

Annual report 2016

“The fundamental concept behind this project is to strengthen financial research in Sweden, to assemble strength through the creation of a critical mass of researchers and to share positive externalities with the private, public and academic sectors in Sweden. The overall goal is to place Swedish research in finance among the leading nations in Europe”.

A busy year

19 articles published in international journals, of which...
9 articles in the top three finance journals in the world.
85 research presentations at international conferences.
3 280 visitors to our events.

Content

Director's commentary 4

Highlights 6

Background and objectives 8

Budget and outcome 9

Costs 10

Revenues 14

Financing 15

Director's commentary

The objective of the Swedish House of Finance has always been to create and promote the highest quality financial markets research in Sweden. In this regard, 2016 has been a very successful year for us, having marked the consolidation of our position as one of Europe's leading institutes for financial market research.

Our expertise is broad. Within finance, our research spans such diverse areas as corporate governance, pension design, capital market liquidity, contract theory, entrepreneurship, sustainability, behavioral finance, and household finance. One measure of our success in these areas is the number of publications in international journals: in 2016 we published a total of 19 articles, of which 9 were in the top three finance journals in the world. These numbers are an improvement over an already strong 2015. This truly fantastic achievement places us among the very top academic institutions in Europe.

Our researchers are specialists in their field. They often put their vast knowledge to work in the service of society, working as advisers and board members for many authorities and institutions, both at home and abroad. At home, these include the Swedish National Debt Office, the Swedish Financial Supervisory Authority, the Ministry of Enterprise and Innovation, the Ministry of Finance, the Swedish Pensions Agency, the Swedish Agency for Economic and Regional Growth, the Swedish Fiscal Policy Council, and the Royal Swedish Academy of Sciences. Internationally, our researchers have served and advised NETSPAR (Netherlands), the Central Bank of Norway, EUROFIDAI (France), and numerous other authorities, agencies and institutions. During the year, our scholars delivered lectures for both government authorities and private organizations, including the Ministry of Finance, the Swedish Financial Supervisory Authority (Finansinspektionen), the Swedish Central Bank (Riksbanken), the Center for Business Policy Studies (SNS), and SSE Executive Education.

We have an extensive network of worldwide leading academic experts in all main fields of finance as evidenced by the 85 research presentations we made at in-

ternational conferences across the world. Our research network in turn provides access to specialist knowledge and the exchange of ideas. One example is the seminars and conferences that we held during the year, and the wide range of subjects that we covered: IFRS, climate risks, house prices, solvency in the insurance sector, banks' capital requirements, Russia's economy, Brexit, the Greek crisis, and how we can attract more women to the finance sectors. The Swedish House of Finance also hosted four conferences during the year. We counted a total of 3,280 visitors to our events, which were mostly held at our own premises on Drottninggatan in Stockholm, while nine were arranged in collaboration with the Center for Business Policy Studies (SNS). We experience a continued strong interest in our events, although there is a limit to how many more people we can reach through physical meetings. Our focus for communication during the year was therefore to reach more people within a greater number of sub-sectors and a greater geographical area by using digital channels linked to our new website. At our website, we publish reports, news and events that have been held with enlarged editorial content in the form of news, films and articles.

Another strategic channel for the diffusion of knowledge is our national program for the strengthening of financial market research in the whole of Sweden. Through collaboration agreements with the universities in Stockholm, Lund, Gothenburg, Uppsala, Umeå and the Royal Institute of Technology (KTH), we support Swedish financial research with our national programs for doctoral education, recruitment, visiting positions, and publications in leading academic journals. Our national data center offers access to unique and high-quality Swedish financial data to all researchers active at Swedish universities. Our strategy of investing in research infrastructure enables us to share information with other Swedish universities in order to make Swedish research in finance even better.

We made a number of organizational changes during the year. We started a considerable process of restructuring our organization and simplifying our brand. Because the Swedish Institute for Financial Research

(SIFR) and the Swedish House of Finance basically share the same overall objective – to support and spread Swedish financial market research – merging the two organizations into a single entity was a logical way to simplify our organizational structure so that we could focus more acutely on our core mission. Through our new joint name “Swedish House of Finance at the Stockholm School of Economics”, we wish to emphasize our strong connection to the Department of Finance at the Stockholm School of Economics, but without losing our identity as a Swedish national center that is open for all researchers active within finance in Sweden. There are therefore no intentions to change the orientation of our operations – indeed we wish rather to render ourselves more effective and striking in an increasingly competitive surrounding world.

The merger implies from a purely practical aspect that all operations pursued within the two organizations will be carried out from 2017 within the framework that was initially developed for SIFR. The Foundation for Financial Research (Stiftelsen för Finansforskning), along with the associated Jakob Palmstierna Foundation and the Hans Dalborg Foundation are still important pillars for the overall organization's activities and thereby significant supplements to the financial commitments that the Center has successfully obtained during the first six years.

