Other types of finance

Sources as diverse as subsidies, loans and grants from governments and international organizations can be important resources for innovative entrepreneurs. Grants and subsidies are often essential for innovative businesses, since information asymmetries often render access to finance on markets difficult. These types of finance play a key role in financing the development of innovative firms, in particular at earlier stages, and can help companies obtain debt financing, along with funding from venture capital and business angels. Public policy can play a role by providing financial support to innovative businesses and setting the framework conditions for new sources, such as crowd funding.

What are other types of finance?

This node mainly discusses the importance of subsidies, loans and grants from governments and international organizations for innovative businesses. It also deals with crowd funding which refers to money raised from society at large through the use of online platforms.

How do other types of finance affect innovative businesses?

These types of finance can **bridge financing gaps that arise** for innovative businesses who cannot obtain financing from the formal financial system. The difficulties that innovative firms experience can stem from several sources: they are involved in an innovation process whose outcomes are uncertain, they deal with “public good” knowledge whose returns on investment are not perfectly appropriable and they own assets whose nature may be intangible and difficult to measure (e.g. patents and copyrights) (Auerswald, 2007). Moreover, due to monitoring difficulties, such as principal/agent problems (e.g. related to the shareholder-manager relationship) and asymmetric information (resulting from the fact that the firm may have relevant information that other parties do not), suppliers of finance may rationally choose to offer an array of financial services that leaves significant numbers of potential borrowers unable to obtain credit at any price.

Grants and subsidies **may also allow firms to conduct R&D projects at lower cost,** as they decrease the marginal cost of capital and raise the private marginal rate of return for R&D. Public support may also improve the risk-return pattern on projects by covering some of those risks.

Furthermore, competitive grants **can serve as a positive signal to third parties about a business project’s quality**, thereby encouraging investors and lenders to provide financial resources to a firm. Competitive grants can have a certification effect (Lerner, 1999) and give a “badge of credibility” to an innovative project seeking capital, since the project has been positively evaluated by experts. However, government grants and subsidies may lead to governments**picking winners** and **crowding out private investment.** Crowding out private investment refers to public funding being provided for R&D and innovative activities that firms would undertake even in the absence of public support.

What is specific about other types of finance for innovative entrepreneurship?

Innovative entrepreneurs can also finance their projects through crowd funding, which refers to money raised from society at large through the use of online platforms.

By collecting small contributions from a significantly large public, crowd funding can engage a vast number of people with innovative entrepreneurial projects and thereby improve attitudes towards entrepreneurship, increase public awareness of science, and foster networks of scientists, entrepreneurs and citizens that may have positive impacts on innovative entrepreneurship.

Importance of crowd funding

Crowd funding has the potential to play an important role in financing innovative entrepreneurship, largely due to the nature of its fund-raising approach that collects small contributions from a significantly large number of people. It has grown explosively in recent years as a funding source in such fields as technology, with USD 1.5 billion raised by this method in 2011 (OECD, 2012c).

Evidence regarding the importance of these types of finance for innovative businesses' success

Importance of public grants and subsidies during economic downturns

Government subsidies and grants may mitigate the negative consequences of economic downturns on innovative businesses' access to finance. In response to the recent global crisis, governments in several countries extended their direct support to SMEs (OECD, 2012b). At the EU level, the share of firms that were unsuccessful in securing financing rose substantially from 2007 to 2010, for most types of financing, with the exception of requests addressed to national and foreign governments or international organizations. Paunov (2012) and Kanerva and Hollanders (2009) also found that firms with access to public funding were less likely to cut innovation investments during the global financial crisis.

What is specific to innovative entrepreneurship?

Importance of the financing gap for innovative entrepreneurs

Research supports the relevance of access to finance as a key determinant of entrepreneurship (Kerr and Nanda, 2009) and clearly identifies a finance gap in many locations for new and small firms involved in the early stages of innovation, especially in the market for high risk capital (OECD, 2006, 2007). Access to financing is the second most pressing problem facing EU SMEs, after finding customers (ECB, 2012). It is cited by around 18% of EU SMEs. Leaders of SMEs are consistent in their concern about lack of access to financing; this concern is a constant across different types of SMEs, regardless of their age, size and level of innovation.

