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# About the report

This report, authored by Sten Westerberg at Westerberg Kommunikation, was initiated and financed by the regional investment promotion agencies Invest in Skåne, Business Region Göteborg and Invest Stockholm in collaboration with SwedenBIO, the Swedish life science industry organization.

Measured by the high level of business activities and the impressive number of companies, the Swedish life science sector is strong in an international context and has contributed to many innovations on the global market. Currently, life science is Sweden's second largest export industry, making this sector a strategic priority for the government. Keen to facilitate the continuous development of this important sector, the organizations behind this study are committed to support.

Appropriate and timely financing is a must for our Swedish life science companies in order to progress the development of their respective project pipelines. Therefore, we initiated this study to gain detailed knowledge about the financing history of a limited set of Swedish life science companies. Complemented with recent quantitative data from the strong Swedish stock market, this report gives us key information about strengths and weaknesses of the Swedish capital market, further guiding us in our daily work improving the conditions and chance for continued success for the Swedish life science industry.

This report was published in May 2019.



# Options to finance operations broadening – Strong refunding activity in 2018

Based on the outcome of this survey, we conclude that the number of means to fund operations in the Life Science sector has increased during the period 2007-18. A total of 46 companies responded to the survey, representing 361 financing events.

The most common source of funding, category F made up of private<sup>2</sup> equity investors, decreased its share of total financing activities during the course of the period, while all along continuing being the most common type of funding (see diagram A). Both public stock markets, category H, and soft financing, categories C and E, continuously gained shares during the study period.

In a sector with substantial capital requirements it is reassuring to see companies becoming less reliant on one single category of investors.

We also conclude that the three main public stock markets – Nasdaq Stockholm, First North and Spotlight – enjoyed a record level of refunding activities in 2018, securing new share capital of SEK 6,9bn in a broad range of Life Science companies. Initial public offerings in 2018 amounted to SEK 2,0bn in 2018, bringing last year's total investments in the public segment of this sector to SEK 8,9bn.

Table A: Different funding categories included in the survey

		No. of events	5
	Category of funding	recorded	in %
A.	Regional public non-equity funding: (e.g. soft financing from university organisations, science		
	parks/incubators, county council regional development offices)	21	6%
В.	Regional public equity funding: (e.g. university venture capital organisation, science parks/incubators,		
	regional development offices)	22	6%
C.	National public non-equity financing (e.g. Vinnova, Tillväxtverket, Almi)	41	11%
D.	National public equity funding (e.g. Almi Invest)	17	5%
E.	EU public funding (e.g. Eurostars, SME-instrument, EIT Health, IMI, Interreg, FP7, Horizon2020)	29	8%
F.	National private equity funding (e.g business angels, venture capital companies, management, family		
	offices, crowdfunding)	105	29%
G.	International private equity funding (e.g business angels, venture capital companies, management, family		
	offices, crowdfunding)	16	4%
Н.	Public equity offers (e.g. Spotlight, First North, NGM, NASDAQ)	39	11%
Τ.	Industrial funding (e.g. Licensing deals, joint ventures, equity investments, international R&D		
	collaborations)	21	6%
J.	Internal funding (e.g. revenues from existing products, group financing)	27	7%
K.	Bank loan	7	2%
L.	Donations, charity	2	1%
M.	Other	14	4%
	Total of events	361	100%

<sup>&</sup>lt;sup>2</sup>The term 'private' is used in a broader sense than often referred to in 'private equity'. In this report 'private' is designated to separate all types of investors not acting on a public stock exchange or qualifying as governmental or regional offices. Private equity includes different subgroups, such as venture capital, family offices, business angels, crowd funding, individuals and management.



### 1. Private equity scores declining share of financing activities

Our financing survey focused on the distribution between thirteen different categories (A-M), but did also collect data on the size of funding. The most common source of financing during the period was category F, a class made up of domestic private equity investors, as opposed to public equity traded at the stock exchanges or equity provided by governmental and regional agencies, such as Vinnova, ALMI or university incubators. Examples of private equity investors are business angels, venture capital, financial institutions, family offices, management and domestic crowd funding.

During the course of the period we observed that category F, National private equity, steadily reduced its share of total financing activities carried out by the participants in the survey. While being by far the most common type of financing in the first four years (2007-10), with a market share of (45-67 percent of all financing events) it steadily lost market shares to the other categories to a level of 20-28 percent during the last three years of the period.