In view of the above, I would like to express my special thanks to all administrative staff for their fantastic work in this process. I would also like to thank all students, doctoral candidates, researchers, guests, seminar and conference participants for your strong commitment to the Center's activities during the year. Together, we have created a very valuable asset, where the yield has benefited a great number of people.

Our activities are reliant on joint financing commitments from academy, government, business and industry. I would therefore like to express my sincere thanks in particular to all those who have contributed with vital resources during the year. These include the Swedish Government (through Vinnova), Handelsbanken, Nordea, Swedbank, the Marianne and Marcus



Wallenberg Foundation, Alecta, Länsförsäkringar, the Annika and Gabriel Urwitz Foundation, as well of course the closely related Foundation for Financial Research, the Hans Dalborg Foundation, and the Jakob Palmstierna Foundation. Our partners also contribute with significant funds, and include Nasdaq, the Bertil Danielsson Foundation, the Jan Wallander and Tom Hedelius Foundation, the Tore Browaldh Foundation, Mistra, the Swedish Central Bank (Riksbank), the Torsten Söderberg Foundation, the Johan and Jakob Söderberg Foundation, Kommuninvest, and Landshypotek.

The report that follows contains a full description of how grants and in-kind contributions have been used in our activities.

Stockholm, March 2017

A blue ink handwritten signature of Anders Anderson.

Anders Anderson
Director Swedish House of Finance

Highlights 2016

Nobel laureates at Swedish House of Finance

Oliver Hart from Harvard University and Bengt Holmström from MIT, visited on December 9. Together with moderator Per Strömberg they discussed contract theory and corporate finance from different perspectives.



New Professor

Paolo Sodini was installed as new Professor on May 21. At the same time Harrison Hong from Princeton University and David Robinson from Duke University's Fuqua School of Business, both members of Swedish House of Finance Scientific Advisory Board, were conferred honorary doctors.



Credit markets after the crisis

The theme for this year's annual conference was "Credit Markets after the Crisis". Speakers included Amar Bhidé, Tufts University, Gary Gorton, Yale, Luc Laeven, European Central Bank and Nicolas Véron, Bruegel and Peterson Institute.

Enabling Ground-Breaking Research

Our research data center provides access to four unique databases – FinBas, Nasdaq OMX HFT, Resiliity Sustainable Economics and Serrano. The data is available to the academic community and distributed through our web-based platform.

International environment

Our researchers come from all corners of the world. China, the Netherlands, France, Italy, Russia, Austria, Peru, Burkina Faso and Sweden to name a few. During 2016, 32 PhD students were active at the center of which 22 were men and 10 women.

Global Corporate Governance Colloquia (GCGC) conference

The GCGC consists of 12 major universities including Columbia, Harvard, Yale, Oxford and the Swedish House of Finance. The second annual conference of the network was held in Stockholm in June, hosted by the Swedish House of Finance.

Climate Risks and Market Efficiency

Harrison Hong, Princeton University and member of the Scientific Advisory Board at the Swedish House of Finance visited us in May and gave a talk on how markets price in climate risks brought on by climate change.



Wim Duisenberg Fellowship at the European Central Bank

Professor Mariassunta Giannetti was awarded a Wim Duisenberg Fellowship at the European Central Bank to conduct research on issues related to fire sales and banking structure.

Background and objectives

The Swedish House of Finance (SHoF) is a project initiated in 2011 by the Swedish Government through Vinnova, the Stockholm School of Economics (SSE) and the Swedish Institute for Financial Research (SIFR) with the objective of creating a national center for financial research that is competitive at the highest international level. The Swedish House of Finance has a Director and a Management Group with delegated responsibility for various fields of activity, and who report to the Board of Directors composed of representatives from both the Stockholm School of Economics and the Swedish financial sector. The Center hosts the Department of Finance at the Stockholm School of Economics and includes all activities within the non-profit organizations the Swedish House of Finance and the Swedish Institute for Financial Research (SIFR). Since 2016, the composition of the Board of Directors of the two latter organizations has been the same, with the objective of merging their activities as of 2017. The Center is financed through support from the Swedish Government (via Vinnova) and companies in the Swedish financial sector.

The fundamental concept behind this project is:

- To strengthen financial research in Sweden
- To assemble strength through the creation of a critical mass of researchers
- To share positive externalities with the private, public and academic sectors in Sweden.

The overall goal is to place Swedish research in finance among the leading nations in Europe.

