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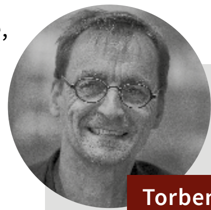
Economic Policy during the Pandemic and Lessons for the Future – The Case of Denmark

Denmark experienced two severe waves during the Covid-19 pandemic: in the spring of 2020, and towards the end of 2020 and the first quarter of 2021. In response to this, various restrictions and lockdowns were imposed of roughly the same stringency across the two periods. During both lockdown periods, various economic relief measures were in force, including both conventional and unconventional policy measures. In autumn 2021, essentially all restrictions (except on travel) were lifted against low case numbers and a large fraction of the population being vaccinated.[1]

The economic developments are summarized in Figure 1, showing both GDP and employment, respectively. On impact, there was a steep decline in economic activity in the second quarter of 2020, although less severe than in most other countries. Next, economic activity recovered alongside re-openings, followed by a new setback during the second lockdown period, though less severe than during the first lockdown period. By the second quarter of 2021, economic activity and employment are back to the end of 2019-levels. This is a swifter recovery than even the most optimistic forecasts implied, and the economic policy debate is now focusing on overheating and the risk of shortage of labor, which may seem surreal given the agenda just a few months ago.

From an economic perspective, the corona-crisis is unusual in several ways. The crisis was induced by a health shock leading to various lockdown measures. Unconventional policy measures had to be deployed to support production capacity and job-matches and provide income insurance. Although activity decreased—in part due to behavioral responses—traditional aggregate demand measures to support economic activity were not appropriate, since they would conflict with health concerns to reduce physical contact. The decline in activity was more abrupt than in a typical business cycle downturn, including the experience during past crises like the financial crisis. Finally, the recovery in activity has been unusually quick, not least seen in the perspective of the large initial decline in activity. The crisis does not, therefore, seem to be associated with the same degree of persistence mechanisms seen in typical business cycle downturns.

[1] Re-openings were at first based on extensive testing, and a corona-passport requiring either a negative Covid-19 test (valid for 72 hours) or full vaccination was a pre-condition for participation in various activities.



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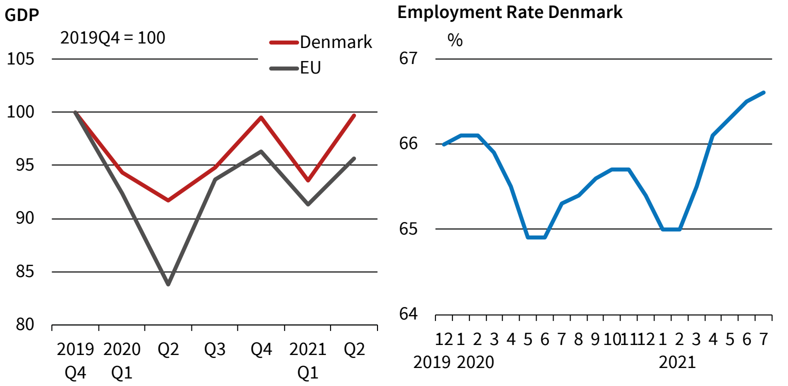
In comparative perspective, the health outcomes[2] and economic consequences of the Covid-19 pademic are less severe in Denmark than in most other countries. It is now well understood that both the health and economic implications of the corona pandemic and lockdown policies depend not only on health and economic policies but also on behavioral responses, country characteristics including population structure, urbanization, health care system, sector structure, degree of digitalization, and the economic situation at the eve of the corona pandemic – see e.g., Furceri et al. (2021). In the Danish case, it is important that the economy did not suffer from any major disequilibria at the onset of the pandemic, and a high degree of digitalization, among other things, contributed to resilience.

This paper discusses economic policies in Denmark during the pandemic. Since lockdown policies aim at reducing physical contacts and therefore also as a consequence economic activity, the focus is on supporting the production capacity and incomes so as to make a quick recovery feasible when lockdown restrictions can be lifted. The paper first gives a broad overview of policies—conventional and unconventional—pursued in Denmark, and then discusses the outcomes. The paper ends by summarizing a few lessons from the crisis for the future policy-making.

