De Økonomiske Råd
Formandskabet

PRODUCTIVITY 2020
SUMMARY AND RECOMMENDATIONS

Danish National Productivity Board, 2020

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Summary and recommendations provides a summary of the main conclusions in the report. Furthermore, the chairmanship presents assessments and recommendations regarding measures which may affect productivity.

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SUMMARY AND RECOMMENDATIONS

The present report from the Chairmanship of the Danish Economic Council constitutes the third annual productivity report. It consists of two chapters:

PRODUCTIVITY REPORT 2020

- Chapter I Productivity trends
- Chapter II Investment in infrastructure

The following section presents a brief summary of the most important conclusions in the report. The subsequent section presents assessments of recent policy measures that might affect productivity.

CONCLUSIONS

Chapter I provides an overview of productivity in Denmark. The November 2019 revision of the National Accounts included, among other things, an upward adjustment in productivity since 2016. The hourly productivity in the private non-agricultural sector was raised by 5 per cent in 2019. This result is primarily due to new information about the global activities of the large Danish firms.

Chapter I also discusses how the productivity figures are affected by the increased volumes of export goods that do not cross the Danish border. As part of globalization, Danish companies have increasingly moved some of their production abroad. The fragmented production means, among other things, that the production activities that take place abroad contribute to Danish GDP. This makes it more complex to assess and interpret developments in productivity and competitiveness. In the chapter, it is shown that the increased volume of exports that do not cross the Danish border does not have a clear effect on the productivity estimates.

Chapter I also describes the recent economic debate about trend in the competitive conditions. Trends in the degree of competition in the commodity and labour markets are one of the important elements that can influence productivity growth. In recent years this has attracted considerable attention among economists as there have been signs that competition has deteriorated in many sectors in the United States. In Europe, the indications are more mixed.

A recent study by Barkai (forthcoming) focuses on the functional distribution of income in the non-financial corporate sector in the United States. Barkai finds that both wage income and ordinary capital income have fallen as a share of the sector's value added over the period 1984-2014. The remainder, which can be regarded as profit income, has, on the contrary, increased significantly. The analysis also finds evidence that profits have particularly increased in sectors where industry concentration has increased, hence, the rising profit share may be an indication of decreased competition.

A similar study of the functional distribution of income for the non-financial corporate sector in Denmark generally finds that the same trend has taken place here: The excess return on capital has increased since 1995. This could potentially be due to reduced competition or other forms of rising scarcity rates of return. However, due to uncertainties about the size of the capital stock and the relevant cost of capital associated with the estimates, it is not possible, on the basis of this study, to draw any firm conclusions about the underlying causes. This would require more in-depth studies of, for example, the relationship between profit ratios and competitive conditions, to arrive at a more definitive explanation of the trend in the functional income distribution.

A well-functioning transport system promotes trade, labour market mobility and knowledge sharing between firms and households. Thus, investment in infrastructure plays an important role in private sector productivity. Infrastructure investment is also related to public sector productivity, as the efficiency of investments can be assessed by measuring the beneficial effects for society relative to the costs. Chapter II takes a closer look at the benefits associated with greater public investment in transport infrastructure, including the effects on economic activity and productivity.

The costs and benefits of infrastructure projects are calculated using so-called cost-benefit analyses. The Ministry of Transport has established a range of calculation methods that aim to ensure that cost-benefit analyses of infrastructure projects are comparable. The anal-

yses make an important contribution to ensuring that the political prioritisation of infrastructure investments is based on sound economic foundations.

The traditional cost-benefit analysis methods, which are also recommended by the Ministry of Transport, will capture some of the expected productivity gains from infrastructure investments, but probably not all of them. The calculation of the benefits reflects the direct benefits to the users from the use of the infrastructure – i.e., the benefits for which the user has a willingness to pay. However, if the infrastructure creates benefits in the form of spillover effects on productivity for others than the users, these will not be taken into account.

The positive externalities of infrastructure are difficult to calculate. Therefore, even if it were possible to calculate the overall impact of infrastructure on productivity, it would be difficult to separate the part that is due to spillover effects from the part that is due to other market failures. Nevertheless, improving the methods so that all the benefits of infrastructure are included is an important task.

Existing studies indicate that transport infrastructure has a positive effect on economic activity. There is less knowledge about the effect on productivity, but also here, predominantly positive effects are found. There are only a few Danish studies, but there are many studies from abroad. However, these studies do not give a clear picture of the magnitude of the positive effect. This is due to the fact that there are methodological challenges involved in estimating the effects, such as identifying the right causal relationships, comparing infrastructure projects of different sizes and types, and separating out how much of a given effect on the local area is due to the relocation of resources from other locations in the country and how much is due to the creation of new economic activity. In addition, there are the aforementioned challenges involved in calculating the spillover effects.