Importance of public grants, subsidies in bridging the financing gap in early stages of company growth

Research finds that the importance of each type of finance varies across the stages of business development. During the seed and start-up stages, technology-driven high-growth SMEs can obtain equity financing from entrepreneurs or from family and friends. In earlier stages, self-financing is particularly important since innovative entrepreneurs cannot overcome information asymmetry and therefore rarely find any lender or investors, even for potentially profitable projects. Subsequently, financing may be supplemented by seed capital investment from informal private investors (e.g. business angels) and, in a few cases, by seed financing funds and venture capitalists. In the expansion stage, SMEs generally require increasing amounts of equity to maintain R&D and to expand marketing and sales activities, amounts that are typically only available through other sources, such as initial public offerings on stock exchanges (OECD, 2007). This suggests that other types of finance, such as subsidies and grants, are particularly important in earlier stages. Public support for R&D may crowd out private investment, yet findings on this are mixed. Some studies have provided evidence of additionality, while others have found that direct subsidies partially or fully crowd out private investment (Garcia-Quevedo, 2004; Cerulli, 2008).

What is the evidence on other types of finance and innovative businesses?

Data on direct support for R&D shows strong variation between OECD countries (figure 2). France, the United States, and Korea had the highest ratio of private R&D funded by governments in 2007 while Greece, Mexico, Poland, Portugal, and Canada, had the lowest levels of direct government funding of BERD.

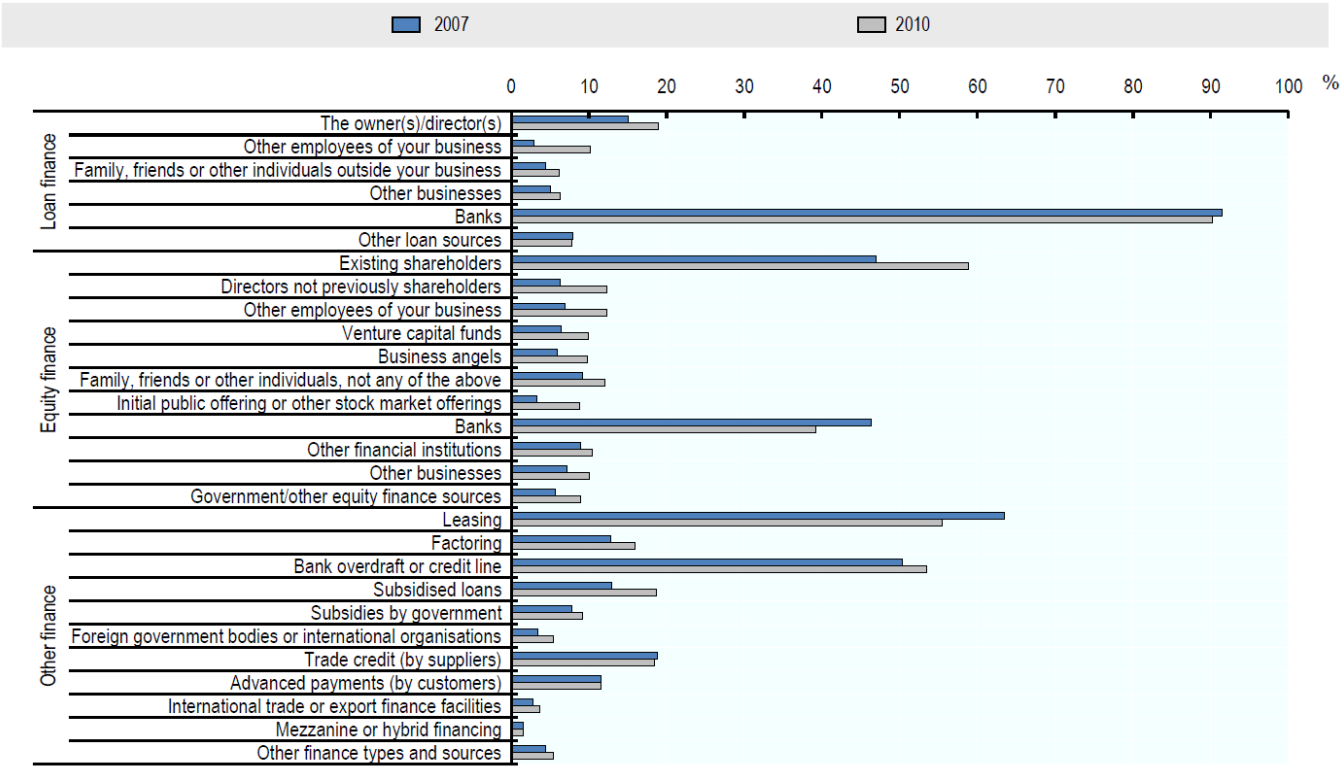
Evidence on other types of finance and innovative entrepreneurship