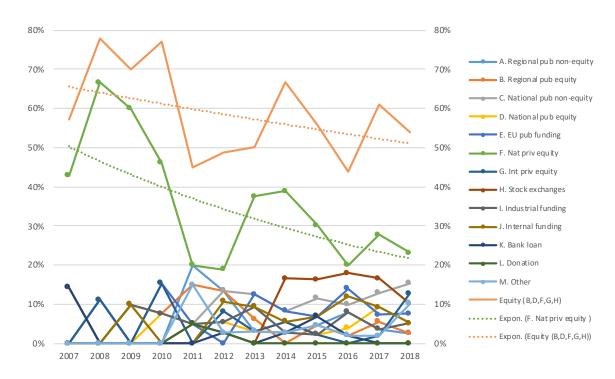


Diagram A: Distribution of financing events over the course of the period 2007-18

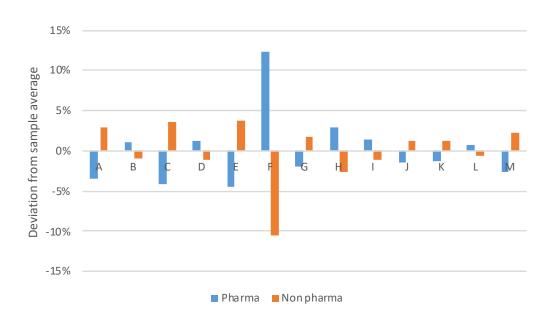
The main driver behind the decline in category F is a surge of public equity offerings, such as Initial Public Offerings (IPOs) and ensuing new share issues (refunding), which took off in 2014, when the "window of opportunity" was brought open at the main stock exchanges: Nasdaq Stockholm, First North and Spotlight (category H).

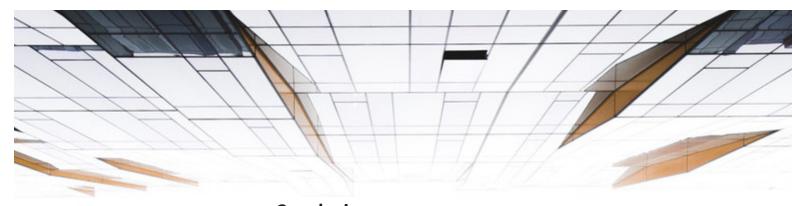
The second most important explanation to the decline in private equity as a share of financing activities is the increase of the national non-equity programs (category C), primarily the governmental innovation agency Vinnova. We also see an increasing use of support from EU programs, primarily the Research and Innovation program Horizon 2020, as a viable option for management when funding operations.

In spite of the decline over the period, domestic private equity remains the most cited source of financing. Among early stage Life Science companies we have noted in interviews a reluctance to list the company on a stock exchange, with all the short-term obligations that follows. On the other hand, we have also met managements who prefer following the path to the public equity market instead of repeatingly turning to private equity. Private equity, such as venture capital and business angels, are known to put up a hard line in valuation discussions with founders and management.

When stratifying for the different types of companies included in this report, we can see that pharmaceutical companies, all being drug-developers, are much more likely to turn to equity investors rather than the non-equity funding sources. 71 percent of all financing events in this group involved equity (categories B, D, F, G, H) compared to 42 percent for the non-pharmaceutical group (diagram B). We speculate that this observation is linked to the higher risks and larger capital requirement involved in drug development, making equity a more convenient option to the board of a company.

Diagram B: Deviation from average distribution in pharma and non-pharma companies





#### **Conclusion**

The 'window of opportunity' provided by different public stock exchanges as from 2014 and forward has attracted many early to mid-stage Life Science companies, decreasing their reliance on private investors, such as business angels and venture capital organizations.

## 2. Soft financing expanding its role in bridging the financing gap

During the period 2007-18 we found that different sorts of soft financing programs increased its share of total financing activities. Obviously, the amount of financing which is brought by sources of soft money is smaller than the amounts raised from equity investors. It is not appropriate to single out these 'soft' categories of capital (classes A, C and E) as outright competitors to equity except in the early stages after inception, where it is our impression that soft financing may serve as an alternative to other sources of funding.