The analysis presented in Chapter II finds that the completion of sections of the motorways in East Jutland in the 1990s has had a positive effect on Denmark's total income. The results show that there has been a positive effect on local business income and employment, which indicates that motorways have had a positive effect on total income. It is not possible to make a exact calculation of the magnitude of the effect at the national level. This is because it is difficult to determine how much of the estimated impact in local areas is due to relocation of employment and other resources from other areas, and how much is due to new economic activity.

When decisions on infrastructure are being made, it is important that the decision makers are well-informed about all the pros and cons. Infrastructure has many effects on society, and the benefits can, among other things, result in improved productivity. However, in addition to the costs of construction and maintenance, infrastructure can also have environmental impacts, including negative effects on the climate. Therefore, it is important that the methods for calculating the pros and cons of infrastructure proposals are continually improved and further developed.

CURRENT ECONOMIC POLICY

The following is an assessment of current economic policy measures that may affect productivity. The measures are divided into seven main areas:

- Current measures related to COVID-19
- Climate and environmental policy
- Tax policy
- Measures aimed at foreign labour
- Measures affecting public sector efficiency
- Amendments to the Residential Tenancies Act
- Education and upskilling qualifications

CURENT MEASURES IN RELATION TO COVID-19

The global outbreak of COVID-19 in early 2020 will have a significant impact on the global economy for a period of time. Due to conditions on both the supply and demand sides of the economy, significantly lower activity can be expected in 2020.

The spread of the virus started in China at the end of 2019 and led to the closure of many Chinese manufacturing plants during January this year. This weakened the international supply chains and made it more difficult for manufacturers in the rest of the world to access Intermediate goods from China.

Subsequently, the coronavirus has spread to the rest of the world, including Europe, where Italy has been particularly hard hit. In Denmark and in many other countries, a large number of measures aimed at limiting the spread of the infection have reduced the effec-

tive labour supply. In Denmark, for example, the closure of childcare centres and schools has reduced the amount of labour supplied by parents due to a lack of childcare facilities. But in addition, the labour supply has been directly affected by illness, quarantine, a work-from-home directive for much of the public sector, and the government's recommendation to the private sector that, where possible, their employees should also work from home.

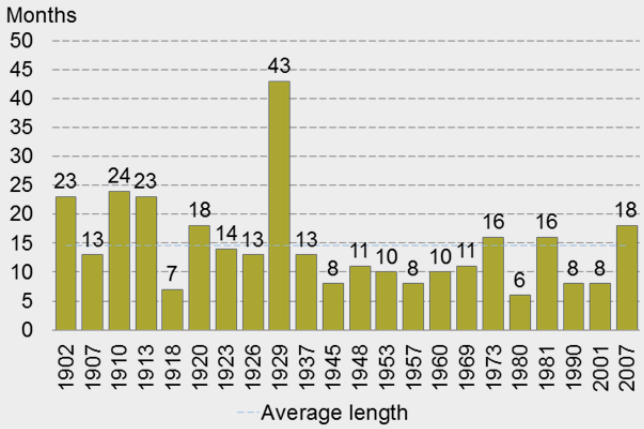
The negative supply shock, which began in China, has thus been compounded by the spread of COVID-19 and by the various initiatives aimed at reducing it. Increasingly, this means that businesses are at risk of not being able to access the parts they need to continue their own production, which could also have ripple effects. Most recently, European borders have been closed between several countries, which will put further pressure on supply chains. To the extent that firms layoff their employees, they may lose firm-specific knowledge that will adversely affect productivity in the period following the acute period of the COVID-19 outbreak.

The effects on the demand side are also significant. The decline is particularly pronounced in many service industries, including hotels, restaurants, travel agencies and the transport industry, which are very directly affected by the decline in social activity, travel and tourism. However, the fall in demand will hit more broadly over time. Falling demand abroad, especially among our main trading partners, the EU, the UK and the US, will reduce export opportunities, and increased uncertainty will potentially weaken consumer demand.

The decline in economic activity and the rise in unemployment will certainly be significant. The COVID-19 pandemic will, by nature, be temporary, but how long it will last is not known. It is not the assessment of the Chairmanship that the Danish economy is currently characterised by significant imbalances related to, for example, the labour or housing markets, as was the case in the downturn in 2008-09. This suggests that recovery will probably happen quickly once the downturn has passed. Historical evidence from the United States also indicates that the recession after the influenza pandemic in 1918-19 (the Spanish flu) was relatively short-lived compared with other recessions, cf. Figure 1.