Share of other types of finance in total funding

In the international Eurostat business survey on SME access to finance (EC, 2011), three categories of finance are considered: loan finance, equity finance and other sources of finance. The loan finance and the equity finance categories include several sources, such as banks, family, friends, owner(s)/ director(s), and other employees. The other sources of finance include: subsidised loans, subsidies by government, foreign government bodies or international organizations, bank overdrafts or credit lines, leasing, factoring, trade credits (by suppliers), advance payments (by customers), international trade or export finance facilities, and mezzanine or hybrid financing (Figure 3 [1]). The results of the survey show that:

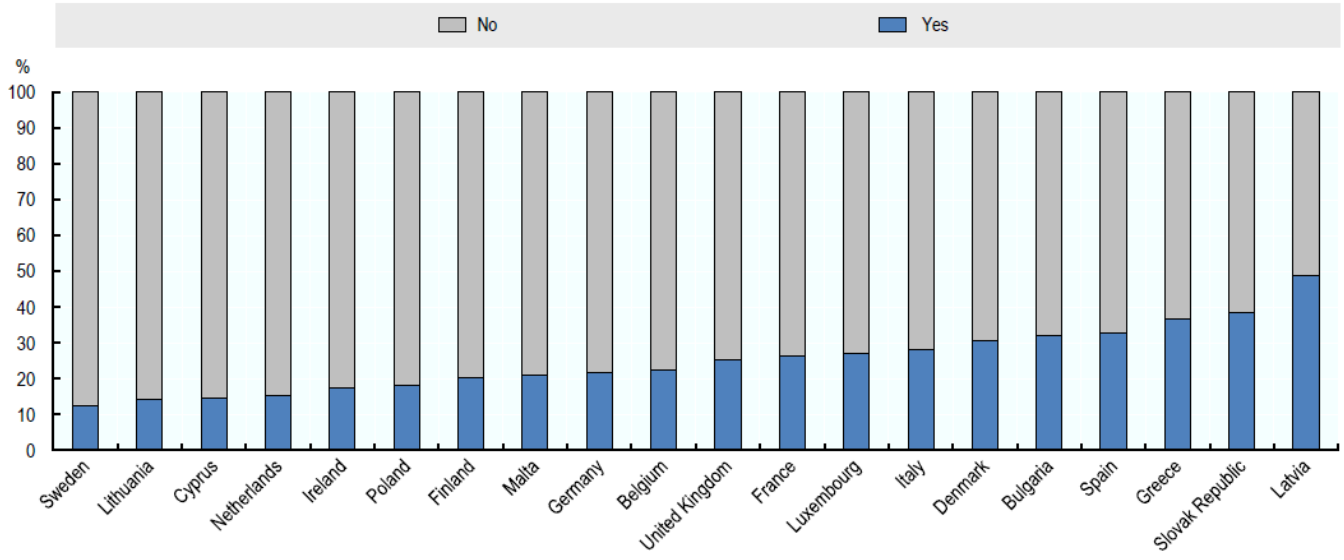
- **Bank loans** were the type of finance most requested by the surveyed SMEs, is loans with the owner(s)/director(s) of the business being the second most important source. after banks which are by far the most important source.
- **The family, friends and other individuals** (employees, owner(s)/ director(s), and business angels excluded) were a source of funding for 7% of SMEs.
- **Government subsidies** were requested by 9% of SMEs, other types of finance from foreign government bodies or international organizations by 5% of SMEs, and subsidized loans by 18% of SMEs. Yet, the percentages of SMEs seeking “other sources of finance” vary significantly among countries: in 2010 only 10% of Swedish enterprises requested finance other than loans or equity, contrasted with almost 40% of the surveyed enterprises in Latvia (Figure 4 [2]). Among “other sources”, leasing, bank overdrafts and credit lines are typically the most important types.
- **The rate of successful requests greatly varies greatly by source and by type of finance.** (Figure 5a [3], 5 [4]b). Requests to family, friends and other individuals (employees, owner(s)/ director(s), and business angels excluded) were successful or partially successful most of the time for equity finance (more than 50% of SMEs were successful or partially successful in their requests) and loan finance (more than 60% of SMEs were successful in their requests). The rate of successful requests for subsidies by government was greater than 70%.