[2] Cumulative confirmed Covid-19 deaths as of 17 September 2021 are 451 persons, which is among the lowest among OECD countries.

Figure 1

Economic Activity and Employment during the Covid-19 Pandemic



Source: Eurostat; Statistics Denmark.

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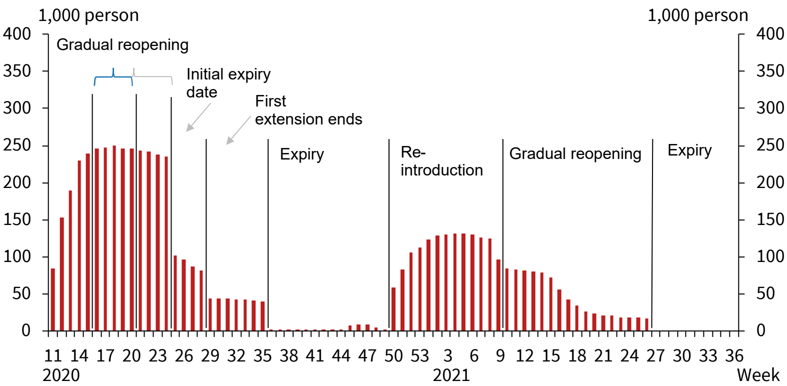
The lockdown restrictions were accompanied by several economic measures, mostly comprising non-conventional measures. These emergency or relief packages have several justifications, but from a household and firm perspective it is important that they offer insurance against and compensation for the direct consequences of the crisis. From a macro perspective, the schemes aim at protecting production capacity (job-matches, avoiding firm closure) to support a swift recovery when the economy is re-opened; a V-path for economic activity. This is essential in order to avoid the pandemic causing a more persistent decline in economic activity, which in turn could cause an increase in long-term unemployment and a more prolonged downturn. This also has an efficiency argument, since firm closure and lay-offs followed by start-ups and new hiring are associated with transaction costs and frictions, which can be avoided by maintaining production capacity and job matches. Clearly, this argument applies to lockdowns with relatively short duration only, since these measures also have a status quo bias detrimental to adjustment and flexibility.

The measures used were essentially the same during the two rounds of lockdowns. They were introduced shortly after the first lockdowns in March 2020. In the late spring of 2020, the lockdowns were lifted, and the emergency packages were subsequently phased out. During the autumn, some specific and targeted measures remained in place, and during the second round of lockdowns the general emergency packages were re-introduced. In both waves, emergency packages were phased out over a time window allowing some time for adjustment. The sequencing is illustrated in Figure 2, showing the number of persons on wage compensation (see below) during 2020 and 2021. The relief packages were launched with a sunset clause (although there were some extensions), but in reality the phasing-out was contingent on the re-openings, and in the two major rounds the phasing-out was based on recommendations from an economic expert group (Andersen et al. 2020 and 2021). The key argument for the quick phasing-out of the relief-packages was that they were justified only during lockdowns, and maintaining them for too long would impair adjustment and flexibility.

Figure 2

Number of Persons on Wage Compensation



Source: Andersen et al. (2021); www.erhvervsstyrelsen.dk. © ifo Institute

The following outlines the main instruments used in Denmark (see also Figure 3). A number of schemes were directed at firms to avoid liquidity problems developing into solvency problems, causing firm closures. Various schemes targeted liquidity via the tax system, including postponement of payments of VAT and income taxes (which in Denmark are collected via firms), zero-interest rate loans based on previous payments of taxes, VAT etc., and more flexible arrangements of payment of taxes. In total these measures amount to about 25 percent of GDP. This was supplemented by guarantee and loan arrangements with schemes for both small- and medium-sized companies and large companies. There were also schemes matching private loans with public loans and expanded guarantees for export.

Compensation for fixed costs was available to firms provided turnover had decreased at least 30 percent (compared to the similar month in 2019), and the compensation depended on the decrease in turnover up to a maximum of 90 percent. Firms under full lockdown were entitled to 100 percent compensation.

The self-employed could obtain compensation provided the decrease in turnover was at least 30 percent. The compensation depended on the decrease in turnover and could not exceed 90 percent. In case of full lockdown, the compensation was 100 percent. Until December 2020, the maximum compensation was DKK 23,000 (3,090 euros) per month, and then it increased to DKK 33,000 (4,430 euros) per month for self-employed with employees, and DKK 30,000 (4,030 euros) for others.