FIGURE 1 LENGTH OF RECESSIONS IN THE USA

In the United States, the length of the recession following the 1918-19 influenza pandemic was relatively short compared to other recessions.



Note: The X-axis is the year the respective recession began

Source: NBER Business Cycle Dating Committee, (https://www.nber.org/cycles/cyclesmain.html)

However, there is a risk that a major, though relatively short-lived, recession could have consequences for productivity and wealth. For example, this would result if businesses having to close down and firms have to lay off employees with particular firm-specific knowledge that cannot subsequently be replaced by hiring new workers. Likewise, following firm closures and worker layoffs, supply chains that subsequently require interactions between new business partners can be less efficient due to the loss of relationship-specific capital. In addition, an extended period of unemployment for an individual can lead to the permanent loss of human capital. What's more, the quality of public sector services would decrease in areas such as education and health care. Therefore, it is appropriate that the Government and the Parliament have implemented a number of measures aimed at limiting the economic damage from the COVID-19 pandemic. These include, *inter alia*:[1]

1) The chapter was completed on 18 March 2020.

- Deferral of corporate VAT and tax payments
- Release of the countercyclical capital buffer, which allows banks to increase lending
- Changing the sickness benefit system so that eligibility begins from day one when the employee is ill with COVID-19 (or quarantined)
- Introduction of salary compensation, which, under certain criteria, covers up to 75 per cent of severely threatened full-time employees' salaries up to a limit of DKK 23,000 and 90 per cent of the wages of hourly wage earners (casual employees) up to a limit of DKK 26,000
- The self-employed can obtain compensation of 75 per cent of their loss of revenue from the state, but to a maximum of DKK 23,000
- A compensation scheme targeting the fixed costs of businesses that experience a decline in turnover of more than 40 per cent. The compensation will amount to between 25 and 80 per cent of the firm's fixed costs

These measures can limit the number of layoffs and the number of business closures. The Chairmanship considers that the measures are very relevant. However, in relation to the compensation schemes (other than wage compensation), it is important that they are specifically directed at those industries that will not be able to "catch up" lost revenue at a later date. These include industries such as transport, hotels and restaurants: For example, a taxi driver cannot drive 48 hours a day when the COVID-19 crisis is over, and a restaurant has a maximum seating capacity.

It is uncertain whether sufficient synergies will arise between the support on the one hand and liquidity measures on the other. To avoid losses and redundancies, the speed with which the funds from the liquidity package can be accessed will be crucial. Loans can be used to fill the gap until the payments are received, but clear and transparent compensation rules are necessary. The government’s measures only apply for 3 months, but a longer or recurring crisis cannot be ruled out. Finally, it is important that the measures are based on administratively simple rules and that they are easy to implement, and that, as far as possible, it is ensured that only those who really need it receive the support.

As the Chairmanship has previously pointed out, Denmark’s public finances are sound. This means that there is plenty of room for manoeuvre in economic policy. Since the downturn is expected to be

temporary, naturally the measures used are also of a temporary nature.

CLIMATE AND ENVIROMENTAL POLICY

In December 2019, a political agreement across all parties in the Danish Parliament was reached on a new climate law. Under the agreement, Denmark will reduce greenhouse gas emissions by 70 per cent by 2030 compared to 1990 and be climate neutral by 2050.

The agreement on the new climate legislation is more ambitious than the current climate act from 2014. In the new climate act, the deadline for climate neutrality by 2050 is defined as follows: By 2050, Denmark is not to emit more greenhouse gasses than it removes. The 70 per cent target for 2030 is equivalent to reducing emissions by almost as much in the ten-year period from now to 2030 as was reduced in the 30-year period since 1990.

The increased level of ambition in climate policy must be expected to lead to slower productivity growth than otherwise would have been the case, at least for a period of time. This is particularly because an ambitious climate policy limits the ability of firms to use their factors of production in the most efficient way.

The economic effects and the magnitude of the productivity loss at the increased level of ambition will depend on a number of factors, including technological developments. However, the costs will also depend on the specific design of the climate policy.

