upward adjustment of the number of passengers and dockings in 2017, and probably for other years as well. Given the uncertainty concerning cruise ship tourism, this statistic has not been included in the evaluation of tourism as a whole.

The number of air passengers from international flights has been more or less consistent for several years at around 80,000, but rose slightly to just under 90,000 in 2016 and stayed at the same level in 2017. Some of the increase in 2016 was due to an increase in charter flights, probably in connection with the Arctic Winter Games. Statistics on country of residence began to be compiled in 2015, but there are major fluctuations in the number of passengers with no country of residence stated, meaning the statistics do not provide a good indication of where tourists are coming from.

Figure 1.3 Tourism 2003-2017



Note: tourism statistics for cruise ships are being audited and are therefore not included in the figure.
Source: Statistics Greenland.

The Government of Greenland wants to boost the tourism industry. It has set out its policy in the national sector plan for tourism, presented in the spring of 2016, and through the setting up of a wholly-owned company, Kalaallit Airports A/S, to build, own and run new or expanded airports in Qaqortoq, Nuuk and Ilulissat. Construction is expected to start in 2018, but political debate has taken longer than expected, so that construction is not expected to start until 2019 at the time of writing.

1.3. Mining

After closure of the gold mine in Southern Greenland in 2013, several years have passed with no minerals mined in Greenland. That changed in the summer of 2017 when LNS Greenland Gems began to mine rubies near the Qeqertarsuatsiaat settlement. This showed up in the foreign trade statistics for Q4 in 2017 for the first time in the form of export earnings of DKK 3 million, a figure expected to rise considerably in 2018 and over the next few years, even though the project is of limited size, with around 30 employees.

Hudson Greenland's anorthosite project at Kangerlussuaq fjord, intended to employ around the same number of people in the mining phase as the ruby mine, was expected to start in 2017, but has been delayed and mining operations are not expected to start until 2019.

There are advanced plans for mining ilmenite at the abandoned settlement of Moriusaq, close to the Thule Air Base under the Dundas Ilmenite Titanium Project run by a subsidiary of the Blue Jay Titanium Mining Company. The company expects to start construction work in 2018. Employment is expected to reach 60-100 during the operations phase.

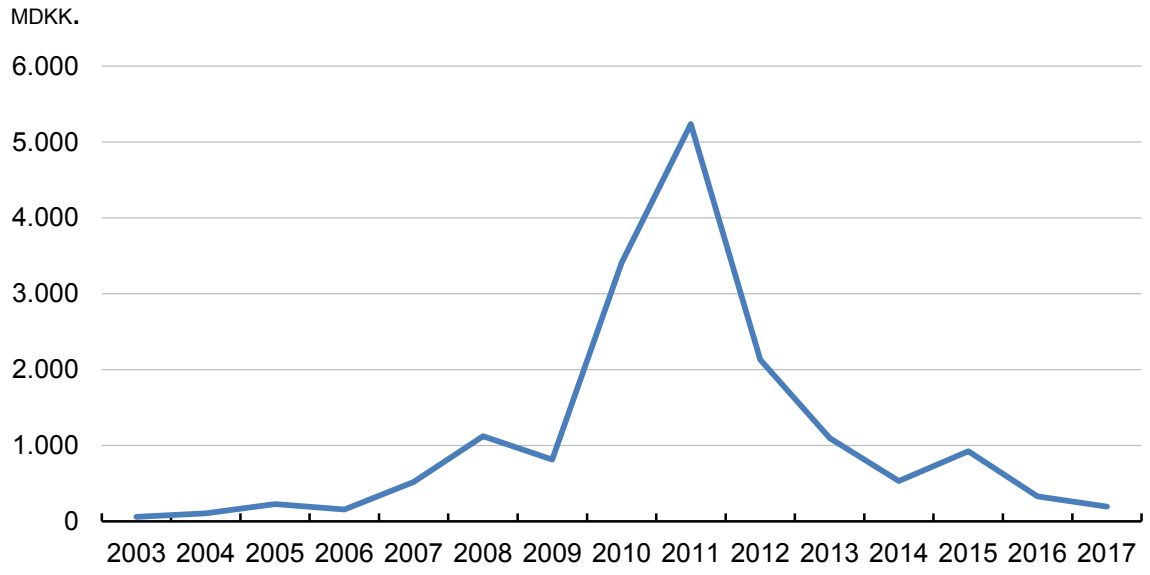
There has been progress in North American Nickel's surveys in the area of Maniitsoq. The World Bank has found that global capacity for nickel mining is limited, and predicts rising prices over the next few years. Nickel is important for the production of stainless steel and rechargeable batteries. Battery demand is expected to rise considerably over the next few years.

A mining permit was granted for zinc and lead at Citronen fjord in Northern Greenland in 2016, but whether operations will start is uncertain. The project will employ almost 500 people during the operations phase, of which only a few are expected to come from Greenland. The mine will lie a very long way from any populated area.

There are two advanced projects in Southern Greenland concerning the mining of rare minerals, etc. One, close to Narsaq, will produce uranium as an unavoidable by-product. The terms for exporting materials with uranium content have been agreed between the Danish and Greenlandic governments. Work has been going on for the project for many years, but mining permits for the projects have not yet been granted.

Costs for mineral prospecting have been going down for several years after the high level of activity within hydrocarbon exploration around 2010-11. See figure 1.4.

Figure 1.4. Costs for hydrocarbon and mineral prospecting, 2003-2017

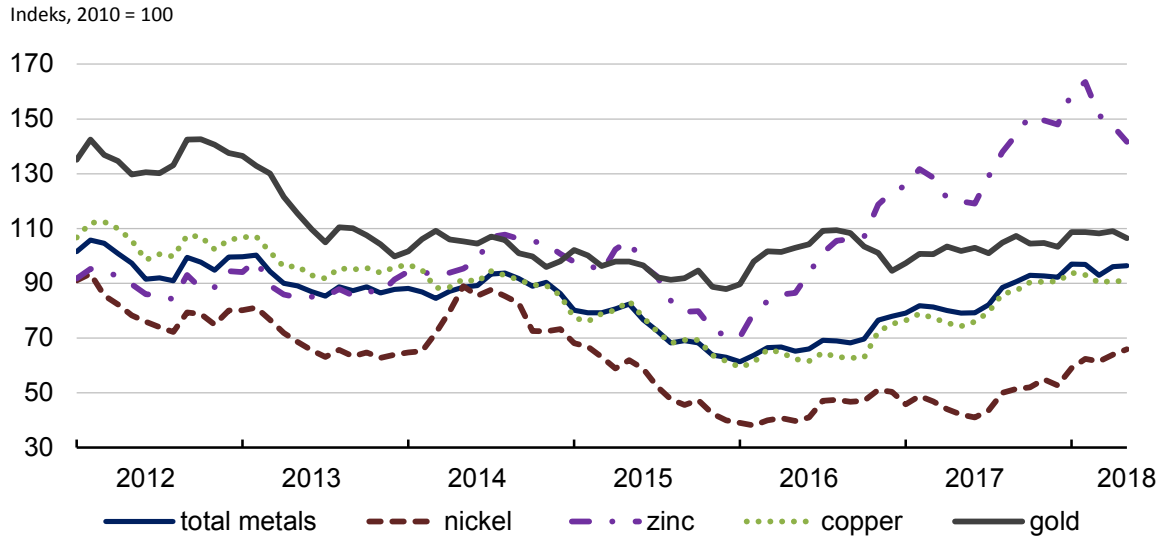


Note: Figures for 2004-2014 are final, whilst those for 2015-2017 are provisional.
Source: Statistics Greenland.

Given current prices for crude oil, there is little prospect of a new surge in exploration for carbohydrates offshore, but the government plans to invest in initial surveys to boost interest in onshore exploration on the Nuussuaq peninsular.

The prices for a number of minerals have either been very high for several years (e.g. zinc), or are rising from a low level (e.g. nickel). The price of oil is also rising slowly. Price indexes for a number of minerals are shown in figure 1.5. The World Bank's Commodity Markets Outlook from April 2018 predicts rising prices for nickel, stable prices for copper, a slight fall in prices for gold and a steeper fall for zinc moving towards 2030. There are no similar statistics for rare earth elements.

Figure 1.5 World Bank metal prices index, 2012-2018



Note: Price index in USD. Latest observation May 2018.
Source: World Bank Commodity Markets Outlook

1.4. Investment

The Government of Greenland's investment in construction has traditionally been made by drawing on the Anlægs- og Renoveringsfonden (Construction and Renovation Fund) for a large element of total building and construction investment. When a project is approved, the funds are transferred to the fund. As the investment is made, the costs are met by drawdowns from the fund. As other investors have come along, the government is making more of its investments via companies, meaning that the importance of the Anlægs- og Renoveringsfonden has declined. Drawings from the fund in 2014 totalled just over 20% of total building and construction investment according to the national accounts, compared to close to 40% in 2011 and 2012.

Drawings on the Anlægs- og Renoveringsfonden in recent years have been more or less constant around DKK 500 million per year. See figure 1.6. Fluctuations in building and construction investment are thus due to other developers.

The new container port at Nuuk was completed in 2017. It is owned by the self-financing company Sikuki Nuuk Harbour A/S, and investment totalling a little over DKK 600 million was therefore not financed by the Anlægs- og Renoveringsfonden. The vast majority of investment was made in 2015 and 2016, meaning that investment in the project in 2017 was much lower than in previous years. On the other hand, construction by the state of a high security prison at Nuuk took longer than expected, and is not expected to be finished until next year.

Potential developers report problems getting projects started, and there are indications that the building and construction sector is reaching full capacity. The commissioning of large-scale projects such as airports therefore risks creating a bottleneck, resulting in rising costs.

Postponement of KAIR's investment in new or larger airports is therefore appropriate. It is correct that most of the investment in such projects is expected to come from foreign companies using foreign labour, but a number of Greenlandic companies in related industries will also take part. Their participation is also an important argument for making the investment in airports more gradual than previously planned. Table 1.1. of the forecast incorporates projected start of airport construction during 2019.

Figure 1.6 Disbursements from the Anlægs- og Renoveringsfonden, 2012-2018

Note: Total over 12 months. Latest observation June 2018.
Source: Statistics Greenland

Based on mortgage credit institution lending in Greenland, the building of private housing in recent years is deemed to be very modest. See figure 1.7. Total lending for housing has consistently been on a par with the level of new loans equating to redemption of old loans. Building of new owner-occupied housing is expected to rise in 2018 and 2019.

TELE Greenland extended the seabed cable northwards to Maniitsoq, Sisimiut and Aasiaat in 2017 and strengthened the radio link in the Disko Bay. TELE Greenland increased its investment by a total of approx. DKK 300 million, to DKK 336 million in 2017. The planned extension of the radio chain connection from Uummannaq to Upernavik is scheduled for completion in 2018.

The good times being enjoyed by the fishing industry will mean more investment in all vessel types and in equipment. This is not yet reflected in the foreign trade statistics, and will not immediately affect activities as most purchases will be imports. Some owners are expected to introduce newly-built trawlers in 2018. The opportunity is there to rationalise the industry, thus helping boost profitability in the future. However, some trawler owners have announced that they are putting planned investments on ice, until more information on a proposed new Fishing Act is available.

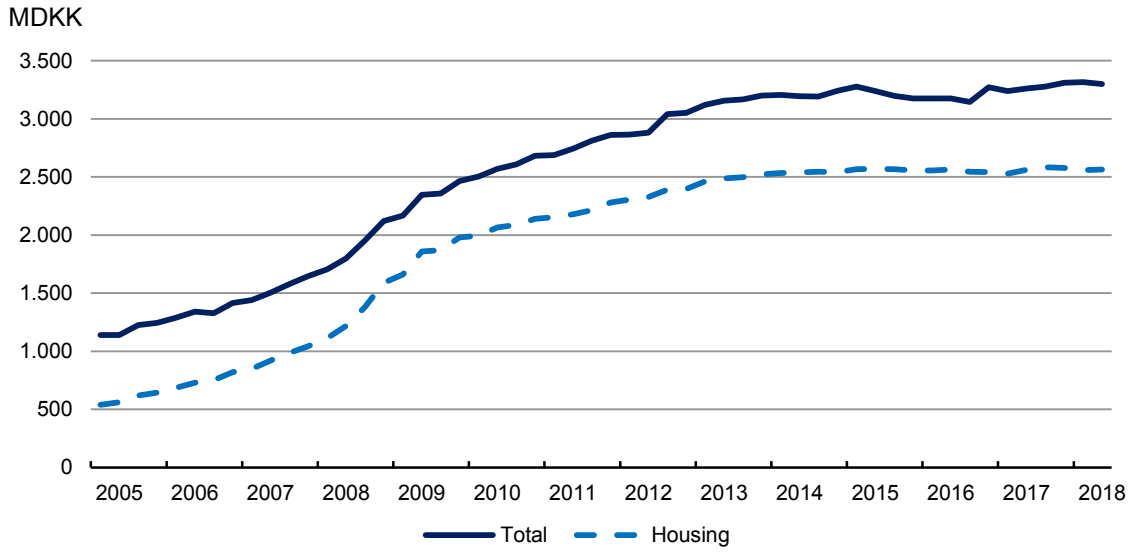


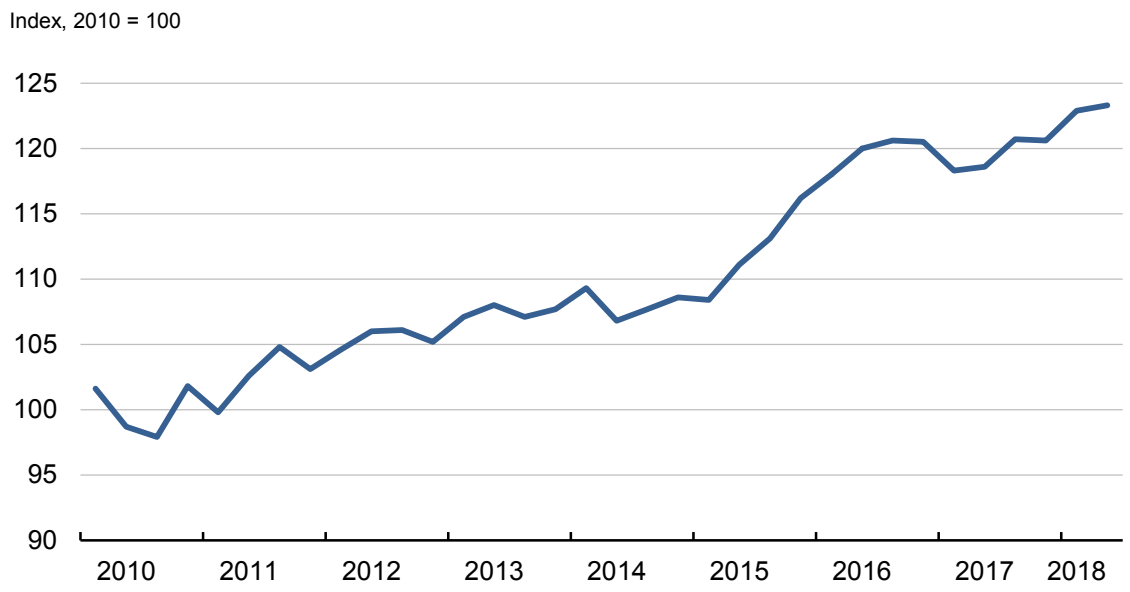
Figure 1.7. Mortgage credit institution lending to Greenland

Note: Latest observation Q2, 2018.
Source: Statistics Greenland.