To project job-matches for the benefit of both firms and workers, a new scheme—wage compensation—was introduced. Denmark did not have a general work-sharing scheme at the onset of the pandemic. A specific arrangement does exist for a small subset of the labor market, with specific rules for the extent of work-sharing, and workers receive (supplementary) unemployment benefits for periods not working (if eligible for unemployment insurance, which is a voluntary contribution-based scheme).

A temporary so-called wage compensation scheme was introduced for employers laying off 30 percent of their workforce or more than 50 employees. The worker on wage compensation maintained the normal wage, and the firm was compensated by 75 percent of wage expenditures for white-collar workers and 90 percent for blue-collar workers, up to a cap of DKK 30,000 (4,040 euros) per month (the maximum unemployment benefit is about DKK 19,000 (2,550 euros) per month). The different compensation rates were motivated by the fact that it is easier to layoff blue-collar workers, and the cap by high wages applying to workers where the firm has a self-interest in maintaining the job match and thus should contribute more to the financing.

Since the wage compensation scheme was explicitly tied to lockdown restrictions and thus phased out alongside re-openings (see Figure 2), and the old system was considered inadequate, there was a tripartite agreement on a temporary work-sharing (running to the end of 2021) allowing firms flexibility in reducing working time by at least 20 percent and at most 50 percent (later changed to 80 percent). Workers received (supplementary) unemployment benefits for hours not working, but the cap on the maximum benefit payment was increased from about DKK 19,000 (2,550 euros) per month to DKK 23,000 (3,090 euros) per month. Moreover, there was an amnesty for the non-insured to join the unemployment insurance scheme, waiving the usual waiting period provided a higher contribution was paid.

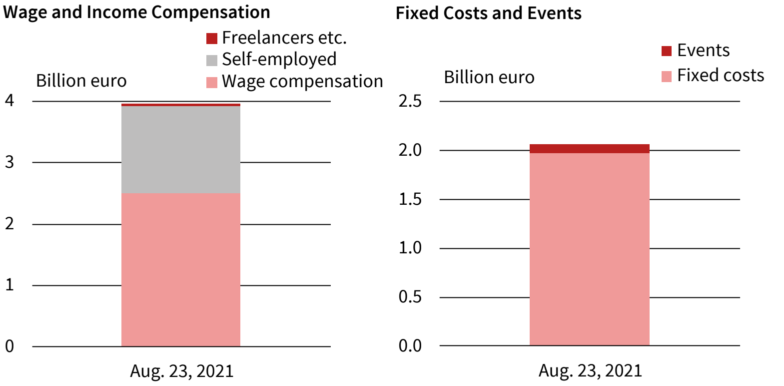
In addition, there were various other schemes, e.g., compensation for freelancers, organizers of big events, media and culture, etc. There were also changes in the unemployment benefit and social assistance scheme to prevent individuals losing support.

As noted, the general compensation schemes applied during the two lockdown phases: in between, some specific schemes were still in place. There have also been some adjustments over time. For example, the compensation for fixed costs was changed to reduce the incentive problem caused by small increases in turnover, resulting in a sharp decrease in compensation. During the autumn of 2020, there was a scheme for firms affected by second-round effects targeting export-oriented firms (which turned out not to be a significant problem). In 2021, there was an issue on how to target firms still affected despite the general re-opening, and a scheme allowing compensation for fixed costs in case of a larger reduction in turnover was maintained but the cut-off point increased (from a 30 percent to a 45 percent decrease in turnover). Figure 3 gives an overview of the compensations paid out on the various schemes.

In Denmark, a part of wage income (typically 12.5 percent) is reserved for a holiday-allowance paid out during holiday periods. In the past, holiday allowances depended on wage income earned in a previous period (i.e., there was a lag between accrual of holiday allowances and the pay-out period). A recent reform synchronized the earnings and the holiday period, and to avoid a double pay-out of holiday allowance, one part was frozen until retirement. In response to the Covid-19 crisis, it was decided to allow individuals to demand pay-out of the frozen holiday allowances in two rounds (autumn 2020 and early 2021). Since holiday allowances are taxable income, this measure is thus an example of an (unconventional) aggregate demand policy which simultaneously directly improved disposable income of households and tax revenue.