The objectives of climate policy should be achieved through targeted taxes, for example in the form of a uniform tax on greenhouse gas emissions across all sectors.[2] Targeted taxes are the most effective way to influence the behaviour of businesses and the general public. This allows each individual household and firm to determine the solution that is most appropriate for them in a situation where prices more closely reflect the climate costs of production and consumption. This will ensure that emissions reductions are achieved flexibly and cost-effectively. The Danish Climate Council estimates that a general greenhouse gas tax of around DKK 1,500 per tonne by 2030 would

2) However, the price of CO_2 quotas in the quota sector must be taken into account. The tax on the quota sector must be reduced by the price of CO_2 quotas so that there is no "double taxation". This is assuming that the tax is greater than the price of CO_2 quotas.

be a key tool for achieving the 70 per cent target reduction in greenhouse gas emissions by 2030, cf. The Danish Climate Council (2020). If, on the other hand, the government were to seek to influence the behaviour of individuals and firms through rules, actual bans or other regulations, flexibility would be reduced, and the cost of achieving a given climate target would increase.

The Chairmanship has previously recommended that a tax on greenhouse gas emissions that increases up to 2050 should be imposed, cf. The Chairmanship of the Danish Economic Councils (2018a), which includes an English summary. This will encourage the cheapest reductions to be implemented first, giving the cheapest possible transition. Therefore, it is appropriate that the Climate Act does not contain sector-specific objectives. It is also important for cost effectiveness that the forthcoming climate action plan does not set binding sectoral targets, but encourages a cost-effective distribution of efforts between sectors.

The strengthening of the Danish climate policy, which reduces Danish emission limits, could lead to *leakage*, i.e., Danish firms could just move some of their production, and thus their emissions, abroad. Leakage can be counteracted by giving a basic greenhouse gas tax rebate to firms that are subject to international competition, following the same principles as the distribution of free quotas in the EU quota system. A slow phase-in of the tax, which gives firms time to adjust, would also counteract leakage. If Danish climate policy has to take leakage into account, and thus the total climate effects of the reduction efforts, it will be more expensive for Denmark to meet its reduction targets.

Climate policy can have consequences for income distribution because energy and food costs typically take up a larger share of the budget in a low-income household than in a high-income household. An increase in these costs as a result of, for example, a higher tax on greenhouse gas emissions, would, therefore, reduce consumption opportunities relatively more for the low-paid. If there is a political desire to counteract the distribution effects of climate policy measures, this would be most appropriately addressed through the tax and transfer system. Furthermore, the distributional consequences will be moderated if other energy taxes are reduced in line with the introduction of a uniform greenhouse gas tax.[3]

3) A recent study found, for example, that a reform involving a uniform tax on greenhouse gas emissions combined with a 75 per cent reduction in energy taxes would be distributionally neutral, cf. Kraka-Deloitte (2020).

The Finance Act 2020 contains a so-called Green Future Fund with a total investment potential of up to DKK25 billion. The fund must contribute to a national and global green transition, including development and dissemination of new technologies, conversion of energy systems to renewable energy, storage and efficient use of energy, etc., and it must promote global exports of green technology, especially in the field of wind. The fund's activities are carried out through increased investment via already-established schemes, such as EKF [the Danish Export Credit Agency] (DKK14 billion), the Growth Fund (DKK4 billion), the Danish Green Investment Fund (DKK6 billion) and the Investment Fund for Developing Countries (DKK1 billion).

The fund must operate under market conditions. Thus, the borrowing costs of the venture capital must reflect both the market interest rate and the risk premium for the specific projects that would apply in a well-functioning financial market. The economic rationale for such a fund is the existence of market failures. Evans and Oye (2001) cite a number of potential market failures, such as asymmetric information, scale effects, environmental externalities and the alleviation of unfair competition from foreign firms that receive government support from their home countries. Other studies, e.g. Sørensen (2019) and Wei *et al.* (2017), focus on the economies of scale associated with obtaining information about trade barriers. This speaks in favour of the public sector making this type of knowledge accessible.

In the absence of market failures, on the other hand, there would be no grounds to expect the Green Future Fund to contribute to the green transition. What's more, the state runs a risk by operating this type of financing business. Therefore, with the proposal for the establishment of the fund, there should be documentation stipulating which market failures are applicable and how the proposed fund structure contributes positively to these.

TAX POLICY

In the December 2019 Finance Law Agreement, various changes to the tax system that could affect productivity were agreed upon.

One of these consists of an increase in the estate and gift inheritance tax on businesses. The taxation of inheritances when there are generational changes of family-owned firms will thus be at the same rate as the taxation of other types of inheritances, which was also the case before 2016. Such uniformity of the inheritance taxation is appropriate, as the overall distortionary effects of taxation can be re-

duced, cf. The Chairmanship of the Danish Economic Councils (2019) and Produktivitetsrådet (2017), both with English summaries. If the estate and gift inheritance tax on businesses is lower than the other inheritance taxation, the tax system would encourage, to a greater extent, the transfer of family-owned businesses to the next generation of the family, rather than their sale to outsiders. This can reduce business income and productivity.

