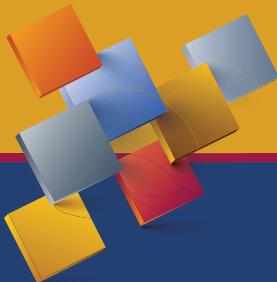


Sweden's Business Climate

Opportunities for Entrepreneurs through Improved Regulations





Acknowledgments



This report is based on the work of a diverse and dynamic team of experts and practitioners in the business environment and human development fields. It was written under the supervision of Hulya Ulku by a core team of authors comprising Mark Dutz, Anushavan Hambarzumyan, Nan (Charlotte) Jiang, Thibault Meilland, Valeria Perotti, Tanya Primiani, Valentina Saltane and Julien Vilquin. In addition, John Anderson, Baria Nabil Daye, Marie-Lily Delion, Dorina Georgieva, Tania Ghossein, Joyce Antone Ibrahim, Khrystyna Kushnir, Nina Paustian, Sophie Pouget, Morgann Reeves, Katrin Schulz, Dieter De Smet and Christian De la Medina Soto contributed to research, writing and data analysis. Augusto Lopez-Claros and Melissa Johns provided feedback and general guidance throughout the report production process.

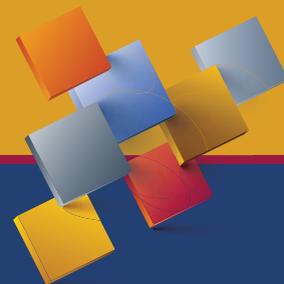
The report's chapters benefited from comments, writing assistance and reviews by

World Bank colleagues as well as external professionals, including Mohammad Amin, Wafa M. Aranki, Santiago Croci, Johan Eklund, Lucia C. Hanmer, Sarah Iqbal, Hervé Kaddoura, Munawer Sultan Khwaja, Olena Koltko, Jakob Kopperud, Arvo Kuddo, Peter Kusek, Frédéric Meunier, Jorge Luis Rodríguez Meza, Thomas Moullier, Parvina Rakhimova, Rita Ramalho, Sylvia Solf and Alexandria Valerio.

The data on Sweden for the chapter on regulation of foreign direct investment were collected with the help of local contributors: Ida Otken Eriksson, Mats Hellström, Elisabeth Lagerqvist, Cornel Marian, Magnus Runnbeck, Jörgen Schéle, Jesper Schonbeck and Jonas Wetterfors.

Alison Strong edited the manuscript. The Word Express, Inc. designed the report and graphs.

Contents



v	Executive summary
1	Business entry regulation
11	Tax regulation and incentives
25	Labor market regulation
37	Urban planning and construction permitting
43	Regulation for firms' access to finance
53	Regulation of foreign direct investment
67	Gender equality and economic opportunity for women
79	Education, skills and innovation
95	Annex
99	References

Executive summary

In today's increasingly integrated global economy, implementing sound economic policies is a challenging task. Many of the key factors that affect outcomes are outside the control of government authorities. Despite best efforts, missteps are common. Even countries that have managed to build a policy architecture that supports economic growth—and that promotes equity and sustainability—are not immune to the risks associated with an uncertain global environment.

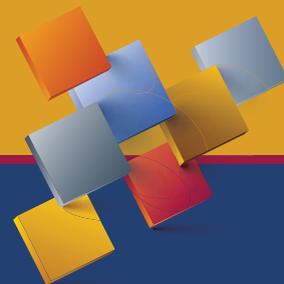
A useful point of departure for this report is to recognize that there is always room for improvement in the policy framework underpinning the activities of the private sector, the main engine of economic growth and job creation. No country is best at everything. All have strengths and weaknesses, and all can learn from the experiences of others. This is the key lesson to come out of more than a decade of data collection and analysis in the World Bank Group's *Doing Business* project.

Over the past 20 years Sweden has by and large implemented sound economic policies resulting in buoyant economic growth and shared prosperity. It has done so in a context of macroeconomic stability and sustainable public finances. Policy makers elsewhere in the world, seeking to learn about crisis management, often look at the Swedish response to the financial crisis of the early 1990s and, more recently, at the aftermath of the global financial crisis. That Sweden today has lower levels of public debt than it did in 2007, on the eve of the crisis—in marked contrast to virtually all other advanced economies—is testament to the high quality of its economic management.

This report's starting point is thus to acknowledge that despite Sweden's many virtues, there are areas in which it can do better—and the task has been to identify those areas, focusing particularly on the quality of the investment climate and competitiveness. This has been done in 2 main ways. First, by looking at areas of the business environment captured by databases compiled in the World Bank Group's Global Indicators Group—*Doing Business*, Foreign Direct Investment (FDI) Regulations, and *Women, Business and the Law*. And second, by examining other critical areas where there is a large body of data, knowledge and insight that casts relevant light on several key policy challenges facing the country in coming years. In the paragraphs that follow we present a summary of the report's main conclusions.

THE REPORT'S MAIN CONCLUSIONS: AN OVERVIEW

- Overall, Sweden has performed well on *Doing Business* indicators throughout the past decade. In the most recent ranking on the ease of doing business, for 2013, it places 14th among 189 economies, higher than the average G7 and OECD high-income rankings. However, Sweden has registered less improvement since 2009 on the *Doing Business* distance to frontier metric—a measure of absolute performance with respect to the world's best practices—than such countries as the Republic of Korea, Denmark, Finland and Singapore.
- Sweden rates lower than many of its comparator economies in the following six areas of *Doing Business*: starting a business, paying taxes,



- employing workers, registering property, getting credit and protecting investors.
- The process of starting a business, as measured by *Doing Business*, takes longer and costs more in Sweden than in many other OECD high-income economies, including New Zealand, Australia, the United States and the United Kingdom. This may act as a constraint on entrepreneurship and job creation.
 - Sweden's profit tax rate as calculated by *Doing Business* is lower than the OECD high-income, G7 and Nordic averages and is expected to decrease further.¹ But Swedish firms face a total tax rate as measured by *Doing Business* that is one of the highest among OECD high-income economies. The share of social security contributions in the total tax burden borne by businesses is among the largest in the world. As part of a strategy aimed at creating a tax system more supportive of economic growth, there is scope in Sweden for a gradual shift in the tax burden in a way that is budget neutral—away from income taxes (personal and corporate) and toward other types of taxes.
 - Sweden's labor market regulation is more rigid than the OECD high-income average in some areas measured by *Doing Business*, including areas related to the use of fixed-term employment contracts and dismissals of redundant workers.
 - Construction projects in Sweden must go through a long zoning approval and permitting process, which may be contributing to the inability of the housing sector to meet demand.
 - Strengthening the protections of minority shareholders' rights, the legal framework for secured transactions, the sharing of credit information and the efficiency in registering property and resolving insolvency would help increase access to finance for entrepreneurs as well as improve the overall regulatory environment.
 - Sweden's regulations relating to the activities of foreign investors are mostly in line with best practices around the world. But they could be made more efficient in areas relating to company start-up, employment of skilled expatriates, and mediation and conciliation.

- While Sweden is among the global leaders in providing laws and regulations that guarantee gender equality and increase economic opportunities for women, it could do more to further reduce the gender gap in wages and the gender segregation (horizontal and vertical) in professional fields.
- Further improvements in several areas of education and skills development could help strengthen human capital capacity and smooth the functioning of labor markets in Sweden. These include reducing differences in performance between schools as well as closing the gap between immigrant and native students; making the teaching profession more selective and attractive; improving the scientific competitiveness of tertiary education institutions; increasing the completion rate of tertiary students; and reducing mismatch between the fields of student enrollment and the skills demanded in the labor market. Of utmost importance to promote Sweden's business environment for innovation and long-term global competitiveness are policies encouraging grassroots entrepreneurship, continuous global technology learning and the upgrading of managerial skills.

BUSINESS ENTRY REGULATION

As countries emerged from the global financial crisis, many began pursuing policies aimed at promoting entrepreneurship because of its direct impact on productivity, innovation, employment and growth. Changes making it easier to start a business have been common. In Sweden the start-up process remains more burdensome than in many comparator economies. Despite a relatively high ranking on the overall ease of doing business, Sweden ranks only 61st (out of 189 economies) on the ease of starting a business, its lowest ranking in the areas measured by *Doing Business*. Moreover, it fell 6 places in the ranking between 2012 and 2013.

This drop in the ranking does not necessarily mean that the start-up process in Sweden has deteriorated; instead, it indicates that other economies have been

more active in adopting new technologies and processes. Sweden's document clearance process remains relatively slow. It takes 14 days for Bolagsverket, the company registrar, to review the application for incorporation and issue the registration certificate. In addition, Sweden has a fairly high minimum capital requirement. The amount required, though reduced in 2010, remains among the highest in the Nordic region. The economies that make it easiest to start a business—such as New Zealand, Singapore, Canada and Australia—have start-up procedures that can be completed in 2-3 days and require no minimum capital.

High costs and delays in starting a new firm have real economic impact. Global cross-country analysis shows that economies with a lower cost of business incorporation tend to have both higher numbers of newly registered companies and higher revenue from income, profit and capital gains taxes. They also tend to have a higher labor force participation rate among youth (ages 15-24). Conversely, economies with a higher cost to start a formal business tend to have higher levels of self-employment. There is also strong evidence of a relationship between higher levels of regulation and a larger informal sector. In Sweden the informal sector represents 14% of GDP, and more than 800,000 individuals perform at least some kind of work in the sector each year.

Regulatory requirements for company incorporation are not the only concerns affecting entrepreneurship. Sweden lags in the rate of new firm formation compared with such counterparts as Australia, Canada, Denmark and the United Kingdom, and this is in part because of policies favoring long-term employment and larger firms over entrepreneurship and small and medium-size enterprises. Recent government efforts to lower unemployment rates through income support, training opportunities and job search assistance have focused largely on promoting employment rather than on encouraging entrepreneurship. Earlier policy choices favoring market stability and promoting employee security have contributed to keeping the new firm entry rate low. Creating a more dynamic economy requires a greater balance between

the incentives offered to salaried personnel and those offered to entrepreneurs.

TAX REGULATION AND INCENTIVES

Taxes are necessary to finance public goods and services and to redistribute income to disadvantaged groups. And tax systems that are well designed support the growth of businesses and ultimately the growth of overall investment and employment.

Doing Business data show that Sweden provides a relatively simple and transparent structure for complying with tax obligations. Swedish firms must make only 4 payments a year as measured by *Doing Business*, clearly a global best practice. And they spend less time preparing, filing and paying taxes—122 hours a year as recorded by *Doing Business*—than do firms in many other OECD high-income economies. Yet there is room for improvement: Swedish firms spend about twice as much time on these tasks as firms in Switzerland (63 hours a year) and about 50% more than those in Singapore (82 hours).

Tax rates also stand out in the comparative *Doing Business* data. Sweden's total tax rate as calculated by *Doing Business* is one of the highest among OECD high-income economies, at 52% of commercial profit in 2012. Social security contributions account for 68% of the total tax cost borne by businesses on average, higher than the average shares in OECD high-income economies (56%) and G7 economies (50%). Sweden's profit tax as computed by *Doing Business* is moderate: at 16% of commercial profit, it is somewhat lower than the average for OECD high-income economies (16.1%), other Nordic economies (17%) and G7 economies (19.3%). The total tax rate for years after 2012 is expected to decline, reflecting the reduction in the statutory corporate income tax rate stipulated in the 2013 budget (from 26.3% to 22%) for fiscal years starting on or after January 1, 2013.

While the main goal of tax policy is to raise revenue, growth-oriented tax systems seek to minimize distortions and obstacles to investment, innovation,

entrepreneurship and other drivers of economic growth. High taxes on labor are in general detrimental to growth. Personal income tax and social security contributions paid by employees affect labor supply through their impact on decisions about whether to take paid work and how many hours to work—particularly for such workers as low-income people, married women and single mothers. And social security contributions paid by employers affect the demand for labor by affecting its cost to them.

In addition, there is strong empirical evidence showing that an increase in the effective corporate tax rate leads to a decrease in aggregate investment, foreign direct investment and entrepreneurial activity. According to a recent report by the European Commission, recurrent property taxes and environmental taxes are the least detrimental to growth.² As part of a strategy aimed at creating a tax system more supportive of economic growth, there is scope in Sweden for a gradual shift in the tax burden in a way that is budget neutral—reducing the combined burden of income taxes (personal and corporate) and increasing that of consumption, property and environmental taxes.

LABOR MARKET REGULATION

Despite ranking among the top economies on competitiveness and business regulatory efficiency, Sweden lags in indicators measuring the flexibility of labor market regulation. Sweden's labor market regulation is more rigid than the OECD high-income average in 7 areas covered by *Doing Business*: the maximum duration of fixed-term employment contracts, the restrictions on work on the weekly holiday, the length of the workweek, the length of paid annual leave, the notification required for collective dismissals, the obligation to reassign or retrain and to follow priority rules for redundancy and reemployment, and the duration of the notice period before dismissal.

Some changes to Swedish law are pushing the country even further away from OECD high-income averages. One example is the 2007 amendment to the Swedish Employment Act, which reduced the maximum duration of fixed-term

contracts from 36 months to 24. Some economies apply a more flexible approach. Denmark and Singapore, for example, set no limit on the duration of fixed-term contracts, which allows the employer and employee to tailor a contractual agreement to suit both parties. Sweden also requires comparatively long paid annual leave. Swedish employees work 1,621 hours a year on average, 144 hours less than the OECD average.

The rigidity in Swedish labor law is notable not only in requirements relating to contracting workers but also in those relating to dismissing redundant workers. Before dismissing a redundant employee, Swedish employers are required to provide an average of 14.4 weeks' notice as measured by *Doing Business*. Among OECD high-income economies, only Luxembourg requires longer notice (17 weeks). The average notice period required in OECD high-income economies is 6.5 weeks. And some, including Denmark, New Zealand and the United States, require no notice.

In addition to requiring ample notice, Sweden is among the 6 OECD high-income economies (17 worldwide) that require an employer to reassign or retrain a worker before making the worker redundant and that apply priority rules for both redundancies and reemployment. Sweden also requires an employer to notify a third party and carry out good-faith negotiations with the relevant trade union before dismissing a group of 9 redundant workers. In contrast, 82 economies—including 12 OECD high-income economies, among them Canada, Denmark, Iceland, Switzerland and the United States—apply more flexible redundancy rules.

Research by the OECD has highlighted a gap between the level of protection that Sweden provides to workers under permanent contracts (high) and the level that it provides to those under temporary contracts (lower). This gap may help explain why the Swedish labor market relies heavily on fixed-term and temporary contracts. It can ultimately give rise to a "dual" labor market—with "insiders" who bear little risk of losing their job and "outsiders" who work under a fixed-term or temporary contract and have less prospect of transitioning to a permanent one.

Sweden could look to the example of countries that have narrowed the difference in employment protection between the 2 types of contracts by introducing more flexibility in the regulation of permanent contracts. Denmark and the United States, for example, have relatively flexible contractual and dismissal regulations that encourage greater overall demand for workers. The large role of trade unions in Sweden, along with the constructive overall spirit of employer-employee relations, suggests a potential for trade unions to play a central part in creating a more dynamic labor market. Swedish trade unions acted pragmatically during the global financial crisis, agreeing to lower the minimum wage for some industries. There is room to pursue a more comprehensive reform agenda.

URBAN PLANNING AND CONSTRUCTION PERMITTING

Sweden has a substantial shortage of housing, which could be potentially detrimental to the economy in light of the projected increase in housing demand over the next few decades. Administrative barriers to new construction may play a part in the housing shortage. For most housing projects, Swedish municipalities must approve a detailed development plan (*detaljplan*) before issuing a construction permit. Getting the plan approved can take 3-4 years and sometimes more, and resolving any appeals launched against it another 2-3 years. In some cases it can take up to 10 years to obtain the required approvals and start construction.

A comparative review of the Swedish construction permitting process reveals several areas for improvement. First, the process involves designing or modifying a spatial plan (detailed development plan) for each construction project separately, rather than having a spatial plan in place that has been ratified beforehand and covers the entire municipality. As a result, getting even moderately complex construction projects approved can take several years. In contrast, New Zealand and Singapore rely on ratified, legally binding comprehensive spatial plans that cover the entire city or municipality, allowing a much faster and more efficient process.

Second, there is too little coordination between Swedish municipalities and counties in spatial planning. This leads to fragmented and strictly local planning decisions, which may often involve conflicting interests between different municipalities. It also results in a construction approval process that is unpredictable and may vary substantially across municipalities. In contrast, in Singapore spatial planning involves a high level of coordination between different jurisdictions and agencies.

Third, almost half of all construction projects in Sweden are appealed at the planning stage, and the appeals can take 3 years or more to resolve. The high rate of appeals against planning decisions is due in part to the discretionary, case-by-case process for approving spatial plans for most construction projects. In contrast, in New Zealand proposed changes in spatial plans are evaluated on the basis of objective criteria, outlined in an environmental impact assessment prepared by a third-party expert. Any further appeals are handled by specialized environmental courts, which deal with planning disputes more efficiently.

Some of these features of Sweden's zoning approval and construction permitting process seem to be at odds with its otherwise fairly efficient system of regulations underpinning the activities of the private sector. They suggest ample scope for further modernization.

REGULATION FOR FIRMS' ACCESS TO FINANCE

Access to finance is crucial for both aspiring entrepreneurs and firms seeking to expand. *Doing Business* measures several areas of regulation affecting access to finance for small and medium-size enterprises—including getting credit, registering property, protecting investors and resolving insolvency. Sweden's performance on the rankings and underlying indicators in these areas varies.

Sweden ranks 42nd on the ease of getting credit, lower than many other OECD high-income economies, including the United Kingdom, Australia, New Zealand, the United States and Denmark. One

factor in Sweden's relatively low ranking is that it does not have a unified legal framework for secured lending. Rules for publicizing security interests and determining the priority of creditors' claims vary depending on the type of security instrument used. This can discourage lenders from extending credit—because it makes it more difficult to find out whether there are existing rights to assets being offered as collateral and creates uncertainty about which priority rules apply to competing claims on collateral.

Another factor in Sweden's ranking is that the country's largest credit bureau (UC) collects and distributes credit information only from financial institutions. In 19 other OECD high-income economies credit bureaus also include data from retailers and utilities in credit reports, expanding the coverage of credit information. Collecting and distributing information on the payment of electricity and phone bills, for example, can help establish good credit histories for people without previous bank loans or credit cards.

Equity investment may also be suppressed by outdated laws. Sweden ranks 34th on the strength of investor protections as measured by *Doing Business*, lower than New Zealand, the United States, the United Kingdom, Norway and Denmark. Its scores underlying the ranking suggest that relative to many comparator economies, Sweden makes it more difficult for minority shareholders to hold directors liable for damages caused to a company through self-dealing. In many developed economies shareholders have a lower bar for showing director or management misdeeds, needing only to prove that there was a conflict of interest in the directors' or managers' actions. In Sweden shareholders must also show that a director intentionally or through negligence caused damage to the company.

When plaintiffs win their case, minority shareholders in Sweden receive lower compensation. In such countries as Canada, Israel, New Zealand and the United States shareholders can not only recover damages in court (the remedy available in Sweden); they can also demand that liable directors return to the company any personal profit made from a transaction in which they had a conflict of interest.

In addition, Swedish laws impose no obligation on directors to disclose potential conflicts of interest to the rest of the board. Fourteen other OECD high-income economies require directors to provide detailed disclosure of all material facts relating to their potential interests in proposed transactions.

Registered property is the most accepted form of collateral, and firms able to offer it have a better chance of obtaining a loan. Efficient systems for registering property transfers, by creating secure property rights, can help increase access to finance. Sweden ranks 38th among 189 economies and 14th among OECD high-income economies on the ease of registering property, below all other Nordic economies and such OECD high-income economies as New Zealand, the United States and Italy.

The low ranking is because property registration is relatively slow in Sweden. It takes 28 days as measured by *Doing Business*, longer than in almost any other OECD high-income economy and several times longer than the Nordic average of 6 days. The time measure is expected to improve once the land registry completes the implementation of its new information technology system for registering applications, in 2014. But registering property in Sweden is also relatively costly. At 4.3% of the property value, the cost is nearly twice the Nordic average of slightly under 2.4%. Some economies, such as New Zealand and Poland, have moved from fees linked to the value of the property to low fixed fees reflecting the costs of administering the property registration system. Rather than viewing the registration system as a source of revenue, these countries are intent on reducing the costs faced by entrepreneurs as they start a new business.

Effective insolvency proceedings promote economic activities and access to finance by enabling viable but financially distressed firms to continue their operations and creditors to recover larger shares of their loans from insolvent firms. In Sweden completing the insolvency process takes longer and costs more than in many other high-income economies, including all G7 and Nordic economies. In addition, creditors recover smaller shares of

their loans than the Nordic and G7 averages. Litigation of creditors' claims takes the most time during the proceedings, and attorneys' fees and payment of the administrator account for much of the high cost. Eliminating duplicate or unnecessary steps and setting reasonable deadlines that are adhered to in practice could shorten the duration of insolvency proceedings, help lower the cost and increase the recovery rate.

REGULATION OF FOREIGN DIRECT INVESTMENT

Many countries have removed the most important regulatory barriers to foreign investment. But further reforms targeting more nuanced regulatory issues may be a key to staying at the forefront in attracting FDI.

Sweden is widely recognized as a favorable environment for investment. The country offers a competitive, largely corruption-free economy with access to new products, technologies, skills and innovations. Relatively low corporate income tax levels, the absence of a withholding tax on dividends and a favorable holding company regime make Sweden particularly attractive to foreign companies. Other positive factors include a well-educated labor force, an outstanding telecommunications network and a stable political environment.

FDI inflows to Sweden lagged in 2010 and 2011 because of the financial crisis, but appear to be well on the way to a full recovery. In 2012 the country was the 20th largest recipient of FDI in absolute terms. In terms of FDI per capita, Sweden ranked 6th among OECD high-income economies.

Using new data from the FDI Regulations database, the report compares legal and regulatory practices in Sweden with those of 104 other economies in 5 areas directly relevant to FDI: investing across sectors, starting a foreign investment, arbitrating and mediating disputes, employing skilled expatriates, and converting and transferring currency.

The data confirm that Sweden's regulatory framework in areas of interest to

foreign investors is strong. Sweden's economy is among the most open to foreign equity ownership as measured by the investing across sectors indicators—both globally and among the OECD high-income economies included in the database. Despite Sweden's openness to foreign equity ownership, however, practical impediments to FDI remain. These include a fairly extensive, though non-discriminatory, system of permits and authorizations needed to engage in many activities. Another impediment is the dominance of a few very large players in certain sectors, such as construction and food wholesaling.

Foreign investors setting up a company in Sweden complete the same few procedures as domestic investors do. While the equal treatment of foreign and domestic firms is good practice, setting up a foreign limited liability company in Sweden takes longer (at 16 days) than the average for OECD high-income economies (14 days). Sweden could further streamline the process to be in line with best practices in such countries as Australia (2 days) or New Zealand (3 days). In addition, while Sweden imposes a paid-in minimum capital requirement on both domestic and foreign investors, most high-income economies have done away with this requirement or have reduced it to a very small or symbolic amount.

Sweden's laws, regulations and institutions for alternative dispute resolution set the trend for international best practice. Mediation and conciliation practices could be further developed, however. Sweden has a long tradition of using mediation in some areas, such as in labor disputes and certain copyright disputes. But arbitration has long been the predominant method of resolving commercial disputes, and the use of institutional or structural mediation and conciliation remains fairly limited. Many countries now make conciliation mandatory before certain types of disputes are heard in court. This often helps settle these cases before they go to litigation, relieving pressure on the courts and reducing costs.

For work permits, Swedish laws on employing skilled expatriates are transparent and generally follow best practices. But obtaining a temporary work permit

takes much longer in Sweden than in other OECD high-income economies. Processing times by the Migration Board can vary greatly depending on an applicant's nationality and employer. For example, obtaining a temporary work permit can take up to 32 weeks for an information technology specialist. By comparison, the average for OECD high-income economies is 11.5 weeks, and the global average captured by the FDI Regulations database is only 8 weeks.

Like most OECD high-income economies, Sweden maintains a fully open foreign exchange regime. As part of the country's harmonization with EU rules, the central bank abolished virtually all exchange controls in 1989 and eliminated the rest in 1994. There are no controls on FDI-related capital flows, and investment-related payments may be made freely. Nor are there any restrictions on making current payments in foreign exchange, other than a need for reporting related to anti-money-laundering or tax requirements.

GENDER EQUALITY AND ECONOMIC OPPORTUNITY FOR WOMEN

The *Women, Business and the Law* project identifies regulatory barriers to women's opportunities as entrepreneurs and employees. Regulatory restrictions have been shown to lead to differences between men and women in both their participation in the labor force and their earnings.

A review of Sweden's performance across *Women, Business and the Law* indicators shows that Swedish laws and regulations establish a framework conducive to women's economic participation on equal terms with men. This is reflected in the relatively high participation of women in employment in Sweden compared with other Nordic economies as well as with OECD and G7 economies.

Despite the favorable legal and regulatory environment, the gender gap in wages in Sweden, while close to the OECD average, remains greater than that in all other Nordic economies except Finland. Occupational segregation—women's under- or overrepresentation in sectors,

occupations or levels of responsibility—remains prevalent in Sweden, and research shows that this can account for a significant share of the gender gap in wages.

In Sweden, as in other Nordic and OECD economies, women are overrepresented among graduates in some fields of tertiary education, such as education and health and welfare. Conversely, they are underrepresented among tertiary graduates in such fields as computing and engineering, manufacturing and construction. Gender differences in educational choices translate into occupational segregation, which in turn contributes to the gender gap in earnings.

Targeted efforts in vocational guidance and training can challenge stereotypes in educational and professional choices and contribute to a better gender balance in tertiary education and beyond. These efforts should focus on introducing non-traditional occupations to both male and female students. Good practices include using visits to companies and institutions to introduce girls and boys to jobs and careers where gender stereotypes and segregation are stronger; encouraging young people to enter such fields by providing mentoring and information on requirements and courses of study; promoting role models; and training guidance counselors.

Gender division of family responsibilities remains a significant obstacle to women's career advancement and earnings progression in Sweden. To help lessen this obstacle, Sweden could further enhance incentives for a more equal division of family responsibilities and parental leave—and actively promote women's participation in corporate decision-making structures to strengthen their career and earning prospects. Sweden's generous parental leave policy provides incentives for parents to share the leave more equally (such as through the 60-day father-only parental leave and fiscal "equality bonus"). Yet Swedish mothers continue to take more leave than fathers, who take only about a quarter of all available days. This imbalance disproportionately affects women's professional lives, because longer career interruptions diminish opportunities for advancement,

higher responsibilities and greater earnings.