Table B: Average payment per event in different categories of funding

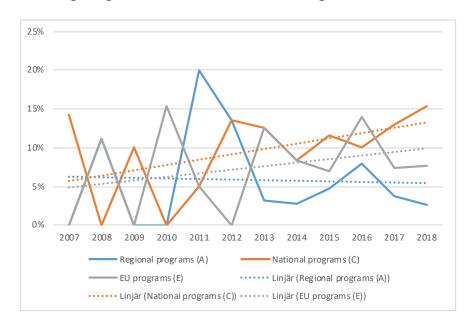
	<b>H.</b> Stock exchanges	M. Other	<b>G.</b> Int priv equity	I. Industrial funding	<b>F.</b> Nat priv equity	J. Internal funding	<b>B.</b> Regional pub equity	<b>E.</b> EU pub funding	<b>C.</b> National pub non equity	<b>K.</b> Bank loan	<b>A.</b> Regional pub non-equity	<b>D.</b> National pub equity	L. Donation
Total in SEKm	1 788	147	104	147	568	93	107	137	62	7	15	10	0
No of events	27	4	11	17	77	15	19	25	32	6	19	16	0
SEKm/event	66,2	36,8	9,5	8,6	7,4	6,2	5,6	5,5	1,9	1,2	0,8	0,6	0,0

As can be seen in table B the average payment from governmental non-equity (category C) support is SEK 1,9m. This is below the average new share issue to private equity in category F at SEK 7,4m.

The different purposes of soft and hard financing were not studied in detail. In most cases we would assume that soft financing plays a subordinate role to equity, but it may (mostly classes C and E) also be perceived as a way for management to bridge periods with a lack of access to equity investors. It would be an interesting approach to see governmental soft financing and private equity to join forces in the later and more cost-intense stages of development.

The third class of soft financing (A) did see a slight decline during the course of the period. A possible explanation is that regional soft financing is more associated with earlier stages of development, while the sample in this study on average grew older during the period.

Diagram C: Soft financing categories and their share of all financing activities



#### **Conclusion**

Both governmental Vinnova and EU programs for soft financing strengthened their role in the financing system over the course of this period. We would speculate that these 'soft money' classes continue to develop a role in the funding system, possibly as a more pronounced alternative to equity.



## 3. Shorter cycles of refunding

Companies were continuously included in the study as they were founded. Our survey shows that companies founded in the early part of the period 2007-18 did not refund operations as often as companies did during the later stages of the period.

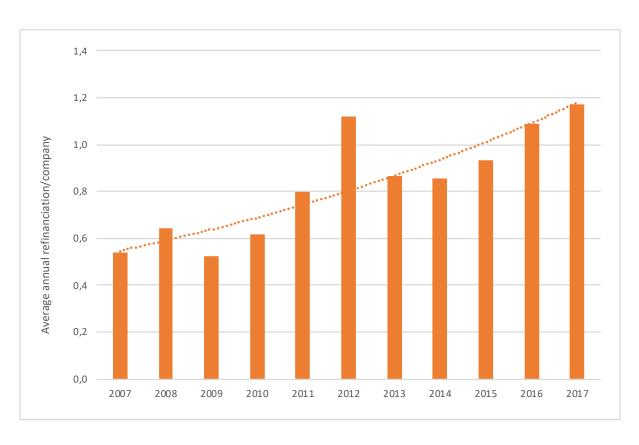
This shortening of the refunding cycle over the study period is a surprising finding given that the average participant in the study became older during the course of study. It may reflect a change in the sector's funding habits.

In 2007-09 the average funding rate was 0,5-0,6 events per year, i.e. one funding event every second year, while at the end of the period the average number of funding events per company reached just above 1, implying that the average company carried out one funding event per year.

Shortening refunding cycles may reflect an increasing pressure on management to maintain company finances in good shape. Investors may have become more reluctant to provide financing in tranches stretching beyond one year at a time. Short refunding cycles should also translate into management putting more efforts into investor relations and having less time to spend on operations, which would be a worrying trend.

Since the average age of the companies did increase over the study period, each financing event may also come with higher amounts of capital to raise