The economic and political debate has highlighted several issues associated with the business inheritance tax. For example, the inheritance tax can reduce a firm's liquidity at the time the business is transferred. If market failures exist in the lending market, the heirs of an otherwise sound and profitable business may be forced to divest important assets and drop beneficial investments following a generational shift. However, in connection with the increase in the business inheritance tax, it is possible for businesses to spread the inheritance tax payment over 30 years instead of 15 years, as was the case up until now. Expanding the options for deferral is a more direct way of dealing with any lending market failures, while at the same time, alleviating the distortionary effects of the previous special tax treatment.

Another challenge is that it can be difficult in practice to accurately value family-owned businesses. In the vast majority of such cases, valuation can be determined using fairly straightforward guidelines. However, in some cases, for example, if a company owns significant intangible assets, valuation may be more complicated. In December 2019, the government established an expert group to look at the issues surrounding valuation of family-owned businesses and to propose models for calculating the value of these businesses at generation change. The Chairmanship supports the establishment of this expert group.

The Finance Act also includes other elements that abolish or reduce of special tax treatments that did not have a clear justification in economic efficiency. These include the abolition of the reduced taxation rates that major shareholders who acquired their shares prior to 19 May 1993 have so been entitled to. Likewise, the Finance Act provides for a reduction in the special tax treatment of the so-called parental purchase of apartments (a scheme where parents could purchase apartments which they rent out to their children). Under this scheme, people in the top tax bracket who bought a 'parental-purchase property' could deduct up to 56 percent of their interest payments on loans for such purchases. This is significantly higher than the allowable tax deduction on property for other types of prop-

erty owners. Therefore, during periods of high interest rates there could have been a favourable tax benefit for some individuals from investing in this type of asset relative to other investments that the individual could have undertaken. Both of the special tax treatments may have meant that capital was not invested where it would have had the greatest before tax return.

MEASURES DIRECTED AT FOREIGN WORKERS

The Finance Act contains various measures aimed at making it easier for Danish companies to gain access to foreign labour. The Chairmanship has previously emphasised that foreign labour can contribute to increasing productivity among the native Danes, cf. The Chairmanship of the Danish Economic Councils (2017) which includes an English Summary. This is because, in some cases, foreign workers bring new ideas and knowledge that lead to the introduction of new technologies and new organisational systems, cf., e.g., Malchow-Møller *et al*. (2019). Furthermore, foreign workers can possess qualifications that complement the skills of the natives and contribute to the upgrading of these.

The extent to which the measures in the Finance Act contribute, in practice, to higher productivity is uncertain. One of the measures consists of expanding the priority list for foreign workers, so that it is possible for certain types of skilled labour to obtain a permit to live and work in Denmark.[4] However, the current priority list is only used to a very limited extent, partly because it can be easier for foreign workers to obtain work permits through the so-called income threshold scheme.[5] Therefore, whether the measure will have a significant effect on the amount of foreign labour is uncertain.

4) The priority list makes it possible for foreigners who are offered a job in an occupation where there is a shortage of particularly qualified labour to obtain a work and residency permit. To date, it has only been possible to use the priority list if an applicant has qualifications at the bachelor or masters level or above.

5) The income threshold scheme means that foreigners who have been offered a job with an annual salary of at least DKK436,000 (2020 level) can obtain a permit to live and work in Denmark regardless of educational level or type of business.

The Finance Act also includes an extension of the graduate residency scheme for foreigners who are newly qualified in Denmark.[6] The extension means, among other things, that foreigners who have completed a bachelor's degree or equivalent in Denmark can also apply to stay in Denmark under this scheme. In addition, the period during which applications under the graduate residency scheme can be submitted has been extended from six months to one year. Finally, the Act makes it possible for those graduates who are employed in a position that is relevant to their degree to extend the application period and stay in Denmark by an extra year. These extensions to the graduate residency scheme are considered to be beneficial, as it means that foreigners who have been educated in Denmark would have a better opportunity to stay here and work after completing their education.

Overall, it is doubtful whether recent measures will have a significant effect on the supply of foreign labour. The Chairmanship has previously pointed out that a reduction in the income threshold could help attract more foreign labour from countries outside the EU which could increase overall prosperity, cf. The Chairmanship of the Danish Economic Councils (2017) which includes an English summary. Such a reduction should continue to be considered.