The Swedish House of Finance has promised to achieve this through the following:

- To create a common physical research infrastructure
- To establish a national center for financial data
- To launch a doctoral course program in finance available to all doctoral students in Sweden
- To carry out programs for research interactions: to provide open seminar series, invite guest researchers, and arrange conferences
- To support the recruitment of international researchers to Swedish institutions
- To share research infrastructure with Swedish researchers
- To obtain research financing from the Swedish financial industry

A brief report is set forth below concerning the Center's operations, which are organized in five fields of activity: Research, Research Infrastructure, Data Center, Interaction and PhD Courses. These activities are financed through cash donations from (i) Vinnova, (ii) the financial sector, as well as indirectly through in-kind contributions through (iii) the Stockholm School of Economics and SIFR. The in-kind contributions are mainly personnel costs for permanent faculty and staff as well as research grants from external donors who form part of the Stockholm School of Economics and SIFR's activities, but who are not directly associated with the planning or budget managed by the Swedish House of Finance. We report the in-kind contributions so as to obtain the most comprehensive picture as possible of the Center's activities and financing.

Budget and outcome

Total costs including in-kind contributions for 2016 came in almost exactly as budgeted. Total costs amounted to SEK 62,473k compared with budgeted SEK 61,163k. In-kind contributions from SIFR and SSE amounted together to SEK 31,678k compared with the budgeted amount of SEK 31,926k. The in-kind contribution also includes indirect grants from the Swedish finance market in the amount of SEK 11,419k.

Costs that are directly related to the Swedish House of Finance's own activities amounted to SEK 30,867k (budget SEK 29,237k). These costs were financed by

Vinnova (SEK 20,867k), the Swedish finance market (SEK 6,908k), as well as a rental contribution from SSE and SIFR (SEK 3,019k). The composition of the financing changed during the year due primarily to that the Center used SEK 17,321k of Vinnova's center grant and SEK 3,546k of previously received individual research grants from Vinnova that are not part of the annual center financing. The part of Vinnova's grant that was drawn over and above the SEK 15,000k paid in during the year was taken from previously built-up reserves