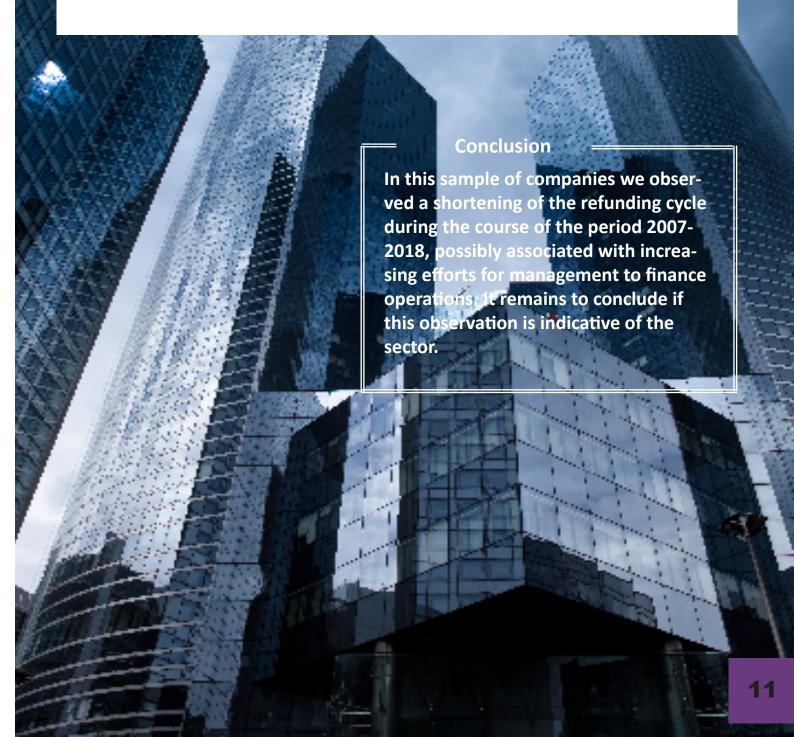


An explanation to the observation of shortening refunding cycles could be that, as companies advance to later stages in development, operations require larger refunding. As a consequence investor relations turn more challenging and investors react by shortening the tranches.

We could also speculate that the competition for access to capital has increased lately given the solid expansion of the number of early to mid-stage companies in the Swedish Life Science sector. It remains to be understood if demand of new equity and soft financing has been increasing more rapidly than the supply, which also has increased during the course of the period (see chapter 6).

The time-absorbing activity to secure funding of operations in a developing Life Science company alerts a risk in the disposition of management's resources. It would be optimal if companies progressing to later stages of development did not have to spend more time and resources on investor relations. However, this may be difficult to achieve as long as stakes are raising for the owners.

The observation of shortening refunding cycles in life science companies during the course of this study may reflect both a recent change in financing habits and an intrinsic property of an operation where stakes are continuously raising. In either case, this observation may add an important dimension to our understanding of how management disposes of its resources.



# 4. International investors remain at flat level during study

Category G in this study was conceived to register the presence of international equity investors in the rapidly evolving Swedish Life Science arena. International venture capital organizations could play an important role in the Swedish financing system, not the least since it appears to be a relative lack of domestic venture capital as opposed to the affluent public equity at the stock exchanges.

During the observation period 2007-18 the activity of international equity investors remained largely flat at mid-single digits. In the last year, 2018, we registered a peak for category G in its share of financing activities, but it is too early to draw a conclusion from this single data point.

It should be expected that investors in a geographic region predominantly are investors based in the same region, particularly in a sample dominated by micro-cap sized companies. Business is local to a certain extent. In order to convince international investors, it may be an advantage to have dedicated local lead investors. Having said that, and given the advancing maturity of many Swedish Life Science companies, we believe that the single-digit level indicated in this report is an underrepresentation leaving room for improvement.

Diagram E: International investors share of funding



International investors are difficult to access. By interviewing participants in the study, we have come across examples of the exhaustive measures that have to be put in place in order to reach out to international investor community. Long hours of traveling to attend international investor meetings, cultural differences and the costs of teaming with international investor relations facilities may be deterring.

A methodological reason for the low reporting rate of category G could be that international investors are bundled with domestic investors in category F as long as they are in minority. However, we do not believe this potential bias would substantially shift the numbers.

# Conclusion

The untapped potential for Swedish Life Science companies to attract international investors should be substantial.



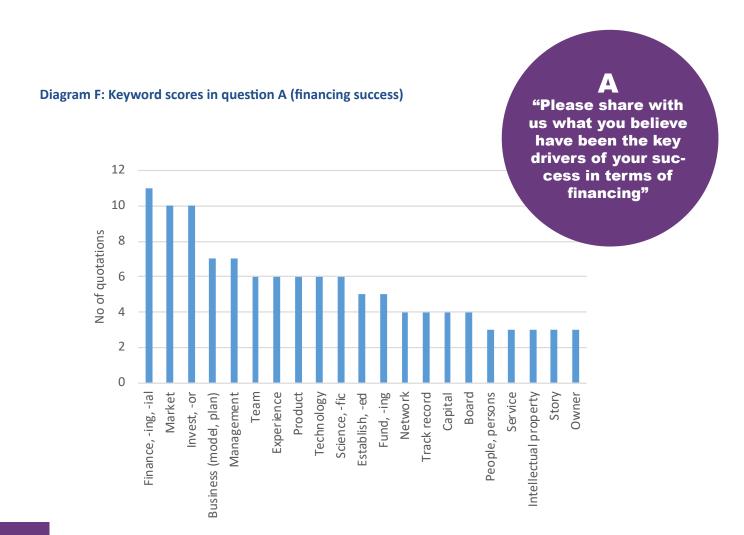
## 5. Funding perceived by management as the main challenge