EFFICIENCY OF THE PUBLIC SECTOR

The Finance Act contains several elements that affect the efficiency of the public sector's ability to determine the best way to carry out their responsibilities. These include the introduction of minimum standards in childcare centres by 2025 and restrictions on the use of consultancy services by the public sector. Both of these elements mean that each decentralised unit in the public sector will have less flexibility to prioritise their resources and hence, to solve problems in the way that it assesses to be of the greatest benefit to its residents.

Obviously, better childcare is a legitimate political priority. However, it is important that this goal is achieved in the most cost-effective way. In general, it is preferable, for efficiency reasons, that the behaviour

6) The graduate scheme is targeted at foreign students coming from countries outside the EU and, after completing their education, offers the possibility of staying for two years in Denmark, without the possibility of receiving public benefits. The purpose of the scheme is that, after the two years, foreigners can apply for a residence permit under the other schemes, especially the business schemes. The scheme has so far only been applicable to persons with a master's degree or a PhD degree.

of individual decentralised entities is influenced by incentives rather than rigid rules and regulations. This can be done, for example, by changing the subsidy system so that the individual unit has greater incentives to act in a way that is more in line with the political objectives. The aim to increase the numbers of qualified kindergarten teachers in childcare centres could, for example, point in favour of a change in the municipal subsidy system to one that rewards municipalities with a high number of qualified kindergarten teachers per child. Another possibility could be to change the proportion of the total operating expenses of the childcare centres that must be paid for by parents. An increase in the user-pays' share of the total expenses would allow an individual institution to increase its wage bill and hire more kindergarten teachers without requiring additional funds from the municipality. If parents are to be left no worse off, they could be compensated through the child benefits system.

The Budget Act must be evaluated and revised in the spring of 2020. The Budget Act includes a system of expenditure ceilings and penalties for exceeding these expenditure ceilings. Under the Budget Act, expenditure ceilings must be observed year by year.

The system of expenditure ceilings and penalties helps to control public sector expenditure. However, the one-year perspective can also provide incentives for inappropriate behaviour. The system can result in public authorities constraining their expenditure to levels well below their budgets in the first part of the year and then spending more at the end of the year when they know that the budgets will not be exceeded. For example, a study finds a slight increase in "use-it-or-lose-it" spending at the end of the year in municipalities in 2011-14 compared with the period 2008-10, cf. Kora (2016).

Another problematic issue is the way that expenditure ceilings and penalties are applied. For example, for a number of years, expenditure by municipalities has come in under budget for services, while investment budgets have been systematically exceeded. One reason for this may be that investments are prioritised at the expense of expenditure on services because there is no penalty for exceeding the agreed level of investment expenditure.

It may, therefore, be appropriate to consider whether more expenditure should be covered by the expenditure ceilings and whether the sanctions should be calculated on the basis of the expenditure ceilings over several years. However, it should be noted that it may be difficult to identify whether any incentives to undertake higher expenditure at the end of the year or to prioritise investments are due to

expenditure ceilings and penalties or are due to other elements of public sector management. Generally, more information is needed on how the one-year perspective on expenditure affects public sector financial management.

RESIDENTIAL TENANCIES ACT

In January 2020, an agreement was concluded by the Parliament to amend the Residential Tenancies Act. The changes mean, among other things, that it will be more difficult for landlords of private rental properties to raise rents following extensive improvements to a property. In the future, this can only occur five years after completion of the property improvements, unless the improvements are sufficiently energy-enhancing.

The introduction of a waiting period before the rent can be raised on a residential property following major renovations is primarily due to concerns about so-called “short-sighted investors“ in the real estate market. Thus, the previous scheme may have given some landlords an incentive to make unnecessary residential property improvements for the sole purpose of raising the rent. This incentive will be reduced by the introduction of the waiting period.

However, the waiting period will also reduce the incentives to make appropriate investments that maintain the housing stock. This could result in a reduced level of beneficial investment and lower the quality of the housing stock. Furthermore, the possibility of avoiding the waiting period by undertaking sufficient energy-enhancing investments may lead to unnecessary investments being made solely in order to avoid this. A more direct way of securing greenhouse gas reductions could be to introduce a tax on greenhouse gas emissions.

In connection with the amendments to the Residential Tenancies Act, consideration should be given to whether the regulations controlling residential rents are generally appropriate. The regulations have several unfortunate consequences. Among other things, they can lead to an inappropriate utilization of the housing stock, where some people, as a result of an artificially low rent, achieve an inefficiently large amount of housing consumption at the expense of other people with greater housing needs and willingness to pay. Previous analyses have also indicated that, within the group of renters, it is particularly to the highly educated and those with high incomes and wealth that the gain from the residential tenancy regulations accrues.

