

Newsletter

Autumn 2016

This is the fourth edition of the Centre's bi-annual newsletter. The mission of the Argentum Centre for Private Equity at the Norwegian School of Economics is to deliver high quality Private Equity research. To that aim we support research projects at NHH directly and are building a pan-Nordic PE database. The main topic of this newsletter will be a summary of what we know about the effectiveness of governmental support for start-ups in Norway.

Carsten Bienz

Centre Director



BREAKFAST SEMINARS

The Centre held two breakfast seminars this Spring - Juanita Gonzales Uribe (LSE) presented her research on "Business Accelerators and New-Venture Performance: Evidence from Start-Up Chile" while Hans Hvide (UiB) gave a talk about "University Innovation and the Professor's Privilege".



ANNOUNCEMENTS

The Centre is a sponsor of NHH's Fall Conference (Høstkonferanse) to be held on 19 October in Oslo. Centre Director Carsten Bienz will give a presentation on the implications of zero interest rates.

Research Focus: Subsidising new firm creation

This newsletter will look into what we know about subsidies for new firm creation.

Do we know what works and what does not?

Virtually all Nordic countries have seen a renewed interested in entrepreneurship and restructuring, even if the reasons can be very different. Norway has been hit by a fall in the oil price whereas Finland was profoundly shocked by the demise of Nokia's handset business. At the same time, funding for early stage investments in Norway seems to be falling.











The amount of start-up funding available in

Norway is low compared

to similar countries.

The fall in early stage investments in Norway is particularly large when we analyse funding as a fraction of GDP, yet that can be misleading given the size of the oil sector in Norway. However, as can be seen below, an analysis that uses population figures (and hence assumes that one Norwegian counts as much as a Swede or a Dane), does not create a much better picture in terms of funding.

In the above charts I use the EVCA's funding statistics and divide them by Eurostat's population figures. As can be seen from these numbers, Norway is at the lower end of the scale in terms of seed funding (both private and public) as well as the "loser" in terms of start-up funding. Later stage funding, however, seems to be available more than in other countries. I can only speculate on the reasons for these results. Also it seems to be evident that there is a clear downward trend in both seed and start-up funding in Norway in recent years.

These numbers of course raise the question of how (or if) governments should try to subsidize new firm development and start-up activity. With this idea in mind, let me try to review some of the recent research about the state's impact into early-stage funding. The first take-away from our short survey of the literature will be that state financing for start-ups does not seem to be easy to implement.

A recent master thesis by NHH master students Behre and Martens investigates Innovation Norway's start-up grants and shows that the financing does not seem to have a meaningful impact on firm performance relative to firms that applied but were not given financing. On all measures employed there were no statistical difference in development between start-ups that received a subsidy from Innovation Norway and those that saw their grant applications rejected.

Of course there are some issues with this study. The first is methodological. Ideally, an evaluation would have access to the criteria used to decide which firms received funding and which ones do not. Unfortunately, these criteria or this type of information was not accessible to authors of this study. Why is this important? Comparing the best and worst firms hardly makes sense. What we would like to see is a comparison between those firms that barely made the cut versus those that just fell short. However, for such a research design to be feasible one needs to be able to identify exactly which firms were in each of these categories. The problem is that this data is lacking. This is a relatively easy to thing to fix given the political will to do so. Also, the evaluation period of 2006-2010 is not very long.

On the other hand, two other studies looking at the same program arrive at the same result. So, even if one doubts the study by Behre and Martens, there is corroborating evidence from others with similar findings.

Neither the Såkornfondene nor Innovation Norway's start-up grants seem to be very effective.

After the reform of 2003 start-up activity by academics has fallen dramatically.

Norway has pledged about 1.5bn NOK in state support to so-called seed funds ("Såkornfondene") in three rounds. These funds are supposed to help young firms with access to early-stage capital, as well as help these firms to grow much faster than other firms.

The funds are run by private entities and the state subsidises the investment in them. The first two rounds received a state loan and a waiver in case the funds would not be able to repay the state's loan. Recently, the Norwegian State Auditor (Riksrevisjon) was asked to evaluate the performance of this system. The report makes for interesting reading: "In the period between 1998-2014 no larger growth companies have emerged from the seed phase". This basically means, that over sixteen years of funding, the amount of firms that hired more than fifty employees and received support from the Såkornfondene was negligible. Riksrevisjon also compared the supported firms with private investment from VCs in seed firms. Despite the state support, the value creation in the private firms was higher than in those that were supported by the state. Even worse, comparable firms that did not get state support (nor VC financing) also performed better than those supported by the Såkornfondene.