In our survey consisting in total of 11 questions we included three open-ended questions, where we looked for a more qualitative input to the report. The open-ended questions were as follows:

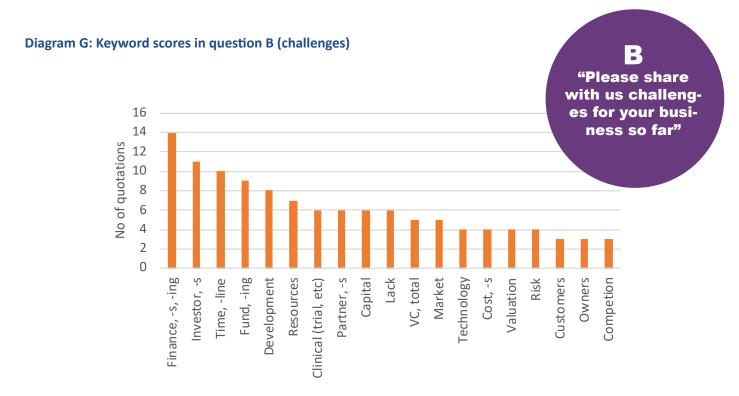
- A. "Please share with us what you believe have been the key drivers of your success in terms of financing"
- B. "Please share with us challenges for your business so far"
- C. "Please share with us any additional thoughts you think could be of value for this project/report"

Answers to question A focused at financing efforts which to some extent could be a consequence of the wording of the question. In a key word analysis of answers to question A, the word 'finance' in its different variations scored 11 times in a total of 45 company-specific responses. The words 'invest, -or' turned up 10 times, just as many as the word 'market'.

Given the scope of question A it is not surprising to find such words at the top of the table. It is of more significance to find, close behind words in the financing category, high scores for the category of words including 'management' and 'team', all related to the management a company. When asked to list the specific strengths behind a company's successful financing, management itself stresses the importance of the quality of management. The 'management' category rates higher or in line with other categories, such as 'technology', business model' and 'product'.

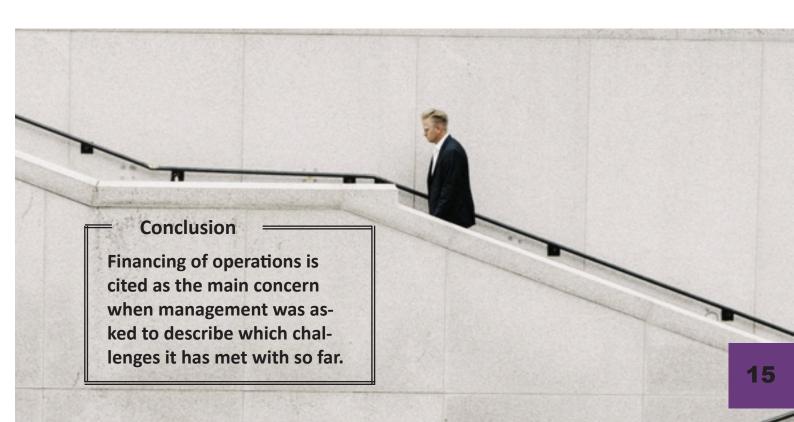


Question B refers to historical challenges and makes no explicit mentioning of financing, thus addressing a larger context than question A. However, once again management stresses the endeavors of financing as being the main challenge to cope with so far.



Keywords in answers to question B related to the financing category, such as 'finance', 'investor' and 'funding', scored a total of 35 quotations, far ahead of any other category of challenges. Interestingly the word 'time, -line' scored more that many other critical categories when management was asked to summon issues dealt with so far.

For obvious reasons the attention of management is centered around internal issues, such as the clinical development of a product or finding a good partner, while external factors, such as customers or competition, do not reach the same scores in this keyword analysis. This may be a rational way of weighing challenges, but we would alert that external factors, beyond the direct control of management, will come to play an important role in the final stages of most product developments.