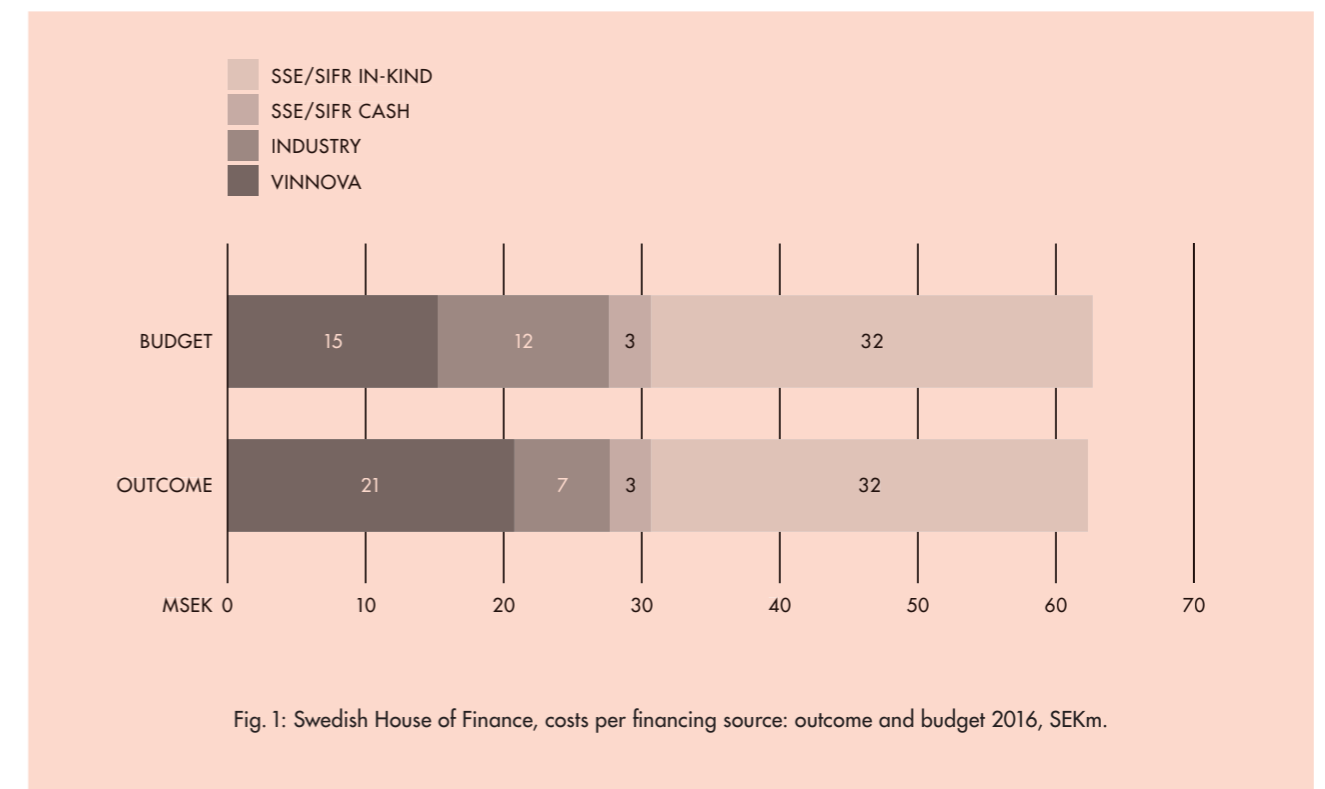


Fig. 1: Swedish House of Finance, costs per financing source: outcome and budget 2016, SEKm.

Costs

The Center's total costs are described below, distributed among the Center's five fields of activity. Fig. 2 illustrates an historical distribution over the six years that SHoF has existed, and is commented and compared with last year (in parenthesis) in the text below.

Research infrastructure SEK 13,827k (SEK 13,749k). Costs include offices, administration and materials, of which costs for premises amounted to SEK 6,517 and payroll costs for four permanent employees amounted to SEK 3,395k. The total amount includes in-kind contributions from SSE and SIFR regarding salaries and services amounting in total to SEK 2,295k. The Center housed 26 permanent researchers, 32 doctoral students, 4 database developers, 3 research assistants, 5 administrators, 2 communications officers, 1 part-time project consultant, and 2 senior advisers (of which one full-time). During the year, a total of 52 guest researchers visited the Center. In November, we negotiated a renewed lease for the premises, which will run for five years as of June 2017 with an option to terminate after three years.

Research SEK 31,005k (SEK 31,480k). Costs mainly represent in-kind contributions from SSE in the form of salaries to researchers and related costs, amounting to SEK 17,239k (SEK 17,847k), as well as the financing of doctoral students in the amount of SEK 4,658k (SEK 4,689k). The remaining costs are related to individual research grants. The Center's researchers produced 19 (17) publications in international academic journals, of which 9 (6) within the absolute top of the range, known as A-grade journals. Our researchers made 85 (81) presentations at international researcher conferences,

and 28 (23) as commentator. We were strongly represented at all of the three leading conferences: AFA in San Fransisco, WFA in Utah, and EFA in Oslo

Data center SEK 8,066k (SEK 7,499k). The Data Center has two principal tasks: (i) to develop our own national databases that are then made available to the researcher community in Sweden, and (ii) to provide requisite international databases so that the Center's researchers can work and compete at the highest level.

During the year, we launched a new platform to secure the distribution of historic transactions and order-book data at microsecond level (known as High Frequency Trading) from Nasdaq. Data is made available free to all Swedish universities through electronic verification (SWAMID).

During the year, we began a cooperation agreement with Resility, which collects ESG data for listed Nordic companies and then makes this data available to Swedish academics through our platform. We are hoping to collaborate with other players who are prepared to provide relevant data for research, and are holding talks with Euroclear, Morningstar and S&P.

During the year, we secured financing from Vinnova for the PatLink project, where we intend to digitalize and distribute Swedish patent data.

Costs for external databases amounted to SEK 4,675k (SEK 3,431k), and personnel costs that are primarily related to the building-up of own databases amounted to SEK 3,391k (SEK 2,705k).

During the year, 44 (67) projects used data from the Center, of which 20 (39) were external users from other universities. The Data Center has four full-time employees, one part-time employee, as well as two