Figure 3

Compensation Schemes, Total Expenditure



Source: Erhvervsstyrelsen.

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In the autumn of 2020, holiday pay corresponding to 31 billion DKK (1.4 percent of GDP) were paid out, and in early 2021 22 billion DKK (1 percent of GDP). This had a considerable impact on disposable income of households.

The Ministry of Finance (2021) assesses that the direct costs of the Covid-19 crisis (relief packages, health measures, etc.) amount to 1.6 percent of GDP in 2020 and 1.3 percent in 2021. However, the "unfreezing" of the holiday allowance increased tax revenue by about 0.9 percent of GDP in 2020 and 0.6 percent in 2021. Overall, fiscal policy has been very expansionary in this period. According to the Ministry of Finance (2021), the discretionary measures have increased GDP by 1.9 percent in 2020 and by 1.3 percent in 2021.

Denmark entered the pandemic with sound public finances, and at the outset political signals were made that there was fiscal space to cope with the crisis. Although public finances were affected, it was relatively mild compared to most other countries. The budget deficit was 1.1 percent of GDP in 2020, 3.1 percent in 2021, and 0.6 percent of GDP in 2022 (Ministry of Finance 2021). The country also entered the crisis with a relatively low debt level, among the lowest in the EU. The EMU debt was 33 percent of GDP in 2019. As a result of the pandemic debt has been increasing, peaking at about 42 percent of GDP (also due to the decline in GDP) and will eventually fall again according to projections. Throughout, the public net-wealth position remains positive.

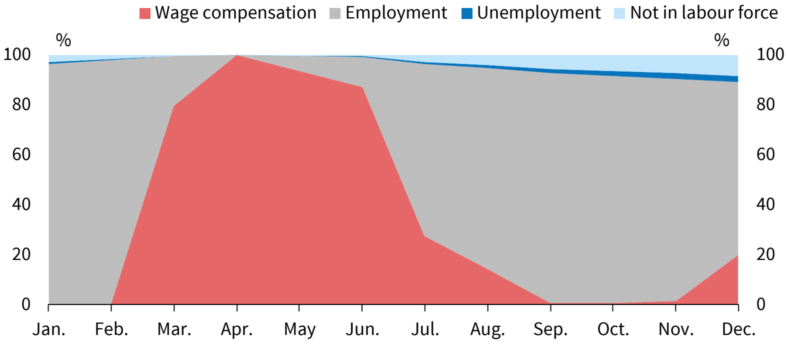
ECONOMIC DEVELOPMENTS

The economic development has largely been consistent with the V-logic underlying the emergency packages that they would make a quick recovery possible, although the actual development (see Figure 1) looks more like a W-path due to the two lockdown rounds. The lockdowns following the Covid-19 pandemic have both a supply and a demand component; firms are constrained in their possibilities to sell, and demanders in their possibilities to buy. The emergency packages allowed many firms to retain valuable job-matches and production capacity (avoiding bankruptcy), but they also protected the income of workers and hence consumers, supporting consumer confidence and avoiding increases in precautionary savings − see Andersen et al. (2021a).

Supporting production capacity is a necessary condition for a swift recovery, but it is not sufficient, since aggregate demand should also be in place, and therefore a two-handed approach is required: maintaining capacity and supporting demand. If successful, this prevents a sharp and deep decline in economic activity from releasing a prolonged downturn. It is a classical business cycle mechanism that recessions are persistent via several mechanisms, including frictions in job matching and decreases in aggregate demand. These mechanisms were muted or neutralized by the policy initiatives. It should be noted that Denmark entered the Covid-19 crisis with a well-performing economy, including low unemployment and sound public finances due to previous consolidation and reforms. Consequently, there was fiscal space to pursue rather aggressive policies in terms of emergency packages, but also more traditional fiscal policy measures. Moreover, there are no disequilibria to resolve as during, e.g., the financial crisis.