Figure 3. Demand by source, Firms seeking finance, in EU20, 2007, 2010



Entrepreneurship at a Glance 2012 - © OECD 2012
Note: EU20 covers the group of 20 countries that participated in the survey
Source: Eurostat, Structural Business Statistics, Access to finance
Statlink: http://dx.doi.org/10.1787/888932596916 [5]

Figure 4. Firms seeking other finance, in EU20, 2010



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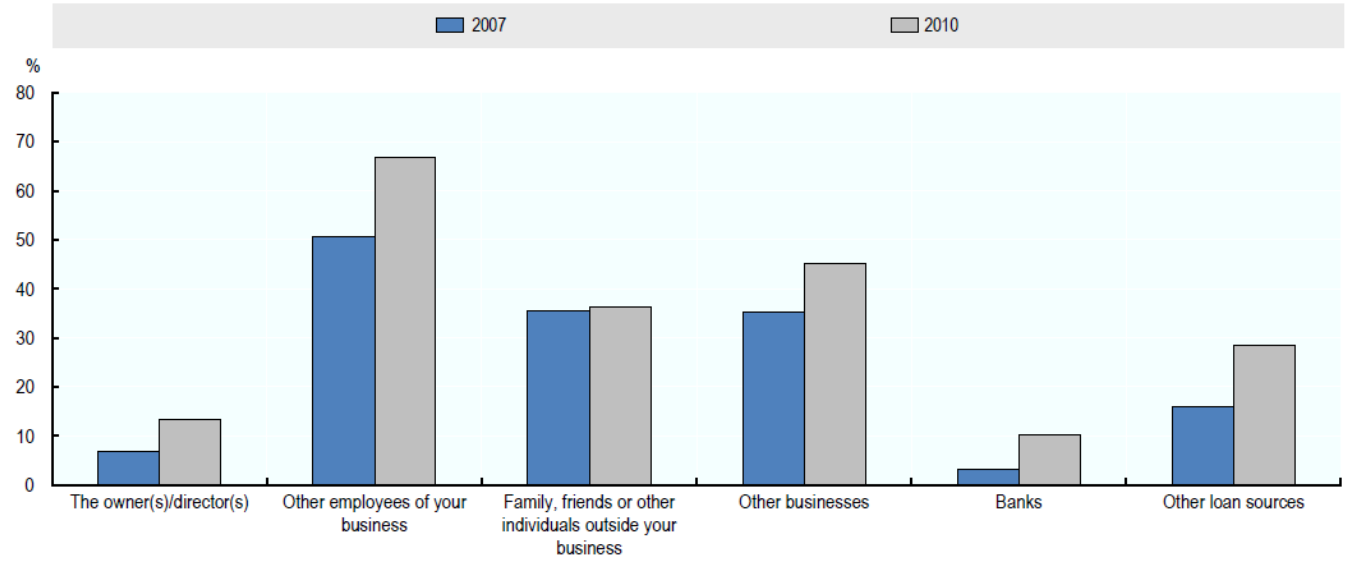
Source: Eurostat, Structural Business Statistics, Access to finance.
Statlink: http://dx.doi.org/10.1787/888932596878 [6]