Costs

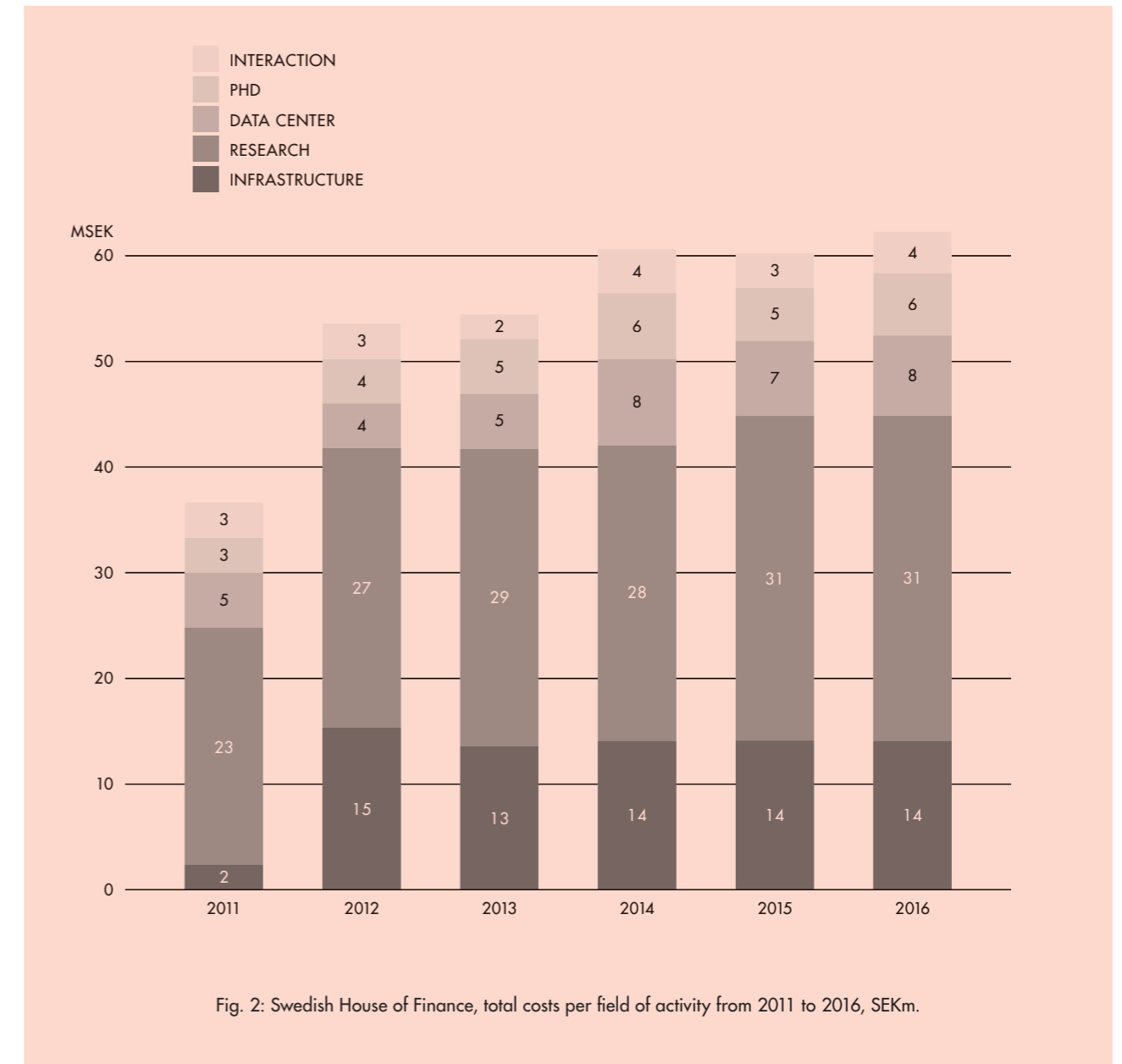


Fig. 2: Swedish House of Finance, total costs per field of activity from 2011 to 2016, SEKm.

research assistants employed by the hour. One full-time research assistant was recruited during the year.

PhD course program SEK 4,557k (SEK 5,282k). A major part of the costs is represented by an in-kind contribution from the Stockholm School of Economics amounting to SEK 3,978k. The remaining costs are related to remuneration to teachers and the reimbursement of expenses for course participants from other universities. The Center provides a national course program for doctoral students in financial economics. The five basic courses are the same as the doctoral program at the Stockholm School of Economics, although they are adapted so that they may be read at a distance. A number of mini-courses are also offered each year within various specific fields, where we invite an external specialist who holds a one-week intensive course. We carried out three such courses during the year – one in empiric corporate finance by Alexander Ljungqvist (NYU), one in asset pricing by Mike Chernov (UCLA), and one in market micro structure by Patrik Sandås (U Virginia). The courses had a total of 97 (157) participants, of which 44 from other institutes for higher education than the Stockholm School of Economics.

Interaction SEK 4,016k (SEK 3,488k). This field embraces activities aimed at increasing the dialogue between researchers and decision-makers within the private and public sectors. Seminars and conferences are organized with the purpose of spreading research results to private and public players. Researchers at Department of Finance at the Stockholm School of Economics are responsible for our academic seminars, which maintain a very high international standard. The