1.5. Consumption

Private consumption is slowly rising. Parts of private consumption can be illuminated in sales figures for the three biggest retail chains. See figure 1.8. Retail sales in 2017 were 2% higher than in 2016, an indication of a modest increase in volume. Consumer prices rose by approx. 1% between 2016 and 2017. Growth in retail sales was stronger in early 2018. It should be noted that fluctuations within private consumption are less significant for economic trends than in most other countries, whilst investment and export are of proportionately greater importance to economic fluctuations.

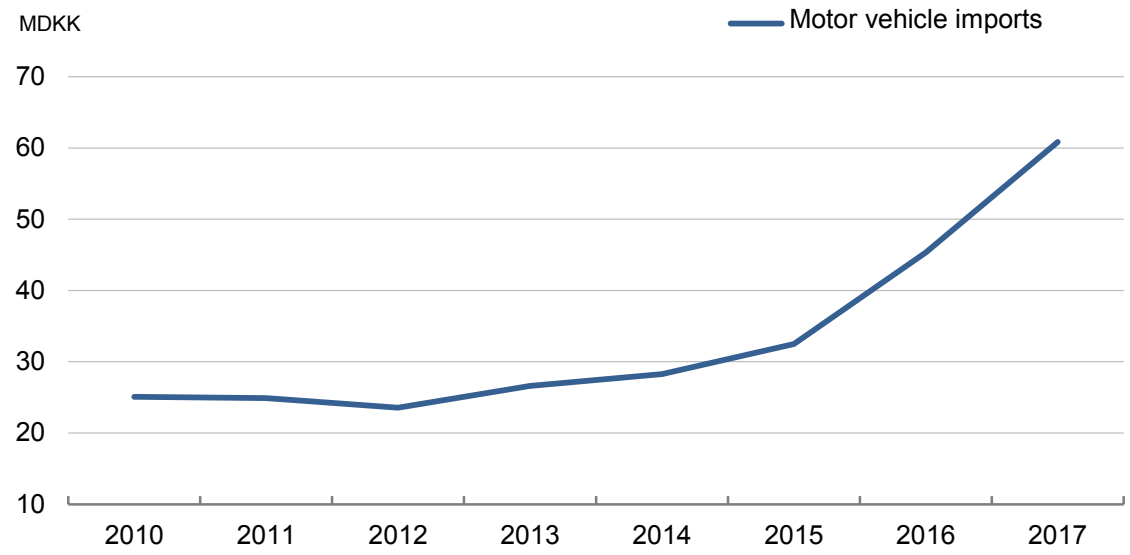
Figure 1.8 Retail sales, seasonally adjusted, 2010-2018



Note: Last observation made in Q2. 2018.
Source: Statistics Greenland.

The value of imported motor vehicles has risen steeply in recent years. See figure 1.9. This is yet another indicator of strong increases in spending and earnings.

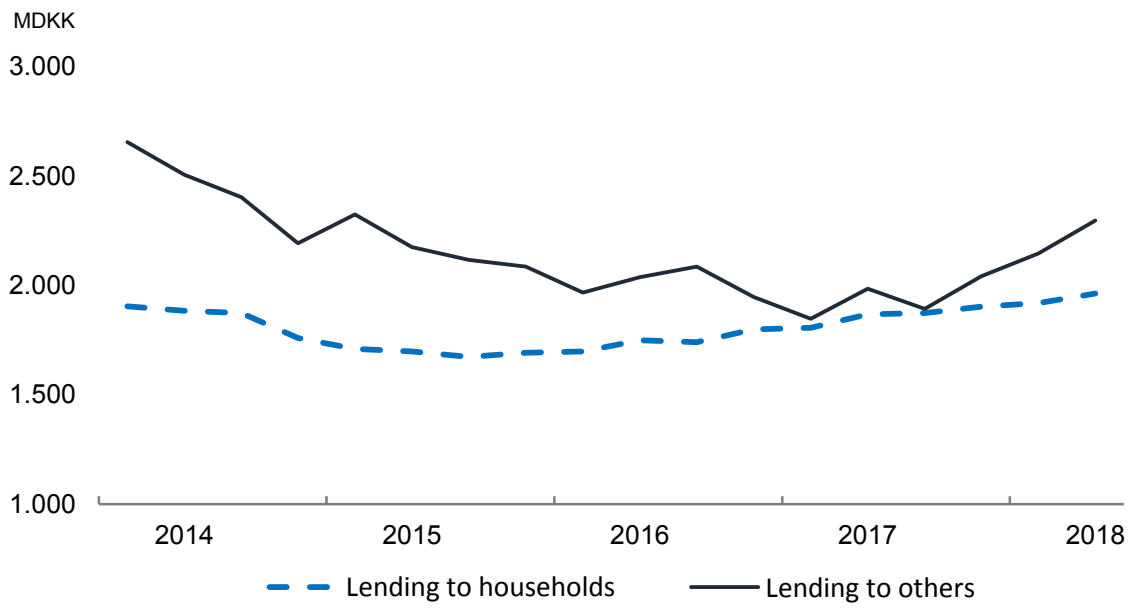
Figure 1.9 Imports of motor vehicles



Source: Statistics Greenland.

Finally, there was a moderate rise in bank lending to households in 2016 and 2017, a trend that continued in 2018. See figure 1.10. Lending to households was approx. 5% higher in Q2 than in the preceding year

Figure 1.10. Bank lending



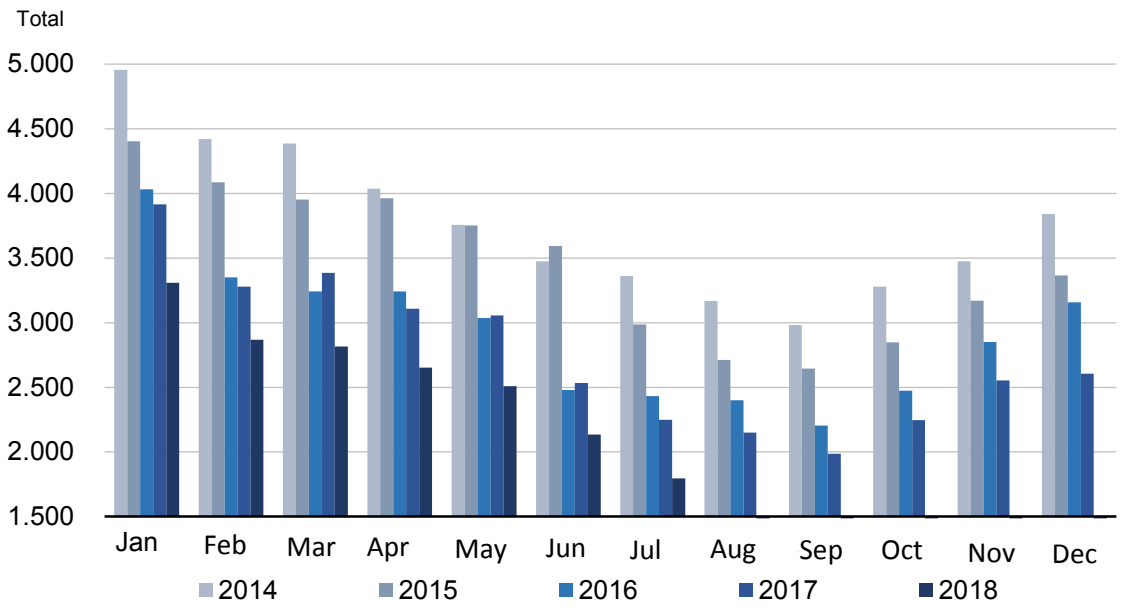
Note: Last observation made in Q2 2018.
Source: Statistics Greenland.

1.6. The job market

Assessment of the job market from month to month can only be based on statistics for the number of registered unemployed. The statistics show the total number of people who have contacted the municipality in a single month because of unemployment. The statistics are influenced by the administrative practice of each of the municipalities and can therefore be difficult to interpret.

The number of registered unemployed has fallen drastically since 2014 (see figure 1.11), although with a slight rise in 2017. Another strong fall took place in the first 7 months of 2017. The fall was seen in both towns and settlements, but is steepest in towns. The unemployed in match group 1 (i.e. those most suitable for employment) saw the biggest fall.

Figure 1.11 Registered unemployed



Source: Statistics Greenland.

Statistics Greenland publishes annual register-based statistics of unemployment amongst resident 18-64 year-olds. The statistics do not include anyone who has been in paid work and registered themselves as unemployed in the same month. The number of unemployed in 2016 was 1,971, equivalent to an unemployment rate of 7.3% of the workforce in 2016, compared to 9.1% in 2015 and 10.3% in 2014.

The number of registered unemployed has followed the trend for average unemployment based on register statistics very closely in recent years, as the monthly average for registered unemployed has been close to 1,000 people higher than the average unemployment per month according to the unemployment statistics for every year from 2012 to 2016. Combined with a presumption of a more or less unchanged workforce, a mechanical extrapolation gives an unemployment percentage of 6.7% in 2017 and 4.9% in 2018.

Unemployment is particularly high among those with no further education. The registered figures for 2016 show that unemployment in this group was 11.7% compared to 3.4% for those with a vocational qualification, and 0.6% for the highly qualified. Unemployment has also been harder to tackle for those with no further education. Among this group, the number of unemployed fell by 621 from 2014 to 2016, equivalent to 27%, whilst the fall for those with a vocational education was 145, equivalent to 38%.

The register-based unemployment statistics show that employment rates for 18 to 64-year olds rose by 2.1% to a monthly average of just over 24,900 for 2016. Based on the mechanical calculations for registered unemployed, employment rose to a little over 25,000 in 2017 and just under 25,500 this year.

Growth in employment is supported by paid-up job market taxes according to the Greenland Treasury's accounts rose by 7% in 2016 and 4.8% in 2017. Job market tax represents 0.9% of a company's payroll costs and is intended to help pay for further education and skills development within the vocational training sector.

All-in-all, the statistics and indicators show that employment has been rising and unemployment falling since 2014. This trend has continued strongly into 2018. Unemployment is now so low that the risk of the economy generally overheating is now high.

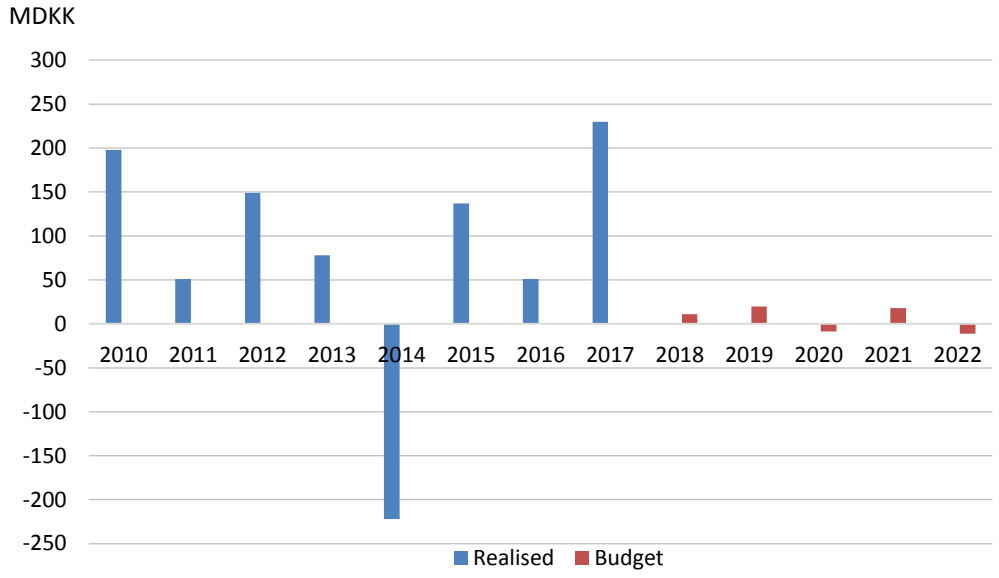
Chapter 2 Current economic policies

The current economic situation is good, but also illustrates the heavy dependence on commercial fishing. There will be problems moving forwards linked to ensuring the sustainability of the public finances, whilst improving the level of education as a means of creating a broader industrial base. Fisheries policy is also the subject of debate and a new airport structure has to be built. This chapter discusses those topics. Section 2.1 looks at trends in the public finances, whilst section 2.2 evaluates the sustainability of public finances and section 2.3 summarises the results of extrapolation of public education levels. A number of pension reforms implemented recently will be discussed in section 2.4. Questions in relation the new airports and fisheries policy will be addressed in sections 2.5 and 2.6 respectively.

