

An important part of the Norwegian state's wealth is the value of stocks in The Government Pension Fund Global (GPFG; and referred to as the oil fund). This GPFG has large investments in companies which produce fossil fuels e.g oil, gas and coal. Questions have been raised as to whether the GPFG should divest from such companies. In response, several arguments have been made. Many of these arguments relate to different forms of climate risk. Some of the arguments are of ethical character, others of purely economical character. In this paper, we focus exclusively on the economical arguments as to whether the GPFG should divest from companies producing fossil fuels.

A large part of the state's wealth is exposed to fossil based income. The state's wealth is exposed to fossil fuel through four channels: The Government Pension Fund Global (GPFG), The Government Pension Fund Norway (Folketrygdfondet/SPN), state ownership in joint stock companies, and the present value of expected transfers to the GPFG. Table S.1 shows the present value of the expected transfers to the GPFG, the value of the different funds and the value of the state's ownership in joint stock companies. The values apply to the end of the calendar year 2015. Furthermore, we distinguish the share that is attributable to fossil fuels. Fossil fuels include petroleum (oil and gas) and coal. Chapter 2 provides a detailed explanation of the values in the table.

Table S.1 Values measured in billion NOK, 31.12.2015

| | | Total | Hence fossil fuels | percentage |
|---|--|-------|-----------------------|------------|
| Α | GPFG (stocks) | 4596 | 247 | 5.4 % |
| В | GPFN (stocks) | 118 | 15 | 12,6 % |
| С | State's ownership in LTD | 523 | 264 | 50,5 % |
| D | Present value of expected transfer to GPFG | 3750 | 3750 | 100 % |
| E | Sum A+B+C | 5239 | 526 | 10,0 % |
| F | Sum A+D | 8348 | 3997 | 47,9 % |
| G | Sum A+B+C+D | 9439 | 4726 | 50,1 % |

Sources: Ministry of finance (2016), NBIM (2017), Ministry of trade and fishery (2016), Folketrygdefondet (2016).

In the past few years several actors have debated as to whether the Norwegian public sector is overexposed to (the market for) fossil fuels. We review parts of that debate in chapter 3.

Based on the numbers from chapter 2 and the literature review in chapter 3, we provide our own conclusion in chapter 4.

Our assessment is that to claim that investments in petroleum companies today are less profitable than other stock investments is a challenge when both expected returns and uncertainties are considered. This implies that if we look at the GPFG in isolation, and without taking expected income from Norwegian oil and gas production (line A in table S.1) into consideration, it is hard to find good arguments as to why the GPFG should not own oil and gas stocks.

However, when it comes to balancing risk versus return, there are significant reasons to look at the combined state ownership in context. The state's combined stock ownership is given in line E in table S.1. Petroleum stocks add up to 10 % of the state's stock, while petroleum stocks adds up to 5 % of the global stock market. If the GFPG were to divest entirely from petroleum stocks, the state would still own stocks for 279 billion NOK (sum B and C in table S.1), that is ca. 5 % of the combined stock value. This corresponds to the share of petroleum stocks in the entire global stock market. Fully divesting the GPFG from petroleum stocks would result in the state owned petroleum stocks (mainly Statoil) owning a share of the combined state-owned equivalent to the share of petroleum stocks in the global stock market.

Line D in table S.1 is of more importance than the sum of B and C. From line F, we see that when taking the present value of expected transfer to the GPFG (Line D) into account, the GPFG is heavily overexposed to fossil fuels. The fund would continue to be overexposed to fossil fuels, even if the GPFG divested fully from petroleum stocks.

Based on the literature review, it is our assessment that the income in line D in table S.1 correlated more with the return of the GPFG's petroleum stocks than with the return of the remaining stocks. This circumstance, and the fact that the Norwegian state has a significant ownership in petroleum companies, constitutes in our opinion good arguments for it being socio economically sensible for the fund to sell out of their petroleum stocks.