More can be done to encourage fathers to use parental leave. In 2000 Iceland introduced a 9-month parental leave scheme that grants each parent a nontransferable entitlement of 3 months in addition to a 3-month family entitlement that is freely shared between parents. Sweden could follow this example, increasing the duration of its nontransferable element as a way to encourage parents to share the parental leave more equally.

EDUCATION, SKILLS AND INNOVATION

Sweden competes in the global market on ideas, innovation and high-tech products. Its competitive advantage therefore lies in the size and quality of its human capital stock, which depend vitally on the education system and skills development. Sweden faces challenges in both these areas as well as in innovation capacity.

Like most developed economies, Sweden has very high enrollment rates in primary and lower secondary education. Yet 8% of children of lower-secondary-school age were out of school in 2011—a share that has been steadily increasing from 0 in 2006. The main concern in the public debate on education in Sweden is that despite large investments in education, results in international assessments of student competencies have been declining. Among 49 economies, Sweden suffered the largest decline in international comparisons of student achievement between 1995 and 2009, with pronounced differences between high- and low-performing schools.

In addition, there are problems of skills matching in the labor market that are linked to worrying outcomes in tertiary education. Compared with the OECD average, Sweden has a larger share of workers who are underskilled or underqualified for their job. At the same time, many tertiary graduates fail to find the right job and are overeducated for their tasks. About a third of Swedish adults ages 25–64 have a tertiary education (a smaller share than in Finland or Norway), and only about half of students who start a tertiary program

go on to graduate (a much smaller share than in other Nordic economies).

Efforts on several fronts could help address these issues: Disseminating information about employment rates and skills mismatch in different fields of education could lead to more informed choices by students enrolling in tertiary programs. Efforts to attract top academic talent could improve the quality of tertiary education. And addressing housing market restrictions would facilitate the mobility of workers and students, helping to improve the skills match.

On the innovation front, Swedish businesses are facing tougher global competition. Over the past 3 years the number of top Swedish corporations recognized as being among “the top 100 innovators” has fallen from 6 to 2. Sweden too has fallen in rankings of innovation: between 2010 and 2013 it fell from 1st place to 3rd in the ranking on the Innovation Capacity Index, and from 2nd place to 6th in the ranking on the World Economic Forum’s Global Competitiveness Index. Analysis of innovation indicators points

to challenges in areas relating to education and skills development where policy actions could improve competitiveness—by training people with entrepreneurial talent and increasing the attractiveness of starting new businesses and by supporting further managerial skills upgrading.

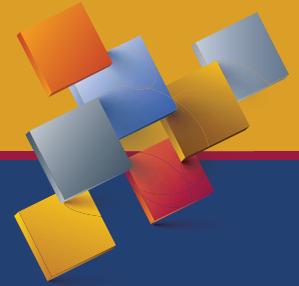
To train entrepreneurs and make new ventures more attractive, Sweden could consider policy actions in several areas. One area is facilitating patenting by young firms: only 8% of patents filed in 2009–11 came from young firms in Sweden, less than in comparator economies. Another is tilting public research and development (R&D) support toward smaller firms: more than 80% of public R&D support to the business sector goes to large firms, compared with roughly 50% in Denmark and Finland. A third area is reducing the costs of experimentation and failure: creditors can expect to recover only 75 cents on the dollar through reorganization or liquidation in Sweden, compared with almost 89 cents in the United Kingdom and more than 90 cents in Finland and Japan.

To support the upgrading of managerial skills, Sweden could consider efforts to enhance the business sophistication of its knowledge workers and use education to encourage managers to link pay more closely with worker productivity. Sweden lags behind comparators in the extent to which managers are perceived to follow this practice: it ranks in 74th place among 148 countries, far below the United Kingdom (11th) and the United States (12th). Sweden may also wish to consider adding a managerial upgrading initiative to policy actions aimed at broadening the sources of growth of the Swedish economy, by stimulating productivity growth in service businesses and relevant public sector activities.

NOTES

1. Nordic average excludes Sweden throughout the report, except where otherwise specified.
2. European Commission 2013c.

Business entry regulation



Around the world, entrepreneurs have received repeated praise as economic heroes. A wealth of studies confirm that this praise is warranted, showing that entrepreneurship has a direct impact on key economic indicators such as productivity, innovation, employment and growth. Not surprisingly, promoting entrepreneurship has topped regulatory agendas in developed and developing countries alike.

A constant flow of new firms into the market adds new products and services. It also increases competition, encouraging existing firms to improve productivity in order to maintain their market presence. In Finland, for example, a high firm entry rate explains almost all the productivity peaks since 1985. At that time labor productivity in the country lagged behind levels in Sweden and the United States. But within about 2 decades Finland had raised productivity to 35% above the level in Sweden and 16% above that in the United States—and was racing toward the global productivity frontier.¹

According to recent research, innovative small and medium-size enterprises provide a better working environment than large firms and have higher productivity as well as stronger financial performance. They are also more adaptable—better able to respond quickly in introducing new products or technological innovations and to tailor products and services to customers' needs.² Moreover, economists have widely credited small and medium-size enterprises with being engines of job creation.³ A recent study reported that they constitute 90% of all enterprises and account for more than 50% of jobs worldwide.⁴ Yet some studies show that small and medium-size firms also account for high levels of job destruction, especially during times of economic distress.⁵ With

the deceleration in global growth and rise in unemployment, job creation has become a pressing priority. According to the International Labour Organization, more than 197 million people around the world were unemployed in 2012.⁶

Ample evidence also points to the positive impact of entrepreneurship on economic growth. One study found that the entrepreneurial activity rate has a significant positive correlation with growth in developed countries.⁷ Other studies, focusing on Germany, showed that regions with a higher concentration of new firms had higher growth rates and greater labor productivity.⁸ Such results have been repeatedly corroborated in the literature, confirming the significant positive relationship between entrepreneurship and economic growth.⁹ For example, recent research found that young companies are more likely to become high-growth firms, with greater productivity, employment and sales turnover.¹⁰

THE DOING BUSINESS INDICATORS ON STARTING A BUSINESS

To foster a thriving economy with abundant employment opportunities, governments seek to create conditions favorable to entrepreneurship and new company formation. Doing so requires identifying barriers to entry in the legal and regulatory framework for starting a company. To support efforts to ease such barriers, the World Bank Group's *Doing Business* project—through its starting a business indicators—annually records the time, cost, procedures and paid-in minimum capital required for a small to medium-size limited liability company to start up and formally operate. Over the past decade

- Sweden has the lowest ranking in the Nordic region on the ease of starting a business (61st among 189 economies worldwide).
- Sweden has reduced its minimum capital requirement for limited liability companies by half. Yet the requirement remains among the highest in the Nordic region, topped only by Denmark's.
- A strong association exists between entrepreneurship and favorable outcomes in growth, innovation, productivity and employment.
- Entrepreneurship rates in Sweden are comparatively low: 86% of employees tend to stay with the same employer for their entire career, while only 3% of the "movers" choose entrepreneurship.
- OECD high-income economies have made business start-up easier by eliminating minimum capital requirements and streamlining registration procedures.
- Active labor market policies that promote employee security tend to lower new firm entry rates.
- Further policy improvements are needed to foster an entrepreneurial business climate in Sweden.

Doing Business has tracked the start-up process and related reforms in more than 180 economies around the world.

The starting a business indicators measure laws and regulations related to starting a business as well as their implementation and enforcement. This approach is consistent with the findings of a recent study highlighting the importance, in promoting the formalization of firms, of not only making the start-up process easier but also increasing the enforcement of rules.¹¹ The indicators also measure the implicit administrative requirements that entrepreneurs face, such as having to get a company seal made. In each economy *Doing Business* follows the path of a local entrepreneur attempting to formally register a limited liability company in the largest business city. To make the data comparable across economies, *Doing Business* uses a standardized case study of a business that is 100% domestically owned, has start-up capital equivalent to 10 times income per capita, engages in general industrial or commercial activities and employs between 10 and 50 people within the first month of operations.

Analyses of the *Doing Business* data on starting a business often show results consistent with the findings of other key research. A body of research supports the notion that high costs and bureaucratic procedures for starting a business hinder formal entrepreneurship and thus job creation. Indeed, one study found that setting costs too high turns aspiring entrepreneurs into job seekers rather than job creators.¹² Similarly, another study concluded that burdensome regulatory requirements for entry—particularly as measured by the number of procedures and the required minimum capital—impede entrepreneurship.¹³ Moreover, there is ample evidence that a lower level of business regulation overall leads to an increase in entrepreneurship.¹⁴

WHAT DOES IT TAKE TO START A COMPANY IN SWEDEN?

To register a new private limited liability company in Stockholm, the founders must be residents of the European Economic Area with a minimum capital investment of at least 50,000 Swedish

kronor (SKr) (US\$7,345). They begin the process by drawing up the memorandum and articles of association. The articles must specify the proposed business name and the business activities of the company. To find out whether a desired company name is available, entrepreneurs can visit the website of Bolagsverket, the company registrar, to check whether the name is already registered or wait until submitting the registration documents, when it is checked against the company register. Then the entrepreneurs proceed to a bank—or a credit market company or credit institute—to deposit the required minimum capital and obtain a bank certificate confirming the deposit (figure 1.1). The certificate must be signed by 2 bank officials and include information on the subscription amount paid for shares.

The next step is to visit Bolagsverket to pay the registration fee of SKr 2,200 (US\$323) and submit a completed company registration form along with the bank certificate and the memorandum and articles of association. Additional documents, such as minutes of a board of directors meeting appointing an employee representative, may also be required. Alternatively, entrepreneurs can use the lower-cost option of online registration, at a fee of SKr 1,900 (US\$279), through a website administered jointly by Bolagsverket and the Swedish Tax Agency. This electronic “one-stop shop” for registration makes it possible to register a new company in the company register, apply for income and value added tax registrations and for employer registration as well as file a preliminary tax return.

A company's founders must carry out the registration procedure within 6 months of

drawing up the memorandum of association. Once the registration is approved, Bolagsverket assigns the company an organization identity number and publishes a notice of incorporation in the official gazette (*Post-och Inrikes Tidningar*). The notice includes the name, mailing address and identity of the board members, directors and all other authorized signatories. Bolagsverket also sends the company its certificate of registration, acknowledging it as a legal entity. The registration procedure takes 2 weeks on average to complete.

Finally, the company must register for taxes 2 weeks before starting business operations. Any employer in Sweden and any company subject to value added tax and intending to do business in the country must register with the Swedish Tax Agency. Employers must withhold social security taxes from employee salaries and account for the withholding in monthly returns. Companies need to complete a tax registration (F-tax registration) as a prerequisite to requiring payment for services rendered without the customer having to withhold preliminary income tax. All application forms can be downloaded from the Swedish Tax Agency's website.¹⁵

Once all these stages of the start-up process have been completed, the new company can commence its business operations.

HOW DOES SWEDEN'S START-UP PROCESS COMPARE GLOBALLY?

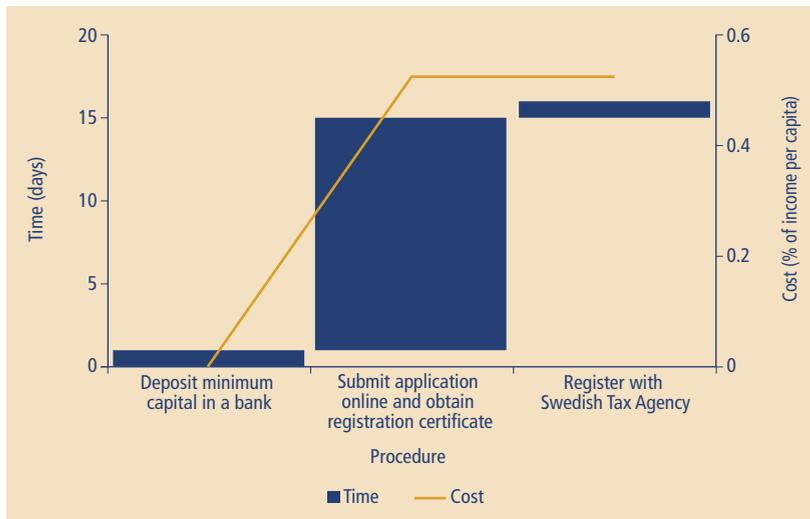
Where does Sweden stand in the rankings reported by *Doing Business 2014*? It ranks relatively high on the overall ease of

FIGURE 1.1 The 3 main procedures to incorporate a limited liability company in Sweden



Source: World Bank Group, *Doing Business* database, 2013 edition.

FIGURE 1.2 Process of starting a limited liability company in Sweden as measured by *Doing Business*



Source: World Bank Group, *Doing Business* database, 2013 edition.

doing business, at 14th among 189 economies worldwide, reflecting its good performance on most of the *Doing Business* indicators. But it has the lowest ranking in the Nordic region on the ease of starting a business (61st among 189 economies

worldwide). And it fell 6 places in the ranking between 2012 and 2013. But this drop in the ranking does not mean that the start-up process in Sweden has deteriorated; instead, it indicates that other economies have been actively reforming

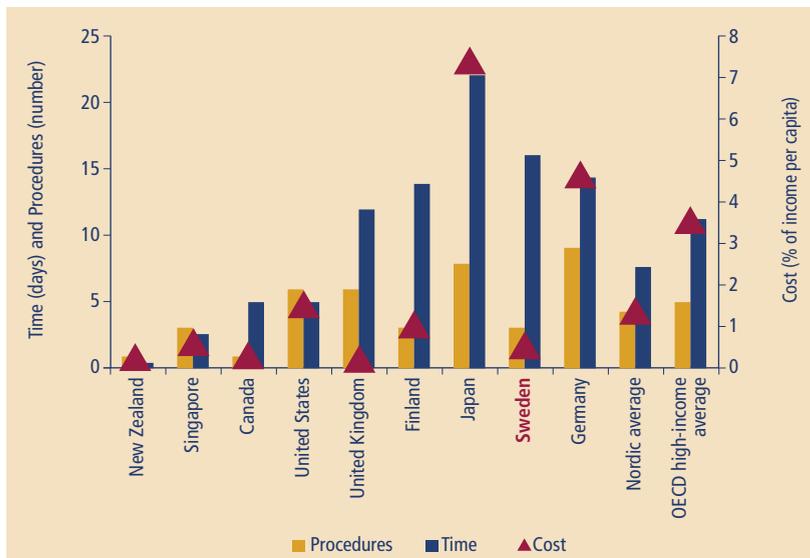
their start-up process over the past year. One example is Chile, which moved up from 30th place to 22nd in the ranking on the ease of starting a business.

As measured by *Doing Business 2014*, starting a limited liability company in Stockholm takes 3 procedures and 16 days and costs about 0.5% of income per capita (US\$294) in fees (figure 1.2). The minimum capital requirement is about 13% of income per capita (US\$7,345).

By comparison, economies where starting a business is easiest often require no minimum capital and have a start-up process that can be completed in 1-3 procedures and 2-3 days and costs less than 1% of income per capita (figure 1.3). These economies also generally provide online services and effective one-stop shops used by the majority of newly registered enterprises.

Take New Zealand, which leads the world in the ease of starting a business. Its process, which can be completed online, takes just 1 procedure, half a day, 0.34% of income per capita (US\$130) in fees—and no paid-in minimum capital. In Canada the process takes 1 procedure, 5 days and a cost of 0.38% of income per capita (US\$195). In Singapore, registering a company requires 3 procedures, 2.5 days and a cost of 0.6% of income per capita (US\$283). Other best practice economies include Australia and Hong Kong SAR, China. None of these economies have a paid-in minimum capital requirement.

FIGURE 1.3 How Sweden's start-up process compares with those of other high-income economies



Note: *Doing Business* also measures the paid-in minimum capital requirement. However, half of OECD high-income economies either have no requirement or have one that is less than 5% of income per capita. Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

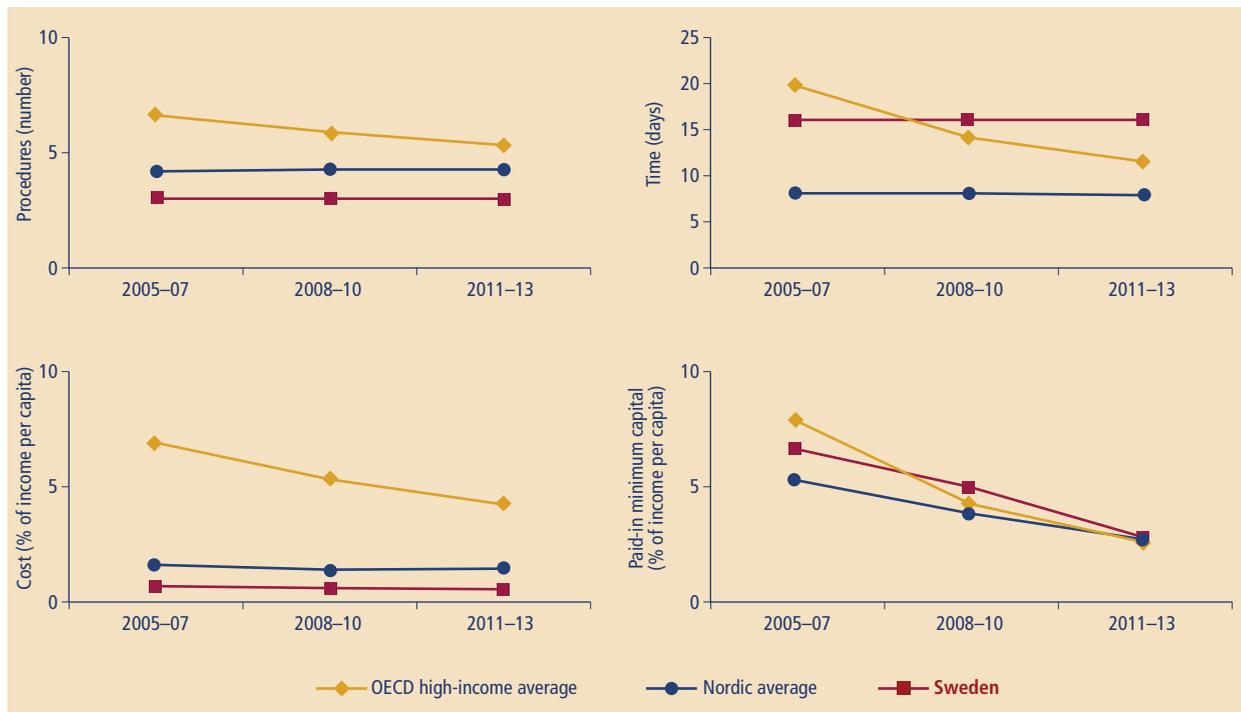
HOW OECD HIGH-INCOME ECONOMIES HAVE MADE START-UP EASIER

Many OECD high-income economies have taken steps to make starting a business easier. Some have eliminated their minimum capital requirement, while others have streamlined procedures so as to make the start-up process simpler and faster.

Eliminating minimum capital requirements

Historically, the primary purpose of minimum capital requirements was to protect creditors and encourage confidence in

FIGURE 1.4 Time and minimum capital requirements for starting a business still relatively burdensome in Sweden



Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

financial markets. But companies have different probabilities of becoming insolvent. And even with a minimum capital requirement there is no guarantee that a firm would not face insolvency because of other factors—such as market changes, bad business conditions, or poor management and decision making. Moreover, analysis shows that higher paid-in minimum capital requirements are associated with larger informal sectors.¹⁶

In many countries minimum capital requirements are now ancient history; among OECD high-income economies, 48.4% have no minimum capital requirement. Governments prefer to take other steps to protect investors and creditors, minimize risks of bankruptcy and safeguard consumers from potentially hazardous products. In the United States, for example, creditors now rely primarily on negotiated contractual protections as stipulated in statutory and incorporation agreements.¹⁷ Another good practice widely used among OECD high-income economies is to allow entrepreneurs to decide how much capital they need to

put aside for company incorporation. Portugal is one country that has taken this approach. Through a 2011 decree, it enabled a company's founders to choose the amount of minimum capital and make their paid-in capital contribution up to a year after the company's creation.

While less active in reforming the start-up process than some other OECD high-income economies, Sweden has reduced its minimum capital requirement for limited liability companies. In February 2010 its parliament cut the requirement in half—from SKr 100,000 (US\$14,689) to SKr 50,000 (US\$7,345). Yet the requirement remains among the highest in the Nordic region, topped only by Denmark's.¹⁸

Over time in the Nordic region, reforms making it easier to start a business have focused mainly on reducing the minimum capital requirement (figure 1.4). In September 2006 Finland adopted a new Companies Act that reduced the minimum share capital from €8,000 (US\$10,462) to €2,500 (US\$3,269).¹⁹ And in 2011 Norway lowered the

minimum capital requirement for private joint stock companies from 100,000 Norwegian kroner (Nkr) (US\$16,733) to Nkr 30,000 (US\$5,020).

A study of 5 European Union member economies shows that lowering or eliminating minimum capital requirements makes it easier to start a small to medium-size enterprise. In 4 of the economies studied that have done so (France, Germany, Hungary and Poland), the number of registered businesses rose. Besides significantly increasing the total number of limited liability companies, the reforms also raised the number of new firms created annually.²⁰

Streamlining procedures

Denmark was among the first developed countries to directly link company and tax registration. In 2005 it centralized the business and tax registrations in a one-stop service, enabling entrepreneurs to complete all formalities simultaneously when registering a new limited liability company with the Danish Commerce and

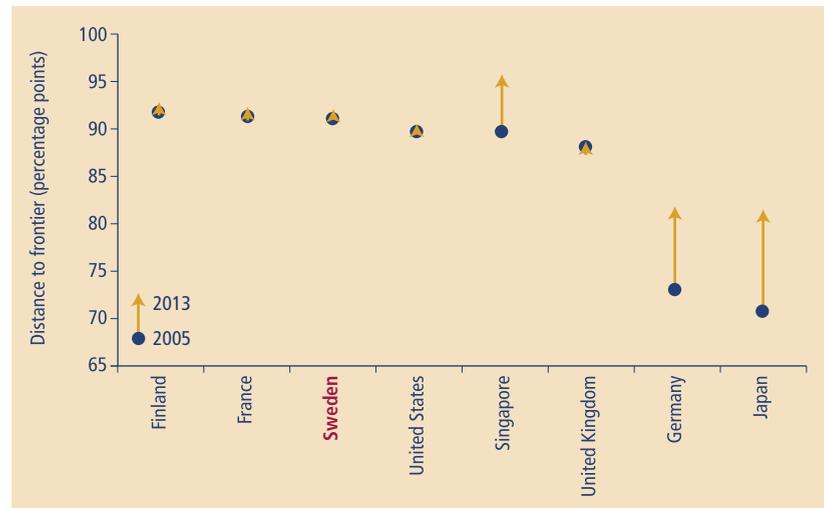
Companies Agency. New Zealand and Canada, the economies making it easiest to start a business, have taken similar steps.

New Zealand merged company incorporation and tax registration into 1 procedure in April 2008, combining all start-up formalities in a single application accessible through a unified online portal. The new system enabled entrepreneurs to apply for an Inland Revenue Department number and register for the goods and services tax while submitting their online application for incorporation to the Companies Office. Entrepreneurs receive both the company tax number and the certificate of incorporation on the same day by e-mail, with no need to deposit minimum capital—gaining instant access to the formal economy.

Canada similarly combined business and tax registration in a single online procedure, in October 2007. To register a limited liability company, entrepreneurs file a completed application form along with the articles of association, the address of the company's registered office and the names of its first board of directors. Entrepreneurs can simultaneously register for the applicable taxes—such as corporate income tax, goods and services tax, and harmonized sales tax—to set up the company's tax accounts with the Canada Revenue Agency. Thus after completing just 1 procedure and paying Can\$200 (US\$195), entrepreneurs can receive their business number for tax purposes within 5 days and officially commence business operations.

Other countries have continually streamlined procedures, often by combining multiple registrations. Besides reducing its paid-in minimum capital requirement in 2008/09, Poland also consolidated its application for business registration with those for tax, social security and statistics registration. During that same year Slovenia combined tax registration with company registration, both online. A year later Slovenia introduced other online services. More recently the Slovak Republic improved its processes for obtaining trading licenses, income tax registration and health insurance registration at its one-stop shop. Croatia and Greece introduced new types of limited liability companies with no minimum capital and simpler and less costly incorporation processes.

FIGURE 1.5 Japan, Germany and Singapore have substantially improved regulatory efficiency in the area of starting a business since 2005



Note: The distance to frontier scores shown in the figure indicate how far each economy is from the best performance achieved by any economy on the starting a business indicators since 2003. The scores are normalized to range between 0 and 100, with 100 representing the frontier.

Source: World Bank Group, *Doing Business* database, 2013 edition.

While starting a business in Germany remains relatively time consuming, the country has been continually improving the process in recent years (figure 1.5). In 2006/07 Germany implemented an electronic registration and online publication system, doing away with the need to publish a notice of incorporation in the official gazette. In 2008/09 it reduced the minimum capital requirement to a symbolic €1. And in 2009/10 it increased the efficiency of communication between notaries and the commercial registry and eliminated the requirement to publish a notice of incorporation in a newspaper.

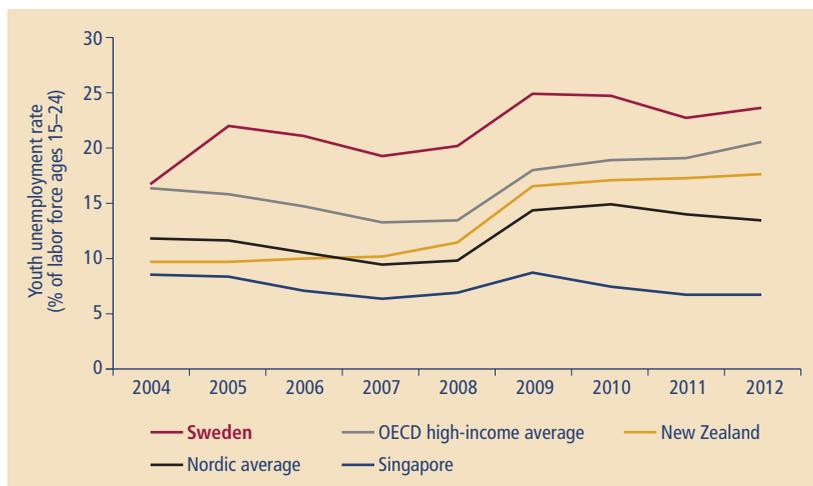
THE BUSINESS ENVIRONMENT FOR ENTREPRENEURSHIP: EMPLOYMENT AND OTHER POLICIES

The regulatory requirements for starting a business form only part of the business environment that potential entrepreneurs face; other aspects also influence decisions on whether to launch a new venture. In Sweden entrepreneurship rates are low,²¹ and this appears to be a result at least in part of welfare state policies favoring long-term employment.