year’s costs concern salaries and related costs for events that together amounted to SEK 2,274k. The remaining costs include the Center’s seminar series with SEK 431k as well as three externally financed conferences costing approximately SEK 1,130k. A total of 79 seminars were held during the year, of which 54 were academic and 25 on themes targeted towards practitioners active within financial markets. These themes included for example IFRS, climate risks and market efficiency, house prices, solvency in the insurance sector, banks’ capital requirements, Russia’s economy, the future of the EMU and the EU, Brexit, the Greek crisis, and how we can attract more women to the finance sectors. Most of the events were held at our premises on Drottninggatan, Stockholm, while nine were arranged in collaboration with the Center for Business Policy Studies (SNS). SHoF was host for four conferences: “Global Corporate Governance Conference” co-arranged with researchers from Yale, Oxford, Stanford and NYU and others; “BI-SHoF Conference in Asset Pricing and Financial Econometrics” together with BI in Norway. Both of these organized with generous support from the Wallander and Hedelius Foundation. We held the “SIFR conference on Credit Markets After the Crisis” with grateful support from the Torsten Söderberg Foundation; as well as the “Corporate Finance Symposium” arranged and financed in collaboration with Mannheimer & Swartling and McKinsey & Co. To these four conferences, we can add our annual national conference for Swedish doctoral students in financial economics that takes place in November each year. We counted a total of 3,280 visitors to our seminars and conferences in 2016, represented in roughly even numbers by researchers and representatives from the finance sector.

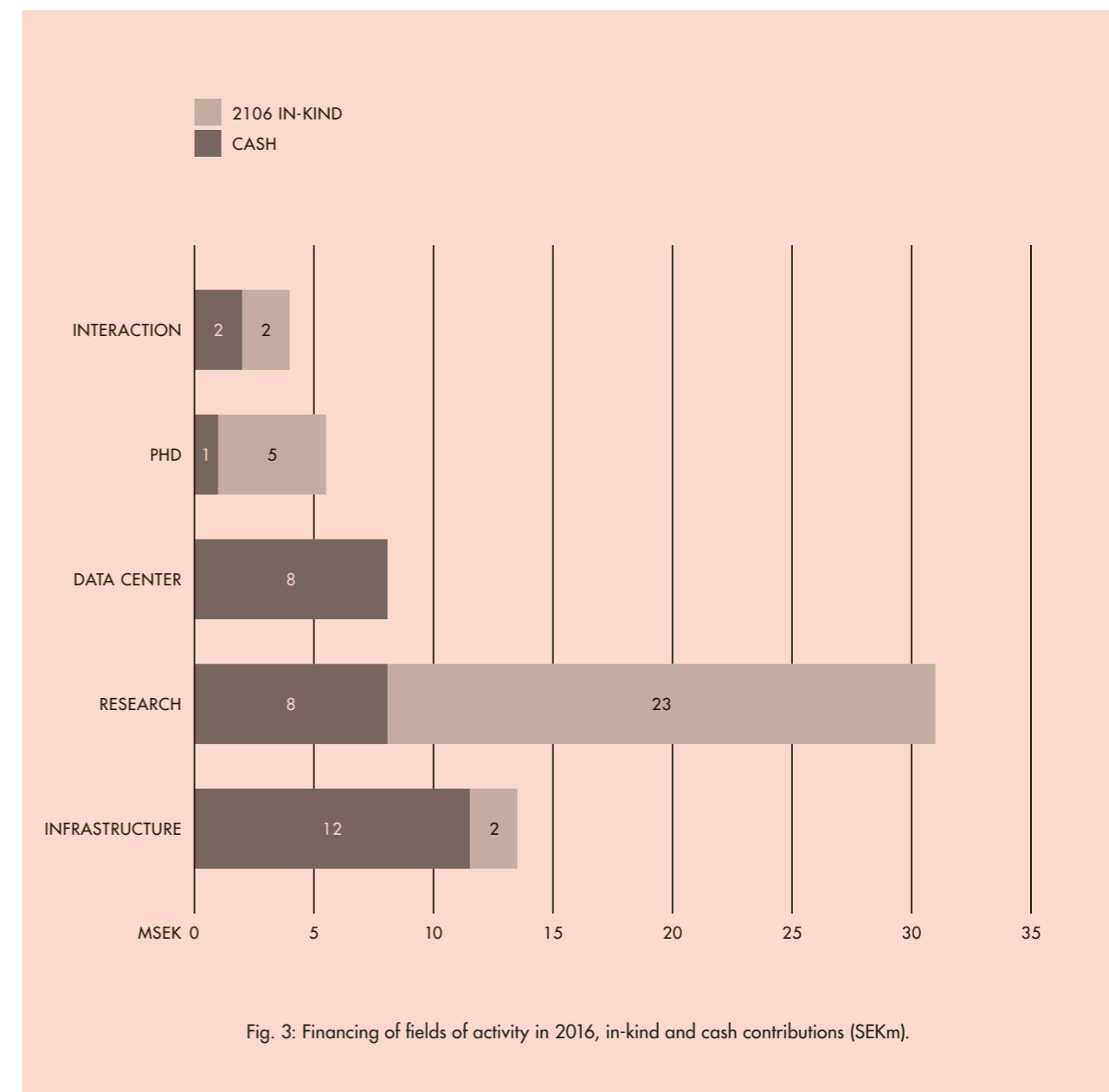


Fig. 3: Financing of fields of activity in 2016, in-kind and cash contributions (SEKm).