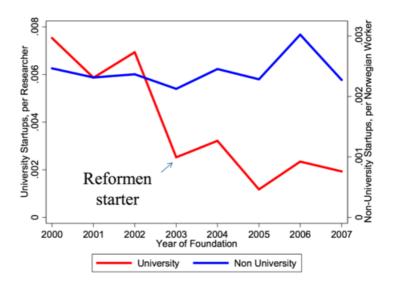
Both results suggest that the design of support schemes in Norway needs to be re-evaluated ¹as none of the measures here seems to be effective. Was the government at least better in increasing the supply of ideas?

Usually we know very little about the supply of ideas and entrepreneurs and the state's ability to influence this issue. However, a recent paper by Hans Hvide from the University of Bergen suggests that the Norwegian State has inadvertently negatively affected the supply of ideas out of the university sector by shifting away ownership from researchers to the university. Prior to 2003, Professors were granted a special privilege to keep all rights connected to their research to themselves. Then, in 2003 the Norwegian State adopted a model which had been practised for a long time by the US, allowing researchers to keep just one third for themselves, with the other two thirds belonging to the State (the affiliated research institution).

 $^{^1{\}rm The}$ third round of Såkornfondene has somewhat different rules but the impact of these is not clear.

Page 5

NHH ** ACPE



Hvide and his co-author compare the amount of firms set up by researchers before and after 2003. Findings are then compared to the population and the amount firms set up by persons holding a PhD but who were not employed at a public institution. The figure below shows perhaps unsurprising and clear results. While the number of start-ups produced by the general population has stayed constant, this number fell by more than 50% for university employees. This is of course not a very encouraging result.

While it is evident that things do not work well, it is unclear what it actually is that does not work well. It is extremely difficult to point out exactly what might work and what does not work. Israel is often cited as a special example with its Yozma program in the late 1990s that helped to create a vibrant technology industry in the country. The program in itself was small compared to some of the Norwegian programs and its main emphasis was on attracting foreign VCs and their expertise. Yet it is difficult to pinpoint the exact factors that made the program a success in Israel, while other programmes in other countries failed.

Two things are clear however. We cannot expect support programs to succeed automatically. If we accept this premise, then the design of the incentives in each program becomes important: which founders will be attracted? What type of financiers will be attracted? A second insight has to be that we need to include the evaluation of the program into the design of the program by considering an appropriate data retention into the program.

How much funding do we actually need? Here, at least, developments paint a much brighter picture. A new paper by Michael Ewens, Ramana Nanda, and Matthew Rhodes-Kropf (2016) finds that the average first time funding amount for a US Venture Capitalist has fallen from about NOK 60m to about NOK 6m. This fall is largely due to the introduction of Amazon's cloud-based computing platform. Start-ups can basically now rent their IT infrastructure from Amazon instead of having to build it themselves. Both Netflix and Dropbox have made successful use of it.

Ewens et al posit that the capital needed to set-up an IT start-up has fallen by 90%.

Page 6

There are reports that many firms do actually not need VC funding at all as the founders are able to pay their initial outlays themselves. This raises the issue whether looking at the amount of start-up funding is actually the right measure to use. Maybe a better way to look at high-tech entrepreneurship would be to analyse the number of start-ups (both VC supported and not) in certain key-industries.

References:

Aron Berhe and Tobias Martens; "Does Innovation Norway's grants have an effect?", Master Thesis NHH, 2016

Michael Ewens, Ramana Nanda and Matthew Rhodes-Kropf, "Cost of Experimentation and the Evolution of Venture Capital" Working Paper, 2016

Riksrevision; "Riksrevisjonens undersøkelse av såkornfondenes resultater" Dokument 3:8 (2015–2016)

Hans K. Hvide, and Benjamin F. Jones; "<u>University Innovation and the Professor's Privilege"</u> NBER Working Paper w22057

Centre in the Press

On 6 June, Carsten Bienz was quoted in Børsen about DONG Energy's IPO.