For example, in cases of employee layoffs, the Swedish Employment Security Act protects workers with longer tenure—thereby providing job security but at the same time minimizing employee turnover and increasing the opportunity cost of pursuing an entrepreneurial endeavor. Efforts of the Swedish government to curtail unemployment in recent years (including through income support, training opportunities and job search assistance) also have tended to encourage employment rather than entrepreneurship.²² A study analyzing 7.5 million observations on Swedish employees found that 86% tend to stay with the same employer for their entire career, while only 3% of the “movers” choose entrepreneurship.²³

Providing generous unemployment insurance and other social security benefits encourages people to pursue long-term employment rather than leave the employee comfort zone by choosing an entrepreneurial path.²⁴ While an argument can be made for such policy practices in a welfare state like Sweden, the importance of an entrepreneurial economy suggests that it is critical to strike a balance between the incentives offered to salaried personnel and those offered to entrepreneurs. However, private sector

FIGURE 1.6 Youth unemployment has been comparatively high in Sweden



Note: Nordic average excludes Sweden.

Source: World Bank, World Development Indicators database, 2013 edition.

development policies in Sweden before the 1990s systematically disfavored small firms by encouraging debt rather than equity financing and imposing a heavier tax burden on individual owners than on institutional ownership.

Despite the tax reform efforts that followed, entrepreneurs still bear a high income tax burden, and the growth in high-tech production during the 1990s has been attributed largely to the devel-

opment of a few large firms—including Astra and Ericsson—rather than to an increase in start-ups.²⁵ Moreover, substantial research evidence shows that high tax rates are associated with lower rates of entrepreneurship and economic growth (for more on Swedish tax policies, see the chapter on tax regulation).

While Sweden remains one of the most innovation-driven economies in the world,²⁶ its performance in the World

Economic Forum's global competitiveness ranking indicates room for improvement: in 2013 Sweden dropped slightly in the ranking for the second year in a row.²⁷ And unemployment rates—especially youth unemployment rates—in Sweden exceed those in Denmark, Finland, Iceland and Norway (figure 1.6).

In a policy environment that encourages employment over entrepreneurship and favors the development of large firms over the creation of small ones, starting a business can depend on rare circumstances, such as winning the lottery or receiving an inheritance.²⁸ Low household savings in Sweden have contributed to this situation: since 1970 household savings in Sweden have fallen to 2-3% of disposable income, compared with 9-10% in other OECD economies. Moreover, potential entrepreneurs lacking the funds to start a business could hardly count on Sweden's venture capital industry: in the late 1990s only 8% of venture capital firms—also subject to high tax rates—provided seed funding.²⁹

In 1970 Sweden's GDP per capita was among the top 3 in OECD economies, exceeding the OECD average by 10%. However, by the end of the 1990s it had fallen to 15% below the OECD average—largely as a result of the 1992 financial crisis, which left the Swedish banking system practically insolvent—and 15 other OECD economies had surpassed Sweden in the ranking.³⁰ During that same period, employment in Sweden dropped by 8%. The Swedish economy's weakened performance has been attributed to a policy framework that generally favors larger firms and exerts greater control over the private sector than those in other OECD economies.³¹

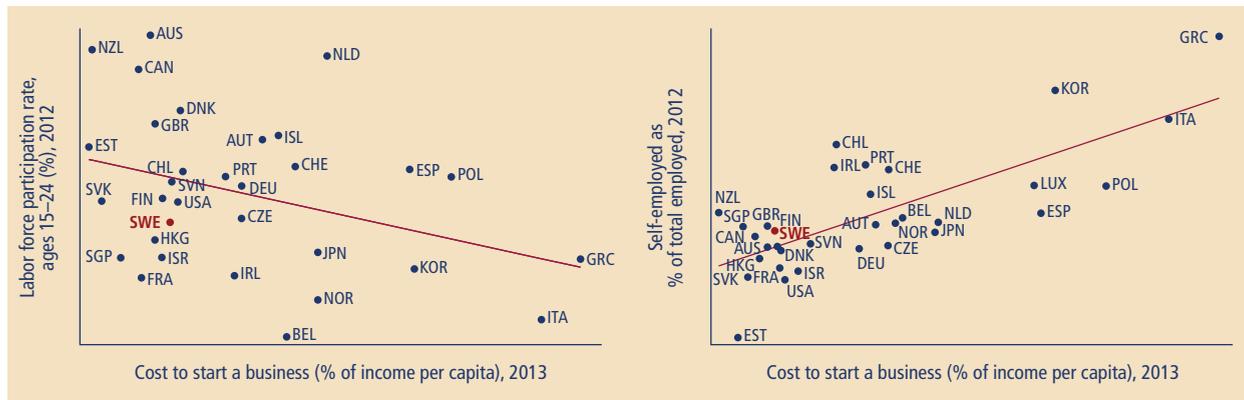
In the wake of the financial crisis, the global economy has not yet fully recovered from the economic downturn. In OECD economies start-up rates are still below precrisis levels.³² After a 5.1% decline in GDP in 2009,³³ Sweden was able to make a quick recovery through a series of active labor market programs and reform efforts undertaken in 2006-10, leading to an observable increase in the number of limited liability companies entering the market after the crisis (figure 1.7). Nevertheless, Sweden has not yet returned to

FIGURE 1.7 A big increase in newly registered limited liability companies in Sweden after the financial crisis



Source: World Bank Group, Entrepreneurship Database, 2013 edition.

FIGURE 1.8 Lower cost to start a business associated with higher labor force participation among youth—and higher cost with higher rate of self-employment



Note: Both relationships are significant at the 1% level after controlling for income per capita. The relationships also hold after controlling for country fixed effects and time shocks.

Source: World Bank, World Development Indicators database, 2013 edition; World Bank Group, *Doing Business* database, 2013 edition.

its precrisis growth rate and to low levels of unemployment.³⁴ After surviving the crisis, the challenge thus lies in sustaining and boosting economic growth, employment, productivity and innovation.

PROMOTING ENTREPRENEURSHIP: WHAT CROSS-COUNTRY ANALYSIS SHOWS

As noted, small and medium-size enterprises contribute significantly to employment levels in an economy, accounting for more than 50% of jobs on average. Cross-country analysis confirms that making it easier and less costly to start such enterprises in the formal sector can make a difference in employment levels and provide other positive economic outcomes.

This can be particularly important for young people: in developed economies youth unemployment increased by an alarming 25% between 2008 and 2012—and the rate is projected to remain high through 2017.³⁵ In Sweden the youth unemployment rate exceeded 20% in September 2013 (for more on youth unemployment in Sweden, see the chapter on labor market regulation). Supporting existing research, analysis of data for high-income economies shows that a lower cost to incorporate a small to medium-size enterprise is associated with

a higher labor force participation rate among youth (figure 1.8, left-hand chart).

Conversely, a higher cost to start a formal business is associated with higher levels of self-employment (figure 1.8, right-hand chart). Other research shows that in tight labor markets workers are more likely to move toward self-employment than to incorporate and expand a small to medium-size enterprise.³⁶ Although not all self-employed entrepreneurs operate in the informal sector, the International Labour Organization recognizes the self-employed as being part of the informal sector. Of the 420–510 million micro, small and medium-size enterprises around the world, 70–80% are informal and nonemployer firms.³⁷ According to the most recent data, the informal sector in Sweden represents 13.9% of the country's GDP. More than 800,000 Swedish citizens perform at least some kind of work in the informal sector each year.³⁸ A growing informal sector is associated with lower levels of growth and competitiveness. It is also associated with a loss of tax revenue, which can lead to a greater tax burden on registered labor.³⁹

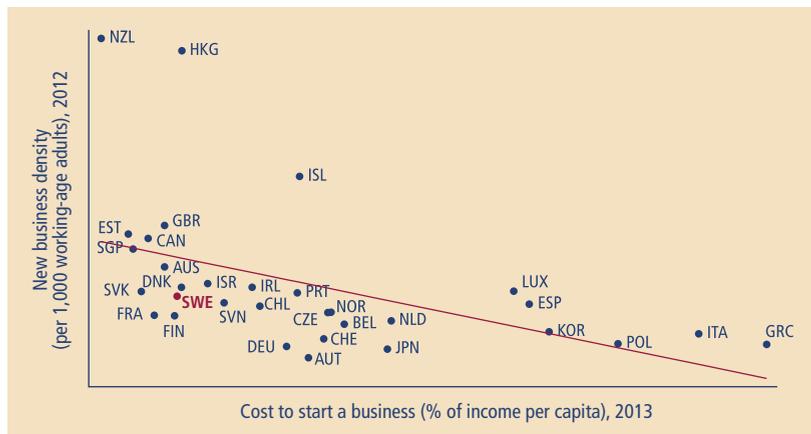
Not surprisingly, a lower cost of business incorporation is associated with higher numbers of newly registered companies. Analysis shows a strong negative correlation between the cost to start a business and new business density (measured as

new firm registrations per 1,000 people ages 15–64; figure 1.9).

In addition, analysis of data for OECD high-income economies reveals that a lower cost and fewer procedures to start a business are both associated with higher revenue from income, profit and capital gains taxes (figure 1.10). One explanation may be that in economies with lower barriers to entry, more formal firms are being created, which leads to higher tax revenue. Formalization not only results in higher tax revenue but also creates jobs of better quality. And for the firms entering the formal sector, it leads to better access to finance and higher overall productivity. Yet research shows that informal firms are unwilling to register their business where they face a large time and cost burden to complete registration procedures as well as strict labor market regulations.⁴⁰ Rigid labor market regulations can hamper companies' ability to adjust their workforce in accordance with business needs, adversely affecting their ability to allocate resources effectively as well as their productivity (for more on this issue, see the chapter on labor market regulation).

In any economy, entrepreneurs are inevitably affected by the surrounding business environment. Where the regulatory burden and start-up costs outweigh the potential gains from pursuing a business opportunity, entrepreneurs become

FIGURE 1.9 Lower cost to start a business associated with higher new business density



Note: New business density is defined as newly registered limited liability companies per 1,000 people ages 15–64. The relationship is significant at the 1% level after controlling for income per capita. The relationship also holds after controlling for country fixed effects and time shocks.

Source: World Bank Group, Entrepreneurship Database, 2013 edition; World Bank Group, *Doing Business* database, 2013 edition.

discouraged.⁴¹ The dampening effects on new firm creation in turn constrain productivity, innovation, employment and growth in an economy and thus its overall competitiveness. Given the research findings on the economic benefits of entrepreneurship, it is not surprising that governments are increasingly shifting toward entrepreneurship-enabling policies—policies that eliminate barriers to entry, reduce bureaucracy and create incentives for formal incorporation.⁴² Implementing

smarter business regulations that facilitate entry to market fosters the development of an entrepreneurial business climate.

CONCLUSION

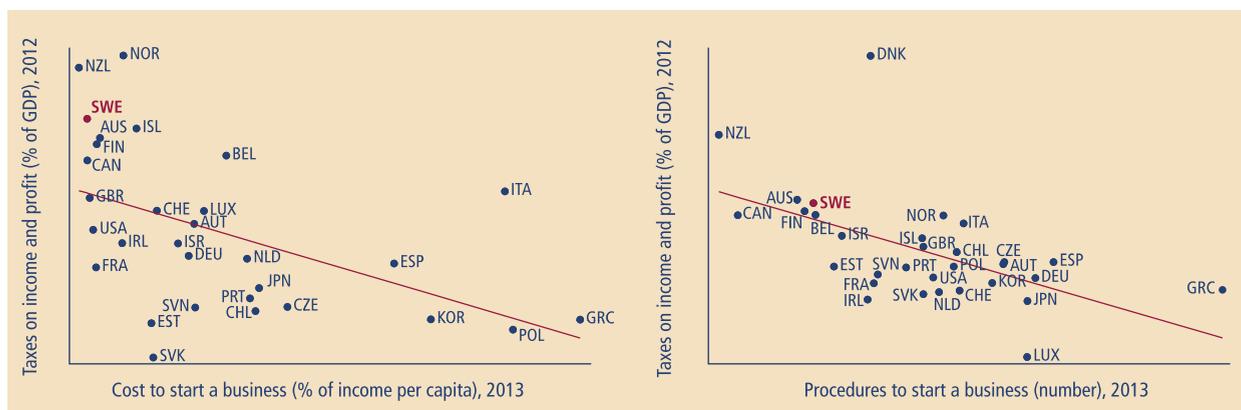
The economic impact of entrepreneurship has received growing attention in the public policy sphere since the early 1970s.⁴³ Research evidence today

supports the strong association between entrepreneurship and favorable outcomes in growth, innovation, productivity and employment. Indeed, research has shown that new start-ups, within a dynamic entry-and-exit entrepreneurial environment, are responsible for about 20–40% of growth in labor productivity. New start-ups often exploit opportunities that might be overlooked by larger firms with standard ways of doing business, turning fresh ideas and advanced knowledge into successful ventures that generate jobs and boost the economy.⁴⁴ Perceiving entrepreneurship as the answer to the challenge of economic growth and prosperity, nations around the world have adopted policies aimed at promoting new small and medium-size enterprises.

Despite standing out as an innovation-driven economy, Sweden lags behind its counterparts in the rate of new firm formation. Entrepreneurs continue to face barriers to business entry and development, including a higher minimum capital requirement and a more burdensome process for starting a business than in many other developed economies. While Sweden has lowered its minimum capital requirement, more can be done to make start-up easier.

Earlier policy choices also have created some disadvantages for entrepreneurs. These are reflected, for example, in Sweden's tax-to-GDP ratio, the highest

FIGURE 1.10 In OECD high-income economies, lower cost and fewer procedures to start a business associated with higher tax revenue



Note: Both relationships are significant at the 1% level after controlling for income per capita. The relationships also hold after controlling for country fixed effects and time shocks.

Source: World Bank, World Development Indicators database, 2013 edition; World Bank Group, *Doing Business* database, 2013 edition.

among OECD economies. Relying on active labor market policies that promote employee security as well as other wage policies has contributed to keeping the new firm entry rate low.⁴⁵

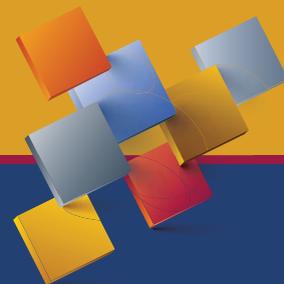
Today in Sweden, new policies are increasingly replacing and counteracting the effects of policies that are being phased out. Further policy improvements to foster an entrepreneurial business climate are encouraged. By further promoting the creation and growth of small and medium-size enterprises, Sweden would certainly reap economic benefits from greater employment, productivity, innovation and growth.

NOTES

This chapter has been written by Valentina Saltane with the assistance of Baria Nabil Daye.

1. Maliranta, Rouvinen and Ylä-Anttila 2010.
2. Laforet 2012.
3. Neumark, Wall and Zhang 2011.
4. IFC 2013.
5. Kliesen and Maués 2011.
6. ILO 2013a.
7. Van Stel, Carree and Thurik 2005. The study focuses on countries with income per capita above US\$20,000. The entrepreneurial activity rate is defined as the share of the population ages 18–64 who either are actively involved in starting a new business or own or manage a business less than 42 months old.
8. Audretsch and Fritsch 2003; Audretsch and Keilbach 2004.
9. Hafer 2013.
10. Daunfeldt, Elert and Johansson, forthcoming.
11. Bruhn and McKenzie 2013.
12. Fonseca, Lopez-Garcia and Pissarides 2001.
13. Dreher and Gassebner 2011.
14. Nyström 2008; Bruhn 2011, 2013; Kaplan, Piedra and Seira 2011.
15. <http://www.skatteverket.se>.
16. See the case study on minimum capital requirements in *Doing Business 2014* (World Bank Group 2013a).
17. Booth 2005.
18. Denmark reduced its minimum capital requirement in 2009 from 125,000 Danish kroner (DKr) (US\$22,284) to DKr 80,000 (US\$14,262), though it remains relatively high at 23.96% of income per capita.
19. This reform also simplified documentation requirements, replacing the requirement for a deed of incorporation and minutes of the constitutive meetings with one for the articles of association that establish a limited liability company. And the articles of association now must include only 3 provisions: trade name, domicile and field of business.
20. Hornuf and others 2011.
21. Andersson and Klepper 2013.
22. Hansen 2011.
23. Rider and others 2013.
24. Henrekson and Rosenberg 2001.
25. Henrekson and Rosenberg 2001.
26. As measured by the World Bank's Knowledge Assessment Methodology in 2012 (<http://www.worldbank.org/kam>).
27. WEF 2013.
28. Lindh and Ohlsson 1996, 1998.
29. Henrekson and Rosenberg 2001.
30. Acs and Karlsson 2002a.
31. Acs and Karlsson 2002b.
32. OECD 2013d.
33. World Bank, World Development Indicators database.
34. Anxo 2012.
35. ILO 2013b.
36. Jütting, Parlevliet and Xenogiani 2008.
37. Ardic Alper and Hommes 2013.
38. Swedish Tax Agency projections; Schneider 2013.
39. World Bank 2013.
40. Stein, Ardic Alper and Hommes 2013.
41. Ahmad and Hoffmann 2008.
42. Audretsch and Link 2012; Henrekson and Stenkula 2010.
43. Blackburn and Schaper 2012.
44. Calcagnini and Favaretto 2012.
45. Andersson and Klepper 2013.

Tax regulation and incentives



Taxes are essential. They not only finance much-needed public goods and services; they also serve as an important tool for redistributing income to disadvantaged groups, including children, the aged and the unemployed. In many economies taxes are the main source of funding for a wide range of social and economic programs. But not all tax systems serve these purposes effectively while also serving economic goals. High tax rates and cumbersome administrative requirements foster tax evasion;¹ so do loopholes in tax legislation. Well-designed tax systems better support the growth of businesses and ultimately the growth of overall investment and employment.²

According to the World Bank Enterprise Surveys, businesses in a majority of the 135 countries covered consider high tax rates to be among the top 5 constraints to their business. They also have concerns about the heavy burdens of tax administration.³ Indeed, there is strong evidence that high tax rates and excessive administrative complexities in the tax system lead to lower rates of investment, entrepreneurship and economic growth and to a larger informal sector.⁴ Sweden provides an example of what can happen when governments address such issues: A reduction in its marginal personal income tax rate in 1991 led to an increase of around 0.5% in reported taxable income.⁵ And the introduction of its electronic tax declaration (“e-tax”) system in 1996 significantly improved the efficiency of the system and the quality of information available to taxpayers—and increased user satisfaction.⁶

SWEDEN'S TAX SYSTEM—RECENT REFORMS

Sweden has been periodically undertaking tax reforms to increase the competi-

tiveness of its economy, starting with major reforms in 1991 and following up with reforms in 1994, 2005, 2008 and, most recently, 2013.

Sweden's personal income tax change in 1991 was part of a wider reform aimed at enhancing the efficiency of the tax system through rate cuts and base broadening. One goal was to reduce the risk of capital flight through dual income taxation—by taxing personal capital income (such as interest, dividends and capital gains) at lower and proportional rates and labor income at higher and progressive rates.⁷ Another was to make “tax planning” less attractive; for this purpose, efforts were made to increase uniformity in the taxation of different types of income. The 1991 tax reform introduced a range of changes:

- To reduce the tax burden on low income earners, the state tax on personal employment income was levied only above a certain threshold. Income earners with employment income up to the threshold were to pay only local government employment income tax. The state tax rate was set at 20%, and the local government tax rates (which varied from one municipality to another) at an average of about 31%. In total, the highest marginal tax rate on personal income from employment was 51%. Personal capital income was separated from employment income and taxed by the state at a proportional rate of 30%.
- The corporate income tax rate was reduced from 52% to 30%. In addition, corporate taxation was redesigned to increase its neutrality, so that the composition of a company's assets would matter less for tax rea-

- Thanks to electronic filing and payment systems, Swedish firms need to make only 4 tax payments a year on average. In only 2 economies—Hong Kong SAR, China, and Saudi Arabia—do firms make fewer.
- Firms in Sweden spend 122 hours a year complying with tax regulations, less than their counterparts in many other OECD high-income economies. But firms spend even less time doing so in Switzerland and Singapore, suggesting room for further improvement.
- Businesses in Sweden pay 52% of profit in taxes, more than the average in G7 or OECD high-income economies.
- Social security contributions paid by Swedish employers account for 68% of their total tax burden, among the highest shares in the world.
- Research has shown distortionary effects from corporate and personal income tax and social security contributions. Opportunities exist in Sweden to shift the tax burden to consumption, property and environmental taxes in a budget-neutral way.

sons. This was done by replacing the untaxed reserves—which had been associated with certain types of assets and therefore strongly affected investment choices—with a new tax equalization reserve based on companies' equity or payroll.

- Value added tax, which had previously covered only goods and a few services, was made more broadly based by extending it to most types of services at 25%.
- Carbon dioxide and sulfur taxes were introduced to increase the tax on fuels—both to help finance the reform and to encourage more environmentally friendly consumption.

The 1991 tax reform lowered the top marginal tax rate from about 73% to about 51% and appeared to have reduced opportunities for tax avoidance.⁸ But a study of the effects of the reform points out that a difference between the total marginal tax rate on employment income and that on corporate and capital income created an opportunity for the owners of corporations to reclassify their employment income as corporate profit.⁹ The 1991 tax reform also had an impact on the composition of consumption and savings. The broadening of the base for value added tax reduced demand in some consumption categories, such as hotels, restaurants and tourism. And the elimination of the variations in effective marginal tax rates across different savings vehicles led to shifts from savings in real assets to financial savings.¹⁰

The main features of the 1991 tax reform have been retained, along with a few further important changes. In 1994 the 25% value added tax rate was reduced to 12% for foodstuffs and certain tourism services and to 6% for books, newspapers, periodicals, domestic passenger transport and cultural events and activities;¹¹ in addition, a 25% surtax was introduced for high income earners.¹² The inheritance tax was eliminated in 2005, followed by the wealth tax in 2007 and residential property taxes in 2008. There have also been some changes in tax rates. These include reductions in the corporate income tax rate from 30% to 28% in 1993, to 26.3% in 2009 and to 22% according to the 2013 budget.

THE DOING BUSINESS INDICATORS ON PAYING TAXES

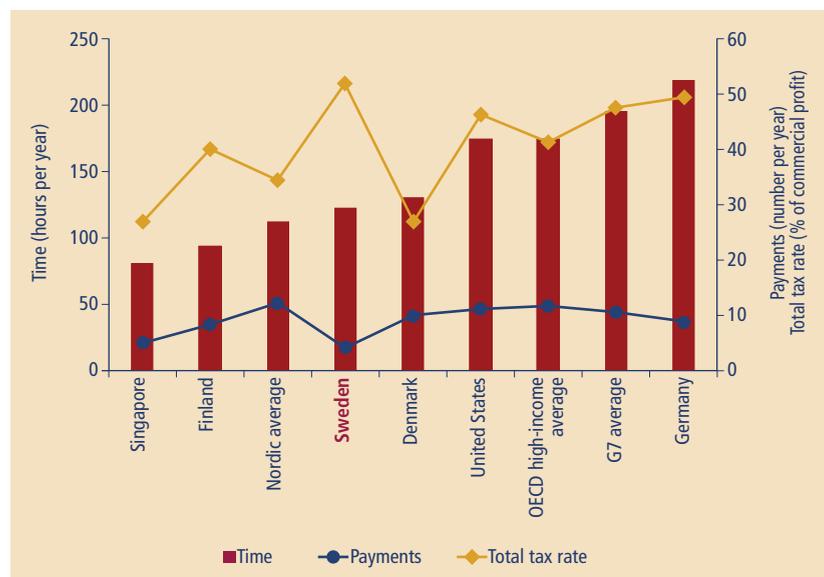
Jean-Baptiste Colbert, French philosopher and minister of finance to King Louis XIV, once remarked that “the art of taxation consists in so plucking the goose as to obtain the largest possible amount of feathers with the smallest possible amount of hissing.” How taxes are collected and paid has changed a great deal since then. But governments still face a challenge in getting the balance right in taxation—they need to collect revenue without destroying incentives to work or to create a business and without losing revenue to their competitors in a globalized economy.

In Sweden today the government collects revenue from firms through a broad range of taxes, including corporate income tax, value added tax, real estate tax, social taxes paid by employers, stamp duties and a variety of environmental taxes. In doing so, it imposes administrative costs on businesses to comply with these taxes. The World Bank Group's *Doing Business* project, through its indicators on paying taxes, measures this process

from the perspective of a domestic, medium-size firm.

Doing Business records the taxes and mandatory contributions that the case study firm must pay in a given year and measures the administrative burden of paying taxes and contributions. It does so using 3 indicators: number of payments made, time spent on filing and paying taxes, and total tax rate. The number of payments indicates the frequency with which the company has to file and pay different types of taxes and contributions, adjusted for the way in which those filings and payments are made. The time indicator captures the number of hours it takes to prepare, file and pay 3 major types of taxes: profit tax, consumption tax, and labor tax and mandatory contributions. The total tax rate measures the amount of taxes and mandatory contributions borne by the firm as a percentage of commercial profit.¹³ Rankings on the ease of paying taxes are simple averages of the percentile rankings on its 3 component indicators, with a threshold applied to the total tax rate.¹⁴ The most recent data, published in *Doing Business 2014* and used in this report, cover the period January to December 2012.

FIGURE 2.1 Swedish firms face few tax payments but a high total tax rate



Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

HOW DOES SWEDEN PERFORM ON THE PAYING TAXES INDICATORS?