Revenues: Cash grants and in-kind contributions

The overall objective of the Swedish House of Finance is to promote financial research, where the prevailing trend is that a declining amount of research funding can be used for important investments in overall research infrastructure, and a larger fraction is devoted to individual program areas or individual projects. This has made it increasingly difficult to find financing, for example, for databases, administration, research assistants or research exchange, which in today's environment represent very important components to enable the continuation of a strong cluster. A strong infrastructure also enables sharing with other researchers and providing positive spillover effects to society in general, which is another important mission for the Center.

This is mirrored in the distribution and financing of fields of activity illustrated in Fig. 3. The new financing that the Center receives from Vinnova and financial markets ("cash") is particularly important for the financing of databases and research infrastructure. In-kind contributions, through alternative financing, are very small here in relation to the activities' costs.

The in-kind contributions represent a lower bound of the actual costs. For instance, actual costs for the Data Center do not include significant in-kind contributions from Bisnode, Nasdaq, Pantor, SIX and SME Direkt, which provide consultancy services and updates. In the same way, in-kind contributions that would represent salaries for researchers who are guests at the Center, but hold a position at another institution, are not included either.

High quality research is central to providing the highest quality education possible. We are convinced that higher education should be taught by instructors that work successfully on the research frontier so that our students learn the most cutting-edge material available. Good researchers ensure that students become independent critical thinkers that can approach new problems more effectively. The quality of the research is therefore crucial for the survival of financial economics studies at all Swedish universities. This is a matter of critical national importance – through better education we will produce better managers,

specialists, researchers and eventually teachers in the field of finance. The Swedish House of Finance plays a vital role in this, especially in light of growing international competitiveness of the educational marketplace. Since the Bologna Declaration in 2005, all higher education within Europe is divided into a basic level (Undergraduate) and advanced (Graduate) level. The standardization results in greater mobility and much stronger competition for the best students within Europe. Subsequently, the drive to create a strong research cluster in Sweden has become increasingly important.

Financing

The Center has three principal financiers: (i) the Swedish Government (through Vinnova), (ii) the Academy (through the Stockholm School of Economics), and (iii) the private financial sector in Sweden. The private sector contributes directly through annual grants to Swedish House of Finance, but also indirectly through partnerships and grants that finance activities within the Stockholm School of Economics and SIFR. The financing from Vinnova contains the condition that the Stockholm School of Economics and the private sector shall match the contribution of SEK 15 million per annum over a ten-year period – making an overall total of at least SEK 450m.

Fig. 4 illustrates that the costs for 2016 were financed by Vinnova 34% (SEK 21m), the Stockholm School of Economics 37% (SEK 23m), and the remaining 29% (SEK 18m) through grants and funding from the private sector.¹ The latter includes direct financing to the Swedish House of Finance through agreements with private players representing 11% (SEK 7m). The remaining 18% in contributions from the Swedish financial market concern activities financed through grants to SIFR or the Stockholm School of Economics amounting to a total of SEK 11m. In our commitment to Vinnova, the flow from each player shall be at least SEK 15m per annum over a ten-year period – a goal that was achieved by a good margin also in 2016.