2.1. Trends in the public finances

The healthy economic climate is reflected in public finances. A surplus was recorded in 2015-2017 (the OI balance). Breakeven is expected for 2018 and for budget years 2019-2022. The bill for the Budget Act contains a net effect of reforms of DKK 27.5 million, mainly from simplifying and introduction of a tax on securities. The Budget Act's criterion that the public finances as a whole (the OI balance) must show break even or surplus is therefore only just fulfilled.

Figure 2.1 Public finances (OI balance) 2011-2022



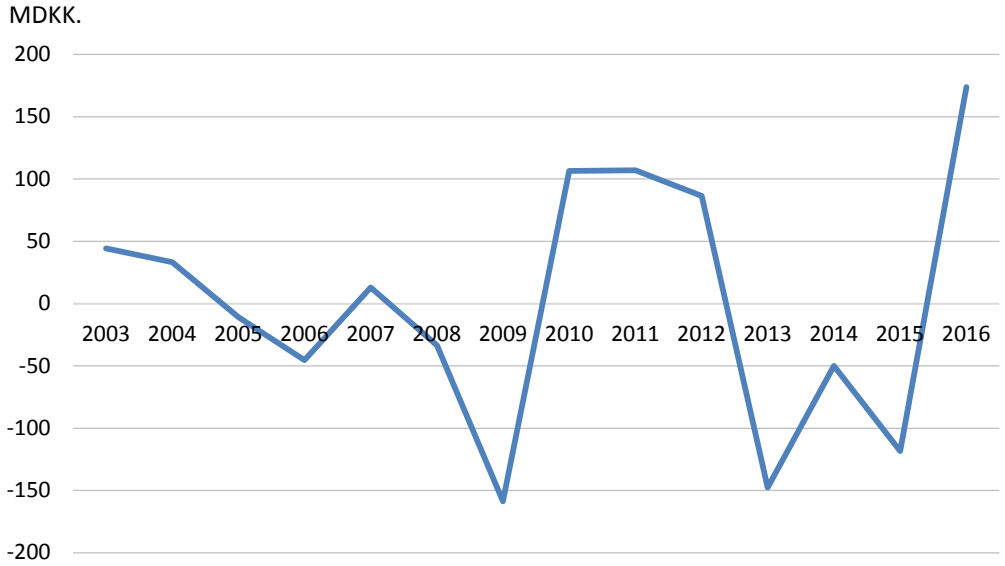
Note: Positive figures indicate surplus. 2017 is an estimate, 2019-2022 are budget years.
Source: Budget Act Bill for 2019.

To evaluate the budget situation, adjustment has to be made for the effects of the economic climate, as good years will automatically be better for the public finances, and vice versa for bad years. A surplus can therefore be expected in good years, but it cannot be taken for granted that financial policy has been tighter for this reason (equivalent to tax increases or cost-cutting). The public finances fluctuate considerably with changes in the economic climate, and there can be major fluctuations without any changes made in financial policy. A healthy surplus can therefore be expected in the current economic climate. But financial policy only just fulfils the balance requirement and thus has to be said is on the expansive side. In other words, financial policy does not help reduce the pressure on an economy at risk of overheating, ref. chapter 1.

Current results show that the municipalities of Kujalleq, Sermersooq and Qaasuitsup had deficits in 2017, and only Qeqqata had a surplus. In the light of the healthy economic situation, this is a problematic situation. It emphasises the need to tackle the structural problems in the municipalities, and to design a new compensation system for them.

The unusual structure of the economy, with heavy dependence on commercial fishing (few species), means that the potential fluctuations in economic development and thus the public finances can be considerable. This is illustrated in the figure below. The figure shows the fluctuations in total income the Government of Greenland and municipalities have received from income tax and import tax etc. (just under 50% of total public income) as a result of fluctuations in the economy. Fluctuations in basic income of DKK 100-150 million are not unusual. A downturn in the economy can thus have a considerable effect on the public finances. That makes it even more important to ensure a surplus during favourable economic conditions. Failure to do so can mean cutbacks in bad times, and financial policy in such instances tends to emphasise the fluctuations in economic activity.

Figure 2.2 Fluctuations in public income from income and other taxes due to economic conditions, 2003-2016.



Note: The figure shows fluctuations in revenues from income and wealth taxes, production and import taxes from a time trend calculated on the basis of data from www.stat.gl. Deviations from the trend can be interpreted as simple measurement of variations in economic conditions.

2.2. Sustainability of the public finances

The long term performance of the public finances is evaluated using a sustainability analysis, which looks at trends in expenditure and income in the light of such factors as demographic changes. The fundamental issue is whether income can cover expenditure in the long-term.

Sustainability of public finances is evaluated based on economic policies that are in place, the Budget Act Bill for the year to come and economic trends. Long-term population trends play a major role in evaluation. The population age group between 18 and 66 has begun to decline in numbers, with a particularly steep fall for 25-59-year olds up to 2040.

Evaluation of sustainability does not take into account unannounced reforms and initiatives that have not been politically decided yet. One of the objectives of the analysis is to identify the need for such reforms and initiatives.

The airport package is therefore not included in the sustainability calculations in this report. The Government of Greenland has proposed an extension of the runways at Ilulissat and Nuuk, and construction of a runway at Qaqortoq. The agreement between the Greenlandic and Danish governments on Danish joint-financing of the airports at Nuuk and Ilulissat will improve the financial viability of the airport package as a whole, and will also remove a large part of the risk linked to investment from the Greenland Treasury. See the section below on the airport package.

The majority of the investment is expected to be managed through the self-financing company Kalaallit Airport A/S. The capital injection from the Greenlandic and Danish governments into the company will not directly affect the sustainability of financial policy. The airport projects can, however, have major influence on the public economy. Building the airport at Qaqortoq is expected to affect the Greenland Treasury for example. The overall finances of the airport package include major savings in the public sector as a result of lower ticket costs, shorter journey times etc. Performing a detailed evaluation of what this will mean for the Greenland Treasury's income and expenditure during the lifetime of the project is an important part of the final decision-making process. Such an evaluation will be part of the sustainability of Greenland's fiscal policy

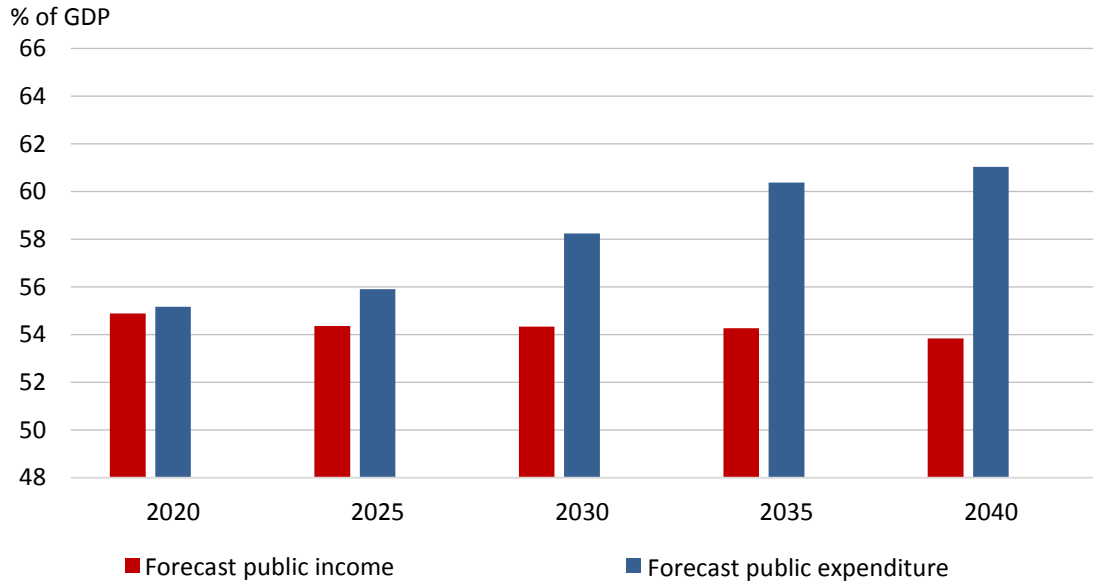
The airport package will enhance the requirements for control of public expenditure. Major savings within the public sector are expected as a result of the better infrastructure. The Sustainability and Growth Plan already aims to boost public finances by over DKK 1 billion by 2030, most of which (DKK 650 million) will come from modernisation of the public sector via rationalisation and other measures.

The plan lays out a *savings strategy*, designed to solve fiscal policy problems by setting limits on public expenditure growth for a number of years. It will require tight budgetary discipline for many years, and in particular that the Budget and Accounting Act will become a strong management tool. The Act states that public investment activities can only be initiated if they contribute to the sustainability of public expenditure.

The problem of sustainability can also be remedied through a *reform strategy* that moves more people on benefit to becoming self-supporting. The public finances can be permanently improved by about DKK 100,000, for example, when a single person goes from benefits to paid employment at SIK's minimum wage. Reforms that boost the incentive to find work and reduce the interaction problem between public welfare programmes will therefore contribute to sustainability.

Figure 2.3 shows a projection of the public finances up to 2040. It shows that a permanent improvement of the public finances to the tune of around DKK 1 billion over the next 15-20 years is needed to ensure a sustainable economy.

Figure 2.3 Projection of public income and expenditure as a proportion of gross domestic product



Note: the figure shows public income and expenditure exclusive of interest and dividends for public services and administration (the government, municipalities and state) as a proportion of gross national product (GDP). The state's expenditure is balanced by refunds (i.e. income) in the table and does not therefore affect the public balance. However, regular transfers in the form of block subsidy, EU payments, etc., are included on the income side and therefore do affect the public balance. The figures are compiled in the national accounts form, from Public Finances, Statistics Greenland.

2.3. Education projection

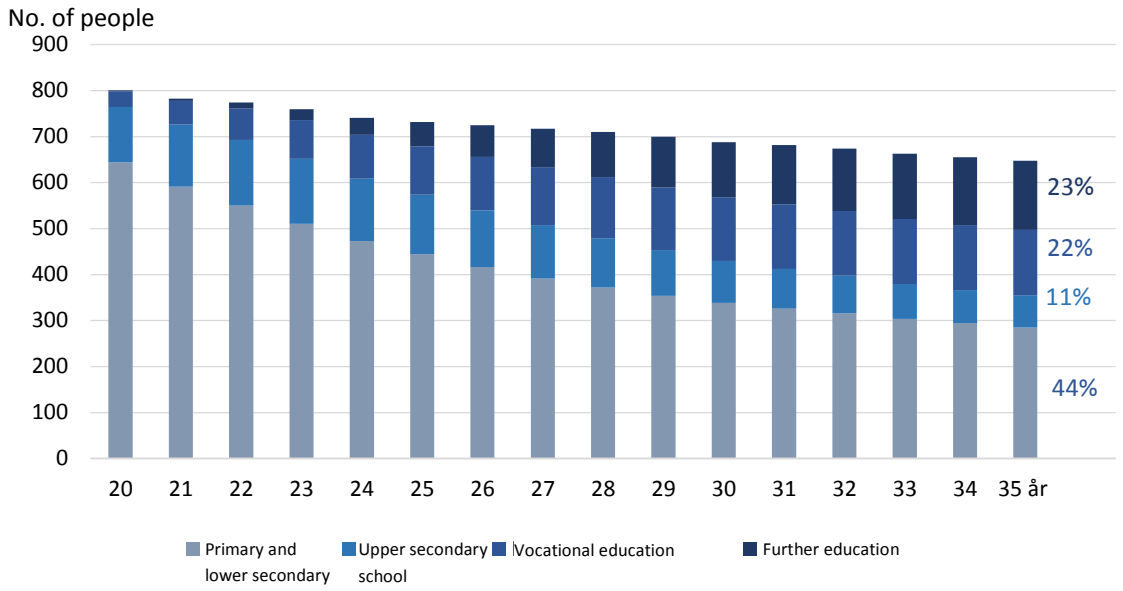
A higher level of education is a precondition for a self-sufficient economy. The overall goal within education is therefore ambitions: 70% of a school year leaving lower secondary education shall take a vocational education before they reach the age of 35. Figure 2.4 shows a projection of the level of education for school leavers born and brought up in this country. Given their current choice of education and behaviour, less than half (45%) have taken a vocational qualification or further education, and 11% have completed an upper secondary education by the age of 35. Around 44% of school leavers only have lower secondary school as their highest education by the time they reach 35. The figure shows that more effort is needed over the next few years if the targets within education are to be reached.

It is a well-known fact that there is a big qualifications shortfall compared to other Nordic countries. That young people do not seem to be able to make up that shortfall is worrying. Half of 25-34 year-olds only had primary and lower secondary school as their highest level of education in 2015, a figure that has pretty much remained unchanged since 2002, when national statistics on education began to be compiled. The explanation lies primarily in too many youngsters who do not go on to upper secondary education after primary and lower secondary school. Progress has been made in parts of the education sector, e.g. more students are starting further education, but the dropout rate is high and many trying again have a negative impact on the statistics.

The educational shortfall in 10-20-30 years is being determined now by the choices and behaviour of youngsters. DREAM has developed an educational model for the Government of Greenland that projects the level of education for the population based on the individual education behaviour of youngsters at this

time[1]. The model is therefore ideal for predicting key development trends within education, based on current studying behaviour. Apart from current studying behaviour, the results of the model are driven to a great extent by population trends, which have a strong influence on future uptake for the various educations. The education model can also be used to evaluate education reforms, e.g. how changes in the length of studies, uptake and dropout percentages etc. can affect the level of education in the country. The model will therefore be an important element of education policy to determine which initiatives are necessary to realise the ambitious political targets for this field. It is also important that the model can be further developed as experience is gathered from using it. A provisional prognosis was made to the Economic Council's seminar in May 2018. Since then, a data revision has been performed and the trends in figures 2.3 and 2.4 show the results from the revised prognosis.

Figure 2.4 Prognosis of the level of education for 16-year old school leavers born and brought up in this country from when they reach 20 until they reach 35.



Note: The figure shows a prognosis of the level of education for 16-year old school leavers born and brought up in this country from when they reach 20 until they reach 35. The level of education is the highest level of education completed, and is calculated using the DREAM model for the level of education in Greenland based on actual educational behaviour in the country.