Among the 189 economies covered by *Doing Business 2014*, Sweden ranks 41st on the ease of paying taxes. Swedish firms face relatively low tax administrative costs. They spend less time and make fewer payments a year to comply with tax regulations than their counterparts do on average in other OECD high-income economies and in G7 economies (figure 2.1). But Swedish firms face a relatively high total tax rate—higher than the average in other Nordic economies, in OECD high-income economies and in G7 economies.¹⁵

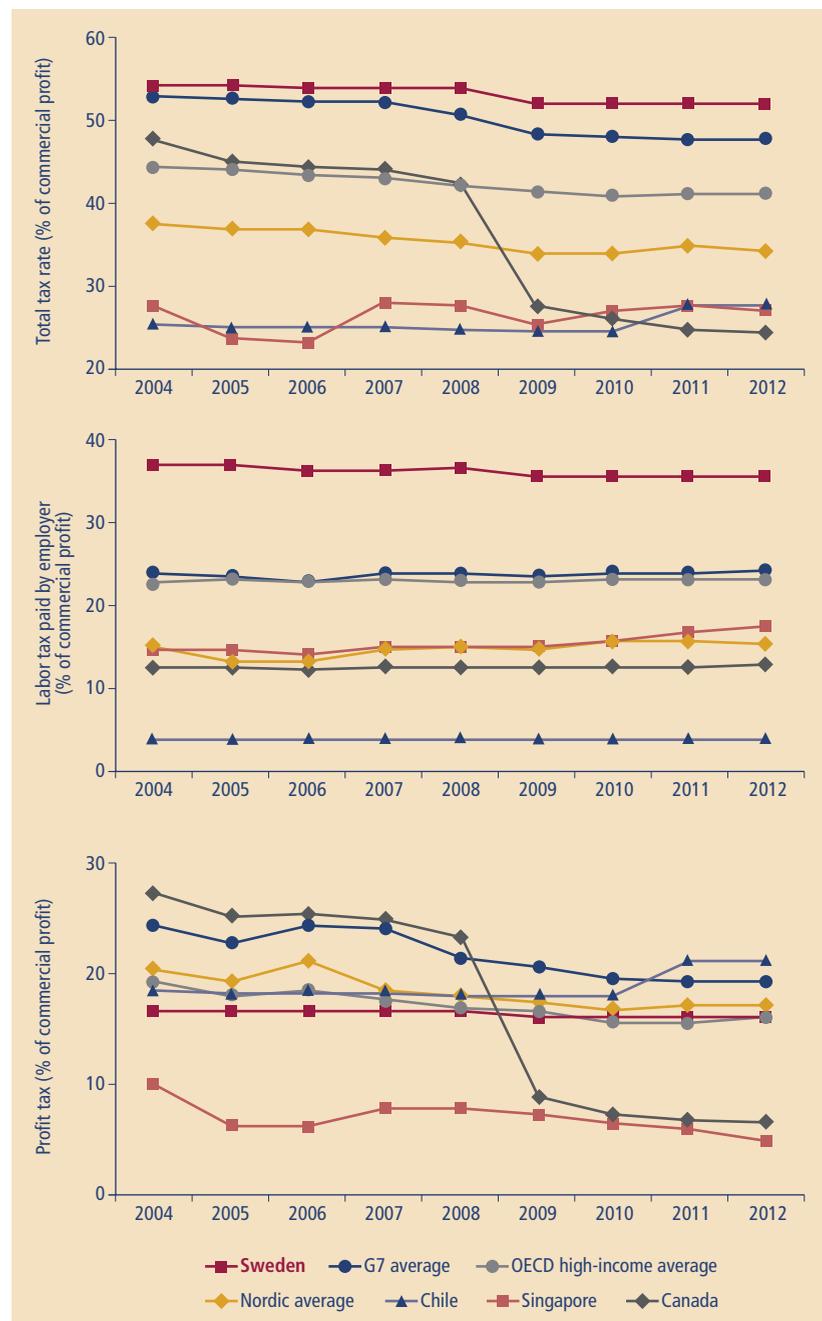
Tax rates high but declining

Sweden's total tax rate as calculated by *Doing Business* declined from 54.1% of commercial profit in 2005 to 52% in 2012 (figure 2.2).¹⁶ The reduction came through cuts in both 2006 and 2009 in the general social security contributions paid by employers. The total tax rate for years after 2012 is expected to decline further, reflecting the reduction in the corporate income tax rate stipulated in the 2013 budget (from 26.3% to 22%) for fiscal years starting on or after January 1, 2013.

Yet at 52% of commercial profit, Sweden's total tax rate is still one of the highest among OECD high-income economies (figure 2.3).¹⁷ Labor tax accounts for 68% of the total tax cost for businesses—a higher share than the average in both OECD high-income economies (56%) and G7 economies (50%). In Sweden the statutory rate for social security contributions paid by employers is equal to 31.42% of total remuneration.¹⁸ Based on this rate, labor tax as calculated by *Doing Business* is 35.5% of commercial profit—considerably higher than the average in other Nordic economies (15.5% of commercial profit), OECD high-income economies (23.1%) and G7 economies (24.1%).

Among OECD high-income economies, labor tax as a share of commercial profit is lowest in New Zealand (3.1%) and Denmark (3.6%). In New Zealand

FIGURE 2.2 Slight decline over time in the total tax rate for Swedish firms



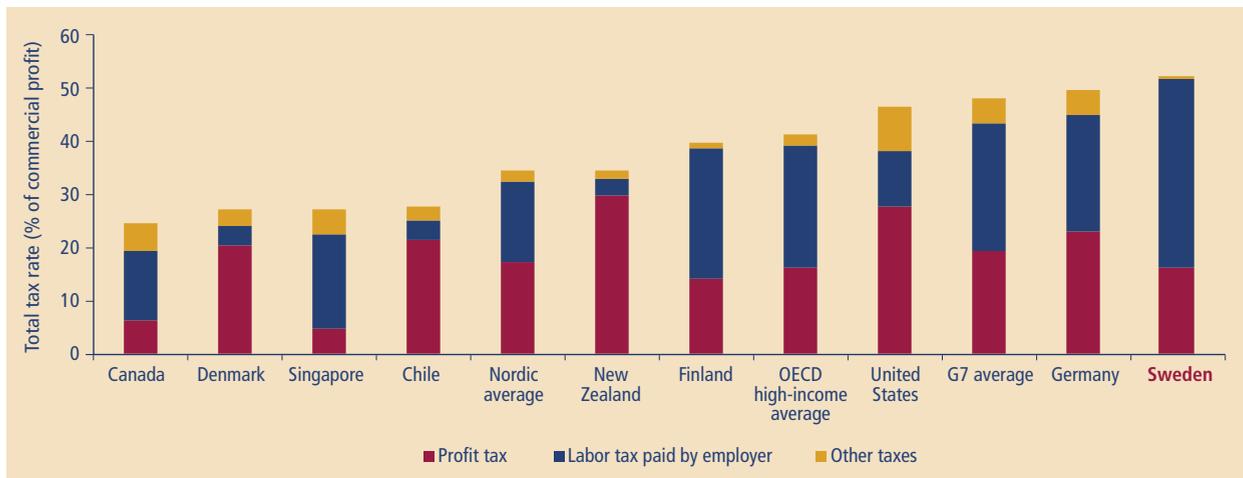
Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

employers pay only one labor tax—the accident compensation corporation (ACC) levy, equal to 2.04% of taxable income in fiscal 2012. In Denmark employers pay only fixed social security

contributions of 10,000-12,000 Danish kroner (US\$1,845-2,214) per employee per year; social security is financed mainly through direct taxes.¹⁹ Compared with their counterparts in Sweden, employers

FIGURE 2.3 Sweden's total tax rate is one of the highest among OECD high-income economies



Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

in the other Nordic economies also face lower statutory rates for social security contributions—in Iceland 7.79% of total remuneration, in Norway 14.1% and in Finland 21.34–23.74%.²⁰

But this is only part of the story. The difference between the wage costs to employers and the amount of net income that workers receive—called the tax wedge—not only includes the social security contributions and payroll taxes paid by employers; it also includes personal income tax paid by workers, their social security contributions and the family benefits they receive in the form of cash transfers. In Denmark employers may pay low fixed amounts for social security contributions, but workers contribute 8% of their gross salary or earnings to the labor market fund for unemployment insurance and voluntary early retirement.

Sweden has a moderate profit tax as calculated by *Doing Business*. At 16% of commercial profit, it is lower than the average in OECD high-income economies (16.1%), in other Nordic economies (17%) and in G7 economies (19.3%). Sweden's statutory corporate income tax rate in fiscal 2012 was 26.3% of taxable income. (With the deductions applying to businesses in Sweden, firms effectively paid 16% of commercial profit in corporate income tax as computed by

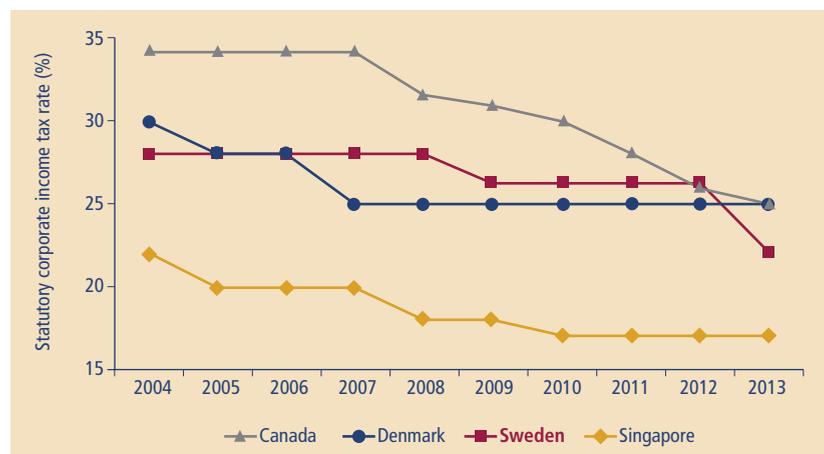
Doing Business.) Other Nordic economies have lower statutory corporate income tax rates, at 20% of taxable income in Iceland, 24.5% in Finland and 25% in Denmark.²¹

Worldwide, Singapore has one of the lowest profit tax rates as calculated by *Doing Business*. Its statutory corporate income tax rate is 17%.²² To make Singapore an attractive investment destination, the government has been consistently lowering the rate over the past years, supporting these efforts with greater spending efficiency in the

context of broad macroeconomic stability (figure 2.4).²³

Sweden's government too has taken measures to strengthen the potential for growth as well as to prevent unemployment persistence. Besides lowering the statutory corporate income tax rate, the 2013 budget introduced a new tax credit for individual investors in young and expanding firms. The reform is complemented by increasing public investment in infrastructure, research and innovation as well as redistributive measures to promote regional growth.²⁴

FIGURE 2.4 Singapore has consistently lowered its statutory corporate income tax rate



Source: World Bank Group, *Doing Business* database, 2013 edition.

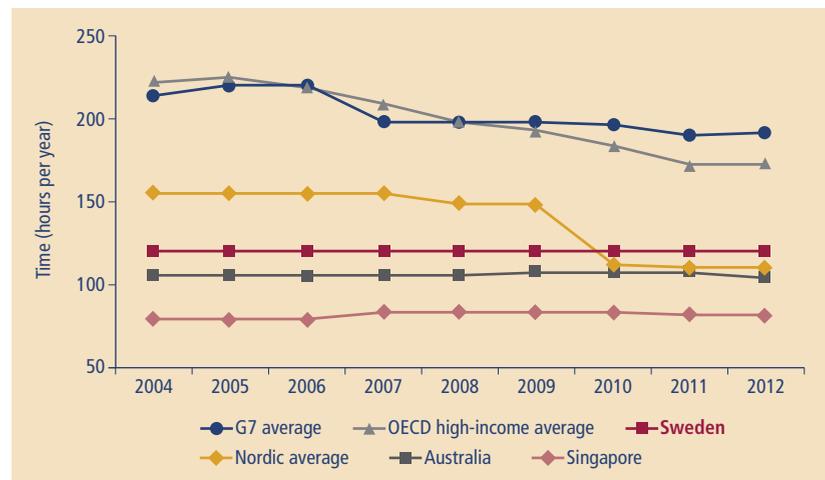
Compliance time low, though unchanging

Medium-size companies in Sweden can expect to spend 122 hours a year complying with 3 major taxes: corporate income tax (50 hours), social security contributions (36 hours) and value added tax (36 hours). This is less time than their counterparts spend preparing, filing and paying these taxes in many other OECD high-income economies.

Still, it is about twice as much time as firms spend in Switzerland (63 hours) and 50% more than in Singapore (82 hours). Moreover, Swedish firms saw no change in the time spent complying with tax regulations between 2004 and 2012—even as their counterparts in other Nordic economies benefited from major improvements (figure 2.5). So while 5 years ago businesses in the other 4 Nordic economies spent more time dealing with tax compliance on average than their Swedish counterparts, today they spend 10 hours a year less (figure 2.6).

For example, Finland cut compliance time by 26 hours a year by extending electronic filing to include corporate income tax in 2008/09 (it had previously covered all other taxes). And Finland lowered compliance time by another 150 hours a year by launching a new “Tax Account” system for self-initiated taxes in 2010.²⁵ Denmark reduced compliance time by

FIGURE 2.5 The time required to comply with taxes has remained low but unchanging for Swedish firms



Note: Nordic average excludes Sweden.

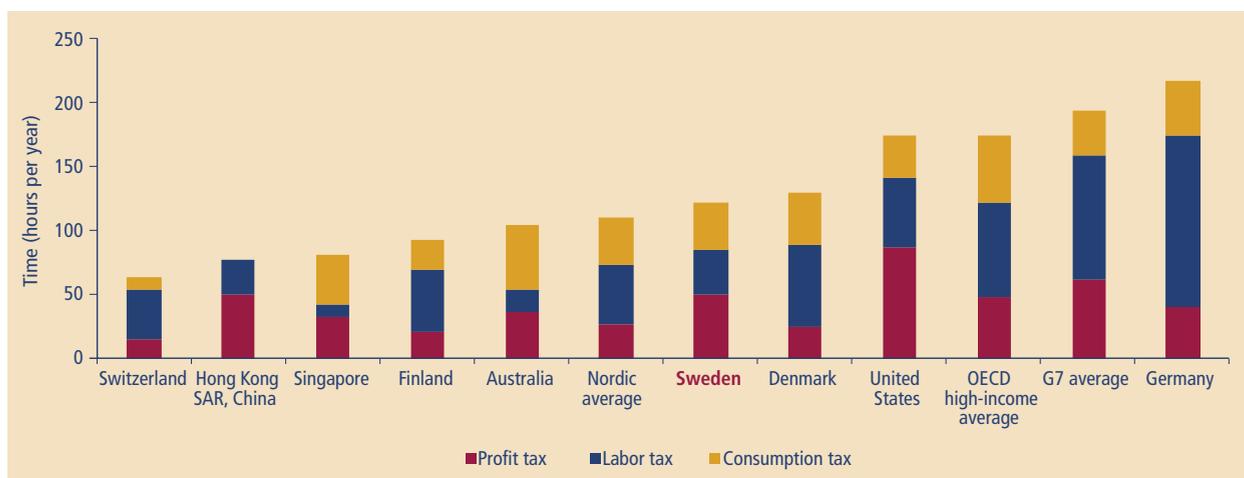
Source: World Bank Group, *Doing Business* database, 2013 edition.

about 5 hours a year by eliminating the obligation for companies to report employee benefits of less than 1,000 Danish kroner (US\$184) in 2011/12.

While unchanged in recent years, compliance time in Sweden is nevertheless in the medium to low range, thanks to the use of modern information technology. Sweden’s introduction of e-tax, its electronic tax declaration system, has reduced compliance costs for businesses

and freed up administrative resources for the Swedish Tax Agency, allowing it to focus on complex matters such as auditing or questionable returns. Such changes are particularly important for smaller enterprises, which face greater compliance costs relative to firm size.²⁶ But compared with the world’s most efficient tax compliance systems—such as those in Switzerland and Singapore—Sweden’s still has room for improvement (see figure 2.6).

FIGURE 2.6 Other Nordic economies have surpassed Sweden in reducing tax compliance time for firms



Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

Number of payments among the lowest

To comply with taxes, firms in Sweden make 4 payments a year as measured by *Doing Business* (figure 2.7). In only 2 economies—Hong Kong SAR, China, and Saudi Arabia—do firms make fewer (3 payments a year in both).

This does not mean that Swedish companies are liable for only 4 taxes a year. The case study company must comply with 5 taxes—1 profit tax, 1 labor tax, 1 consumption tax and 2 other taxes. Instead, the low number of payments in Sweden reflects the country's implementation of electronic filing and payment for corporate income tax, social security contributions and value added tax.²⁷ The *Doing Business* tax payments indicator takes into account electronic filing. Where the majority of firms use fully electronic means to both file and pay a particular tax, the tax is counted as paid once a year even if the payment is more frequent.

In addition, Sweden's real estate tax, which firms file jointly with corporate income tax, is not counted as a separate payment. And the fuel tax, which is embedded in payments to third parties other than the government, is counted as 1 payment even though it is paid more than

once. As a result, only 4 payments are counted for the 5 taxes (figure 2.8).

SOME GLOBAL GOOD PRACTICES IN PAYING TAXES

Worldwide, economies that make paying taxes easy for domestic firms typically offer electronic systems for tax filing and payment, have one tax per tax base and use a filing system based on self-assessment. Sweden has implemented all 3 of these good practices.

Sweden's e-tax system is used by most firms to pay taxes, benefiting both the Swedish Tax Agency and the firms. For the Swedish Tax Agency, electronic filing lightens the workload and reduces operational costs, such as the costs of processing, storing and handling tax returns. At the same time, it increases tax compliance and saves time. Electronic filing also saves time for taxpayers, by reducing calculation errors on tax returns and making it easier to prepare, file and pay taxes.²⁸ Moreover, the e-tax system may reduce potential incidents of corruption, which are more likely to occur with more frequent contact with tax administration staff.²⁹ Among OECD high-income economies, all but 2 offer electronic filing.

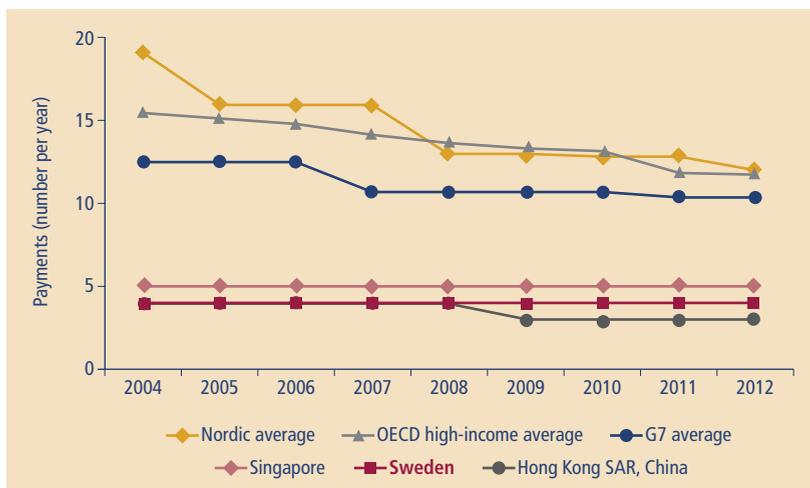
Multiple taxation, in which the same tax base is subject to more than one tax treatment, makes efficient tax management challenging. It increases firms' administrative cost of doing business as well as the government's cost of revenue administration. Sweden makes tax compliance simple by levying only 1 profit tax (the corporate income tax), 1 labor tax (social security tax) and 1 value added tax. Seven other OECD high-income economies also have one tax per tax base (Chile, Greece, Norway, the Slovak Republic, Slovenia, Spain and the United Kingdom).

Self-assessment—where taxpayers are expected and trusted to determine their own liability under the law and pay the correct amount—has become a popular way to efficiently administer a country's tax system. With high rates of voluntary compliance, administrative costs are much lower and so is the burden of compliance actions.³⁰ Self-assessment systems also reduce the discretionary powers of tax officials and opportunities for corruption.³¹ The majority of OECD high-income economies, including Sweden, allow firms to calculate their own tax bills and file the returns.

OPPORTUNITIES FOR A MORE GROWTH-ORIENTED TAX SYSTEM

While the primary goal of tax policy is to raise public revenue, growth-oriented tax systems seek to minimize distortions and obstacles to investment, innovation, entrepreneurship and other drivers of economic growth. Based on empirical analysis, an OECD report suggests a "tax and economic growth" ranking: this rates corporate income tax as the most harmful type of tax for economic growth, followed by personal income tax and then consumption taxes—and recurrent taxes on immovable property as the least harmful.³² A European Commission report finds that recurrent property taxes and environmental taxes are the least detrimental to growth.³³ The different distortionary effects of different taxes suggest that a growth-oriented tax reform should shift part of the burden from income taxes to consumption, residential property or environmental taxes.³⁴

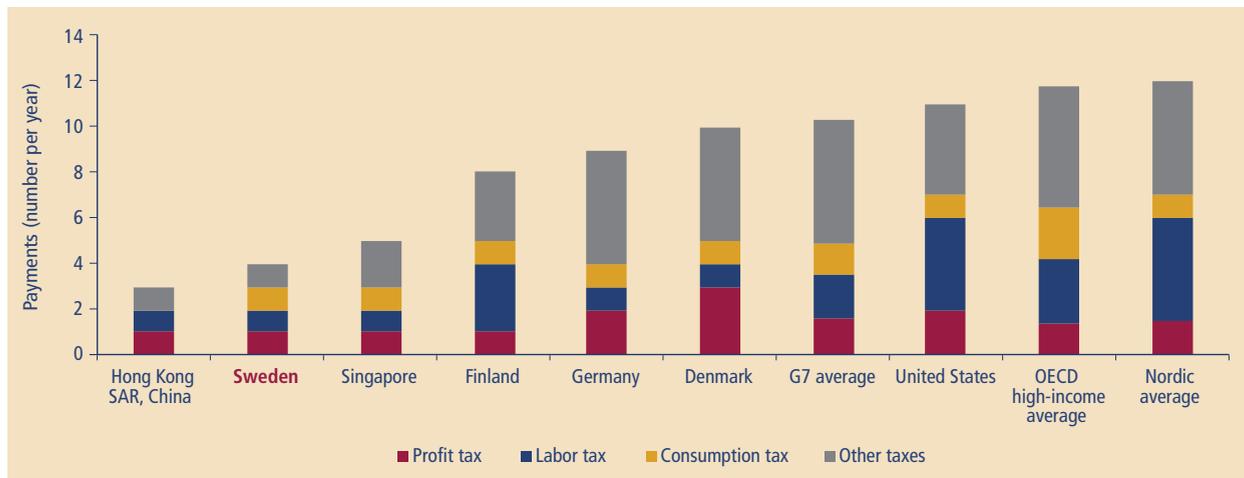
FIGURE 2.7 Sweden has kept the number of tax payments for firms low



Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

FIGURE 2.8 Electronic systems allow Swedish firms to pay 5 taxes through 4 payments a year



Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

Are there opportunities in Sweden to shift the tax burden in ways that would better support growth? This section addresses that question through a comparative review.

Labor taxes

A recent European Commission report finds that Sweden has the 5th highest implicit tax rate on labor in the European Union, after Belgium, Italy, Austria and Finland.³⁵ High taxes on labor are in general detrimental to growth. Personal income tax and social security contributions paid by employees affect labor supply by affecting the decisions of individuals about taking paid work and the number of hours they work—particularly for such types of workers as low-income people, married women and single mothers.³⁶ One analysis shows that raising the personal income tax rate by 12.8 percentage points leads to 122 fewer hours of market work per adult per year, a drop of 4.9 percentage points in the employment to population ratio and growth in the informal sector equal to 3.8% of GDP.³⁷ Labor taxes, particularly social security contributions paid by employers, also affect the demand for labor, by affecting its cost for employers.³⁸ Moreover, labor income taxes affect investment and the capital base of an economy by affecting the absolute level of saving.

Further evidence comes from a recent study showing that EU member countries can be classified into 2 groups with respect to employment and unemployment: one characterized by a high tax wedge, low employment and high unemployment, and the other conversely by a low tax wedge, high employment and low unemployment.³⁹ The study confirms a negative relationship between the tax wedge and employment, showing that an increase in the tax wedge of 1 percentage point reduces the employment growth rate in the EU-27 by around 0.04 percentage points, all else being equal.

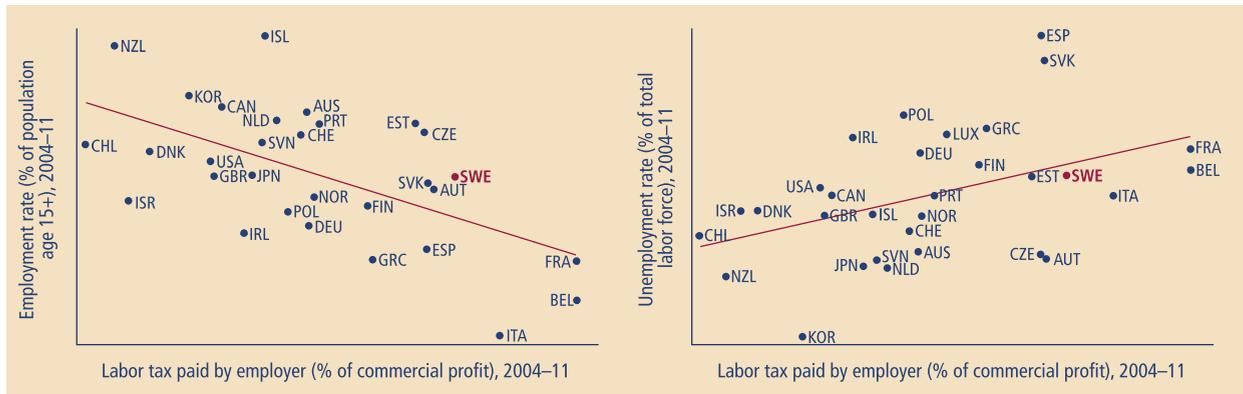
Consistent with existing research, analysis by *Doing Business* shows that in OECD high-income economies labor taxes paid by employers have a negative relationship with the level of employment and a positive one with the level of unemployment (figure 2.9). A 1 percentage point increase in the labor tax as calculated by *Doing Business* is associated with a decrease of about 0.2 percentage point in the share of the working-age population in employment and an increase of about 0.07 percentage point in the unemployment rate.

A study also has shown that the overall burdens of taxes and social security contributions are among the main causes

of the existence of the informal sector.⁴⁰ The size of an economy's informal sector is therefore a relevant indicator here. Sweden's was estimated to be 13.9% of GDP in 2013.⁴¹ Switzerland had the smallest informal sector among EU-27 economies, at 7.1% of GDP, followed by Austria (7.5%), Luxembourg (8%), the Netherlands (9.1%), the United Kingdom (9.7%) and France (9.9%).