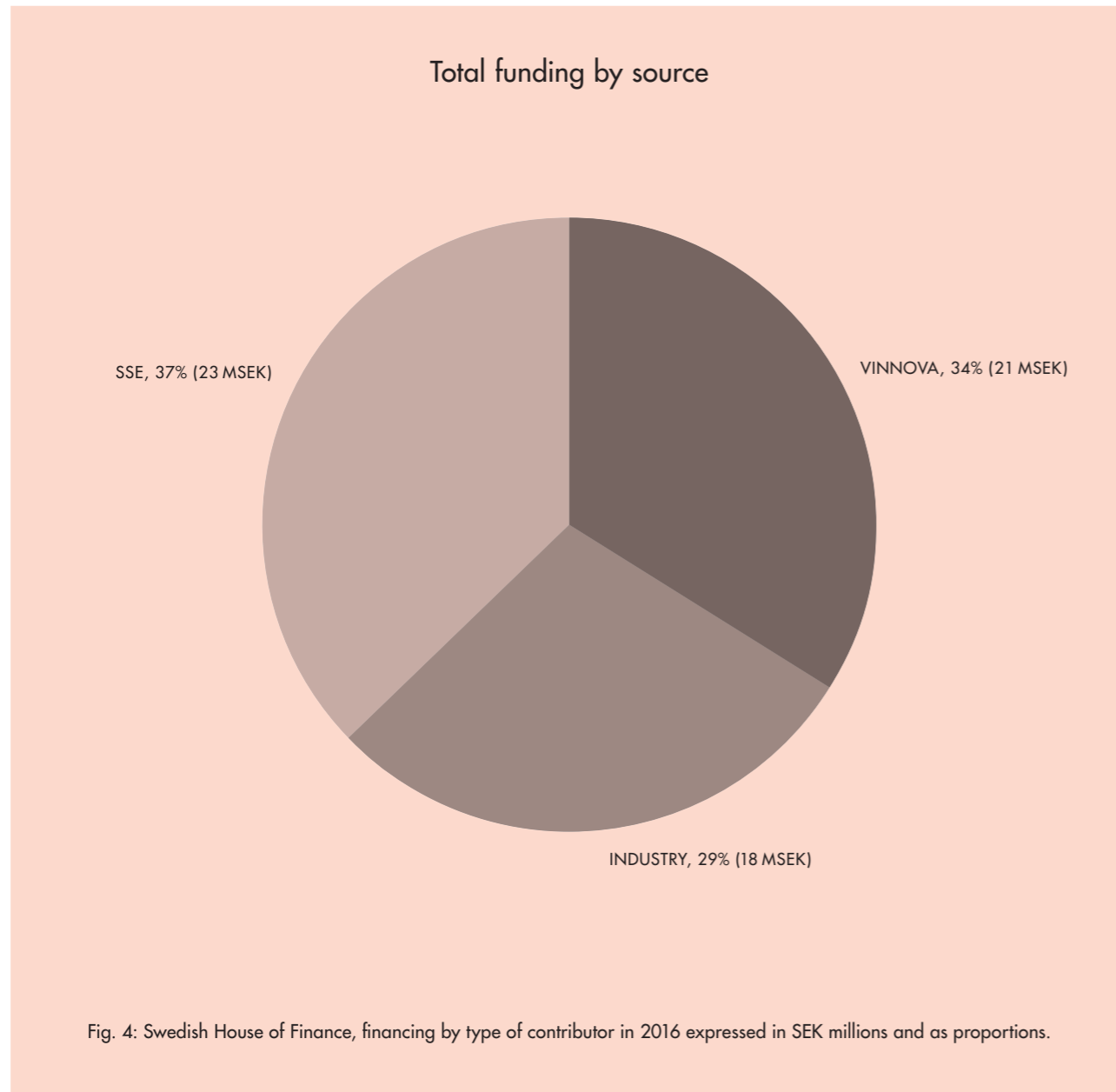
Another condition in the financing is that Vinnova's financing commitment of SEK 150m be met by an equivalent commitment from the Swedish financial sector. During the year, new research grants of SEK 18m were received, of which almost SEK 10m comes

from companies and foundations in the private sector.²

During the first six years, the Center has received financing commitments from the private sector amounting in total to SEK 175m, of which SEK 72m in direct support to the Center, as well as indirectly through grants to SSE and SIFR (including the Foundation for Financial Research) of SEK 103m. We have therefore achieved our goal of matching the Government's contribution with private funds.

The direct financing provides annual revenues regulated in agreements with Alecta, Handelsbanken, Länsförsäkringar, Nordea, the Annika and Gabriel Urwitz Foundation, Swedbank, and the Marianne and Marcus Wallenberg Foundation amounting to SEK 72m, spread over ten years. In addition, we can also count on the industry contribution with the donation of the FinBas database from Nasdaq amounting to SEK 13m, as well as SEK 18m that the Foundation for Financial Research has received from Kommuninvest, Landshypotek and Swedbank concerning the financing of our activities, plus SEK 14m that SIFR has received in support or financing commitments from private players and research institutions, as well as approximately SEK 58m in scholarships and grants to individual researchers at the Center that have been channeled through the Stockholm School of Economics or the Swedish House of Finance.

Over and above Vinnova's commitment to the Center and what we can count as matching from the private sector, there are significant grants and financing commitments from the Swedish Central Bank (Riksbank),



the Swedish Research Council and Vinnova amounting to a further SEK 50m. The total financing commitments for the Center at the end of the year amounted therefore to almost SEK 375m.

The current financing commitments are deemed sufficient to further pursue the Center's activities at the same level up to and including the year 2020, when Vinnova's commitment expires. However, the Management Group's ambitions are to both expand activities and secure the Center's long-term existence. The Board

of Directors therefore set up a working group during the year, with the task of formulating a strategy and organization for this purpose.

¹ 34% (SEK 21m) also includes other individual research grants that through publications are financed by Vinnova in the proportion of 6% (SEK 3.6m).

² The remaining SEK 8m are grants from Vinnova and the Swedish Central Bank (Riksbank) that cannot be included in the Centre's financing in the matching of Government funds.

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