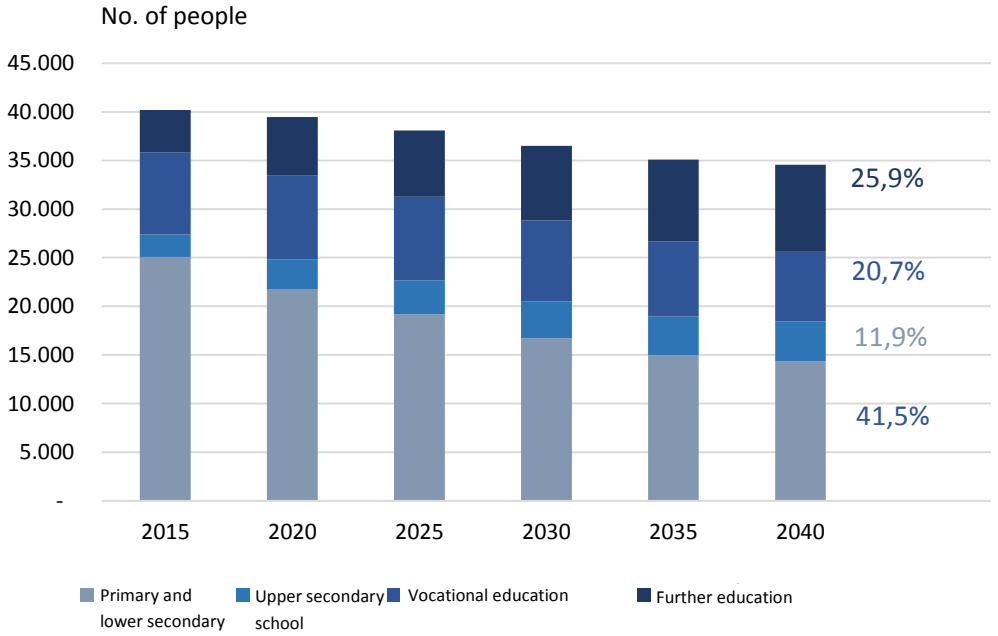
The prognosis of the level of education for the entire population shows a rise for the next 25 years, ref. figure 2.5. This coincides with the older element of the population having a lower level of education than the younger element. As time passes, the level of education among 15-65-year olds will therefore naturally rise. But the national level of education will still be significantly below that of the Nordic countries in 2040. Given current educational behaviour, 41.5% of the population between the ages of 15 and 64 will have lower secondary as their highest education in 2040. That segment is about 60% at this time. There has been a significant rise in upper secondary education over the last decade, especially amongst women, but which has failed to increase entrance to further education correspondingly.

A dilemma of educational policy is that it has to tackle different areas: primary and lower secondary school quality, dropout rates from upper secondary schools, very low rates of youngsters entering further

[1] See T. Markeprang and P. P. Stephensen, Uddannelsesfremskrivning for Grønland 2017 – Fremskrivningen af befolkningens uddannelsesniveau i Grønland, DREAM, August 2018

education or finding work (young target group etc.). Each of these are important, but in terms of political priority, primary and lower secondary schools have to come first. They are the cornerstone of the educational system. Without significant improvement here, no major changes can be achieved within the education sector, and too many resources will be wasted on fixing problems caused by quality problems in schools.

Figure 2.5 Prognosis of the level of education in Greenland, population between the ages of 15 and 65.



Note: The figure shows a prognosis of the level of education for the entire population between the ages of 15 and 65 (i.e. those born in Greenland and immigrants) up to 2040. The level of education referred to is the highest completed education taken, and is calculated using the DREAM model for the level of education in Greenland based on actual educational behaviour in the country, and the level of education amongst immigrants.

The Budget Act Bill for 2019 calls for educational reform to put in place a more flexible and cohesive education system. A recommendation for a political decision is expected in 2019 or 2020, after which political negotiations can start.

There is a very long horizon in relation to solving familiar and significant problems, not least in schools. The cost of such a drawn-out process is that several years of school leavers will get little out of attending school. The most important limitation to progress in the education field is not the institutional framework for the educational system. The problem lies in the quality of teaching, the failure of many pupils to acquire the basic academic skills, and thus miss the opportunity of obtaining good exam results and the basis for going further in the education system. The challenge is to do something about such problems and to ensure collaboration between parents, teachers and politicians that can result in real improvements within the field. Specific learning targets can be defined for school pupils. Trends within this area can be easily monitored and it is possible to track progress. There are also other problems within the education system, which can be tackled concurrently. They particularly concern the large group of youngsters that fail to go on to further education after primary and lower secondary school. But consideration of the institutional framework should not stand in the way of the absolutely necessary measures that can be taken now.

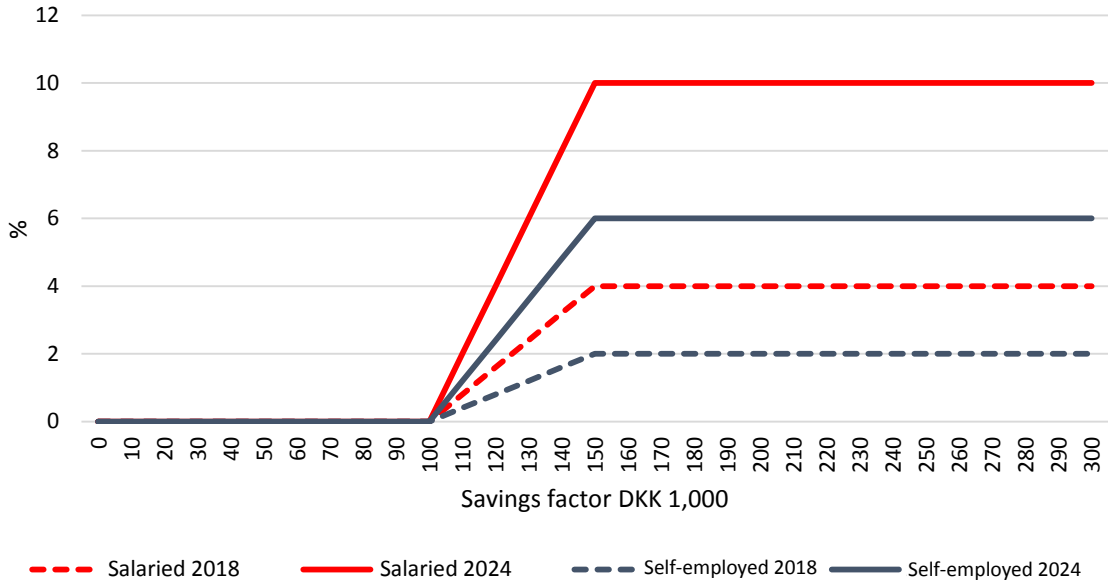
2.4. Pensions

A number of pension reforms have been implemented in recent years. The reforms are intended to boost pension savings and extend retirement age. The most important reforms are higher retirement age, mandatory pension contributions and changes in taxation rules. They are designed to provide a better basis for ensuring reasonable pensions as a combination of state and private pensions.

Retirement age as of 1 January 2017 was extended from 65 to 66, and will be extended again on 1 January 2021 to 67. Municipal councils can postpone extending the retirement age in special cases for people who are physically worn down after at least 35 years of hard physical or psychological work. The rise in life expectancy and unchanged retirement age will give the average citizen an extended retirement period, and thus the right to state pension for a longer period. That will burden the public finances and is one of the factors behind the sustainability problem. See sect. 2.2. Extending the retirement age will help ensure better balance between how many years an average citizen will contribute to and draws from welfare programmes.

As of 1 January 2018, mandatory pension saving was introduced. Anyone liable for tax over the age of 18 is obliged to contribute to a pension scheme until retirement age. Contributions are set as a percentage of annual basic savings factor (total A and B income). No pension contributions are payable on social benefits. The contribution rate rises in line with income, starting at zero for a savings factor below DKK 100,000 and rising to a rate of 4% for employees and 2% for self-employed with a savings factor of over DKK 150,000. These rates will be increased up to 2024 up to 10% for employees and 6% for self-employed business owners with a savings factor of over DKK 150,000. Figure 2.6 shows the mandatory contribution rates for 2018 and 2024 (rates for a savings factor of over DKK 100,000 will be raised by 1% each year) for employees and self-employed business owners respectively.

Figure 2.6 Contribution rates for mandatory pension saving, 2018-2024



Source: Act no. 21 of 28 November 2016 on mandatory pension schemes

Contribution rates set for the mandatory pension savings scheme are minimum rates, and higher rates are possible via collective wage agreements or voluntary schemes. The Tax Agency will decide whether individuals had a pension fund (e.g. via an occupational pension scheme), which meets the minimum requirement level. If this is not the case, a top-up payment will be required. If such a payment is not made voluntarily, it will be added to tax payable and the amount paid in to a mandatory scheme.

Mandatory pension savings must be seen in conjunction with state pensions. Old age pensions consist of a basic amount and a pension supplement[2] linked to the other earnings of the pensioner and his/her spouse/partner, if any. The supplement is therefore targeted towards the worst-off pensioners.

The mandatory pension scheme lays the foundations for a robust pension system with public pensions to underpin a minimum standard of living for all the elderly, and private pension schemes (mandatory/occupational pension schemes) to ensure pension cover (the pension in relation to income earned when in work). The mandatory pension savings scheme for employees will create a reasonable basic level for pension cover when fully phased-in.

The reforms referred to represent a major step forward towards ensuring the future of the pension system, including in relation to the pace of pension reforms seen in many other OECD countries. Even though the basic structure is appropriate, certain problems still remain.

Differences in the requirements for mandatory pension savings between self-employed and employees causes problems. The difference means that there will be situations where employees and self-employed

[2]The basic amount in 2018 is DKK 61,201, with maximum pension supplement of DKK 75,915 for a single person and DKK 42,198 for an old age pensioner with partner. Pensions are index-linked. The pension supplement is stepped down for single persons with a personal secondary income annually from DKK 56,000 to DKK 224,699, after which it lapses. The pension supplement is stepped down for cohabiting pensioners with a personal secondary income annually from DKK 83,000 to DKK 223,659, after which it lapses.

with the same level of income will have different pension savings, and therefore be entitled to different pension supplements. Such a difference can be difficult to justify and can hamper the legitimacy of the system.

The same applies with regard to people on social benefits. By exempting them from mandatory saving, a left-over pension group will be created that will only have (or mainly have) a pension entitlement based on state pension. This will exacerbate a problem with the structure of social benefits. Such a group makes it necessary to target state pensions towards the economically weakest, which is done via supplements linked to their own income (savings). But this creates an incentive problem for many, due to few of them getting much benefit from mandatory savings, as their disposable income is very low. The mandatory contribution rate in countries such as Sweden is universal – i.e. including the self-employed and recipients of social benefits – which makes the system simpler. As the new system matures, the deduction problems referred to will become greater, and there is urgent need for tackling the deduction and interaction problem, including criteria for awarding pension supplements.

Taxation of pensions has also been changed. There is now an explicit difference between contributions to a pension scheme made in Greenland and outside the country. There is a deduction for contributions made in Greenland and taxation on disbursement, whilst outside Greenland contributions are taxed, but there is no tax on disbursements. Whether tax is payable on contributions or disbursements makes no real difference to the individual[3], but the change in rules for contributions to schemes outside Greenland ensures that the deduction is not made in Greenland, whilst taxation at a later point is applied in another country (usually Denmark). The change in taxation principle thus has considerable significance for the Greenland Treasury's revenues. The change is therefore well justified, but it is hard to understand the argument for a mixed taxation principle with a difference in the way contributions are dealt with in Greenland and outside the country, as it makes the pension system harder to understand and gives rise to administrative problems. The introduction of a uniform taxation principle for all forms of pension contributions should be considered. In common with Denmark, a capital income tax has also been introduced (PAL tax) of 15.3% of annual returns from pension savings.

2.5. Airports

A proposal for a new airport structure has been published. The main element of the proposal is an airport package involving the building of international airports at Nuuk and Ilulissat, and a regional airport at Qaqortoq. A political debate is also in progress on a number of smaller airports, and the future of the airport at Kangerlussuaq.

Air traffic is a key element of the country's infrastructure, and of particular importance given its size and highly-dispersed population. Transport costs in terms of time and money are high for the public and businesses, and better transportation services will therefore mean considerable spin-off effects for society.

[3] If the tax rate is the same at the time of paying in and paying out, there will be no difference for the individual. For example: if a person has a tax-deductible contribution of DKK 1000 with a return of 5%, the amount will grow to DKK 105, and after tax (42%) have a value of DKK 609. If tax at 42% has to be paid on the DKK 1000, a contribution of DKK 580 can be paid in, and with an interest rate of 5%, the contribution will grow to DKK 609 after one year.

Such effects are important, but what is just as important is to remember that they will not automatically finance the airport package.

The final formulation of the package is yet to be decided. Principal agreement was reached in early September between the Danish government and the Government of Greenland on Danish funding for the package, along with enhanced commercial collaboration between Denmark and Greenland. The agreement is currently going through the political process.

The plan presented proposes a completely different financing model than originally envisaged. The agreement concerns the airports in Nuuk and Ilulissat, and Kalaallit Airports A/S is expected to set up a company for the sole purpose of building and running these two airports. The main elements of the agreement are that the Danish state injects capital (equity) and helps acquire low-interest loans for construction and running the two airports. The capital injection will be DKK 700 million, equivalent to a shareholding of 33.3%. A government loan (relending) of DKK 450 million will also be taken out, and a state guarantee for a loan of DKK 450 million from the Nordic Investment Bank will also be provided. The government will inject equity of DKK 1,400 million, equivalent to subordinated loan capital of DKK 100 million.

The original financing model presumed that the government would be the sole owner of Kalaallit Airports. Financing would be provided via capital injection and borrowing guaranteed by the government. The proposed financing model for the airports means a major reduction of borrowing requirement via the state's capital investment and lower financing costs on the rest of the borrowing requirement, as a result of the state's borrowing and guarantees.