High social security contributions may not only create incentives for businesses to become informal; they may also affect workers' choices in allocating time between labor and leisure and stimulate labor supply in the informal sector. The bigger the difference between the total cost of labor in the official economy and the after-tax earnings for employees—that is, the bigger the tax wedge—the greater the incentive to work in the informal sector. Since this difference depends largely on social security payments and the overall personal income tax burden, these are the key factors in the existence and growth of the informal sector. Sweden reduced the tax wedge for building renovation and reconstruction work and for household services through special tax relief programs known as ROT and RUT.⁴² The Swedish Tax Agency estimates that ROT and RUT led to the addition of 10,000–20,000 new jobs in the formal sector.⁴³

FIGURE 2.9 Lower labor taxes paid by employers are associated with higher employment—and higher labor taxes with higher unemployment



Note: Data are averages for the period shown. The relationships are significant at the 5% level after controlling for GDP per capita.

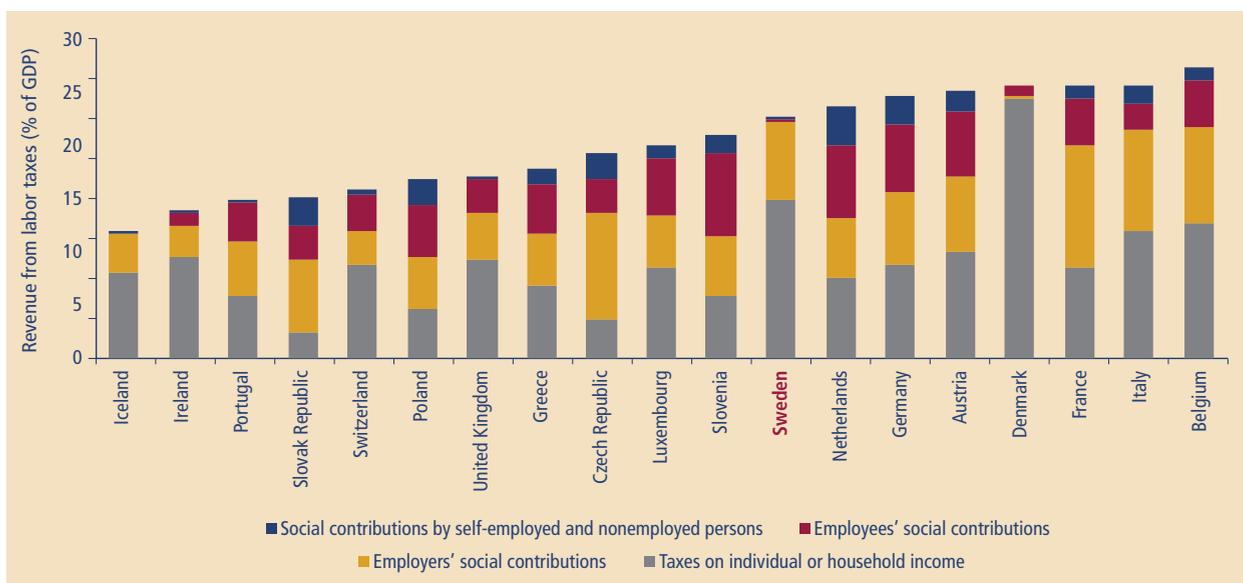
Source: World Bank Group, *Doing Business* database, 2013 edition; World Bank, World Development Indicators database, 2013 edition.

Labor taxes are not a one-sided issue. In Sweden revenue from labor taxes—equivalent to 22.6% of GDP in 2012—funds important social security benefits, including old age, sickness, maternity, work-related disability, survivor and unemployment benefits (figure 2.10). Yet a recent European Commission report suggests a need to consider the effects of the tax burden for some groups.

The report finds that Sweden's employment rate in 2012, at 79.4% of the population ages 20–64, was well above the EU-27 average (70.1%) and the Europe 2020 employment target of 75%.⁴⁴ This high employment rate despite the high level of labor taxes reflects an interesting dynamic: the level of taxes people are willing to pay without anguish also depends on whether in their perception the benefits they get for

their taxes are commensurate with the taxes they pay. But the report also suggests that Sweden's high employment rate may be masking employment issues for particular groups whose participation in the labor market is highly responsive to labor supply incentives created by lower after-tax wages—including second-earners, single mothers, low-skilled workers and both older workers and youth. Measuring the tax

FIGURE 2.10 Swedish labor taxes provided substantial revenue for funding benefits in 2012



Source: Eurostat, Main National Accounts Tax Aggregates data set, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_a_tax_ag&lang=en.

burden on low-skilled workers, and the “traps” they face in entering (or reentering) the labor market from inactivity and unemployment in Sweden, the report concludes that the country faces the particular challenge of reducing the tax burden on low-skilled workers.

Another report, by the International Monetary Fund, points out that while Sweden’s extensive structural reforms since the early 1990s have boosted trend growth and employment, they could be better targeted at helping groups of workers facing the most challenges.⁴⁵ The report suggests, for example, that the Swedish government might consider lowering payroll taxes specifically for new entrants to the labor market who need extra help in finding a job (rather than for the entire population of young potential workers, as it does now). The report notes a general tradeoff between simplicity and the ability to pinpoint the most problematic groups.

The Swedish government argues that broad, general reforms that increase incentives to work are the most effective way to improve labor market outcomes, including for groups with weak attachment to the labor market.⁴⁶ It is the government’s view that the reduction in payroll taxes for youth increases employment among this group. But the government has also undertaken extensive reforms directed toward vulnerable groups, including immigrants, the disabled and the long-term unemployed.

Corporate income tax

There is ample evidence on the distortionary effect of high corporate taxes. Findings from an empirical study suggest that a high corporate tax burden contributes to profit shifting by multinational companies, which take tax policy into account in allocating shared costs and returns and the value of intrafirm deliveries and services among subsidiaries in different countries.⁴⁷ In addition, parent firms tend to be located in countries with relatively low taxation of foreign-source income. Despite the general possibility of deferring taxation until income is repatriated, parent-country taxation is instrumental in shaping the structure of multinational enterprises.⁴⁸

Another study finds that an increase in the effective corporate tax rate leads to a decrease in aggregate investment, foreign direct investment and entrepreneurial activity.⁴⁹ In particular, raising the first-year average rate at which pretax profits are taxed—the first-year effective tax rate—by 10 percentage points reduces the investment rate by 2.2 percentage points and the foreign direct investment rate by 2.3 percentage points. A 10 percentage point increase in the first-year effective corporate tax rate also reduces business density (the number of firms per 100 people) by 1.9 and decreases the average entry rate by 1.4 percentage points.

In OECD high-income economies high profit and labor taxes for businesses have a negative relationship with new business density (figure 2.11). A 1 percentage point increase in profit and labor taxes as calculated by *Doing Business* is associated with a decrease of 7.8 in the number of newly registered limited liability companies per 100,000 people.

In Sweden the profit tax as calculated by *Doing Business* declined from 16.6% to 16% of commercial profit between 2004 and 2012, reflecting a reduction in the statutory corporate income tax

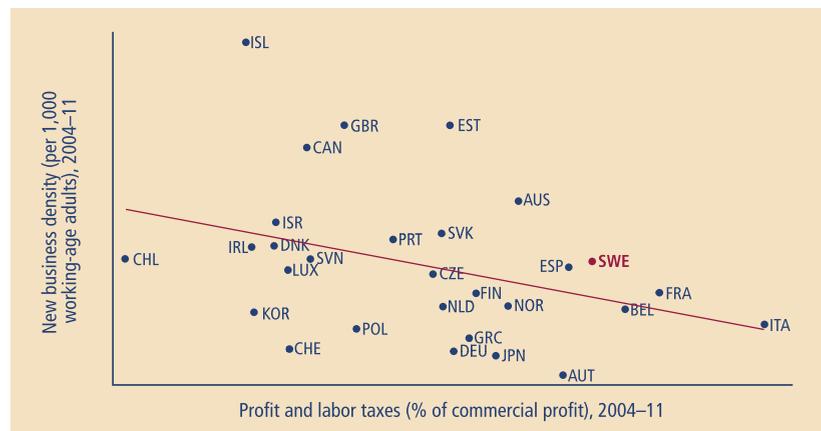
rate from 28% to 26.3%. The measure is expected to decline further as it takes into account the large corporate income tax cut specified in the 2013 budget, from 26.3% to 22%. In 2012 revenue from corporate income tax in Sweden, equivalent to 2.9% of GDP, was higher than the EU-27 average at 2.5% of GDP (figure 2.12).

Consumption taxes

While labor and corporate income taxes are commonly associated with lower economic growth, consumption taxes, including value added tax, are among the taxes least detrimental to growth.⁵⁰ Consumption taxes are less distortive than personal income taxes because they fall in part on accumulated assets, which respond little to changes in tax levels. Consumption taxes do not affect the returns to saving and in most cases are not progressive.

An OECD report finds that a revenue-neutral shift from income taxes (particularly personal income tax) to consumption taxes has little effect on the total taxes paid by typical workers and thus on their decisions on whether or not to work.⁵¹ But because income taxes are broadly progressive while consumption

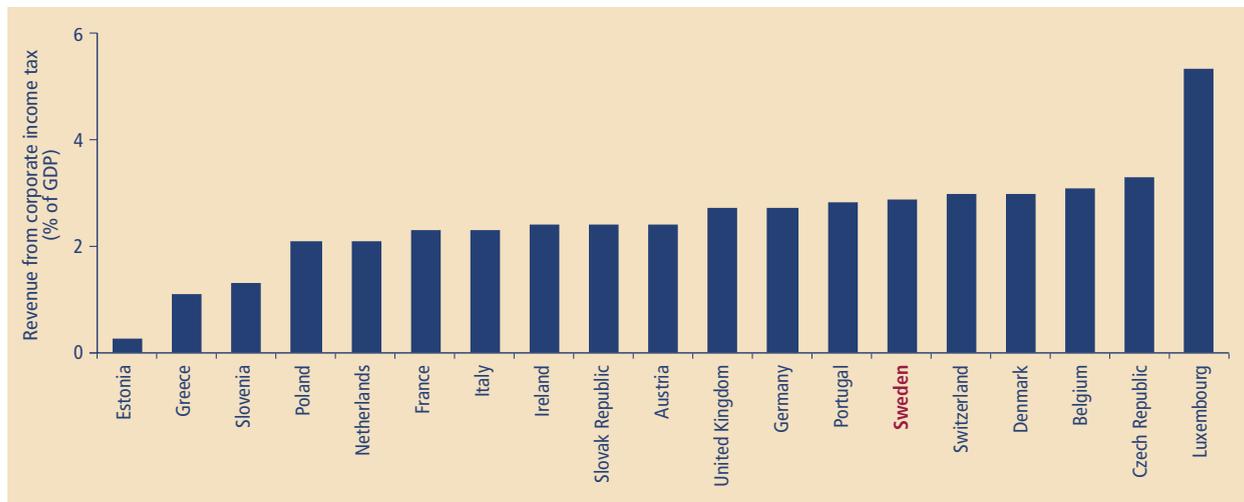
FIGURE 2.11 Higher profit and labor taxes for businesses are associated with lower entrepreneurship



Note: Data are averages for the period shown. New business density is defined as newly registered limited liability companies per 1,000 people ages 15–64. The relationship is significant at the 5% level after controlling for GDP per capita.

Source: World Bank Group, *Doing Business* database, 2013 edition; World Bank, World Development Indicators database, 2013 edition.

FIGURE 2.12 For most EU-27 economies, revenue from corporate income tax was less than 3.5% of GDP in 2012



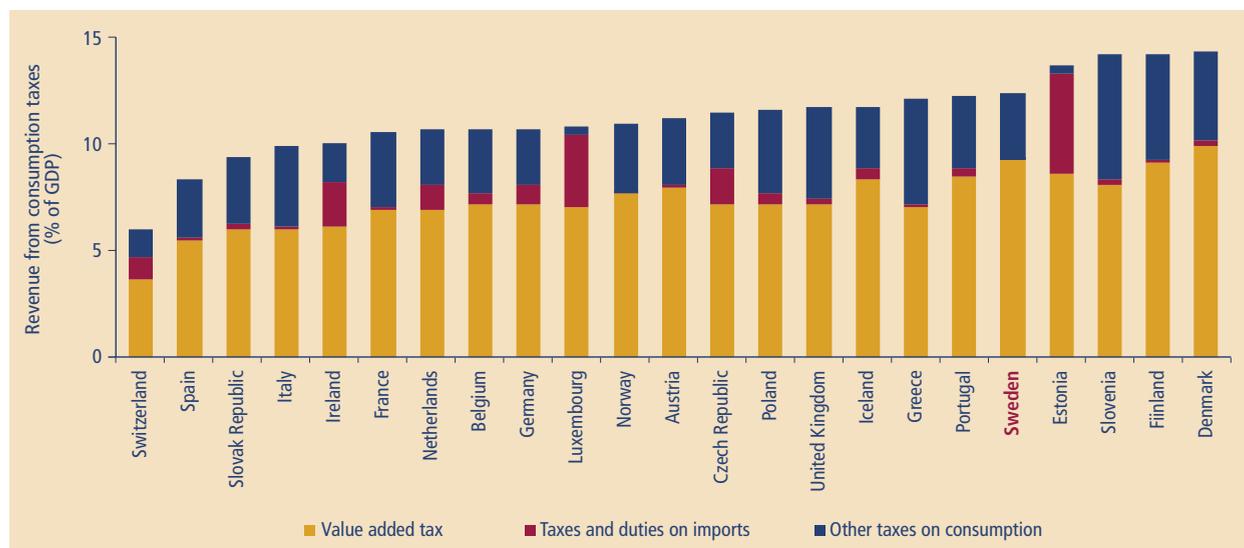
Source: Eurostat, Main National Accounts Tax Aggregates data set, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_a_tax_ag&lang=en.

taxes are proportional to income and expenditure, the shift reduces workers' marginal tax rate and increases their incentive to work additional hours. Research suggests that a revenue-neutral shift from personal and corporate income taxes to consumption and property taxes of 1% of GDP would increase GDP per capita by a range of 0.25-1 percentage point in the long run.⁵²

Sweden's revenue from consumption taxes, at 12.5% of GDP in 2012, is relatively close to the EU-27 average of 11.2% (figure 2.13). But its implicit tax rate on consumption, at 27.3% in 2011 and on a growing trend, was the second highest in the European Union (after Denmark's 31.4%) and roughly 7 percentage points above the EU-27 average (20.1%).⁵³ This can be

explained by the fact that Sweden has one of the highest standard statutory value added tax rates (at 25%)⁵⁴ in the European Union and above-average rates for excise duties. These features would require careful consideration when analyzing whether further shifting the tax burden from labor and corporate income taxes to consumption taxes is an option.

FIGURE 2.13 Sweden's revenue from consumption taxes in 2012 was close to the EU-27 average



Source: Eurostat, Main National Accounts Tax Aggregates data set, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=gov_a_tax_ag&lang=en.

Property taxes

Stefan Ingves, governor of Sveriges Riksbank, the central bank of Sweden, recently expressed concern about household debt, calling it an increasing risk to the economy.⁵⁵ Mr. Ingves has seen firsthand what bursting asset price bubbles leave behind. He had a hands-on role cleaning up after Sweden's banking meltdown in the early 1990s.

According to a recent OECD report, low property taxes in Sweden fuel growth in house prices, given constrained supply in the short run, and increase household debt.⁵⁶ The report recommends that the country increase taxes on owner-occupied housing as a way to achieve greater horizontal equity in the taxation of different assets.⁵⁷ The European Commission has also taken note of Sweden's low property taxes. It considers Sweden to be among 10 EU member countries facing the challenge of a tax system that favors housing investment and household indebtedness.⁵⁸ The International Monetary Fund also recognizes the challenge for Sweden from its low property taxes. It recommends a phased-in reform to better balance the tax treatment of household assets by lowering tax deductions for mortgages and increasing residential property taxation.⁵⁹

This makes sense, because property taxes, particularly recurrent taxes on

immovable property, are among the taxes least detrimental to growth.⁶⁰ Conversely, favorable tax treatment of home ownership, while it contributes to positive externalities for society, can lead to distortions in the economy. Home ownership tends to reduce labor mobility, and the deductibility of interest payments can stimulate overinvestment in the housing sector. In Sweden incentives toward debt financing and the lack of taxation on imputed rents have led to overinvestment in immovable property to the detriment of other productive investment.⁶¹ Sweden's revenue from property taxes is significantly below the European average, suggesting room to shift tax burden from labor and corporate taxes to property taxes (figure 2.14).

Environmental taxes

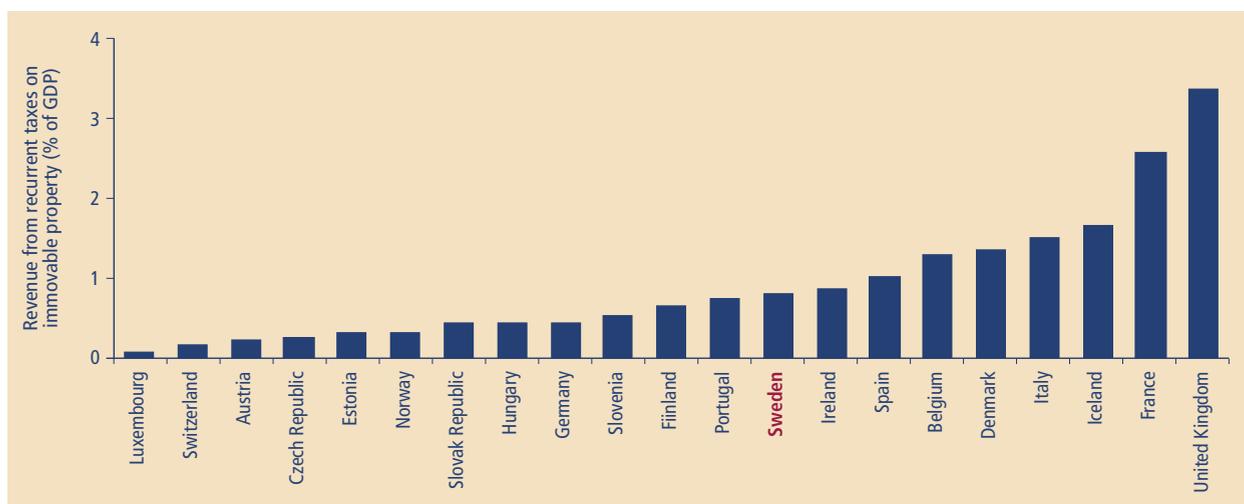
Environmental taxes are an important fiscal tool for improving environmental effectiveness, increasing economic efficiency and raising public revenue.⁶² In recent years Sweden's environmental policy has included using tax and other economic instruments, such as taxes on energy use and emissions, emission permits and payments for measures to improve the environment. The government has consciously aimed at an overall tax shift in which "green taxes" gradually replace income taxes and social contributions. Between

2000 and 2012, according to Statistics Sweden, environmental taxes increased by 43% in Sweden while environmentally motivated subsidies grew by 33%.⁶³

The revenue from environmental taxes remained relatively stable in Sweden between 2000 and 2010, varying from 2.7% to 2.9% of GDP.⁶⁴ In 2011 it dropped slightly, from 2.7% to 2.5% of GDP. Compared with labor and corporate taxes, the scope for revenue from environmental taxes is relatively low because of the relatively narrow tax base. But the higher revenue from environmental taxes in Denmark (4.1% of GDP), Finland, Italy and the United Kingdom suggests a potential for raising revenue levels in Sweden (figure 2.15).⁶⁵

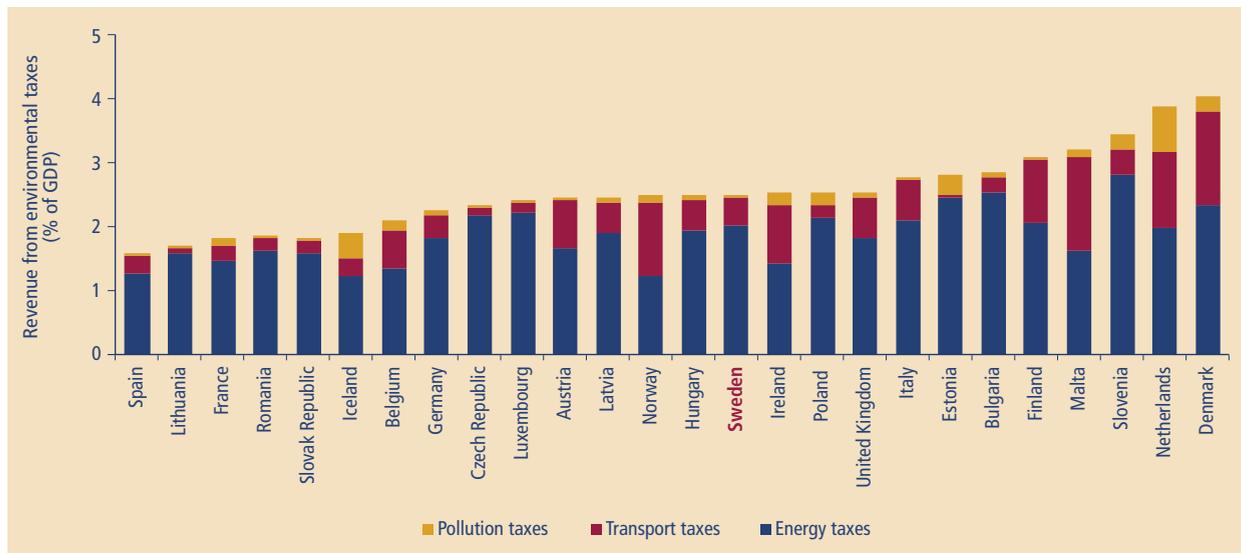
There is also further scope for comprehensive policy reforms aimed at leveling and aligning taxes across sources of damaging emissions and scaling back redundant energy taxes. Sweden stands out among EU countries for its limited reliance on fossil fuels; almost half its electricity is produced by hydro, and coal end-use consumption and natural gas consumption are low. In addition, sulfur dioxide and nitrogen oxide taxes have been fixed in nominal terms since 1991, while the carbon dioxide tax has been updated for inflation from time to time.⁶⁶ These features would require careful consideration when analyzing

FIGURE 2.14 Sweden's revenue from property taxes in 2012 was significantly below the European average



Source: OECD, Revenue Statistics, <http://stats.oecd.org/Index.aspx?DataSetCode=REV>.

FIGURE 2.15 Sweden's revenue from environmental taxes in 2011 was lower than that of many comparators



Source: Eurostat, Environmental Tax Revenues data set, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env_ac_tax&lang=en.

options for further shifting the tax burden from labor and corporate income taxes to environmental taxes.

CONCLUSION

Businesses in Sweden pay 52% of profit in taxes, more than the average in G7 or OECD high-income economies. These taxes include employer-paid social security contributions that are among the highest in the world. While the primary goal of tax policy is to raise public revenue, taxation shapes incentives, and through active policy choices taxation can be structured to promote innovation, new business creation and economic growth.

Different taxes have different effects on the economy. Personal income tax and social security contributions have distortionary effects on labor supply, employment and the size of the informal sector. And a high corporate income tax level increases the risk of profit shifting and lower levels of entrepreneurial activity and foreign direct investment. Consumption taxes, recurrent property taxes and environmental taxes are less detrimental to growth. A comparative review suggests that opportunities exist in Sweden to shift part of the tax burden from labor and corporate taxes to these less detrimental taxes.

NOTES

This chapter has been written by Nan (Charlotte) Jiang with the assistance of Nina Paustian.