#### 6. 2018 a year of sector refunding at all three stock exchanges

In parallel with the survey to SwedenBIO members we have also carried out an updated research on public funding activities in the Life Science sector at the three main stock exchanges: OMX Nasdaq, First North and Spotlight.

We have gathered data on new share issues and initial public offerings (IPOs) since 2014, when the window of opportunity for early-stage life science companies flung open at the Swedish stock exchanges. We conclude that 2018 was another strong year for the sector with particularly high activity in refunding. By refunding we mean any new share issue carried out after the initial public offering (IPO) by a company and the listing of its shares.

10 000 9 000 8 000 7 000 Nasdaq, refunds\* 6 000 ■ Nasdaq, IPOs\* SEKm 5 000 First North, refunds First North, IPOs 4 000 ■ Spotlight, refunds 3 000 ■ Spotlight, IPOs 2 000 1 000 0 2014 2015 2016 2017

Diagram H: Public funding activities during 2014-18\*

\* 2017 adjusted for Medicover, Getinge (tot 6.6bn)

When adjusting for the SEK 4,3bn new share issue of Getinge in 2017, refunding activities at the three main Swedish stock exchanges (Nasdaq Stockholm, First North and Spotlight) reached a new record level for the Life Science sector in 2018. We believe that the adjustment for the Getinge new share issue leaves us with a better understanding of the underlying funding sentiment in the Life Science sector. Listed life science companies made refunds of SEK 6,9bn in 2018 compared to SEK 4,0bn in 2017 and 2016 respectively.

All three stock exchanges saw record levels of refunding in 2018, with the new share issue of Karo Pharma at SEK 1,3bn as the single largest at Nasdaq Stockholm. The largest transaction at First North was the IPO of Alzecure at SEK 200m. The Medtech company Scandinavian Real Heart ended up in top of the Spotlight list with a new share issue of SEK 56m.

The high refunding activity in 2018 comes after a row of years with a steady inflow of new companies listing their shares in an IPO or simply by moving from one list to another. The extensive refunding activity at the stock exchanges in 2018 is a gratifying sign of a functional equity marketplace, soaking up the financial need from new companies. Judging by the growing number of early to mid-stage companies listed at the stock exchanges, we would speculate that new equity will continue to be issued over the next years.

It has not been possible to identify the future refunding need of the listed companies or to gauge the likelihood of 2018 levels being repeated in 2019.

Looking forward, it will be of importance for the sector to show a number of 'exit' events, such as take-overs or favorable industrial deals involving down-payments. Other important milestones, supporting a positive financing environment, would be advancements into later clinical stages or regulatory approvals.



#### Reduced IPO activity in 2018

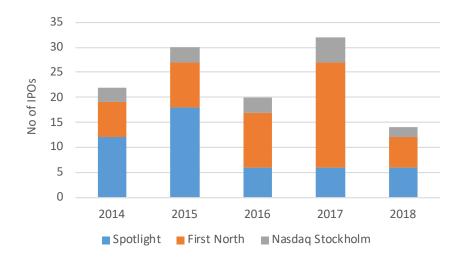
After a booming 2017, the number of Initial Public Offerings (IPOs) in the Life Science sector declined in 2018. At the First North/First North Premium list, IPOs slipped back from 21 companies in 2017 to a more modest rate of six IPOs in 2018.

Spotlight is the most well-established alternative to Nasdaq and First North. At this marketplace we saw IPO activity originally taking off in 2014, signaling the presence of more risk-oriented investors and institutions compared to Nasdaq exchanges. In 2016 First North followed suit with an increasing number of IPOs. Some companies see Spotlight as an entrance to the public arena and seek to qualify to First North at a later stage, when looking for a more institutionalized investor base.

Progressing from Spotlight to First North and possibly from First North to the Nasdaq Stockholm main list is a time and money consuming exercise, where companies expects to gain advantages in access to a broader range of investors.

At Spotlight, the number of IPOs in the Life Science sector has been flat at six IPOs per year since 2016. Nasdaq Stockholm also saw a return to historically more normal levels of IPO listings in 2018 after an upbeat 2017, when the aggregated value of all four high-profile IPOs reached SEK 2.5bn.

Diagram I: Number of Initial Public Offerings at major Swedish stock exchanges





About the autor Sten Westerberg at Westerberg Kommunikation AB has a background as financial analyst with Öhman Fondkommission and Swedbank Markets. He has also served as Vice President Investor Relations at BioInvent AB. Before engaging in the financial sector he was a stock market editor with Veckans Affärer.

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