Figure 5a. Rejection rate of loan requests by source, EU20, 2007, 2010



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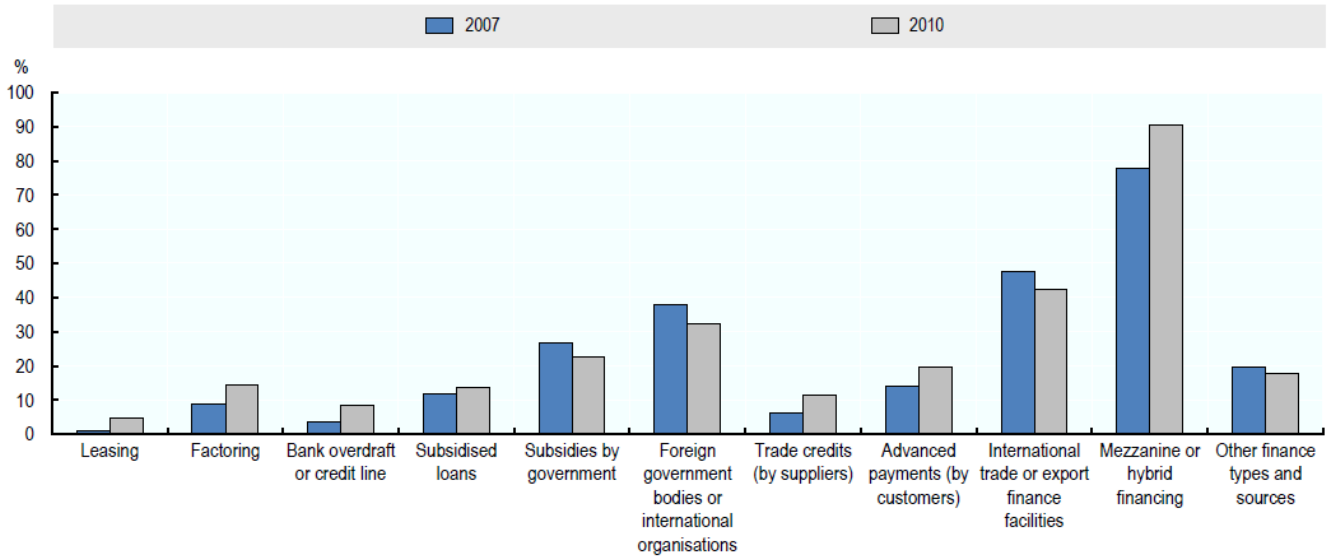
Source: Eurostat, Structural Business Statistics, Access to finance.
Statlink: http://dx.doi.org/10.1787/888932596935 [7]

Figure 5b. Rate of unsuccessful requests in obtaining other finance by source, EU20
Percentage



Entrepreneurship at a Glance 2012 - © OECD 2012
Source: Eurostat, Structural Business Statistics, Access to finance.
Statlink http://dx.doi.org/10.1787/888932596973 [8]

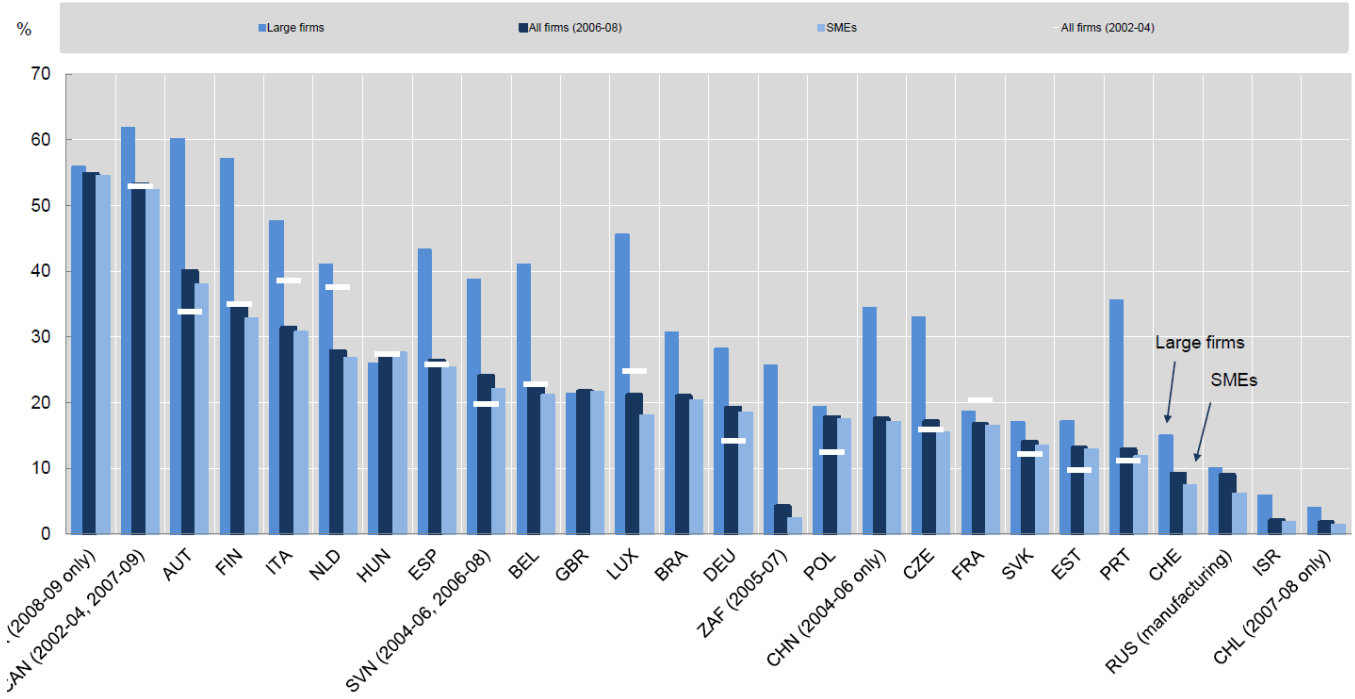
Evidence of public support fort SMEs' R&D activities