Moreover, rent controls can reduce labour market mobility, as controlled rents make it less attractive for renters to move. For example, a study for Denmark found that stronger rent controls in an area reduces the likelihood of a tenant finding a job outside the local area, cf. Svarer *et al*. (2005). These negative side effects of rent controls must be weighed against the benefits that may be gained from, for example, their potential contribution to ensuring a mixed composition of residents.

EDUCATION AND UPSKILLING

The Government's White Paper sets out its goal for the upskilling of workers without qualifications in order to increase their skills and productivity. Globalization and automation can increase the need for individuals to continually maintain and upgrade their skills. However, analyses indicate that employees in occupations that are disappearing from the job market do not currently receive more in-service training than other employees, cf. Andersen *et al*. (2018). The white paper does not include specific instruments for ensuring the upgrading of the skills of those without qualifications, nor does is specify the means for ensuring that the upskilling is targeted to the needs of the future labour market.

It is unclear how large an effect can be expected from measures aimed at upskilling the low-skilled people in general. The Chairmanship has previously pointed out that, in recent years, there has been a decline in the proportion of unskilled people in the population, and that the unskilled group is characterised, more than ever, by people with a relatively low employment probability, cf. The Chairmanship of the Danish Economic Councils (2018b) which includes and English summary. Therefore, even if upskilling of this group were achieved, one should not expect that workers in this group would attain the same level of employment and productivity as, for example, the current group of skilled workers.

Starting in the 2017/18 school year, the Ministry of Children and Education initiated a trial 'School Fund' with a total of DKK500 million to be distributed over three years. The fund rewards public schools (primary and middle school level) that succeed in increasing the school grades of academically weak students. The trial could potentially uncover the effects of increasing incentives in the public sector and, in particular, in the education system. A preliminary evaluation by TrygFonden's Centre for Child Research shows some positive effects, but some uncertainty is attached to the estimation results, cf.

Andersen et al. (2019). What's more, the final evaluation of the funding trial has been made more difficult because the government decided to drop the final year of the school funding scheme. It is unfortunate that the fund was closed before the scheme could be fully evaluated, especially as the research from other countries suggests that incentive management is a promising instrument for increasing productivity in the education sector, cf. Burgess (2016) for example.

LITERATURE

Andersen, M. B., K. Vasiljeva, P. Henriks, R. Kornbek and C.L. Sørensen (2018): Efteruddannelse og tilpasningsomkostninger ved globalisering. Kraka og Deloitte, Small Great Nation.

Andersen, S. C., L.M. Andreassen, G.S. Harrits, U. Hvidman, M.V. Kristensen and S. Munkedal (2019): Evaluering af skolepuljen. 1. midt-vejsrapport. Institut for Økonomi, Aarhus Universitet. TrygFondens Børneforskningscenter i samarbejde med VIA University College

Barkai, S. (2019): Declining Labor and Capital Shares. Forthcoming in *Journal of Finance*.

Burgess, S. (2016): Human capital and education: The state of the art in the economics of education. IZA Discussion Paper, No. 9885.

The Chairmanship of the Danish Economic Councils (2019). De Økonomiske Råds formandskab (2019): Dansk Økonomi, forår 2019.

The Chairmanship of the Danish Economic Councils (2018a). De Økonomiske Råds formandskab (2018a): Økonomi og Miljø 2018.

The Chairmanship of the Danish Economic Councils (2018b). De Økonomiske Råds formandskab (2018b): Dansk Økonomi, efterår 2018.

The Chairmanship of the Danish Economic Councils (2017). De Økonomiske Råds formandskab (2017): Dansk Økonomi, forår 2017.

The Danish Climate Council (2020). Klimarådet (2020): Kendte veje og nye spor til 70 procents reduktion. Retning og tiltag for de næste ti års klimaindsats i Danmark. Marts 2020.

Evans, P.C. and K.A. Oye (2001): International competition: Conflict and cooperation in government export financing. I Hufbauer, C. og R.M. Rodriguez, The Ex-Im bank in the 21st century: A new approach? Institute for international economics, Special Report 14,

Kora (2016): Tendenser i stat-kommuneforholdet efter kommunalreformen – fokus på økonomiaftaler og sanktionssystemet. Politik nr. 2, årgang 19.

Kraka-Deloitte (2020): En klimareform der leverer de magiske 70 procent. Small great nation. Februar 2020.