- Hibbs and Piculescu 2010. Tax evasion does not appear to be significant in Sweden despite relatively high tax levels. According to the Swedish National Council for Crime Prevention (2012), 15,800 tax evasion cases were reported under the Tax Offences Act (skattebrottslagen) in 2012.
- Djankov and others 2010.
- <http://www.enterprisesurveys.org>.
- Djankov and others 2010; Lee and Gordon 2005.
- Hansson 2007. A higher personal income tax rate has an impact on tax avoidance through changes in the form of compensation, including between earned income and fringe benefits or between earned and unearned income.
- Egowan 2011.
- Sørensen 2010a.
- Agell, Englund and Sodersten (1996) evaluate the impact of the 1991 tax reform in Sweden. They find that before the reform Sweden had highly nonuniform treatment of capital income, with a steeply progressive tax schedule and children treated as separate taxpayers. As a result, firms set up joint ventures to shift their capital gains to tax-exempt institutions and parents shifted their capital income to their children, claiming deductible expenses against fully taxable income and reporting income in forms granted preferential tax treatment. The reform eliminated the asymmetric tax rules and disincentivized tax planning by lowering the statutory corporate income tax rate, reducing the availability of different tax shields among companies and taxing individual capital income at a proportional rate with no exemptions. The reform further reduced tax avoidance by eliminating the holding-period distinction for capital gains, which had led to short-term gains (those on shares held for less than 2 years) being fully taxed while long-term gains were taxed at 40% of the income tax rate.
- Agell, Englund and Sodersten 1996.
- Agell, Englund and Sodersten 1996. In particular, the reform reduced the tax discrimination against financial savings and the tax benefits to savings in real assets. The new tax rules gave households strong incentive to shift from real to financial savings outlets by selling off assets and amortizing debt, leading to a dramatic increase in the household financial savings rate and net lending rate in the early 1990s.
- Insurance, financial services, medical services and immovable property are exempt from value added tax in Sweden.
- Sørensen (2010b), however, suggests that shifting back from the differentiated value added tax to a uniform one could generate a gain in economic efficiency equal to 0.5-1% of total private consumption, while moving from the surtax on high income earners to a uniform personal income tax could expand

- the tax base. Similarly, the *Economist* (2012) argues that although the elimination of inheritance, wealth and property taxes led to substantial increases in capital income at the top of the income scale, it has not always improved efficiency because it tends to favor residential property over more productive investment. While Copenhagen Economics (2007) suggests that value added tax should in general be levied to the extent possible on a broad base, minimizing revenue losses from exemptions and reduced rates, the preferential value added rate (such as that for restaurants and catering services) is for purposes of job creation. The Swedish government has commissioned an in-depth analysis of the effects of the reform, to be presented in early 2016.
13. The total tax rate measures the amount of taxes and mandatory contributions borne by the firm, including profit tax, labor tax, sales tax and other taxes, expressed as a percentage of commercial profit. The total tax rate differs from the statutory tax rate, which merely provides the factor to be applied to the tax base. In computing the total tax rate, the actual tax payable is divided by commercial profit. Commercial profit is essentially net profit before all taxes borne. It differs from the conventional profit before tax reported in financial statements. In computing profit before tax, many of the taxes borne by a firm are deductible, while in computing commercial profit, these taxes are not deductible. Commercial profit therefore presents a clear picture of the actual profit of a business before any of the taxes it bears in the course of the fiscal year are deducted. Commercial profit for the case study company reflects assumptions about its business, including its assets and a property transaction. It is computed as sales minus cost of goods sold, minus gross salaries, minus administrative expenses, minus other expenses, minus provisions, plus capital gains (from the property sale) minus interest expense, plus interest income and minus commercial depreciation. To compute the commercial depreciation, a straight-line depreciation method is applied, with the following rates: 0% for the land, 5% for the building, 10% for the machinery, 33% for the computers, 20% for the office equipment, 20% for the truck and 10% for business development expenses. *Doing Business* assumes that the commercial profit of the case study firm is 59.4 times the income per capita of the relevant economy.
 14. The threshold is defined as the highest total tax rate among the top 15% of economies in the ranking on the total tax rate. It is calculated and adjusted on a yearly basis. All economies with a total tax rate below this threshold receive the same score as the economy at the threshold.
 15. See note 13 for an explanation of how the total tax rate is computed by *Doing Business*.
 16. The big drop in total tax rate shown for Canada in figure 2.2 reflects efforts by the federal government and the Ontario provincial government to harmonize federal and provincial corporate income taxes, which allowed Ontario businesses to file a single corporate tax return and make a combined payment starting in fiscal 2009. To facilitate this change, Ontario harmonized its provincial corporate income tax base with the federal one and allowed accelerated depreciation for certain categories of assets. In addition, the main federal corporate income tax rate was reduced from 19.5% in 2008 to 19% in 2009 (and further to 18% in 2010), and the provincial corporate income tax rate from 14% to 12%. These efforts, combined with other minor changes in property taxes and labor taxes borne by employers, lowered the total tax rate from 42.3% of commercial profit to 27.7% between 2008 and 2009.
 17. In Germany firms effectively pay 23% of commercial profit in profit tax, which is on the high end in Europe. The reason is that Germany levies 3 profit taxes: the corporate income tax (statutory rate of 15%), the municipal trade tax (14–17%) and the solidarity surcharge (5.5% levied on the corporate income tax). Businesses in the United States also pay a high percentage of profit in corporate income tax—reflecting not only a federal corporate income tax (statutory rate of 15–39%) but also a state corporate income tax (7.1% in New York State) and a city corporation income tax (9% in New York City).
 18. Employees born in 1937 or earlier are not subject to the special salary tax on business income. The rate for individuals younger than 26 is 15.49%.
 19. European Commission 2013c.
 20. In Finland the labor taxes borne by employers comprise social security contributions (2.12% of total remuneration), pension insurance contributions (17.35%), unemployment insurance contributions (0.80–3.20%), accident insurance contributions (1%) and group-life insurance contributions (0.07%). In Iceland the general rate for the social security contributions borne by employers has been further lowered from 7.79% to 7.69% starting January 1, 2013.
 21. In Finland the rate has been lowered to 20% effective January 1, 2014. In Denmark the rate will be further reduced to 24.5% in 2014, 23.5% in 2015 and 22% from 2016 on.
 22. Furthermore, a partial exemption of 75% is available on the first S\$10,000 (US\$7,960) and 50% on the subsequent S\$290,000 (US\$230,840) of income. In addition, some new companies are eligible for a full exemption from tax for the first S\$100,000 (US\$79,600) of normal chargeable income and a 50% exemption for the next S\$200,000 (US\$159,200) during the first 3 consecutive years of assessment beginning from 2005.
 23. According to the International Monetary Fund (IMF 2013a), initiatives in Singapore's fiscal 2013 budget—including wage credits, corporate income tax rebates and investment subsidies—are designed to benefit firms affected by wage increases and new investments, particularly small and medium-size enterprises. These support mechanisms, combined with social measures (improving access to education, expanding wage supplements for low-income workers and increasing direct assistance to the elderly), are expected to inject a stimulus of 1.75% of GDP in 2013 and 2014.
 24. European Commission 2013b.
 25. The Tax Account concerns taxes that taxpayers report and pay on their own initiative (excluding asset transfer tax and supplementary prepayments). The system contains information on the payments, debits, refunds and interest on value added tax and employers' social contributions.
 26. Pope and Rametse 2001; Pope 2001; European Commission 2004; Foreign Investment Advisory Service 2007; Crain and Crain 2010.
 27. <http://www.skatteverket.se>.
 28. Che Azmi and Kamarulzaman 2010.
 29. James 2009.
 30. Ricard 2008.
 31. Imam and Davina 2007.
 32. OECD 2010c.
 33. European Commission 2013c.
 34. European Commission 2013c.
 35. European Commission 2013c. The implicit tax rate measures the actual or effective tax burden levied on different types of economic income or activities that could potentially be taxed. The rate is computed as the ratio of total tax revenues of the specific economic category (consumption, labor or capital) to a proxy of the potential tax base defined using the production and income accounts of national accounts. The taxes on labor include those on employed labor (taxes directly linked to wages and mostly withheld at source), paid by employees and employers (for example, compulsory social contributions), and those on nonemployed labor income (all taxes and compulsory social contributions raised on transfer income of nonemployed people, where these could be identified, for example, unemployment and health care benefits).
 36. Meghir and Phillips 2010.
 37. Davis and Henrekson 2004.
 38. European Commission 2013c.

39. Dolenc and Laporšek 2010. The authors define tax wedge as the ratio of total labor taxes to total labor costs.
40. Schneider, Buehn and Montenegro 2010.
41. Schneider (2013) estimated the size of the informal sector in 31 European and 5 other OECD countries between 2003 and 2013. He defines the informal sector as all market-based legal production of goods and services that is deliberately concealed from public authorities to avoid payment of income taxes, social security contributions, value added taxes or other taxes; to avoid having to meet certain legal labor market standards, such as minimum wages, maximum working hours and safety standards; as well as to avoid complying with certain administrative procedures, such as completing statistical questionnaires or other administrative forms.
42. McKinsey Sweden and McKinsey Global Institute 2012. The government's tax relief program for renovation, reconstruction and extension work (ROT) was introduced as a temporary measure for the first time in 1993 and was repeated a number of times. It was reintroduced on a permanent basis in 2008. The tax relief program for cleaning, maintenance and laundry work (RUT) was introduced in 2007.
43. Swedish Tax Agency 2011.
44. European Commission 2013d.
45. IMF 2012.
46. IMF 2012.
47. De Mooij and Ederveen 2008. One important route for shifting multinational profits is the manipulation of transfer prices. While the OECD Transfer Pricing Guidelines require entities of a multinational company in different countries to trade with one another on the basis of arm's-length prices (the prices that would apply to market transactions between unrelated parties), no outside market exists for many goods and services, including intangibles such as brand names and intellectual property rights. This leaves multinationals free to determine their own prices. By charging an artificially low price for goods transferred from high-tax to low-tax countries, a multinational can reduce its overall tax liability.
48. Barrios and others 2009.
49. Djankov and others 2010.
50. European Commission 2010.
51. OECD 2007a.
52. Heady and others 2009.
53. Eurostat, Implicit Tax Rates by Economic Function data set, <http://appsso.eurostat.ec.europa.eu/>. The tax on consumption is that levied on transactions between final consumers and producers and on the final consumption goods, such as value added tax, taxes and duties on imports excluding value added tax, stamp taxes, taxes on financial and capital transactions, taxes on international transactions and on pollution, undercompensation of value added tax, poll and expenditure taxes, and payments by households for licenses.
54. As noted, Sweden reduced the value added tax rate for restaurants and catering services on job creation grounds, in 2012 (European Commission 2013d).
55. Duxbury 2014.
56. OECD 2012b.
57. The issue is known as tax on imputed rents, which refer to the benefit gained by a household living in a dwelling that it owns compared with a corresponding household living in a rental dwelling with market rent.
58. European Commission 2013d.
59. IMF 2013b.
60. European Commission 2013d.
61. IMF 2013b; OECD 2012b.
62. OECD 2011a.
63. Statistics Sweden, "Total Environmental Taxes in Sweden 2000-2012: Corrected 2013-10-29" and "Total Environmentally Motivated Direct Subsidies 2000-2012," <http://www.scb.se>.
64. Eurostat 2013.
65. Eurostat 2013.
66. Heine, Norregaard and Parry 2012.

Labor market regulation

While Sweden ranks among the top economies on measures of competitiveness or the efficiency of business regulation, it lags behind on measures of the flexibility of labor market regulation.¹ This was recently highlighted in the Heritage Foundation's *2013 Index of Economic Freedom*, which points out that although Sweden's regulatory environment is highly efficient, its labor market regulations remain among the most rigid in Europe.² The regulations protect employees, especially those holding permanent jobs, but at a cost to firms' ability to respond to market fluctuations.

Employment regulations are unquestionably necessary. They are needed to protect workers from arbitrary or unfair treatment and to ensure efficient contracting between employers and workers. They increase job stability and can improve productivity through employer-worker cooperation. They benefit both workers and firms.³

Labor market regulations encompass a wide spectrum, from rules governing individual employee contracts to those relating to collective action, and can have a significant impact on economic growth and competitiveness.⁴ That impact can be negative where regulatory interventions are insufficient or excessive, so finding the right balance is essential. The World Bank's *World Development Report 2013* uses the term *plateau* to describe that balance, which can differ among economies depending on the economic or political context. According to the plateau effect, regulations that are too loose or too strict can be counterproductive, leading to losses of employment in an economy or to its missing out on job-supporting agglomeration effects and knowledge spillovers.⁵

Sweden has long taken a pragmatic approach to implementing labor market policies and has actively reformed them over the past decades. After having pursued low inflation and wage leveling through marginal employment subsidies, income security for job loss and supply-side policies designed to enhance labor mobility (the Rehn-Meidner model), Sweden responded to the 1973-74 oil crisis with massive state subsidies for industries in crisis and with selective employment programs. In the 1980s it implemented new policies focusing heavily on workforce training, which effectively replaced demand-oriented programs as the most important labor market policy measure.⁶ Shortly after, the government introduced a temporary system of universal employment subsidies for firms hiring unemployed workers. By the late 2000s it had introduced programs designed to facilitate young workers' entry into the labor force (Youth Job Program), new measures targeting long-term unemployment, other policies designed for those in need of basic knowledge on job seeking as well as a wide variety of programs for people with disabilities or the mentally ill.

While structural reforms in Sweden have helped lower the unemployment rate, challenges remain. One is the relatively high youth unemployment rate, which was 23.2% in the third quarter of 2013.⁷ Over the past 10 years this rate has been consistently higher than the general unemployment rate in Sweden (figure 3.1). Indeed, between 2000 and 2005 the number of unemployed youth doubled and the number of long-term unemployed youth tripled.⁸ While the youth unemployment rate declined somewhat between 2010 and 2011, it still remains much higher than the general unemployment rate. Today in Sweden, more than a

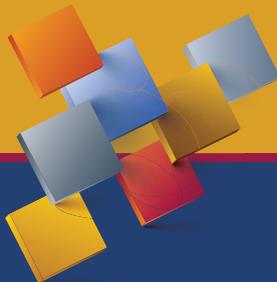
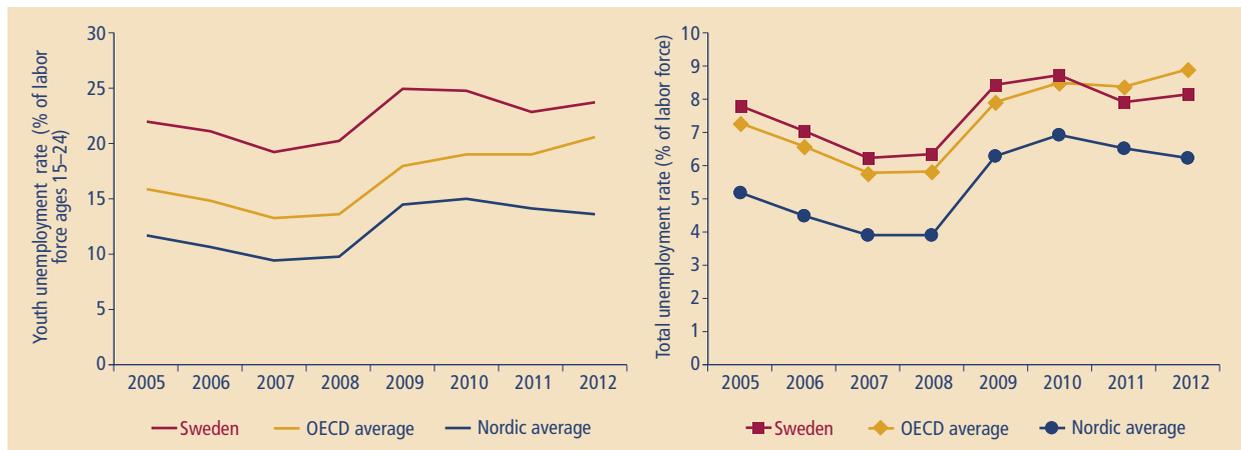
- 
- Sweden's labor market regulation is more rigid than the OECD high-income average in 7 areas covered by *Doing Business*.
 - The flexibility in Sweden's regulation of fixed-term and temporary employment contracts coupled with the rigidity in its regulation of permanent employment contracts points to a significant gap in the level of protection between the 2 types of contracts.
 - There is a risk of creating a "dual" labor market—with "insiders" who bear little risk of ever losing their job and "outsiders" who work under a fixed-term or temporary contract with less likelihood of transitioning to a permanent one.
 - Constructive dialogues with trade unions can lead to better policy results and increased labor market flexibility.

FIGURE 3.1 Unemployment in Sweden has been consistently higher among youth



Note: Nordic average excludes Sweden.

Source: OECD Employment Database, 2013 edition.

third of the unemployed population is under the age of 24.

Several factors need to be considered in assessing the flexibility of a country's labor market and thus its capacity to adapt to changes in the society, in the economy or in production. These include the level of employment protection, the way in which wages are set and other restrictions on labor relationships (such as those relating to work schedules and the types of contracts that may be granted). Through a set of data covering the main factors affecting labor market flexibility, the World Bank Group's *Doing Business* project offers a tool for determining how rigid or flexible

a country's labor market regulation is in comparison with that of others.

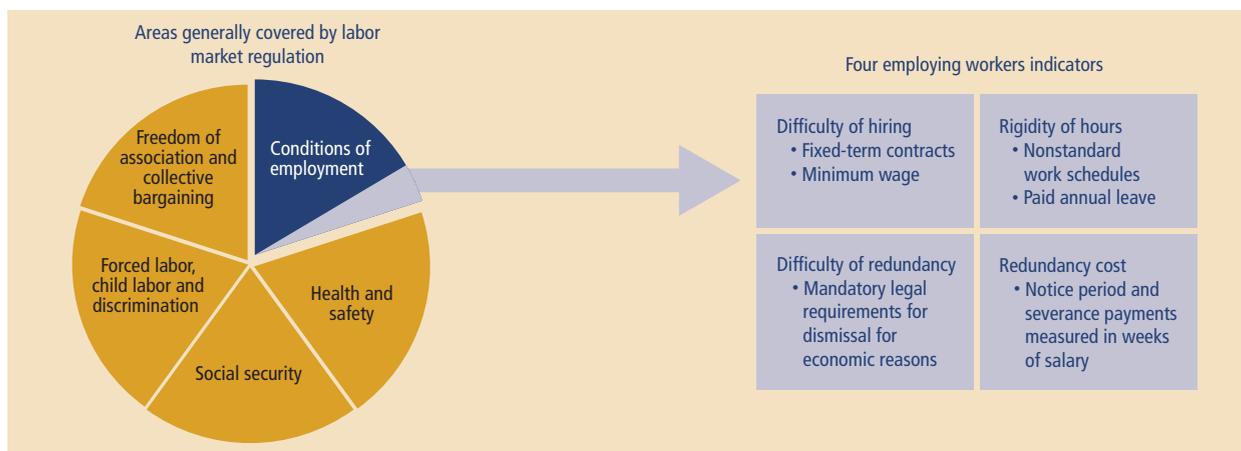
THE DOING BUSINESS DATA ON EMPLOYING WORKERS

Doing Business uses 4 indicators—known as the employing workers indicators—to capture labor market flexibility and rigidity: difficulty of hiring, rigidity of hours, difficulty of redundancy and redundancy cost (figure 3.2).

To ensure comparability of the data collected across economies, *Doing Business* uses a standardized case study with

specific assumptions about the business and the worker. For example, it is assumed that the business is a limited liability company in the manufacturing sector, that it is 100% domestically owned and that it operates in the economy's largest business city (Stockholm, in the case of Sweden). It is assumed that the worker earns a salary plus benefits equal to the economy's average wage, resides in the largest business city and is not a member of a labor union.

To assess the *difficulty of hiring*, *Doing Business* measures the ability of firms to grant fixed-term contracts as well as legal requirements relating to time limits for such contracts and to the minimum

FIGURE 3.2 *Doing Business* uses 4 indicators to capture labor market flexibility

wage. Specifically, it measures whether fixed-term contracts are prohibited for permanent tasks; the maximum duration for fixed-term contracts, including renewals; and the minimum wage for a 19-year-old in his or her first job.

To assess the *rigidity of hours*, *Doing Business* analyzes several components affecting the schedule of the worker in the standardized case study. It collects information on whether restrictions or premiums apply to work on the weekly holiday or at night, whether the workweek can extend to 50 hours a week for 2 months each year in response to a seasonal increase in production and whether paid annual vacation is mandatory. It also measures the maximum number of working days allowed per week.

Doing Business measures the *difficulty of redundancy* through 8 components, with data on whether redundancy is disallowed as a basis for dismissing workers; whether the employer needs to notify a third party (such as a government agency) to dismiss 1 redundant worker or a group of 9 redundant workers; whether an approval from a third party is needed to dismiss 1 redundant worker or a group of 9 redundant workers; whether the law requires the employer to reassign or retrain a worker before making the worker redundant; and whether priority rules apply for redundancies or for reemployment.

To calculate *redundancy cost*, *Doing Business* measures the cost of advance notice requirements, severance payments and penalties due when dismissing a redundant worker, expressed in weeks of salary. The measure is based on the average value of notice requirements and severance payments for a worker with 1 year of tenure, a worker with 5 years and a worker with 10 years as well as whether the worker can benefit from unemployment protection. Penalties include any additional payments required of employers when dismissing a redundant worker.

Unlike for other *Doing Business* indicators, the data collected for the employing workers indicators are not used to compute rankings. The employing workers data are published in an annex of the annual *Doing Business* report. The data also are published and used by other

institutions assessing competitiveness issues, including labor market conditions.⁹

HOW DOES SWEDEN COMPARE ON THE DOING BUSINESS MEASURES?

What do the *Doing Business* employing workers data show about the flexibility or rigidity of Sweden's labor market regulation? This section discusses the data for Sweden in light of the results for other OECD high-income and Nordic economies. Table 3.1 summarizes the results for Sweden as well as for selected economies that do well on the employing workers indicators.

The comparative review shows that Sweden's labor market regulation is more rigid than the OECD high-income average in 7 areas covered by *Doing Business*: the maximum duration of fixed-term contracts, the restrictions applying to work on the weekly holiday, the length of the workweek, the length of paid annual leave, the notification required in case of collective dismissals, the obligation to reassign or retrain and to follow priority rules for redundancy and reemployment, and the duration of the notice period required before dismissal.

Difficulty of hiring

About three-quarters of all OECD high-income economies—Sweden among them—allow fixed-term contracts for permanent tasks. They thus provide more flexibility for firms than economies (such as Finland) that restrict the use of fixed-term contracts.

How long a fixed-term contract can be used also matters. Economies that allow businesses to extend a fixed-term contract for a longer period, or that impose no time limit at all, permit greater flexibility in creating employment contracts suitable to both firms and workers.¹⁰ Conversely, economies that restrict the maximum cumulative duration of fixed-term contracts limit employers' flexibility: once a fixed-term contract has reached the maximum duration, an employer's only options are to extend a permanent offer to the employee or to let the employee go.

In Sweden the 2007 amendment to the Employment Act reduced the maximum cumulative duration of fixed-term contracts from 36 months to 24, pushing the country further away from the G7, OECD high-income and Nordic averages. This means that if a Swedish employer wants to retain an employee who has been under a fixed-term contract for 2 years, the employer will have to extend a permanent offer to the employee—because the fixed-term contract can no longer be renewed. This situation is arguably favorable to the worker, who receives a permanent job offer—and thus greater employment security—more quickly. But it puts pressure on the employer to decide whether the company needs an additional employee for the long term. Firms unsure about whether they will provide long-term employment are more likely to let a worker go when the fixed-term contract reaches its maximum duration; without the time restriction, they could keep the worker on the payroll for the short term.

Denmark, Singapore and the United States apply a more flexible approach. They set no maximum duration for fixed-term contracts, allowing the employer and employee to tailor a contractual agreement to suit both parties. In Iceland the maximum duration allowed for fixed-term contracts varies depending on the type of employee; while the default is 2 years, there is no limit on the duration for managerial personnel. In contrast, in France an employer can hire a person for only 18 months under a fixed-term contract for a permanent task.¹¹ Among the OECD high-income economies that set a limit on the maximum duration for fixed-term contracts, the average is 45 months.

A minimum wage, because it limits the ability of the parties to an employment agreement to negotiate its terms, can be seen as increasing the rigidity of the labor market. In a survey of 102 empirical studies on the employment effects of minimum wages, researchers found that two-thirds of the studies indicated that minimum wages had a negative (though not always significant) effect on employment, while only 8 studies arrived at the opposite result.¹² Studies in Latin America have found that employment in the formal sector decreased when minimum wages were increased.¹³ Workers

TABLE 3.1 Employing workers data for Sweden and selected comparator economies, 2013

	Sweden	Denmark	Finland	Singapore	Switzerland	United Kingdom	United States
Difficulty of hiring							
Fixed-term contracts prohibited for permanent tasks?	No	No	Yes	No	No	No	No
Maximum duration of fixed-term contracts (months) ^a	24	No limit	60	No limit	120	No limit	No limit
Ratio of minimum wage for trainee or first-time employee to value added per worker ^b	0.00	0.00	0.33	0.00	0.00	0.28	0.20
Rigidity of hours							
Major restrictions on night work? ^c	No	No	No	No	No	No	No
Major restrictions on weekly holiday work? ^c	Yes	No	No	No	No	No	No
Maximum length of workweek allowed, including overtime (days)	5.5	6.0	6.0	6.0	6.0	6.0	6.0
Premium for night work (% of hourly pay) ^c	0	0	8	0	0	0	0
Premium for work on weekly rest day (% of hourly pay) ^c	0	0	100	100	0	0	0
Fifty-hour workweeks permitted for 2 months due to an increase in production?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Paid annual leave (working days) ^d	25	25	30	10.7	20	28	0
Difficulty of redundancy							
Dismissal due to redundancy allowed by law?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Third-party notification required for dismissal of 1 worker?	No	No	Yes	No	No	No	No
Third-party approval required for dismissal of 1 worker?	No	No	No	No	No	No	No
Third-party notification required for dismissal of a group of 9 workers?	Yes	No	Yes	No	No	No	No
Third-party approval required for dismissal of a group of 9 workers?	No	No	No	No	No	No	No
Employer obligated to reassign or retrain and to follow priority rules for redundancy and reemployment?	Yes	No	Yes	No	No	No	No
Redundancy cost							
Notice period when dismissing a redundant worker (weeks of salary) ^d	14.4	0.0	10.1	3.0	10.1	5.3	0.0
Severance payments and penalties due when dismissing a redundant worker (weeks of salary) ^d	0.0	0.0	0.0	0.0	0.0	3.1	0.0

a. Including renewals.

b. Economies for which 0.00 is shown have no minimum wage.

c. In case of continuous operations.

d. Average for workers with 1, 5 and 10 years of tenure.

Source: World Bank Group, *Doing Business* database, 2013 edition.

displaced from the formal sector may consequently attempt to find work in the informal sector for a period of time.¹⁴ Higher minimum wages could also be associated with a strong compression of

the wage distribution and have small adverse effects on employment.¹⁵

On balance, while an increase in the minimum wage is most likely to result in a

modest negative effect on employment, this is not always the case. And a minimum wage often has only a modest adverse effect on employment or none at all.¹⁶ Moreover, setting a minimum wage

can have economic and social benefits. For example, according to an OECD report, minimum wages can raise the average measured labor productivity in an economy.¹⁷

Among OECD high-income, G7 and Nordic economies, only 10% do not set a minimum wage by law. These include Sweden. But while no minimum wage is set by law in Sweden, and not all workers are covered by a minimum wage, in practice wages in the country are set through collective bargaining. This may allow less flexibility than the law and the *Doing Business* data imply.¹⁸

Rigidity of hours

Sweden does not restrict night work. But unlike such economies as Denmark, Singapore, Switzerland, the United Kingdom and the United States, it does restrict weekly holiday work. Sweden requires that workers' weekly rest take place on weekends to the extent possible. Only temporary exceptions can be made, and only under special circumstances that the employer could not have foreseen.¹⁹

In the United Kingdom, where workers are entitled to fewer uninterrupted breaks than in Sweden (24 hours' rest per 7-day period or 48 hours' rest per 14-day period), the labor code applies no restrictions on weekly rest. In some cases in which workers are required under their employment contract to work on Sunday (particularly shop workers and betting workers), these workers are allowed to opt out of Sunday work by providing a 3-month notice.²⁰ While offering some protection to workers, this provision does not impose any rigidity on employers because it does not require that they give their "opted out" employees work on other days instead.

Like almost all OECD high-income economies, Sweden allows a 50-hour workweek during seasonal increases in production (see table 3.1).²¹ Australia, France and Luxembourg are the only OECD high-income economies that do not.

In assessing the flexibility reflected in the maximum number of working days allowed per week, *Doing Business* refers to International Labour Organization (ILO) Convention 14 on weekly rest. This

proposes that every employee shall enjoy in every period of 7 days a period of rest comprising at least 24 consecutive hours. According to the *Doing Business* methodology, economies are characterized as balanced between flexibility and worker protection if they allow between 5.5 and 6 working days per week.²² They are characterized as *excessively flexible* if they do not require that employees have in every period of 7 days a period of rest comprising at least 24 consecutive hours.