In some countries governments play a key role in funding R&D activities of SMEs. In most OECD countries, between 40% and 80% of government-financed business expenditures in research and development (BERD) goes to SMEs, a figure that reaches over 90% in Estonia and Hungary. In larger countries such as the United Kingdom, France and the United States, the bulk of public support goes to large firms (OECD, 2011b).

The percentage of SMEs receiving public support for innovation greatly varies across countries. For instance, Figure 6 shows that in Mexico and in Canada, more than half the SMEs in Mexico and Canada received public support for innovation, whereas the figure was it was the case for less than

10% of SMEs in Russia, Israel, and Switzerland. The type of government funding and the mix between direct support and indirect support to BERD also substantially vary substantially across countries, as shown in Figure 7 (OECD, 2011d).

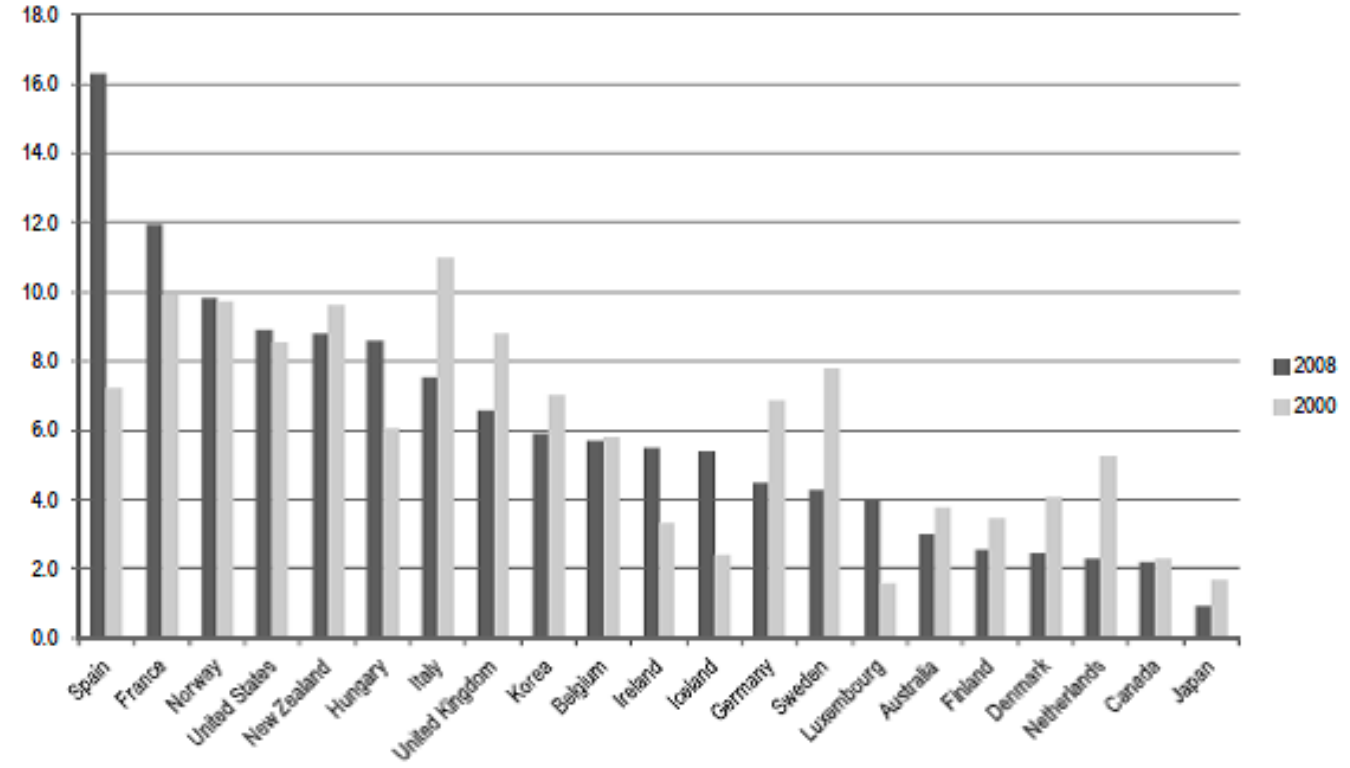
Figure 6. Firms receiving public support for innovation by firm size, 2002-04 and 2006-08
As a percentage of innovative firms