The Economic Council has pointed out before that the original financing model meant a very substantial risk exposure for the government[4] This will be a very large project in its own right and relative to the size of the economy. The project has a long timeframe and is irreversible. Once the airports are built, they must be used and paid for. Any negative fluctuation in construction or running costs under the original model would directly affect the economy of the government. The economy is subject to high risk already, due to the narrow commercial structure and considerable dependence on commercial fishing, and any further increase in risk exposure will be a problem. Anything going wrong could put the government under significant pressure, with the risk of tax increases and/or cutbacks. The proposed financing model helps reduce the financing requirement and costs, while the state will bear a significant part of the risk related to the project (via its capital injection and guarantees for borrowing). The new ownership structure can also mean a better governance structure for Kalaallit Airports, as both parties have an interest in its development. Significant reduction of the financing costs for the project and the risk borne by the government will be of vital importance to the national economy.

Even with the new financing model, the airport package has major consequences for the national economy and the economy of the government. Risks related to the package can be significantly reduced by carrying out the construction phase more gradually than the currently proposed almost simultaneous construction of the airports. That will make it possible to make use of the experience from the first construction activities.

[4]For a more detailed discussion, see the Economic Council's report 2018-1: "Lufthavnspakkens samfundsøkonomiske implikationer" (socio-economic implications of the airport package).

Gradual construction will also make it easier to plan and realise different follow-on investments in infrastructure, hotels etc. The risk of overheating is also a good reason for gradual construction. Even though construction will mainly be performed using foreign labour, there will be spin-off pressure on the domestic labour market. This can cause wage inflation to the detriment of industry as a whole. The current economic boom underlines the importance of avoiding overheating.

In relation to the government's financial commitments, the Budget and Accounting Act lays down certain constraints. Borrowing and guarantees presume that interest and repayment instalments can be covered by user payment. Funds from the Fund for Long-term Investment can only be used for purposes that give the best possible effects for the national economy. The strings attached are appropriate to ensure that the funds are only used for activities that support a more sustainable economy. It is important to emphasise that such requirements continue to apply in the event of any changes to plans for air traffic or other initiatives.

A new airport structure will obviously have major political consequences for the regions. The regional consequences are also a reason for the specific formulation of the package and a decisive part of the political debate on the same. Not all regional problems can be solved by the airports, and an overall regional policy is needed. The regional issues do not only dominate the airport debate, but also a number of other areas, including fisheries policy, the placing of public institutions and compensation between the municipalities. Clarification of opportunities and potential for growth for each region is needed, along with the most appropriate means of achieving them for each area. In the absence of such political considerations, there is a risk of regional issues obstructing the measures necessary to strengthen commercial development, which will also obstruct the process towards a more self-sufficient economy.

2.6. Commercial fishing

Commercial fishing is the biggest private sector industry measured in terms of employment, value creation and export. It is therefore of key importance to tax and duty revenues. The fisheries policy is therefore a very decisive element of commercial policy.

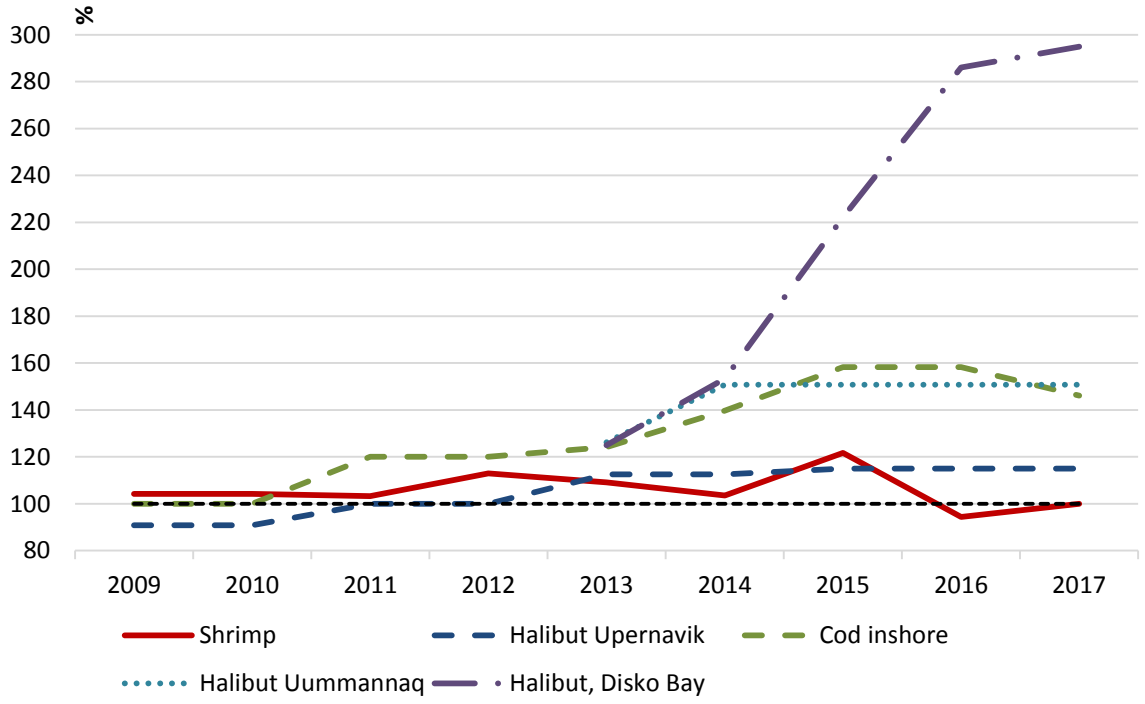
Responsible management of fish resources

Greenland's fish resources can be compared to capital in the bank for the population. They give a return every year in the form of an increase in the stocks that can be fished to the benefit of society. If fishing exceeds growth in stocks, this natural capital will be gradually reduced, with lower future returns. This is the situation seems to have occurred for key elements of halibut and cod fishing in recent years. Fishing over the level of sustainability only gives short-term gains at the expense of future losses.

Trends within the quotas set for several of the most important species give grounds for concern. Figure 2.7 shows quota trends – Total Allowable Catch (TAC) – as a percentage of the recommendation from the Greenland Institute of Natural Resources. The quotas for seagoing fishing for shrimp and halibut are set in accordance with biological recommendations, but they have been set well over the recommendations for a number of other species. This applies in particular for inshore cod fishing, which now has a quota almost three times over that recommended. But the same applies for halibut fishing in Disko Bay, Uummannaq and Upernavik. This indicates a looming risk of unsustainable fishing. Given that these are important

species for the industry, and thus for many fishermen, the trend indicates that short-term gains are achieved at the cost of the future of commercial fishing. The introduction of quotas based on the biological recommendations on the same basis as for shrimps will ensure long-term revenues for the fishermen and the Greenland Treasury.

Figure 2.7 Quotas (TAC) as a percentage of recommendations, 2009-2017.

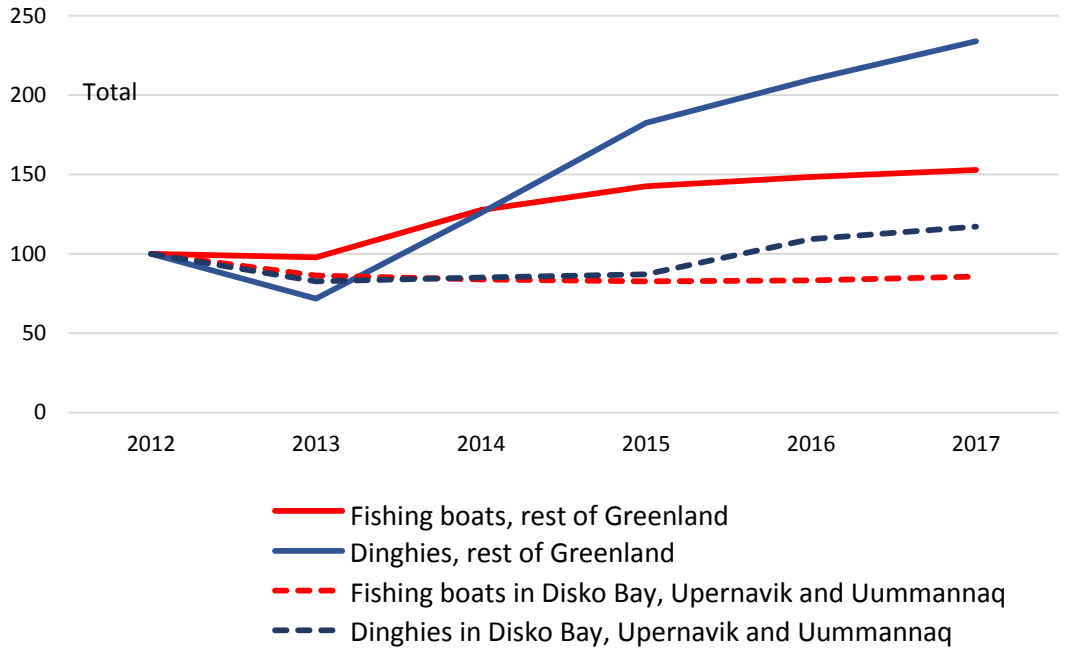


Source: Greenland Institute of Natural Resources

Limiting the scope of inshore fishing

The most important cause of overfishing globally is that there are too many fishing boats chasing too few fish. Capacity in the industry is higher than necessary for sustainable fishing. The benefits to society of its natural resources are maximised by ensuring a sustainable industry in the long-term. Technological advances almost make it possible to catch more per boat – productivity rises, representing a major source of an increase in wealth. Utilising that source of an increase in wealth is vital to ensure a more self-sufficient economy. There will be no increase in wealth if the fishing industry maintains overcapacity – its resources must be transferred to other functions and industries. But this is not something that is happening at this time. The number of inshore licences in particular has risen significantly in recent years, as can be seen from figure 2.8. Whilst the number in Disko Bay, Upernavik and Uummannaq dropped by more than 15% since 2012, the number of dinghies rose by more than 17%. In the other territorial waters, the number of dinghies and fishing boats rose by 130% and 50% respectively. The total number of inshore vessels rose since 2012 from 1,562 to 2,222, an increase of over 40%.

Figure 2.8 Changes in the number of fishing boats and dinghies in inshore fishing, 2012-2017, index 2012=100



Source: Statistics Greenland

When the scope of fishing is increased at a time when sustainable fishing limits catch volumes, the catch per boat goes down along with efficiency, reducing the return to the national economy. Fish prices are determined on the international markets, and competitiveness therefore encourages rationalisation in line with that in other fishing nations. The combination of catches above the sustainable level and overcapacity in the industry points to crunch coming in the industry that will affect returns for the national economy and the process towards a more self-sufficient economy.

Changes in the Fisheries Act

Political debate on a new Fisheries Act is currently in progress. The last government submitted a bill in August 2017 for a new Fisheries Act to parliament, but due to the parliamentary elections it was never fully considered.

A number of problems were identified during debate, and future fisheries law will be of vital significance to the national economy. The objective of the bill was to reduce the growing disparity, protect jobs, and to improve earnings for fishermen. It aimed to give more fishermen a larger share of the profits generated by community-owned resources. The bill specifically proposed: (i) ownership of quota shares should be arranged to take into account indirect ownership of quota shares and deciding influence on quota shares, (ii) quota distribution for shrimp in western Greenland for inshore and offshore shrimp fishing should be revised from 43/57 to 50/50, whilst the opportunities to sell quota share volumes from the offshore to the inshore fleet component are tightened up, and (iii) at least a 5 year period of notice for open-ended shrimp licences.

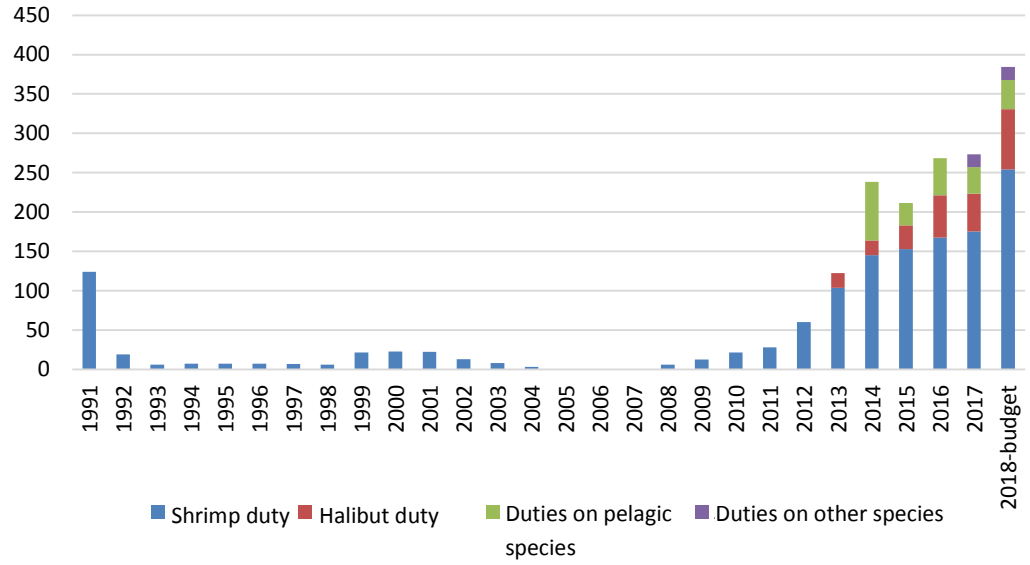
Comments to the bill included it having a very negative effect on the public finances and activity within society, positive short-term effect on employment but none in the long-term, and that efficiency will fall. The Economic Council agrees in principle with these expectations. They emphasise the need for detailed discussion on the law to ensure exploitation of marine resources that is appropriate to society as a vital criterion in the move towards a more self-sufficient economy. See also the Economic Council's Report (2017).

Changes in criteria and the possible withdrawal of licences will have decisive impact on the industry. Clear, transparent rules for withdrawing and redistribution of licences and the administration of the same are vital. Uncertainty concerning changes in criteria for awarding and the possible withdrawal of licences will have decisive impact on the industry. There will be a negative effect on investment and thus efficiency, thus reducing returns for society from the sea's resources. Uncertainty on the future rules will particularly make it hard for new potential fishermen to finance investment in vessels and equipment to be able to get into the industry, and thus counter one of the key objectives of a change in the law.