On this basis, close to 90% of OECD high-income economies have balanced workweeks (figure 3.3). Sweden, which allows 5.5 working days a week, is among them. Denmark, Japan, and Singapore, which allow 6 working days a week, are also classified as balanced. Compared with many OECD economies, however, Sweden has a low average for the number of hours worked annually: 1,621 hours per employed person in the working-age population (ages 15–74), 144 hours less than the OECD average.²³

Doing Business again refers to an ILO convention in assessing the flexibility reflected in requirements relating to paid annual leave. Paid annual leave is the time employees are granted leave with social protection and income. It is in addition to public holidays, sick leave, weekly rest, and maternity and

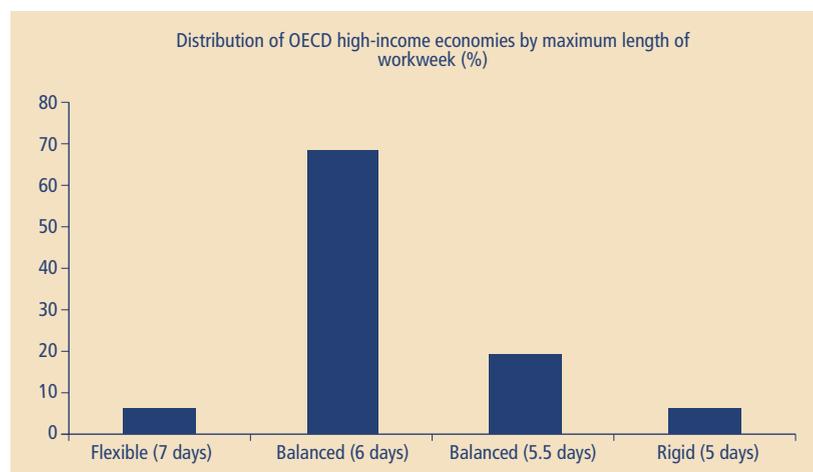
paternal leave. ILO Convention 132 proposes that employees have the right to 3 weeks of paid leave a year. Among OECD high-income economies, more than 40% provide for 15–21 days of paid annual leave, balancing flexibility and worker protection (figure 3.4). On the basis of the *Doing Business* methodology, Sweden, which like Denmark requires 25 days of paid annual leave, is more rigid than the United States, which has no legal requirements for paid annual leave. But it is more flexible than Finland, which requires 30 days of paid annual leave.²⁴

Difficulty of redundancy

Sweden does not require an employer to notify a third party (such as a government agency) or obtain a third party's approval before dismissing 1 redundant worker (see table 3.1). But it does require an employer to notify a third party and carry out good-faith negotiations with the relevant trade union before dismissing a group of redundant workers. Under the *Doing Business* methodology, these requirements for collective dismissals are considered an additional cost and a procedural inconvenience that increase the rigidity of labor market regulation in Sweden.²⁵

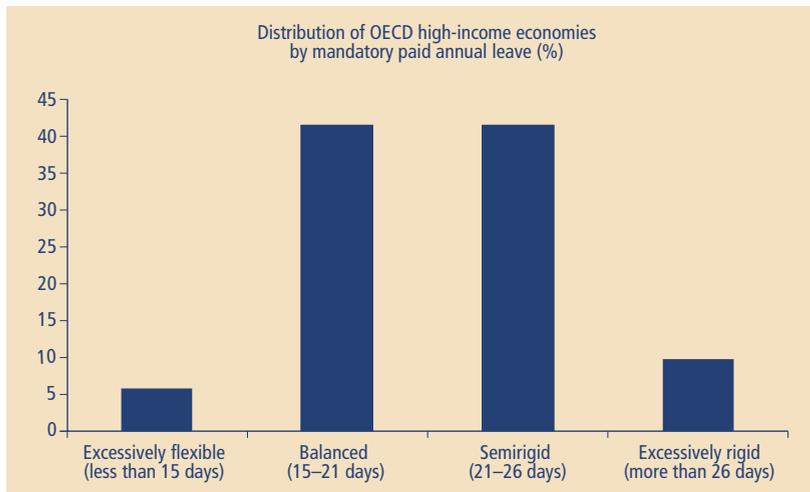
Giving employment services timely advance notice of mass redundancies

FIGURE 3.3 Almost 90% of OECD high-income economies balance flexibility with worker protection in setting the maximum length of the workweek



Source: World Bank Group, *Doing Business* database, 2013 edition.

FIGURE 3.4 More than 40% of OECD high-income economies balance flexibility and worker protection in mandatory paid annual leave



Note: Paid annual leave refers to economy averages for workers with 1, 5 and 10 years of tenure.

Source: World Bank Group, *Doing Business* database, 2013 edition.

might help in developing measures to mitigate the effects on local communities and labor markets. Before dismissal of a group of 9 workers, however, such high-income economies as Singapore, Switzerland and the United States do not require third-party notification. The United Kingdom has provisions similar to those in Sweden, except that notification is optional for dismissal of a group of less than 20 workers.

Only 17 economies worldwide, including only 6 OECD high-income economies, require an employer to reassign or retrain a worker before making the worker redundant, and apply priority rules for both redundancies and reemployment. Sweden is among them, along with such economies as France, Italy and Norway. Thus in Sweden an employer may make an employee redundant only if the worker could not have been retrained or reassigned. In dismissing redundant employees, the employer must follow a specific order of seniority or take into account marital status or other specific priority criteria. And employers are required to first offer any positions that become available to workers previously dismissed for redundancy before opening a position to a wider pool of applicants.

These rules considerably limit a firm's flexibility in making an employee redun-

dant or in rehiring after an employee was dismissed. A recent study using macro data on Swedish firms found that such rules could even impair firms' productivity. The study analyzed the effects of a 2001 Swedish reform of employment protection rules making it possible for small firms to exempt 2 employees from the last-in, first-out rule. Results showed that being exempted from this seniority rule could increase firms' labor productivity by 2.5%.²⁶ When estimating annual effects, the study found that labor productivity could gradually increase for each subsequent year. For some firms the estimated productivity effect of the reform could be as large as 6%.

The author of the study advances several possible explanations for such productivity increases. One possibility is that a higher probability of dismissal could cause a behavioral change in workers, reducing some problems of moral hazard such as shirking at work. Another is that a higher probability of dismissal could lower the costs of adjusting to structural change, increasing productivity in this way. A third possibility is that the reform might have made it easier for smaller firms to retain valuable workers and dismiss less valuable ones.

In contrast with Sweden, 82 economies apply more flexible redundancy rules, re-

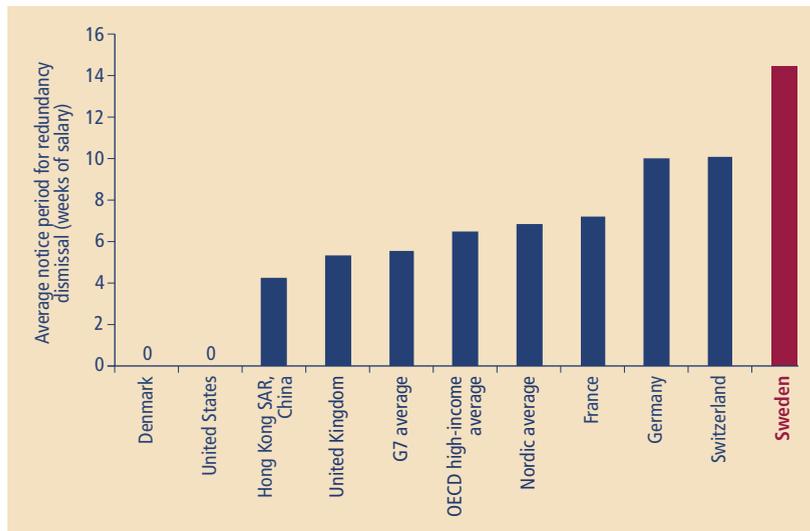
sulting in less rigid labor market regulation. These include 12 OECD high-income economies, among them Canada, Denmark, Iceland, Switzerland and the United States. In the United Kingdom, employers are required to notify the authorities of a collective dismissal only when it involves 20 or more workers; in Sweden the threshold is 5 workers. In the United States the federal Worker Adjustment and Retraining Notification (WARN) Act requires employers to notify state and local authorities before closing a facility or discontinuing an operating unit with 50 or more workers or before laying off 50–499 workers.

Redundancy cost

Before dismissing redundant employees, Swedish employers must give them relatively long notice: 14.4 weeks on average for workers with 1 year, 5 years and 10 years tenure, according to *Doing Business* data (figure 3.5). Among OECD high-income economies, only Luxembourg requires a longer notice period for redundancy dismissals (17 weeks). The average notice period among OECD high-income economies is 6.5 weeks, suggesting that Sweden has more rigid labor market regulation with respect to redundancy dismissals than the rest of the OECD high-income group. By comparison, 5 OECD high-income economies, including Denmark, New Zealand and the United States, require no notice before dismissal of redundant employees.

On severance payments, however, Sweden and all other Nordic economies offer the highest level of flexibility to employers. Like 41 other economies around the world, including 12 other OECD high-income economies (among them 3 G7 economies—Italy, Japan and the United States), Sweden has no legal requirement that employers provide severance payments for redundancy dismissals. Instead, collective bargaining agreements provide for fee-based insurance schemes, funded by employer contributions. So employers who wish to dismiss a worker do not need to provide a severance package. Viewed as best practice by the OECD, these insurance schemes ease separations while ensuring that workers receive some compensation after their employment ends.²⁷

FIGURE 3.5 Swedish employers must give almost 4 months' notice before dismissing a redundant employee



Note: Notice period refers to economy averages for workers with 1, 5 and 10 years of tenure. Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

In assessing redundancy cost, *Doing Business* considers the total cost to employers represented by both the length of the required notice period and the amount of severance payments. A few OECD high-income economies—Australia, Greece and Spain—provide flexibility by allowing firms to give employees little or no notice before dismissing them (3 weeks or less) but make dismissals more costly by requiring high severance payments (equivalent to at least 8.7 weeks' salary). Others—including Sweden as well as Finland, Iceland and Switzerland—make the dismissal process longer and more complex for firms by requiring a long notice period (at least 10 weeks) but make dismissals less costly by not requiring any severance payments. Only 10 economies around the world (including 3 OECD high-income economies—Denmark, New Zealand and the United States) impose no legal requirement either to provide workers with notice prior to dismissal or to provide severance payments when terminating an employment contract.

The influence of trade unions

One limitation of the *Doing Business* methodology is that in measuring the rigidity of labor market regulation, the

employing workers indicators focus purely on the law in place. The methodology assumes that an economy without legally binding collective bargaining agreements provides more flexibility in the regulation of employment contracts. But the reality may be different. Collective bargaining agreements, even if not legally binding, may still affect the rigidity of employment contracts and the labor market, especially in economies where trade unions and collective bargaining agreements cover a large share of the labor force.

Collective bargaining agreements aim to enhance employment security and earnings by balancing the level of information between firms and the workforce. Their effect on productivity may be both positive and negative: The “unified voice” of collective representation may lead to better information sharing between firms and the workforce, which improves productivity. But unions that negotiate restrictions on hours worked and pay rules can create greater rigidity in the regulatory framework for firms, reduce effort and hinder productivity.²⁸

One approach to balancing worker protection and labor market flexibility is “flexicurity,” combining flexible regulation, safety

nets (such as unemployment insurance) and active social policies. Inspired by the flexicurity model, collective agreements between the state and labor unions may allow greater flexibility in some areas, including working hours, wages and benefits. This model highlights the role of social partners (such as labor unions) who are capable of adjusting to the integration of flexibility and security.

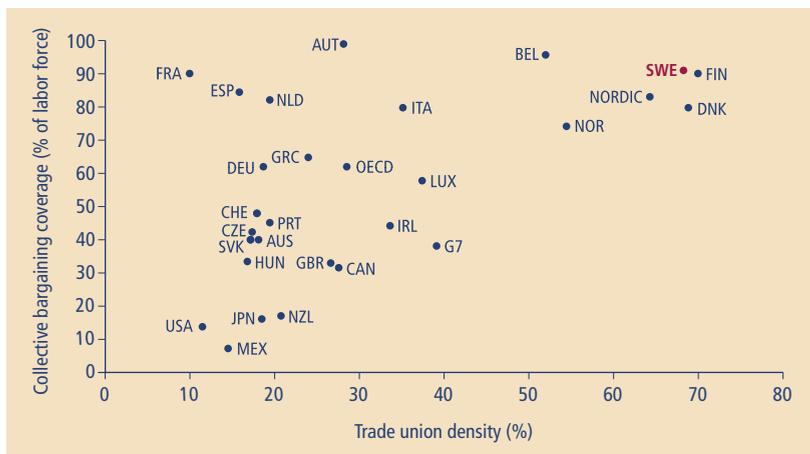
In most economies the coverage of collective bargaining declined over the past 2 decades, mainly as a result of technological progress, legislative changes and a global shift toward the services sector.²⁹ This was also the case in Sweden, where trade union density (the share of wage and salary earners who are trade union members) fell from 80% in 1999 to 67.5% in 2012. Even so, trade union density in Sweden is more than twice as high as the average for OECD economies, and much of the Swedish labor force is still covered by collective bargaining (87% of the private sector and 100% of the public sector; figure 3.6).³⁰

Labor relations in Sweden have been characterized as good and conducted in a constructive spirit.³¹ But the weight of trade unions in the country suggests that the *Doing Business* employing workers data may underestimate the level of rigidity in its labor market regulation. One example relates to the minimum wage. Because Sweden does not set a minimum wage by law, its labor market regulation is characterized as flexible in this respect by *Doing Business*. Yet entrepreneurs perceive wage setting in Sweden as more centralized than the average for OECD high-income economies (figure 3.7).³²

HOW DOES SWEDEN COMPARE ON OTHER INDICATORS OF LABOR MARKET FLEXIBILITY?

Doing Business is not the only benchmarking report that assesses the flexibility of labor market regulation in Sweden and other economies. Reports of the World Economic Forum, the Fraser Institute, the Heritage Foundation and the OECD also analyze labor market flexibility across economies. The work of the first 3 organizations is not discussed in detail here because their assessments either use a combination of perception-based data and *Doing Business*

FIGURE 3.6 Trade unions and collective bargaining covered a large share of the Swedish labor force in 2012



Note: Trade union density is the share of wage and salary earners who are trade union members. The data set excludes Israel. Nordic average excludes Sweden.
Source: OECD Employment Database, 2013 edition.

employing workers data (World Economic Forum) or rely almost exclusively on *Doing Business* employing workers data (Fraser Institute, Heritage Foundation).

The OECD database on employment policies provides 2 main data sets relevant to understanding the level of flexibility of the Swedish labor market: indicators

of employment protection regulations and information on the cost of labor. The indicators of employment protection regulations measure the procedures and costs involved in dismissing individuals or groups of workers and the procedures involved in hiring workers on fixed-term or temporary work agency contracts. The indicators include 21 components, 3 of

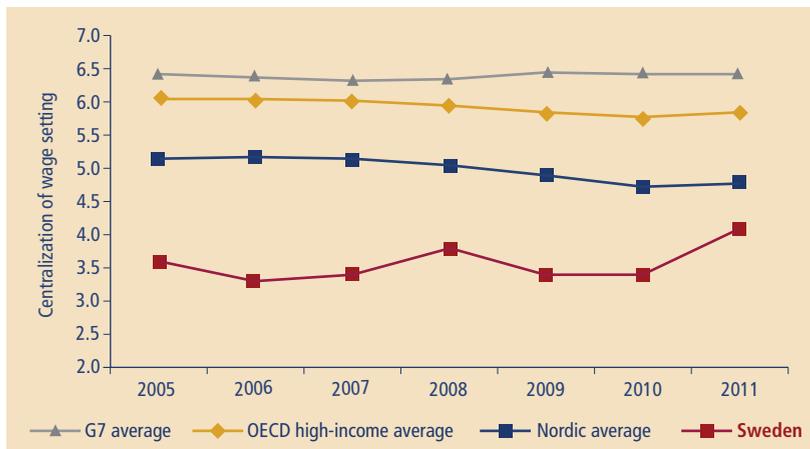
which are useful for the purposes here: individual dismissal of workers with regular contracts, additional costs for collective dismissals (together, these first 2 components are used to compute the index on employment protection against individual and collective dismissals) and regulation of temporary contracts.³³

What do the OECD data show? They show that Sweden's regulation of permanent contracts for regular workers is *more rigid* than that in any other Nordic economy or than the average for OECD economies. But they also show that Sweden's regulation of temporary contracts is *more flexible* than that in any other Nordic economy or than the OECD average.

The flexibility in the regulation of temporary contracts but rigidity in the regulation of permanent contracts points to a meaningful gap in the level of protection between permanent and temporary contracts in Sweden (figure 3.8). Among OECD high-income economies, only the Netherlands has a gap wider than Sweden's. This gap may help explain why the Swedish labor market relies heavily on fixed-term and temporary contracts.

A regulatory framework that combines flexibility for temporary contracts with rigidity for regular contracts creates a greater risk of excluding part of the population from permanent employment—because firms will tend to substitute temporary workers for regular employees.³⁴ Ultimately, in countries with highly protected regular workers and lightly regulated fixed-term and temporary contracts, there is a risk of creating a “dual” labor market—with “insiders” who bear little risk of ever losing their job and “outsiders” who work under a fixed-term or temporary contract (youth and other workers with little experience) and have less likelihood of transitioning to a permanent one.³⁵

FIGURE 3.7 Wage setting in Sweden is more centralized than the average for OECD high-income economies



Note: Figure shows perception-based data from the national-level Executive Opinion Survey. The survey asks entrepreneurs how wages are generally set in their country, with a score of 1 indicating “by a centralized bargaining process” and a score of 7 “by each individual company.” Nordic average excludes Sweden.
Source: World Economic Forum data.

The OECD information on the cost of labor is also revealing. It shows that among OECD high-income economies, Sweden has the highest minimum cost of labor relative to the labor cost at the median wage (figure 3.9). While Sweden has no legal minimum wage, the labor cost is nevertheless high because it includes employer contributions as well as the wage at the level set for the sector through collective

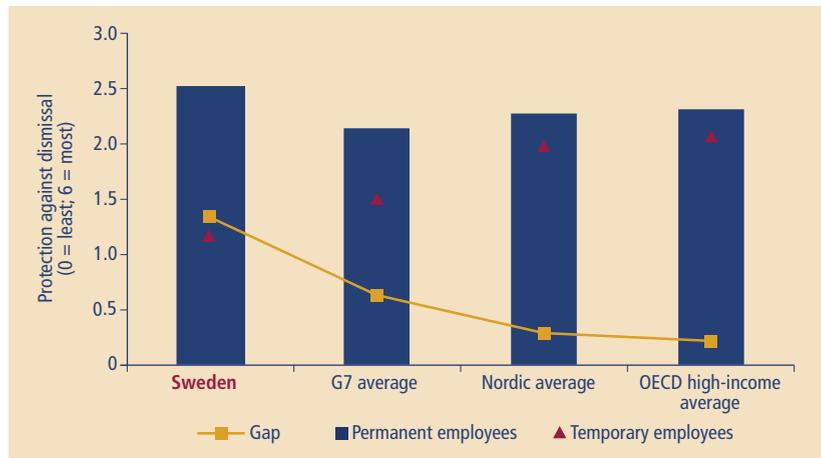
bargaining—a wage level higher than the minimum wage in most OECD economies. Thus a Swedish worker earning €100 per hour worked costs the employer another €51 for each hour, for a total cost of €151. Private sector employees in Sweden’s manufacturing sector cost €43.80 per hour worked on average, nearly 7 times as much as their counterparts in Poland, which has the lowest cost of labor among OECD high-income economies.³⁶

HOW DOES LABOR MARKET RIGIDITY AFFECT ECONOMIC OUTCOMES?

When labor market regulations are too rigid or too flexible, they prevent optimal adjustment of the labor market, which is likely to have adverse effects on the economy’s overall performance.³⁷ Some studies have concluded that more cumbersome labor market regulations are associated with both lower employment and slower adjustment to shocks.³⁸ Other studies have noted, however, that the findings on employment effects of employment protection legislation are mixed and that the results are fragile or inconclusive.³⁹

In Sweden several factors contribute to greater rigidity of labor market regulation, especially the restrictions on the maximum duration of fixed-term contracts, the centralization of wage determination and

FIGURE 3.8 Sweden provides far greater employment protection for permanent employees than for temporary ones



Note: For full details on the methodology and weights used to compile the indicators, see OECD (2013a). Nordic average excludes Sweden.

Source: OECD, Employment Protection Legislation indicators, 2013 edition.

the protection of permanent employees. This section looks at how the flexibility or rigidity of the Swedish labor market may affect 3 economic outcomes: unemployment, productivity and entrepreneurship.

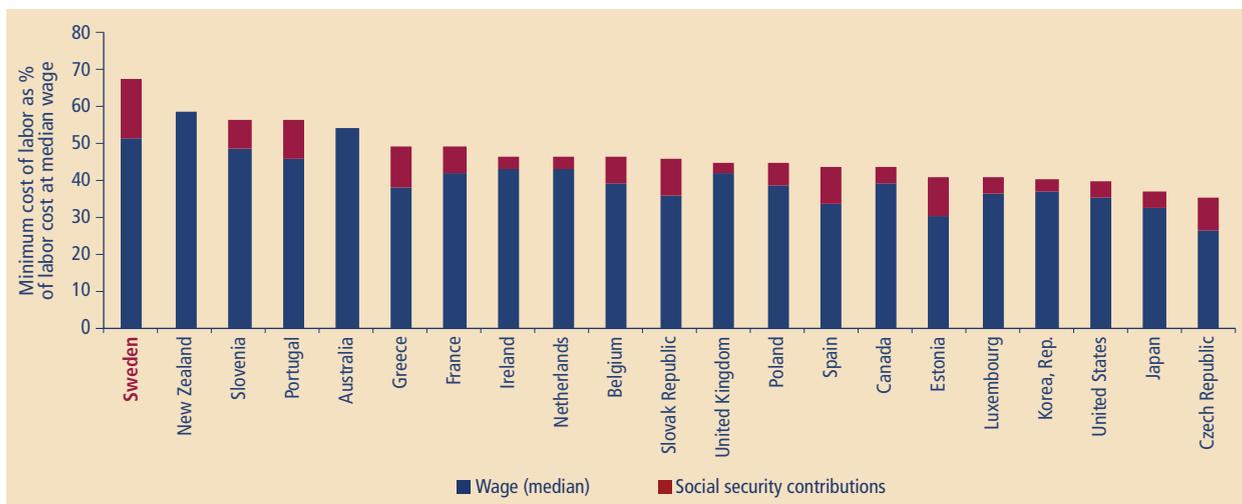
and on unemployment, both in general and among such groups as youth and low-skilled workers.⁴⁰ Studies have suggested, for example, that a higher minimum wage could be associated with poorer employment prospects for youth, women and workers with low levels of education or experience.⁴¹

Labor market rigidity and unemployment

Many studies have focused on the minimum wage and its impact on employment

These findings suggest that labor market regulation in Sweden—given the high

FIGURE 3.9 Among OECD high-income economies, Sweden had the highest relative minimum cost of labor in 2010



Source: OECD 2012b.

average labor cost and low flexibility in determining wages—may not be optimal for promoting employment. Other economies, such as New Zealand, Singapore and the United Kingdom, have sought lower labor costs for companies by encouraging wage determination at the company level.

Rigidity in hiring may also have employment effects. Factors contributing to rigidity in hiring in Sweden include not only the maximum duration of fixed-term contracts, which is comparatively short, but also the duration of trial periods during a hiring process. In Sweden a trial period cannot extend beyond the first 6 months of employment. The regulation of trial periods in other OECD economies is less strict, allowing employers more time to make up their mind about a newly hired employee. In Israel, for example, trial periods are not regulated. Most collective bargaining agreements allow trial periods ranging from 6 months to 3 years, with the most common length being 6–24 months. And employers have the right to extend trial periods under certain circumstances.

The comparatively high level of rigidity in the Swedish labor market may create a risk of higher unemployment for some categories of workers and make it harder for them to find regular employment. Rigid employment regulation is most likely to have adverse effects on young, low-skilled and immigrant workers as well as workers over 55.⁴² A study in Chile found that job security increases the age profile of employment, with employment rates higher among older and skilled workers and lower among younger and unskilled workers.⁴³ While young workers typically lack training and substantial experience, high redundancy costs may be an additional discouragement to potential employers.

Labor market rigidity and productivity

The level of flexibility in labor market regulation also affects productivity and growth. Stricter regulation can limit the ability of companies to adjust their workforce and prevent them from allocating resources optimally, reducing productivity.⁴⁴ Rigid employment regulation can also reduce the level of risks that firms are willing to accept, discouraging them from

introducing new products with greater productivity growth potential. In addition, excessively rigid restrictions on hiring and redundancy tend to raise labor costs, reducing opportunities for firms to spend on innovation and adopt new technologies.⁴⁵

Analysis has also shown a strong negative relationship between restrictions on fixed-term contracts and labor productivity.⁴⁶ If fixed-term contracts become prohibited for permanent tasks, the level of productivity in the economy decreases. Fixed-term contracts allow companies to adjust employment levels without incurring high redundancy costs. They can also provide firms with an opportunity to screen newly hired employees.⁴⁷

Labor market rigidity and entrepreneurship

Good labor market regulation promotes new businesses and can help shift workers to the formal sector, where they will benefit the most from worker protection and where higher productivity boosts economic growth.⁴⁸ Research has found that good labor market regulation also plays a critical part in individuals' decision to start a new business.⁴⁹ By contrast, restrictive labor market regulation can discourage the development of formal sector businesses.⁵⁰ Higher minimum wages appear to reduce the number of formal jobs (and increase the number of informal ones).⁵¹

In Sweden research has shown that the regulation of hiring and dismissal of workers is more rigid than the average for OECD high-income economies, especially with respect to the level of redundancy costs and the duration of the notice period required before dismissal.

CONCLUSION

Sweden, like many of its neighbors, has faced challenges in determining the right level of labor market regulation. The flexibility of the country's labor market regulation is low, particularly in aspects relating to the protection of permanent employees. Where rigid regulation of permanent employment contracts is coupled with light regulation of fixed-term and

temporary contracts, as it is in Sweden, this raises the risk of creating a dual labor market in which vulnerable workers experience long-term unemployment.

Other countries have narrowed the difference in protection levels between the 2 types of employment contracts by introducing more flexibility in the regulation of permanent contracts. For example, while Sweden requires employers to notify the authorities before dismissing as few as 5 workers, other countries have made notification optional or set a higher threshold, relying on the courts to prevent abuses by employers. Others have shortened the notice period required before dismissal, while Sweden's remains longer than that of any other OECD high-income economy except Luxembourg. Regardless of the length of the notice period, workers remain highly protected by the Swedish unemployment insurance system, which is among the most generous in the world.