OECD Science, Technology and Industry Scoreboard 2011 - © OECD 2011

Source: OECD, based on Eurostat [CIS-2008, CIS-2006 and CIS-2004 (CIS4)] and national data sources, June 2011. See chapter notes.
Statlink http://dx.doi.org/10.1787/888932487267 [9]

Figure 7 Direct government funding of business R&D, as % of total BERD,2000 and 2008



Note: Data are from 1999 (instead of 2000) for Denmark. Data are from 2007 (instead of 2008) for Iceland,Norway, New Zealand and Sweden.

Source: OECD, Main Science and Technology Indicators database, 2010.
OECD (2011), Business Innovation Policies: Selected Country Comparisons, OECD Publishing. http://dx.doi.org/10.1787/9789264115668-en [10]

Figure 1. Business enterprise expenditure on R&D, financed by government (direct)

Figure 2. BERD, financed by direct and tax funding, % of GDP

What other topics relate to other types of finance and innovative businesses?

Debt financing (see Debt financing [11]), **Venture capital** (see Venture capital [12]) and **Business angels** (see Business angels [13]). Access to other types of financing, such as grants and subsidies can help innovative businesses obtain debt financing, venture capital funding and financing from business angels, by signaling the quality of a firm and by improving its financial statements.

Trajectories of new innovative ventures (see Trajectories of new innovative ventures [14]). Other types of finance play a key role in developing innovative new ventures, especially in earlier stages. They help bridge financing gaps that arise when innovative entrepreneurs cannot obtain financing from the formal financial system.

What policies relate to other types of finance and innovative businesses?

Public policy can influence other types of finance by:

Providing direct support to innovative businesses through grants and subsidies. Governments can play a particularly important role in supporting innovative businesses in cases of market failures and when incomplete markets inhibit the provision of adequate financing or financing on terms suitable for particular stages of business development.

Adopting market-friendly approaches that avoid "picking winners" but encourage a competitive selection of investments that are likely to have the highest social return. The introduction of competition among applicants for R&D grants through the use of various auction mechanisms can result in resource savings and efficiency benefits (Giebe et al., 2005). Greater information can be extracted about the proposals and some degree of unnecessary funding can be avoided.

Improving awareness among firms about the range of financing options available from official programs. A variety of communication channels (e.g. websites, intermediary and business support organizations) can be employed. In addition, streamlining public support schemes can also help companies get clearer insight into what schemes they can apply for.

Setting the framework conditions for new sources, such as crowd funding.

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Related Link: External sources for financing innovation
Foundations
Individuals
Financing Innovation
Development banks

Links
[1] https://www.innovationpolicyplatform.org/#fig3
[2] https://www.innovationpolicyplatform.org/#fig4
[3] https://www.innovationpolicyplatform.org/#fig5a
[4] https://www.innovationpolicyplatform.org/#fig5c
[5] http://dx.doi.org/10.1787/888932596916%20
[6] http://dx.doi.org/10.1787/888932596878
[7] http://dx.doi.org/10.1787/888932596935
[8] http://dx.doi.org/10.1787/888932596973
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filters=8898
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