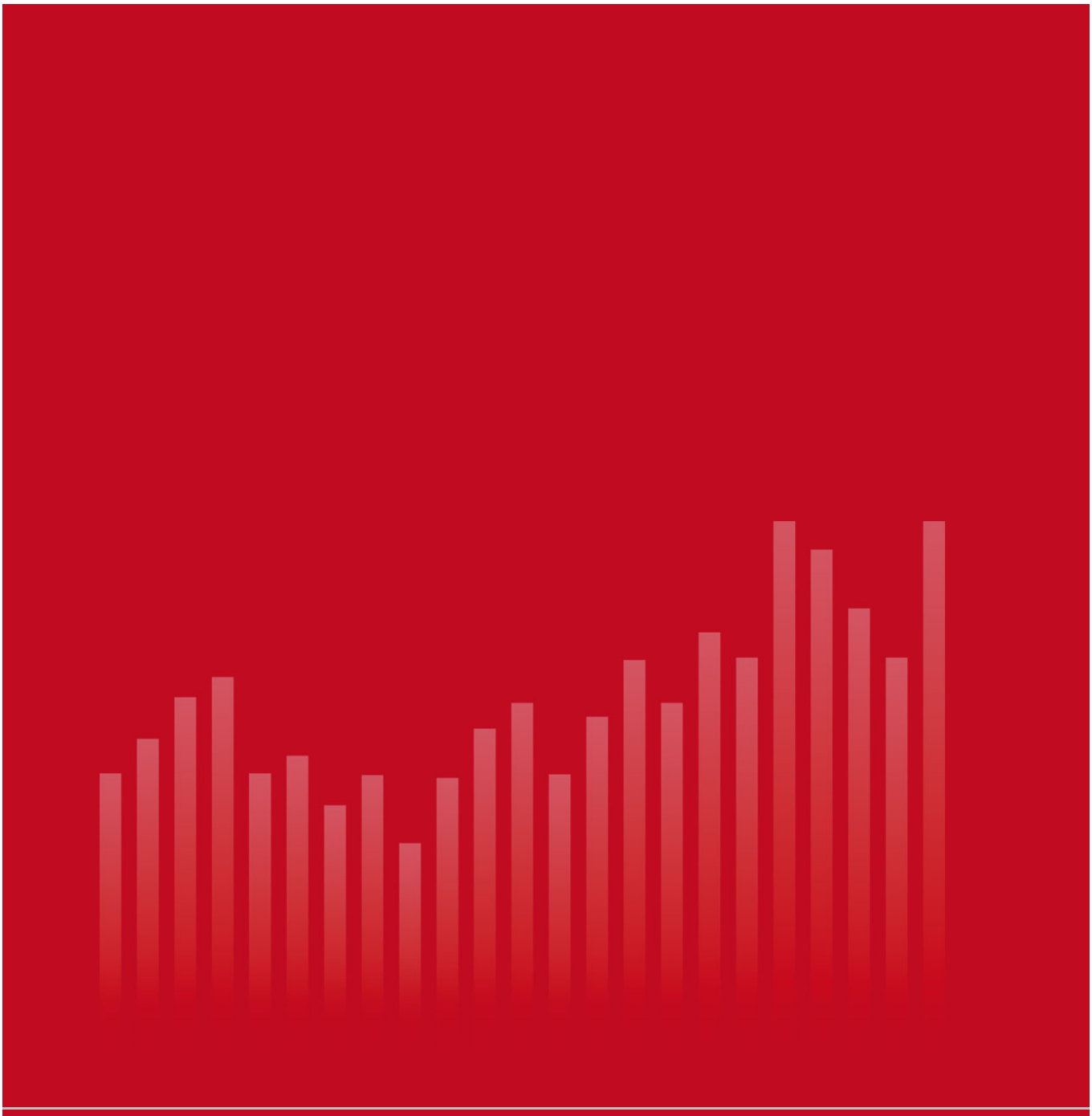
Malchow-Møller, N., J.R. Munch and J.R. Skaksen (2019): Do foreign experts increase the productivity of domestic firms? *The Scandinavian Journal of Economics* 121 (2), s. 517-546.

Produktivitetsrådet (2017): Produktivitet 2017.

Sørensen (2019): Export promotion and intra-industry reallocations. Kommer i *Review of International Economics*

Svarer, M., M. Rosholm and J.R. Munch (2005): Rent control and unemployment duration. *Journal of Public Economics* 89 (11/12), s. 2165-2181.

Wei, S., Z. Wei and J. Xu (2017): Sizing up market failures in export pioneering activities. NBER working paper nr. 23893.



Danish National Productivity Board, 2020