One of the main objectives of the bill is to ensure a better distribution of the wealth generated by fishing, especially via redistribution of shrimp quotas. Similar changes in the distribution of quotas have been seen in several countries. Quotas in Norway were transferred to a limited number of new start-ups in fishing for certain species. Supplementary quotas are also allocated to fishermen based in areas with high concentrations of indigenous peoples. The Faeroe Islands opted for auctioning off parts of the TAC for part of the industry. All previous quota-holders had to contribute to redistribution, but according to clear, transparent criteria. A certain share was taken from the total joint quota and reallocated according the criteria set. In New Zealand, the state opted to buy-back quotas to reduce the number of entities involved in the industry. Norway also has experience of changing 'indefinite quotas' to limited period quotas (25 years), but with a time-consuming process and numerous legal issues.

One aspect that separates Greenland from most other fishing nations, is that the country already has an efficient system for taxation of resource interest, which ensures that the value of being able to exploit marine resources will be to the benefit of society as a whole. See figure 2.9. Greenland is trendsetter in this area. Fair distribution can be better achieved via the structure and level of resource interest taxation than via the redistribution of quotas. Depending on the design of the award criteria, redistribution of licences will be able to increase the income of certain people receiving newly-issued licences, but will be a very imprecise policy for distribution and will have a lottery element to it in relation to who will be given the opportunity. Meanwhile, tax and duty revenues can fall as a result of lower efficiency, with negative consequences for the rest of society, either in the form of increases in other taxes and duties, or cuts in public budgets.

Figure 2.9 Gross revenues from fishing-related duties, 1991-2018



Source: Ministry of Finance (2018)

The exact fall in revenues from taxes and duties according to the proposed changes in the law is not known, but can be significant. Commercial fishing contributes about 1/3rd of total tax revenues in the form of income, corporation and dividend taxes, plus industry-related duties. The latter have grown in significance in recent years, as shown in figure 2.9, and contributed nearly DKK 400 million to the Budget Act for 2018, the majority of which came from shrimp fishing. The proposals for the new Fisheries Act can be expected to affect such revenues negatively, and such losses will have to be reconciled for their uncertain effects on income distribution.

Commercial policy should be designed to ensure maximum efficiency and value-creation, and the question of distribution comes under the structure of taxation and duty systems, along with education policy. As such, whether the bill will help reduce social imbalance is uncertain.

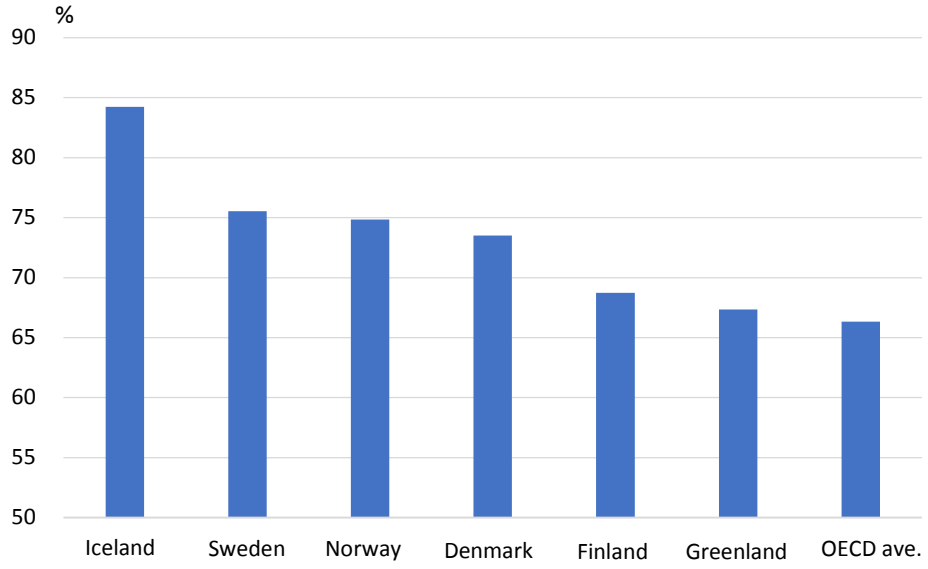
Chapter 3 Structural problems on the job market

Employment is high after several years of economic growth, and the number of registered unemployed has fallen drastically (see chapter 1). There is a major shortage of labour within specialised and unskilled work, and the need to recruit foreign labour is strong and growing. Unemployment in the current situation has therefore reached its structural level, and a further permanent reduction will require structural improvements on the job market. There were 2,135 unemployed in the municipalities as of June 2018, of whom 1,119 were employable. That corresponds to an unemployment level of about 5% of the labour force. The fact that many employable people are on public benefits at a time when there is a severe labour shortage is paradoxical.

Participation in the job market and employment levels are lower than in the Nordic countries we normally compare with, ref. figure 3.1. However, employment is not at the level of the OECD average, where low unemployment amongst women helps reduce the average. The relatively low participation on the job market seen in a Nordic perspective is linked to a lower level of qualifications, limited mobility across the country and interaction problems between public benefits and income from employment.

Such paradoxes on the job market can be reduced through reforms. The next chapter looks in more detail at the structure of the job market, and what is needed to boost the chances of employment for the entire population. More employment and fewer on benefits is important for a self-sufficient economy and a more equal distribution of incomes in the community.

Figure 3.1 Employment rates in the Nordic countries, 2015

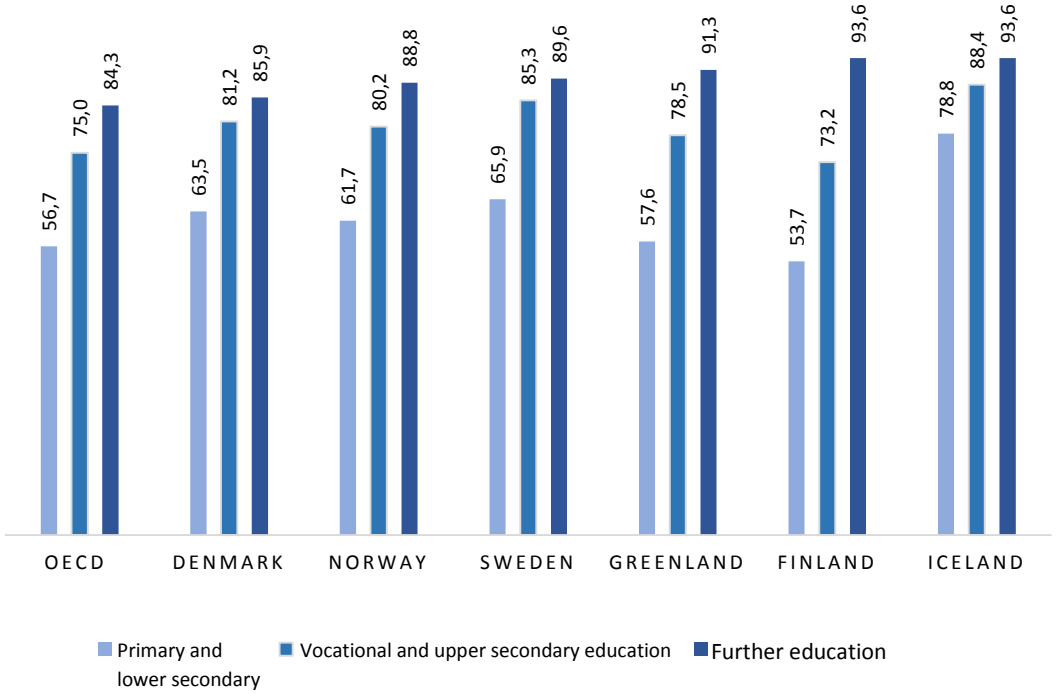


Note: The employment rates given are for the population aged between 15 and 64. Data for Greenland covers the population from 18 to 64. Because participation in the job market for the very young (15 to 18-year olds) is relatively low, the figure will exaggerate participation in Greenland by an estimated 2½% compared with the other countries in the figure.
Source: OECD, Employment Database and Statistics Greenland.

3.1. Qualifications and the need for foreign labour

It is well-known internationally that there is a close relationship between qualifications and job opportunities. Qualified workers in Greenland do not have the same level of employment as in other Nordic countries, nor in OECD countries. Those with only lower secondary school education generally have much lower chances of finding work, which is also the case in other countries, ref. figure 3.2.

Figure 3.2 Levels of employment and education in selected countries, population between the ages of 25 and 64.



Note: The level of employment by education for Greenland is for the ages of 18 to 64.
Source: OECD, Employment Database and Statistics Greenland.

The educational shortfall is the main reason why the level of employment is lower than in other countries. Over 60% of the adult population only has lower secondary school as their highest level of education. This is a significantly proportion than in the Nordic countries. The lack of qualifications relevant to the job market is the main problem on the market. There is a structural gap between the qualifications needed and those the unemployed have. There is full employment for people with qualifications that are relevant to the job market, whilst anyone without a vocational education finds it difficult to find and keep a job.

Most countries need to be able to recruit foreign labour, especially workers with specific qualifications. The education shortfall makes being able to recruit foreign labour for specialist jobs particular acute in Greenland. Doing so can be difficult, especially when employment levels are so high elsewhere, particularly in Denmark.

The latest data from the health service indicate that only just over one-third of its positions as of 1 July 2018 were held by permanent employees. The service should have around 100 doctors and 300 nurses, but there are currently only about 50 permanently-employed doctors and 110 nurses. That means that there

relatively many positions held by temps and short-term employees, or are vacant.[5] The problem recruiting qualified labour also extends to teachers, nursery teachers and social workers. There are currently also recruiting problems in fish factories, making it necessary to recruit unskilled Chinese labour for the land-based factories such as Royal Greenland's plants at Maniitsoq, Sisimiut, Ilulissat and Uummannaq.

The Economic Council has compiled a dataset to illustrate the scope of foreign labour. The dataset is based on registration of persons born outside Greenland registered as resident in the country. It therefore only includes those with a (registered) address in Greenland and not those working temporarily here, such as short-term contractors and temps working in the health service. There are no statistical data on these forms of imported labour.

In early 2018, there were 5,706 people who were not born in the country resident in Greenland. 3,831 of those had some special link to Greenland, i.e. have lived here for more than 7 years, moved here as a child (under 18) or in a relationship with a native Greenlander, ref. figure 3.3. That leaves 1,875 over the age of 18, of whom 1,413 are Danish citizens. The level of education amongst these is high, which emphasises the fact that they come here in response to the demand for workers with special qualifications.

Figure 3.3. Residents not born in Greenland, broken down by recruited workers and those with a special link to the country

Source: Statistics Greenland and our own calculations.

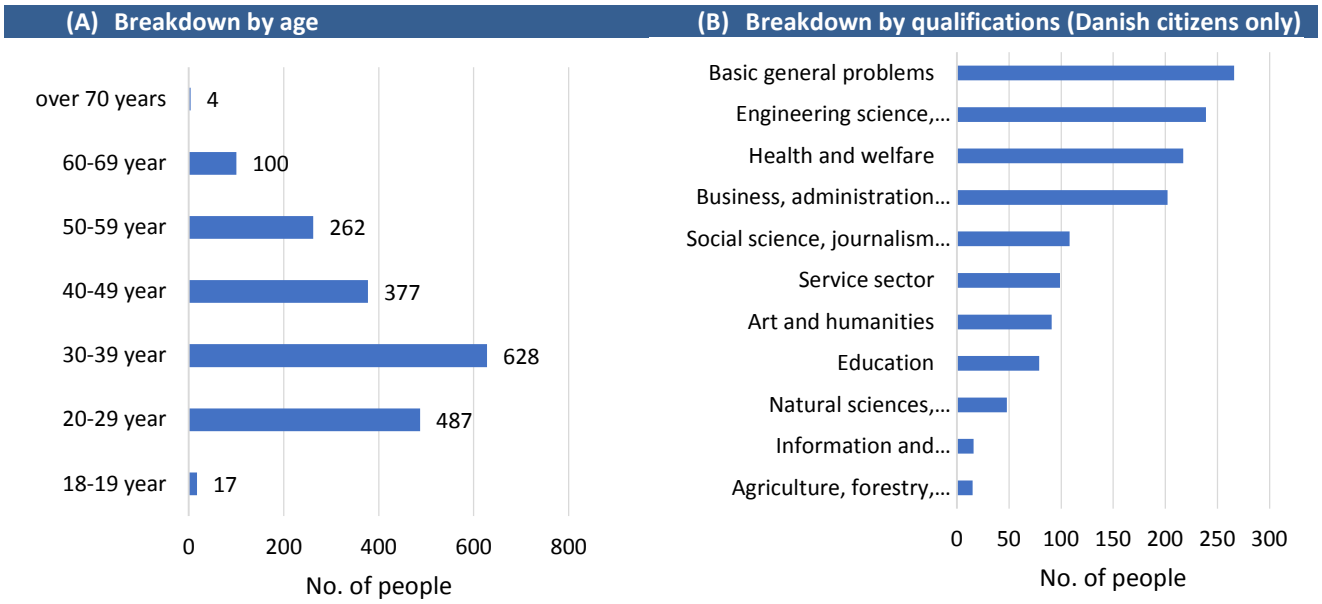
The number of people resident but no born in the country has been in steady decline over a number of years. This could be due to more specialised jobs within such fields as administration now being taken by native Greenlanders. But it could also be due to remote working being possible from abroad via electronic communication, the internet etc.

[5] http://inatsisartut.gl/documents/para3637/2018/svar/154_2018_sundhedsvikarer_MAVR_svar.pdf

There was a small temporary increase in recruited labour around 2012, but there is generally no close relationship between variations in employment levels in the country as a whole and in labour recruited from outside the country. This can be seen in recent years, when the level has been more or less unchanged. Of course, this could also be linked to the economic situation in Denmark, where employment levels have been high. The fact that commercial fishing, building and construction have been enjoying a boom also plays a role, as fishing in particular has little need for foreign labour.