The swift recovery is documented in Figure 1. It is instructive to look in more detail at the labor market response and the role of the wage compensation scheme. A particular concern in any downturn is that increased unemployment turns into a persistent increase, which eventually may increase structural unemployment. This has been prevented, and the wage compensation scheme plays an important role as a temporary relief measure supporting job matches and incomes. About 90 percent of those on wage compensation in April 2020 when the first wave of the crisis was at its top were in employment in October 2020 (see Figure 4). This is very close to normality, since there are always in- and outflows from the labor market (retirement, sickness, etc.). It shows both the role of this relief measure and the importance of phasing it out swiftly alongside

Figure 4
Status for Individuals on Wage Compensation, April 2020



Note: The Figure shows status for persons under the wage compensation scheme in April 2020 both before and after entering the scheme. Unemployment is gross unemployment.
Source: Andersen et al. (2021).
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removal of lockdown restrictions. In addition, the number of firm closures has been very small and below the normal level.

Another noteworthy observation is that the decline in economic activity during the second lockdown period was smaller than during the first round, despite the lockdowns being at about the same level. This indicates adjustments and adaptability to the new situation via numerous channels, including more "working from home" and adaptation of sales channels (click and collect, e-commerce, virtual meetings, teaching, etc.). A high level of digitalization is essential to resilience, making it easier to substitute virtual contacts for physical contacts, and Denmark ranks in the top on digital skills and a high-capacity network. It probably also played a role that vaccines were rolled out, which contributed to reducing uncertainty on future prospects.

Underlying demand, there is both intersectoral and intertemporal substitution. The former applies to demand shifting from contact intensive forms to other activities, e.g., construction. The latter applies to demand being shifted forward due to a more restricted choice set or value of particular activities due to restrictions. Both play a role, and while some sectors have been severely affected (mainly in the service sector), others have expanded even during lockdown (e.g., health care and construction), and some sectors are still severely affected due to travel restrictions. Moreover, evidence indicates that sectors already facing declining employment prospects prior to the pandemic (including some activities prone to automatization) have been most severely hit, and the crisis may thus accelerate ongoing structural changes (Mattana et al. 2000).

There are numerous issues to discuss on the design of the relief packages. There was no experience with such measures, and they were literally designed overnight as economic emergency aid. Although there were some adjustments and refinements later, the original designs have been maintained (political irreversibility). The criteria on which the schemes were based are up for discussion. As an example, the decline in turnover is not unproblematic. Clearly, the crisis caused decline in turnover, but that happens to some firms for various reasons, also under more normal business cycle conditions. While a 30-percent-decline is large, this is also not unusual. Andersen et al. (2021b) report that between 15 percent and 20 percent of firms experienced a decline in turnover of at least 30 percent between 2019 and 2018. Hence, there is a targeting issue, since the scheme provides support both to firms affected by the crisis and to firms which for other reasons would experience a large decline in turnover. Therefore, there are important targeting issues, and obviously the simple criteria used were motivated by having a simple scheme which could be quickly deployed, but this comes at a cost.

LEARNING POINTS

In retrospect, the macroeconomic logic underlying the relief packages that they support a swift recovery has been vindicated. In that sense they have been successful, although many details on the design can be discussed, but they should be weighed against the urgency of the interventions and the costs of a prolonged downturn.

Clearly, this outcome is not all by design. The pandemic has shown to be very unpredictable with the number and lengths of waves being hard to predict, and further waves cannot be ruled out. A more prolonged lockdown period could thus have resulted in different outcomes. In hindsight, it is probably better to have experienced two relatively short lockdown waves rather than one with the same total overall length. The period between the two waves allowed firms to recover, while a longer lockdown period may have brought more firms to solvency limits. There is both an element of luck and design in the outcome.

The interventions are not far from fine-tuning. When the measures were implemented, the knowledge on their effects was very scant, and far into the re-opening process there were concerns that there was a need for more expansionary policies to support the recovery and worries that the support measures were being phased out too quickly. Moreover, there was uncertainty about the ability of the private sector to adapt to the new situation, and it is interesting to note that the economic effects of lockdowns during the second wave were significantly smaller than during the first wave, despite lockdowns being rather similar. Finally, many firms have a large debt overhang from the crisis, and it is still uncertain how many are capable of overcoming this problem. The jury is still out on the overall assessment of the economic consequences of the pandemic.

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