Labour recruited from outside the country is mainly under the age of 50, ref. figure 3.4. Broken down by qualifications, the social sciences, engineering/construction and health care are heavily represented, which confirms the need for importing personnel with qualifications relevant to the jobs available.

Figure 3.4. Recruits not born in Greenland, broken down by age and qualifications



Source: Statistics Greenland and our own calculations

Labour recruited externally (just under 1,900 people) consists of approx. 1,400 Danish citizens and approx. 500 other nationalities. The level of education among the Danish workers is relatively high by Danish and Greenlandic standards, ref. table 3.1. The statistics indicate that there are many unskilled workers amongst the other nationalities. They include workers from Thailand, the Philippines and China. The level of education amongst other nationalities can be underestimated due to them failing to register. We should also point out that recruited labour not registered in Greenland at the end of a year is not included in the dataset, thereby exacerbating underestimation of the scope of foreign labour.

Table 3.1 Level of education for resident and recruited labour from Denmark

	Resident persons in employment	Recruited Danish employees
	%	
Primary and lower secondary school	**52.2**	**12.0**
Vocational and upper secondary education	**31.1**	**26.4**
Further education	**16.7**	**61.6**

Source: Statistics Greenland and our own calculations.

3.2. The problem of underemployment

Few unemployed are out of work all year round. There are around 8-9,000 people registered as unemployed for periods of varying length annually. A large part of the workforce is thus afflicted by periods of unemployment during the year.

This indicates that underemployment is a big problem on the job market. A person is defined as underemployed here is he or she has worked less than full-time over the year. This can be due to a desire to only work part-time, but for most it is not a situation they want to be in, when periods of employment are interspersed by periods of unemployment and no income.

There are no details available on the number of hours worked or other data that can directly indicate the scope of underemployment. Low income is an indicator of underemployment, either due to working only a few hours per year and/or only working part of the year. Some the underemployment statistics can therefore be accounted for by elective part-time working.

To determine the scope of underemployment, statistics have been compiled of residents between the ages of 18 and 64 before municipal division in 2016. 'Residents' are those registered in the Central Person Register at the start and end of the year. For the purpose of compiling the statistics, a person is regarded as unemployed if their income from work is less than DKK 13,000 on average for the months they worked (other months are classed as unemployed). The level of DKK 13,000 was chosen because it roughly corresponds to the monthly income from full-time work on SIK's minimum wage. Students are not included in the statistics.

The figures show a high level of underemployment and a wide spread of jobs categories, ref. table 3.2. On average, 14% of those in employment in 2016 had earnings that indicate they were underemployed in the form of only a few hours per month in employment. That's the equivalent of almost 3,300 people. This figure can include those who elected low employment in the form of part-time etc. Underemployment is particularly widespread within fishing and hunting, and within certain service industries such as hotels and restaurants.

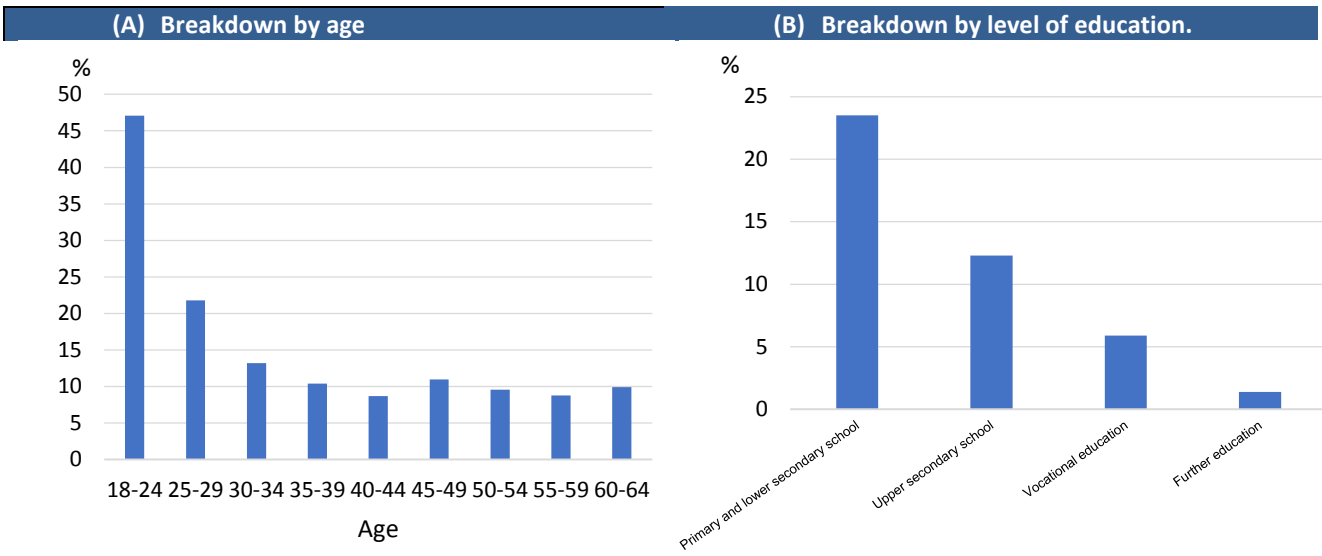
Table 3.2 Underemployment broken down by sector, 2016

	Underemployment	Other employment	Total	Underemployment in %
Building and construction	141	1,488	1,629	9
Energy and water supply	21	311	332	6
Fishing, hunting and farming, plus related activities	1,167	3,117	4,285	27
Business service and leasing etc.	163	866	1,029	16
Trade and repair	480	1,670	2,150	22
Hotel and restaurants	182	385	566	32
Industry	38	192	230	17
Public administration and service	782	8,546	9,328	8
Mining etc.	3	77	81	4
Transport, post & telecoms	175	1,959	2,134	8
Not stated	41	187	228	18
Other service industry	92	589	681	14
	3,285	**19,387**	**22,673**	**14**

Source: Statistics Greenland and our own calculations.

Age and education also play a major role in underemployment. Young people and those without a vocational education (i.e. who have lower or upper secondary as their highest level of education) have a looser connection to the job market, and are underemployed to a greater degree. Education gives significant returns to individuals in the form of better pay, and to society in the form of higher value creation. As shown by figure 3.5 below.

Figure 3.5 Underemployment broken down by age and education, 2016



Source: Statistics Greenland and our own calculations.

Underemployment has a geographical dimension. Employment prospects are generally higher in the larger towns, which is shown by such factors as less underemployment. This is also where local patterns come into the picture, e.g. low underemployment in Nuuk is linked to jobs within public administration and a higher level of education compared with other towns.

3.3. Geographical mobility

The unemployment problem has a geographical dimension, as the unemployed are not always located where there is a shortage of labour. In a country with a small, thinly spread population the regular occurrence of such geographic misplacement problems between the local labour available and required cannot be avoided. With more systematic differences, increased mobility of the workforce within the country will reduce these structural problems.

There are currently also major recruiting problems in fish factories, making it necessary for Royal Greenland to recruit unskilled Chinese labour for the land-based factories, including at Maniitsoq, Sisimiut, Ilulissat and Uummannaq. Even though the scope of foreign unskilled labour is still modest – there are about 50 foreigners on long contracts with RG – the rise bears witness to the urgent need to boost mobility in the country. These job functions do not require specialised foreign labour, but can be undertaken by the domestic workforce. For example, there are between five and six hundred registered unemployed per month in the towns listed above with recruiting problems, of whom the majority are employable.

High mobility will become visible in the form of workers moving from towns with high unemployment to those with better job prospects. Trends in the potential labour force across the country can be compared to local employment opportunities. Mobility can be illustrated by the change in the potential domestic workforce, i.e. people between the ages of 18 and 65 living in the towns. Trends in the potential workforce can then be broken down into four changes due to: (1) relocation within the country to study, (2) mobility linked to work etc., (3) demographics in the form of additions to the age group as people reach the age of 18 and losses as they reach 66, and (4) immigration/emigration (including deaths).

Table 3.3 shows trends in the potential workforce in the towns from 2012 to 2017. The figures show no strong indications of mobility within the country. There are only weak indications of workers moving from towns with high unemployment to those with better job prospects. Overall, trends in the potential workforce are still dominated by demographics, with the number of people reaching the age of 18 exceeding the number reaching 65. That has increased the potential workforce by a little over 2,000 between 2012 and 2017. Then there has been net emigration (including deaths), which has reduced the potential workforce by around 1,700 – i.e. almost balancing out the demographic growth. The trend is the same across all towns, all of which (except Qasigiannguit) have had demographic growth, whilst experiencing their residents moving away.

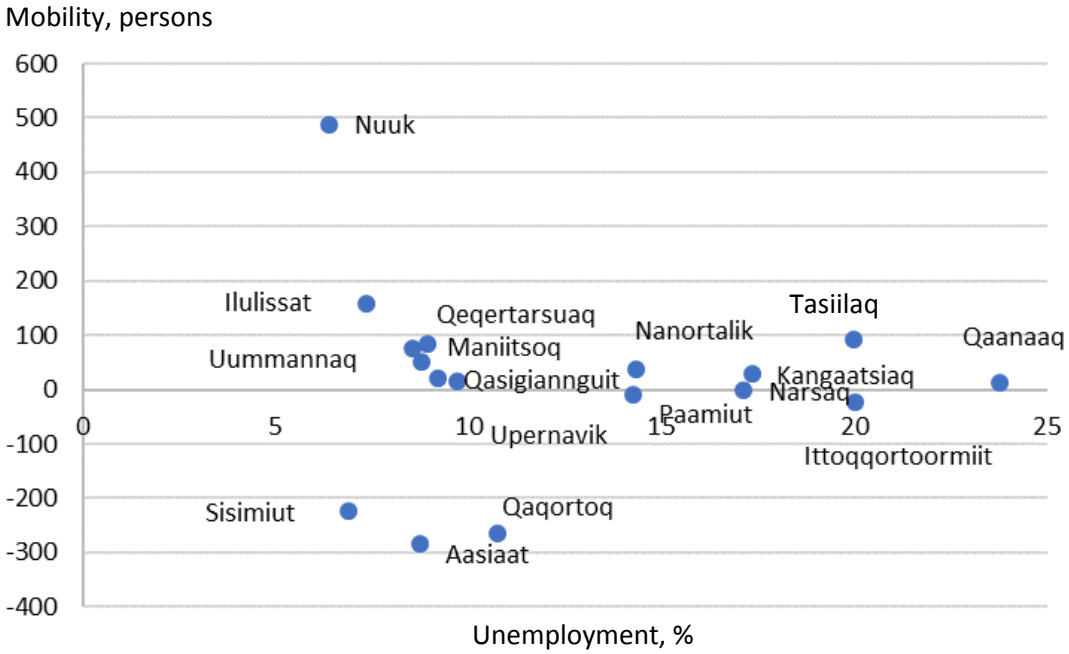
Table 3.3 Trends in the potential workforce in towns broken down by mobility in Greenland, immigration and emigration and demographic trends, 2012-2017.

Town	Potential workforce 2012	Changes in the potential workforce from 2012-2017:				Potential workforce 2017
		Mobility in Greenland	Mobility related to study start	Emigration etc.	Demography	
Nanortalik	877	37	-75	-61	13	791
Qaqortoq	2,184	-265	64	-131	201	2,053
Narsaq	980	-1	-32	-105	9	851
Paamiut	984	-10	-54	-65	29	884
Nuuk	11,584	489	451	-450	567	12,641
Maniitsoq	1,778	52	-112	-93	47	1,672
Sisimiut	3,637	-224	19	-206	330	3,556
Kangaatsiaq	355	28	-30	-33	35	355
Aasiaat	2,105	-284	11	-135	375	2,072
Qasigiannguit	772	20	-62	-45	-5	680
Ilulissat	3,024	157	-101	-151	112	3,041
Qeqertarsuaq	534	84	-70	-24	7	531
Uummannaq	834	76	-57	5	52	910
Upernavik	733	15	-80	-30	49	687
Qaanaaq	409	13	-29	-21	33	405
Tasiilaq	1,190	93	-54	-136	155	1,248
Ittoqqortoormiit	269	-23	-11	-18	21	238

Note: The potential workforce is stated in the table as 18 to 65 years of age. .
Source: Statistics Greenland.

Internal mobility in Greenland is dominated by people moving to Nuuk. There are generally no clear indications of the domestic workforce migrating to the towns with good employment opportunities. If we look at people between the ages of 18 and 65, i.e. the potential workforce, there are no clear indications of migration from towns with relatively high unemployment to those with better employment opportunities, see figure 3.6.

Figure 3.6 Mobility in Greenland among 18 to 65-year olds in the form of net migration (not study-related) and average unemployment percentage, 2012-2017



Source: Statistics Greenland and our own calculations.

3.4. Incentives and interaction problems

Public benefits, housing benefit, child benefit, unemployment benefits etc. make up the social security net. The objective is to support the families affected, yet still make it worthwhile to work. However, the composition of the social security safety net means that there is little financial gain to be had from getting a job for many in the low pay bracket. This has been previously established by the Tax and Welfare Commission (2011) and previous reports from the Economic Council. When vacancies cannot be filled despite unemployed labour with the right qualifications, it indicates insufficient incentive to find a job, and insufficient enforcement of the duty to be available for work.

Employable people unable to find a job can apply for financial help from the social services. Such help can be in the form of either unemployment or other benefit. Unemployment benefit is intended for anyone losing their income short-term due to unemployment. It is paid by the hour, with the number of hours based on employment over the last three months, and the rate is 90% of minimum pay. The size of the benefit depends on fixed overheads, partner's income and number of children.

Public benefits help support a family's income. They can be paid as a supplement to a family's other income, e.g. when a period of unemployment has been so long that unemployment benefit is no longer payable, or when a family's total income falls under a certain level. The municipalities usually set the limit to provide a family with disposable income per month per adult of approx. DKK 780 after tax and fixed overheads every fourteen days, and with disposable income of DKK 1,000 for each adult per child per month. The size of the benefit therefore depends on family composition, fixed overheads and other income. Public benefits are paid to a large extent to single claimants, including single parents. See table 3.4 below.

Table 3.4 Family types and public benefit claimants, 2017

Family type	Number of families in the population	Proportion of family type receiving public benefits	Annual public benefits in DKK average for 2017
Single parents with no children at home	13,549	19.8	16,237
Single parents with one child at home	1,515	33.7	23,143
Single parents with two children at home	623	36.1	34,885
Single parents with three or more children at home	244	52.0	47,029
Couple with no children at home	5,161	12.5	14,446
Couple with one child at home	2,027	15.3	20,091
Couple with two children at home	1,740	14,7	22,992
Couple with more than two children	1,058	28.5	32,711
Minors living at home	2,513	17.3	9,046

Source: Statistics Greenland

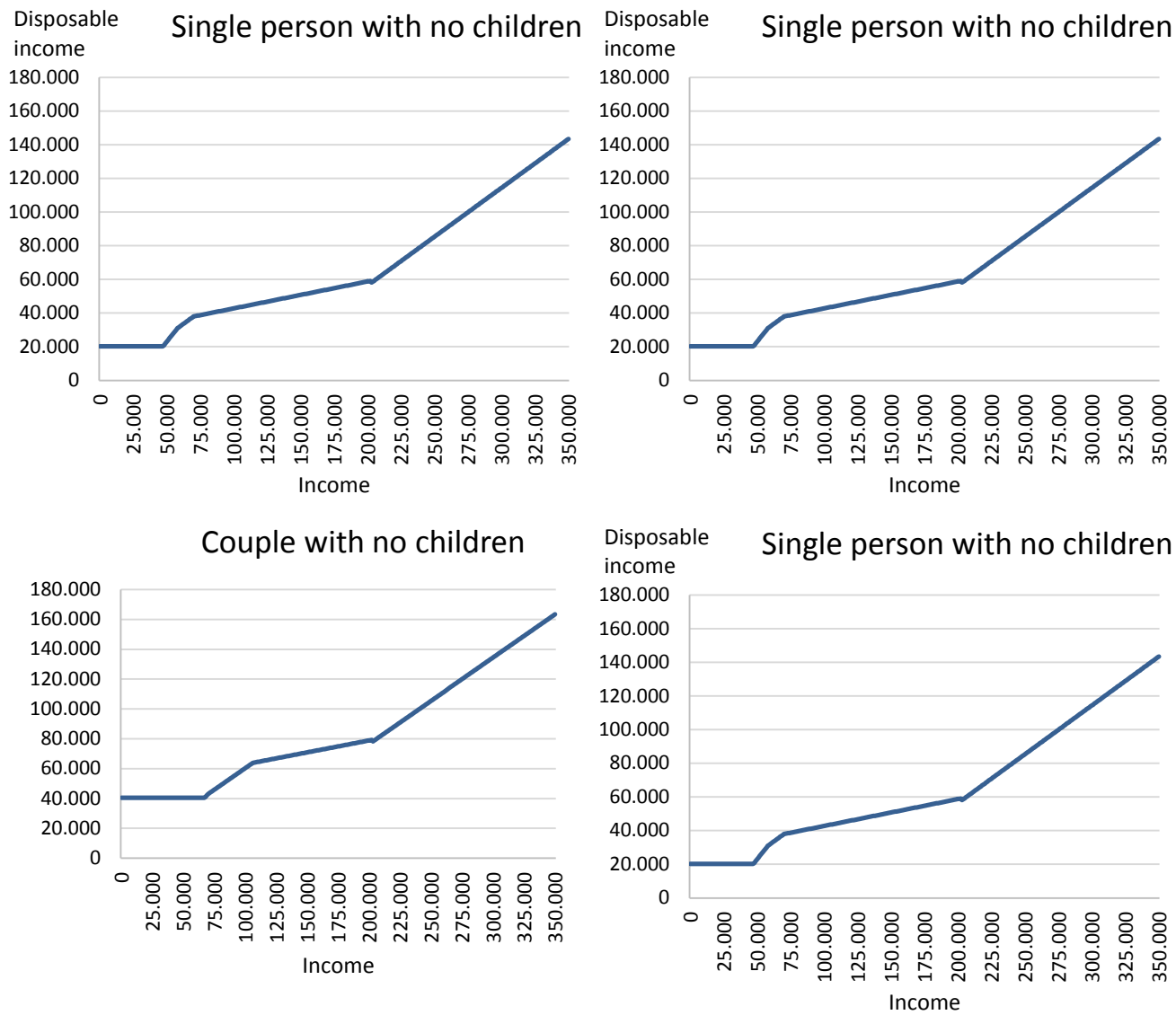
The relationship between the tax system and phasing out social benefits and supplementary social subsidiary programmes in the form of child benefit, housing benefit and reduced daycare prices can mean that any gains made from finding a job or working longer can be very small.

Anyone unemployed faced with the prospect of pay close to the minimum wage may be unable to gain anything from taking a job or working more hours. Apart from tax, any gains from work will also be affected by the reduction of child and housing benefit, increase in daycare rates and the reduction or loss of any other benefits.

The scope of interaction and incentive problems linked to social benefits depends on family size, number of children and their age, type of housing etc. Child benefit and daycare payments are paid to families with children, and housing benefit is also linked to number of children. Because social benefits are aimed at families with low incomes, the gains to be made from working are lowest for single parents with children and couples with children when one partner has no or only low income.

The gains made from work (or working more) are illustrated in figure 3.7, which shows how disposable income depends on income given the rules in 2018. Because the effect depends on numerous factors, the figure shows the disposable income for single claimants and coupes with and without children. The figures are based on the partner having no income, rent of DKK 5,000 per month with fixed overheads of DKK 2,000 per month and that the children of single parents or couples with 2 children both attend kindergarten at Sermersooq prices.

Figure 3.7 Disposable income for different family types as a function of A-income, 2018



Note: Disposable income is calculated for different family types. Rent is set at DKK 5,000 per month with fixed overheads of DKK 2,000 per month. A household with children is presumed to have 2 children, both attending kindergarten at Sermersooq prices. One member of a couple is presumed to have no income at all. Public benefits support a family's finances, and are based on 1:1 deduction from other income in the calculations. That means that total marginal taxation is 100% for the low incomes in the figures.
Source: the council's own calculations.

Figure 3.7 shows that public benefits coupled with housing benefit and (if relevant) child benefit support the family's finances by ensuring a minimum disposable income. To make work worthwhile, the disposable income has to rise considerably to be better off. The structure of the social safety net means that for many claimants, an increase in income will mean phased loss of social benefits to the point that, coupled with taxation of the increase in income, there will only be a slight increase in disposable income. The disposable income of a single parent with two children will not increase until an income of in excess of DKK 93,000 is earned, whilst a couple with two children will have to earn a joint income of around DKK 163,000. The structure of social benefits therefore gives no incentive to take low-paid or short-term jobs.

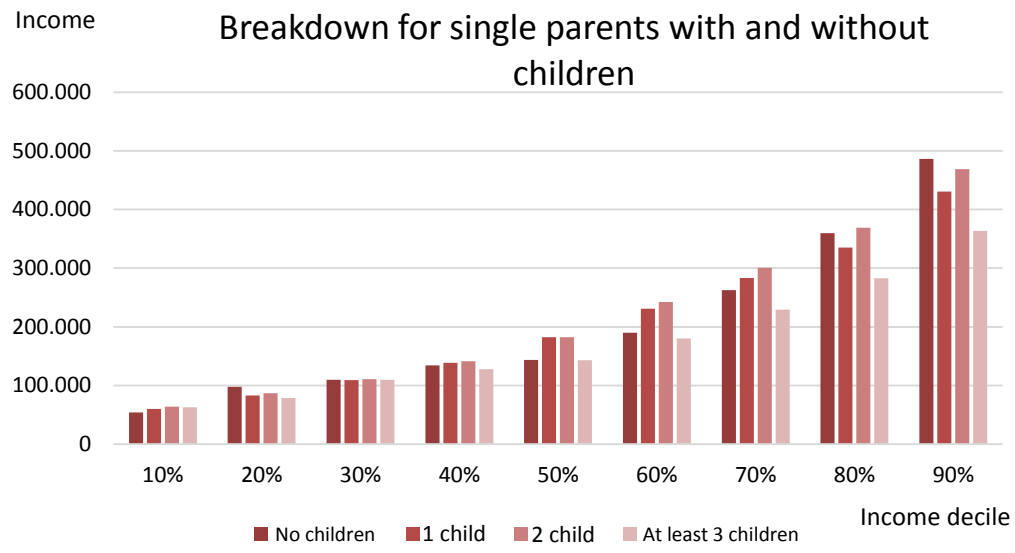
For anyone on a low income below the amounts referred to above, an increase in income will not mean any real increase in disposable income. Total marginal taxation is therefore 100%. Taxation plus reduction in various social benefits means that disposable income is not increased by an increase in income. For incomes over the amounts above, total marginal taxation will also be high. An increase of e.g. DKK 1,000 for a single person with no children on an income of DKK 200,000 will mean their disposable income will only increase by DKK 160 after tax and downscaling of subsidies and social benefits. Total marginal tax is 84%, and the gain from working more or finding a new and better-paid job is modest. Due to phasing-out of housing benefit, total marginal tax will also be higher in line with higher monthly rent. If a single parent has two children, the total marginal tax will be a little lower at 64%, but phasing-out of subsidy and benefits will extend over a longer earnings period.

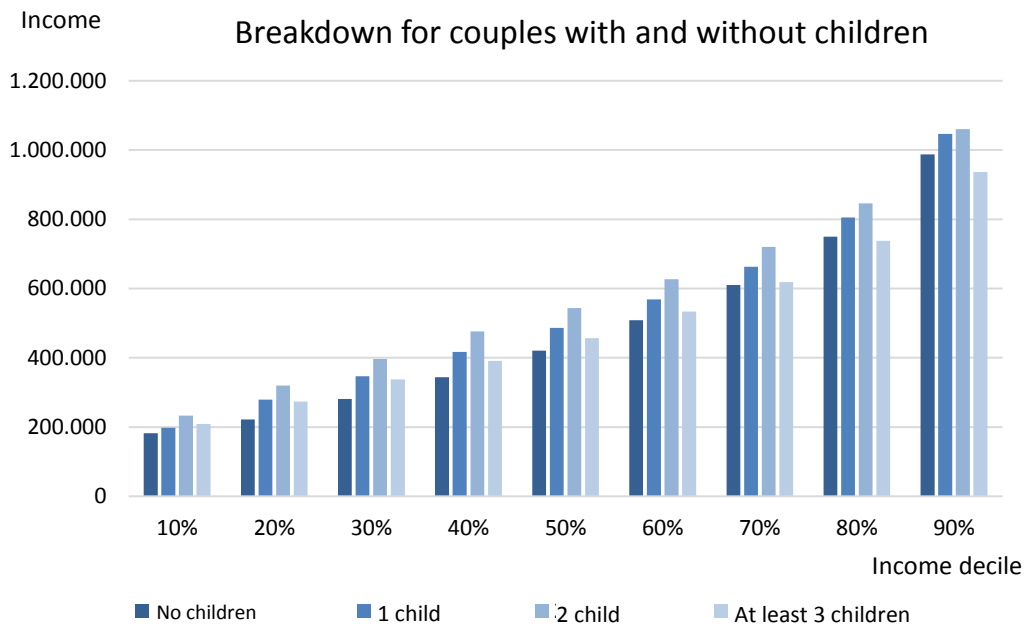
Phasing-out of social benefits and various social subsidies therefore mean high total marginal taxes through an income range that affects many people. Figure 3.8 shows a breakdown of household income for different family types in 2017. 50% of the income decile in the figure shows, for example, that half the households that consist of a single person with no children had an annual income before tax of less than DKK 143,000, and half of single parents with 1 or 2 children had annual incomes under DKK 183,000. High total marginal taxation therefore affects large groups.

Changes were made in 2018 to child and housing benefit schemes to ensure a more appropriate form of allowance. Child and housing benefits are earnings-related to target benefits to the most needy. The changes removed certain inappropriate steps in allowance calculation (replaced by a sliding reduction model), which created special incentive problems in which an increase in income could result in lower disposable income. A sliding phasing-out model was introduced instead, which solves some of the problems related to the interaction problem, but do not increase the gains to be made from working, as the total benefits (child plus housing) were increased for some low income groups.

The tax system also has an effect on total marginal taxation. The coalition agreement therefore suggests introducing an employment allowance to make it more attractive to work, but this was not part of the bill for the 2019 Budget Act. Experience from other countries indicates that such an allowance can help increase employment for specific groups, e.g. single mothers. An employment allowance will however raise awkward weighting problems, and the fact that the proposal concerning social benefits and changes to the tax system will not be handled jointly is a problem. An employment allowance that e.g. is phased-out over an income period, will boost total marginal taxation, which goes against the intentions of the reform of housing and child benefits.

Figure 3.8 The breakdown of household income on income deciles for singles and couples, 2017.





Source: Statistics Greenland

The current thinking on introducing an employment allowance or job premium should therefore be seen in context with public benefits and the various subsidies. Because interaction problems are involved, reforming a programme should be seen in context with other programmes to prevent individual changes ending up complicating the social programmes without achieving their objective. It will be appropriate to change the benefit for public benefits, so estimated elements are removed and the benefits will only be paid according to uniform, objective criteria. This would reduce the interaction problems and create greater transparency on the criteria for the benefit for individual claimants. There will be benefits for the population in the form more standardised treatment, greater legal protection and will make the administrative work related to the benefit easier.

We must emphasise that the incentives to find employment do not solely depend on the amount of disposable income, but also on the criteria for qualifying for benefits. Given relatively generous social benefits, the criteria for availability and job activation play an important role in employment incentives. When the higher the social benefits are high for political reasons, the need for enforcing the criteria for availability and job activation to ensure incentives to be in employment rises.

Even though there are certain availability criteria linked to social benefits, the concomitant low employment and labour shortage show that these criteria are either insufficiently extensive or not administered sufficiently effectively. Cohesive reform is therefore needed of the social benefit system and the availability criteria. The current structure is non-transparent to most people, and gives no clear incentives to find work.

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