The large role of trade unions in Sweden, along with the constructive overall spirit of employer-employee relations, suggests a potential for trade unions to play a central part in increasing labor market flexibility. Swedish trade unions have already acted pragmatically, agreeing to lower the minimum wage for some industries during the global financial crisis. But recent examples from other countries point to possibilities for a more comprehensive approach. In France, under the *accords de compétitivité*, unions may bypass some legal requirements (such as lowering the legal minimum wage for a category of workers) and increase flexibility in exchange for guaranteed employment. Similarly, in Germany the *Kurzarbeit*, a work sharing program, allows flexibility in wages and working hours during times of crisis. The program was recognized by the World Bank's *World Development Report 2013* as an effective tool for saving jobs.⁵²

Finally, Sweden could continue to tailor its approach for vulnerable workers, such as young workers, low-skilled workers or immigrants. For regular contracts, for example, Sweden could identify categories of workers for which the trial period could become unlimited. This could help narrow the gap between labor cost and productivity for some groups. Sweden

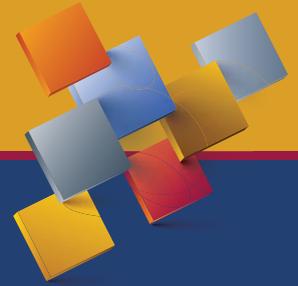
could also look to the experience of many OECD high-income economies that have revamped their active labor market programs in recent years to more efficiently address the needs of vulnerable workers. Some have introduced a “one-stop shop” to implement their active labor market program, as Germany has done through Jobcenter and the United Kingdom through JobCentre Plus. These programs are gaining momentum as they prove to be convenient and efficient tools for job seekers. But it must be kept in mind that job search programs like these can succeed only if firms are offered the optimal regulatory framework for creating jobs.⁵³

NOTES

This chapter has been written by Julien Vilquin with the assistance of Dorina Georgieva and Morgann Reeves.

1. The measures referred to in the discussion here are those of the World Economic Forum, the Fraser Institute, the Heritage Foundation and the OECD.
2. Heritage Foundation 2013.
3. Pierre and Scarpetta 2007.
4. Nataraj and others 2012.
5. World Bank 2012.
6. Erixon 2010.
7. OECD, Short-Term Labour Market Statistics Database, 2014 edition.
8. Nordic Social Statistical Committee 2011.
9. These institutions include the Heritage Foundation, the Fraser Institute and the World Economic Forum.
10. In a study analyzing the impact of reduced job security costs in Colombia, Kugler (2004) found that a decline in unemployment was explained mostly by increased use of fixed-term contracts. See also Djankov and Ramalho (2009).
11. OECD 2013b.
12. The findings of the survey, conducted by Neumark and Wascher (2007), are as reported in Knabe and Schöb (2008).
13. Bell 1997; Maloney and Nuñez Mendez 2004.
14. Santiago 1989; Carneiro 2004.
15. Lemos 2004.
16. World Bank 2012.
17. OECD 2007b.
18. According to the World Economic Forum’s Global Competitiveness database, the level of flexibility in wage determination is low in Sweden because wages are generally set through centralized bargaining agreements, not by each company.
19. Working Hours Act of 1982, section 14.
20. Employment Rights Act 1996, article 40.
21. The *Doing Business* indicators on employing workers record whether a 50-hour workweek (including overtime) is allowed for 2 months a year when there is a seasonal increase in production.
22. The employing workers indicators are fully consistent with the ILO conventions on which they touch directly, including Convention 14 on weekly rest, Convention 132 on holidays with pay, Convention 158 on termination of employment and Convention 171 on night work. The indicators do not cover any of the ILO core labor standards, such as the right to collective bargaining, the elimination of forced labor, the abolition of child labor and equitable treatment in employment practices.
23. McKinsey Sweden and McKinsey Global Institute 2012, illustration 10; OECD 2013e. The OECD value is a weighted average.
24. The designation *excessively flexible* accords with ILO Convention 132, which states that paid annual leave should not be less than 3 working weeks (15 working days if a 5-day workweek is assumed). The designations *semirigid* and *excessively rigid* are based on the assessment of the Employing Workers Consultative Group, a group of experts from the ILO, the OECD, civil society and the private sector that worked with the World Bank Group between 2009 and 2011 to review the *Doing Business* indicators on employing workers. OECD high-income economies are classified as follows on the basis of paid annual leave requirements. *Excessively flexible*: Canada and the United States; *balanced*: Belgium, Chile, the Czech Republic, Ireland, Israel, Italy, Japan, the Republic of Korea, the Netherlands, New Zealand, Norway, Slovenia and Switzerland; *semirigid*: Australia, Austria, Denmark, Estonia, Germany, Greece, Iceland, Luxembourg, Poland, Portugal, the Slovak Republic, Spain and Sweden; *excessively rigid*: Finland, France and the United Kingdom.
25. Botero and others 2004.
26. Bjuggren 2013.
27. OECD 2013e.
28. World Bank 2012.
29. World Bank 2012.
30. The trade union density data are from the OECD Employment Database, 2013 edition. The data set excludes Israel.
31. McKinsey Sweden and McKinsey Global Institute 2012, p. 79. In addition, the World Economic Forum, in its *Global Competitiveness Report 2013–2014* (WEF 2013), ranks Sweden well (in 6th place) on cooperation in labor-employer relations, which were deemed generally cooperative by survey respondents (business executives from small and medium-size enterprises and large companies representing the main sectors of the economy).
32. Kullander 2013.
33. The concept of temporary employment used by the OECD is broader than that of fixed-term contracts used by *Doing Business*. In particular, the OECD “regulation of temporary contracts” subindicator quantifies regulations governing fixed-term and temporary work agency contracts with respect to the types of work for which these contracts are allowed and their duration. It also includes regulations governing the establishment and operation of temporary work agencies and requirements for agency workers to receive the same pay or conditions (or both) as equivalent workers in the user firm, which can increase the cost of using temporary agency workers relative to the cost of hiring workers on permanent contracts. Based on these criteria, regulation of temporary employment in Sweden is quite flexible, assessed at 0.81 on a scale of 0 to 6 (from least to most restrictive) compared with the OECD average of 1.72.
34. Boeri and Garibaldi 2007.
35. Saint-Paul 1996.
36. German Federal Statistical Office (Destatis), press release 116/13, March 26, 2013.
37. World Bank 2012.
38. Botero and others 2004; Djankov and Ramalho 2009; Nataraj and others 2012.
39. World Bank 2012.
40. Neumark and Wascher 2007.
41. Boeri, Helppie and Macis 2008.
42. World Bank 2012.
43. Montenegro and Pagés 2004; Pagés and Montenegro 2007.
44. Hopenhayn and Rogerson 1993.
45. Pierre and Scarpetta 2007; Kuddo 2009.
46. The analysis uses the independent variable *fixed-term contract* to illustrate whether or not fixed-term contracts are prohibited for permanent tasks. The variable is part of the *Doing Business* employing workers data on difficulty of hiring. The dependent variable *labor productivity* is the forecasted labor productivity in the economy.
47. Portugal and Varejao 2010.
48. La Porta and Shleifer 2008.
49. Ardagna and Lusardi 2008.
50. World Business Environment Surveys and Investment Climate Surveys conducted in more than 80 countries by the World Bank in 1999–2000.
51. Jones 1997; Kaplan 2009; Kugler 2004; Mondino and Montoya 2004.
52. World Bank 2012.
53. World Bank 2012.

Urban planning and construction permitting



The state of the housing market is among the most important indicators of an economy's health. And getting housing-related policies right is critical. According to an OECD study, where land use and other policies related to housing are badly designed, they can hurt an economy "by increasing the level and volatility of real house prices and preventing people from moving easily to follow employment opportunities."¹ It is no wonder that the housing market has received close attention from policy makers, especially since the global financial crisis of 2008–09.

In Sweden housing prices have been stable and rising over the past decade, except for a short period of sluggishness during the financial crisis. Demand for housing has been increasing over the long term as a result of urbanization, immigration and rising disposable incomes in urban areas. In Stockholm, for example, the housing stock will need to grow by 9,000–13,000 units a year over the next 2 decades to accommodate the expected population growth—from today's 2 million to about 2.3–2.5 million.²

But constraints in the Swedish housing sector limit its ability to meet the robust housing demand. Administrative rigidities and rent control policies distort the market and discourage adequate investment in the sector. According to a European Commission report, these constraints have an alarming potential to exacerbate the housing shortage and harm the Swedish economy.³

This chapter examines issues in Sweden's construction and housing sectors, focusing on structural rigidities that limit the supply of new housing units. Drawing on global best practices, it also offers a range of policy options for addressing these issues.

URBAN PLANNING AND HOUSING SUPPLY IN SWEDEN

Urban development has been somewhat stagnant in Sweden. Between 1995 and 2005 urban land use in the country increased by only 1.7%, a lower rate than in other Nordic economies.⁴ Several factors have contributed to this slow development rate, including long planning processes and inefficiencies created by a municipal monopoly on planning.

Issues in supply and pricing

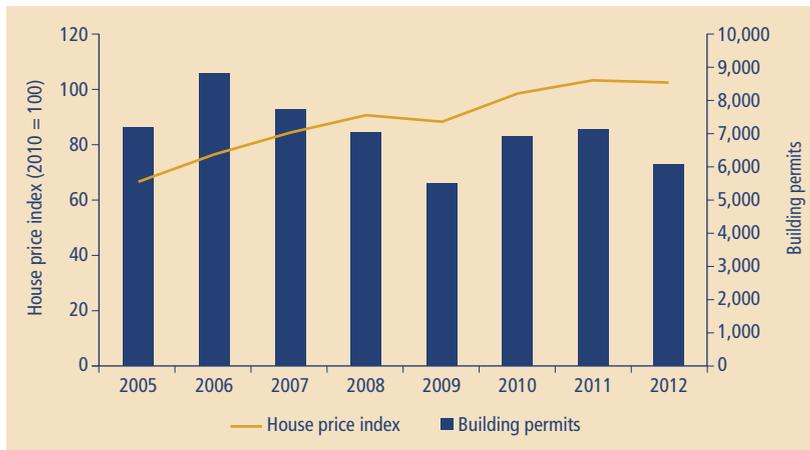
Housing prices in Sweden have risen sharply over the past decade, despite the global financial crisis (figure 4.1). Between 2005 and 2013 they increased by 60%, far more than the 15% in the European Union.⁵ A recent study by the Swedish National Board of Housing attributed the increase in housing prices in Sweden in the past 15 years mostly to the housing shortage.⁶

Yet the increase in Swedish housing prices has not boosted construction, indicating a problem in the way the price signal works in the housing sector. Indeed, construction activity has slowed in recent years. The number of building permits issued in Sweden fell by about 15% between 2011 and 2012.⁷ And construction investment in 2012 was well below the Nordic average, relative to both GDP and population.⁸

Most researchers agree that there are 2 main factors behind the housing shortage in Sweden: rent control policies and administrative barriers to new construction. By keeping rents low, rent control policies discourage investment in new housing units and lead to

- Sweden has a substantial housing shortage, which could potentially destabilize the economy in light of the projected increase in housing demand over the next few decades.
- Swedish municipalities must approve a detailed development plan for most housing projects before issuing a construction permit. Getting the plan approved can take 3–4 years, and resolving appeals launched against it another 2–3 years.
- Almost half of all construction projects are appealed at the planning stage. This is in part because of the discretionary, case-by-case approach to approving the detailed development plans.
- Sweden could make its construction permitting process more efficient by adopting legally binding, comprehensive plans that cover the entire municipality, rather than the current practice of using project-based detailed development plans that cover only the area of the proposed construction.
- There is too little coordination between municipalities and counties in spatial planning. As a result, the construction approval process may vary substantially across municipalities and may involve conflicting interests between them.

FIGURE 4.1 Housing prices have been rising in Sweden—but building permit numbers have not



Note: Building permits are for new residential construction, both single- and multi-dwelling buildings, throughout Sweden.

Source: Eurostat data (for house price index); Statistics Sweden data (for building permits).

inefficient use of the existing stock of rental apartments.⁹

Burdensome regulation for complex projects

While rent control policies in Sweden have been shifting toward more liberal practices since the 1990s, construction regulation has changed little since 1995.¹⁰ This is reflected in indicators

from the World Bank Group's *Doing Business* project that measure the process for dealing with construction permits. The indicator of time shows no change between 2005 and 2013 in how long the process takes in Sweden—the time required has stayed at a steady 116 days. Meanwhile, the Nordic average fell from 126 days to 87 (figure 4.2). Globally, dealing with construction permits takes the least time as measured

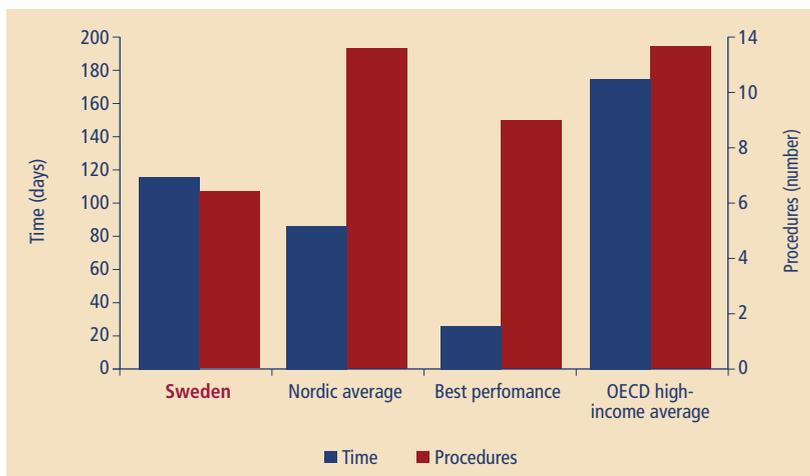
by *Doing Business* in Singapore—only 26 days.

Moreover, the 116 days measured by *Doing Business* in Sweden does not capture the entire administrative burden for complex construction projects such as housing projects and multistory office buildings. Based on a case study approach, the *Doing Business* indicators measure only the time, cost and procedures required to build a standardized warehouse in a periurban area, make the warehouse operational by getting it hooked up to utilities and, if applicable, register it in the state registry. The indicators do not account for Sweden's complex zoning system, which involves lengthy regulatory procedures if the construction requires a modification in the spatial zoning plan. Most housing projects in Sweden go through a zoning approval process that takes about 3 years in most cases and up to 10 years in some.¹¹ So the *Doing Business* indicators on dealing with construction permits capture only a fraction of the regulatory issues in construction and planning.

A municipal monopoly on planning

The main reason for the long zoning approval process in Sweden is the way the country's planning system is set up. The main planning instrument is the detailed development plan (*detaljplan*), which is the only legally binding planning document in Sweden. The detailed development plan is the main tool used by local municipalities (*kommun*) to approve construction projects and is ratified after consultation with residents and other stakeholders.¹² The plan is designed or modified on an ad hoc basis every time a construction project is proposed, usually by private developers, and covers only the specific area of the proposed construction. The plan is not required for certain simple projects that have no significant impact on the community. According to the Stockholm Planning Department and an OECD study, however, more than half of all construction projects—including most apartment buildings—involve designing or modifying a detailed development plan.¹³ This means a long planning process for a large number of the housing construction projects proposed.

FIGURE 4.2 Dealing with construction permits in Sweden takes longer than the average for other Nordic economies



Note: Nordic average excludes Sweden.

Source: World Bank Group, *Doing Business* database, 2013 edition.

The municipality of Stockholm estimates that getting a detailed development plan confirmed takes about 18 months on average.¹⁴ In about 20% of cases, usually for more complex projects such as multi-story apartment and office buildings, getting the plan confirmed can take 3–4 years if there are no appeals.¹⁵ But in Stockholm more than half of all construction projects involving a detailed development plan are appealed at this stage. According to the Stockholm Planning Department, the appeals can go on for 3 years. And even after the detailed development plan is approved and ratified, appeals might be launched at the building permit stage, taking up to 1.5 years more.¹⁶ Some Swedish media sources complain that “ten years can elapse in Sweden between the conceptual phase and the completion of a building.”¹⁷

Lack of coordination between different levels of government adds to the inefficiencies in zoning. Sweden has only a few, relatively weak institutional mechanisms for coordinating long-term spatial planning between municipalities, with the result that the detailed development planning is strictly local and carried out case by case. Municipal and regional comprehensive plans exist, but these documents are not statutory and therefore serve a more general advisory function rather than support planning coordination between municipalities. Many construction projects ratified in detailed development plans are contrary to “higher order plans,” indicating that strategic planning is implemented ineffectively or not at all.¹⁸ The lack of effective planning coordination and sharing of resources and expertise between municipalities means a loss of potential synergies.

In addition, the strictly local planning sometimes results in conflicts of interest between residents and developers.¹⁹ In some municipalities residents are blocking further construction in order to keep prices on the existing housing stock high.

SWIFT DECISIONS THROUGH COMPREHENSIVE PLANNING

Spatial planning is a set of complex processes with far-reaching social, economic and demographic consequences. Economies around the world, developed and

emerging alike, have been experimenting with new tools and frameworks to address rapidly changing conditions through innovative and responsive planning solutions. While societies and administrative systems differ, experiments aimed at creating more efficient and predictable planning regulations—regulations striking the right balance between “input legitimacy and output efficiency”²⁰—nevertheless offer lessons for other economies.

Two sources of potential lessons are New Zealand and Singapore. Both have high rankings on the ease of dealing with construction permits as measured by *Doing Business*. In New Zealand, which ranks 12th among 189 economies globally, completing the administrative process for permitting—obtaining a building permit, undergoing the necessary clearances and getting the building ready to operate—takes only 94 days. As noted, in Singapore it takes only 26 days, and the country ranks 3rd on the ease of dealing with construction permits.

The case of New Zealand

New Zealand has among the most efficient zoning and planning regulations. They are comprehensive, predictable and streamlined in implementation. New Zealand uses 2 main types of planning documents: regional plans and district plans. Regional plans specify general requirements, such as air and water quality and the use of coastal areas. District plans are detailed planning guidelines that outline the specific land use and design requirements for builders.

The district plans are legally binding, cover the entire usable land in a municipality and are periodically reviewed to ensure that they reflect the changing urban needs. Each district plan is approved through a participatory process in which the district council holds public hearings to allow residents to submit objections or suggestions. Once the residents’ comments have been processed, the plan becomes “operative”—as a statutory document that regulates land development activities for the entire municipality.²¹

This means that all municipalities in New Zealand have a detailed, up-to-date zoning plan in place that has been approved

through meaningful public involvement. The plan provides investors and developers with a reliable reference to guide them in the design and conceptual stage, before they apply for a construction permit. And it provides municipal authorities with a consistent basis for approving or rejecting construction permits, with little discretion involved. In contrast, the Swedish construction approval system—with no legally binding planning document that covers the entire municipality, and with a detailed development plan that is approved or rejected through an ad hoc, negotiation-based process—is more discretionary and more prone to inconsistent and unpredictable decisions and delays.

New Zealand’s process for modifying a zoning plan is also more efficient and predictable. The district plan specifies 6 categories of construction projects—ranging from “permitted” to “prohibited” (along with intermediate categories)—requiring different levels of municipal review depending on the specifics of the project. A project not in the permitted category requires a “resource consent,” an official approval verifying that the proposed construction project is in line with the resource use requirements specified in the Resource Management Act and ratified in the district plan.²² A developer applying for a resource consent must provide an assessment of environmental effects and a written consent from the parties affected. More complex projects also require public hearings; simpler ones are processed without public involvement except for notification of the directly affected parties.

Municipalities face official time limits for making a decision—20 working days for simple cases and 4 months for more complex cases that involve public hearings. According to *Doing Business* data, most complex cases are processed in 100 days.

Thus there are 3 main factors behind the efficient processing of construction permits in New Zealand. First, there are clearly defined steps for modifying a zoning plan (that is, obtaining a resource consent), requiring different levels of review depending on the complexity of the project. Second, there are objective

criteria for municipalities to use in making a decision to approve or reject a construction proposal—the assessment of environmental effects and the written consent from affected parties. And third, there are official time limits for completing each procedure related to obtaining a resource consent (zoning modification) or construction permit.

All this is in contrast with the situation in Sweden. Sweden has no clearly defined and consistently applied sequence of procedures for dealing with detailed planning; instead, different municipalities apply different processes and timelines for approving detailed development plans. Nor are there preexisting, objective criteria for approving or rejecting a detailed development plan; instead, the process is based on negotiation between municipal authorities, the developer and affected parties. And there are no official time limits for making decisions on a detailed development plan, though once the plan is confirmed there is a 10-week time limit for issuing a building permit.

New Zealand also has a more efficient process for appealing a municipal council's decision on construction permitting. An appeal usually involves 2 phases. First, the objecting party has the right to present his or her case to the municipal council within 15 business days after the council issues its decision. Second, if the council does not revise its initial decision, the case can be appealed in environmental courts, which usually require about 6 months to process the case. Thus even for the most complex cases—those that involve zoning changes and are appealed in court—the entire process takes less than 10 months. By contrast, in Sweden it can take more than 5 years (3–4 years for the detailed development plan and 2–3 years or more for the appeal).

New Zealand's efficiency in handling appeals of construction permitting and zoning decisions is due in part to the existence of specialized environmental courts responsible for the process. In addition, in most cases municipal councils base their permitting decisions on the assessment of environmental effects, which is usually prepared by a third-party expert and therefore less likely to be appealed as discretionary or biased.

The case of Singapore

Singapore offers one of the best examples of efficient streamlining of construction permitting globally. The entire process is completed online, and city authorities face strict time limits in making decisions. The efficiency of the process is enhanced by the use of “qualified professionals”—third-party professionals with official certification and authorization to review construction plans and drawings. In cases when project proposals are submitted by qualified professionals, construction plans can be approved immediately.

All this is possible because Singapore has in place both strategic and operational plans covering the entire city and outlining detailed planning requirements both for current development and for the city's future development vision. Despite the big differences between Singapore and Swedish cities in land constraints, governance and historical background, Singapore's efficiency in processing construction permits and dealing with zoning issues offers potential lessons for Sweden.

Singapore uses 2 main documents for planning—the concept plan and the master plan. The concept plan is a strategic document for urban development that takes a forward-looking perspective, strategically allocating land and water resources on the basis of current needs as well as demographic and economic trends projected over the next several decades. Concept planning in Singapore is a well-coordinated and integrated process in which all government agencies involved in social, economic, environmental and infrastructure development come together to resolve competing needs and tradeoffs.²³ Once the strategic concept plan is approved and ratified, the more detailed, lower-level planning therefore becomes less contentious and easier to implement.

This lower level of planning is done through the master plan, a more operational and detailed document used in everyday building and planning activities. The master plan follows the strategic guidelines of the concept plan and is periodically updated to reflect revisions in the concept plan.

The cooperation between agencies in designing the concept and master plans

helps to create a coordinated, long-term strategy for urban development that in turn results in efficient implementation of planning and zoning activities. In contrast, the locally focused and project-based planning practices in Sweden result in potentially redundant transactions, because the necessary coordination is done separately for each project rather than through a comprehensive planning solution.

CONCLUSION

In Sweden, obtaining administrative approvals for construction is a long and tedious process, especially for relatively complex structures such as multi-story apartment and office buildings. Part of the reason is that zoning and planning processes are directly linked to construction permitting—because detailed development plans are issued or reviewed every time a developer applies for a construction permit. This greatly complicates the construction permitting process.

There are several possible options for improving the efficiency of construction permitting. First, Sweden could separate the planning and zoning process from construction permitting, as many developed countries have done, including New Zealand and Singapore. In both these countries the development of comprehensive planning documents for the entire municipality or city means that a detailed plan is already in place when a construction company applies for a construction permit, greatly reducing the time required for the permitting process.

Second, Sweden could consider increasing the efficiency of the appeal process for construction projects and detailed development plans, which now can take 3 years or more. Separating the planning and permitting processes might improve the efficiency of the appeal process somewhat, though further streamlining could be considered as a way to reduce the time required to go through the process.

Third, Sweden could improve the coordination of urban planning between municipalities and counties. This might improve

efficiency in spatial planning and zoning through synergies in sharing resources and expertise and in settling conflicts. Today the coordination between municipalities takes place case by case for every project, resulting in redundant transactions during zoning and appeal processes. Better planning coordination could eliminate these redundant transactions. It could also reduce conflicting zoning claims by helping to resolve competing economic interests between municipalities before they are ratified in detailed development plans.

Finally, Sweden could seek to establish a better balance between the rights of residents and those of developers. As a recent study suggests, creating a more “level playing field between those wanting to develop land and those wanting to leave it unchanged” could lead to more construction activity.²⁴ Among the recommendations for doing so, the most notable ones proposed by recent research include setting up an independent planning commission and giving developers the right to challenge municipalities’ decisions on detailed development plans in court.²⁵

NOTES

This chapter has been written by Anushavan Hambardzumyan with the assistance of Marie-Lily Delion.

1. Andrews, Caldera Sánchez and Johansson 2011, p. 2.
2. Stockholm County Council, Office of Regional Planning 2010.
3. European Commission 2013a.
4. Busck and others 2008.
5. Eurostat data.
6. Swedish National Board of Housing, Building and Planning 2013a.
7. Statistics Sweden, data on building permits for new construction, dwellings in residential buildings and buildings for seasonal and secondary use by region and type of building, quarterly 1996K1-2013K3, <http://www.ssd.scb.se/databaser/makro/MainTable.asp?yp=tansss&xu=C9233001&omradekod=BO&omradetext=Housing%2C+construction+and+building&lang=2&langdb=2>.
8. European Commission 2013a.
9. Swedish National Board of Housing, Building and Planning 2013b.
10. Hedin and others 2011.
11. In-depth interview with an expert in the Stockholm Planning Department conducted by the *Doing Business* team on December 5, 2013.
12. Hentilä and Soudunsaari 2008.
13. In-depth interview with an expert in the Stockholm Planning Department conducted by the *Doing Business* team on December 5, 2013; Hüfner and Lundsgaard 2007.
14. City of Stockholm, “Planprocessen,” <http://www.stockholm.se/TrafikStadsplanering/Stadsutveckling/Stadsplanering/Planprocessen/>.
15. In-depth interview with an expert in the Stockholm Planning Department conducted by the *Doing Business* team on December 5, 2013.
16. McKinsey Global Institute 2006.
17. “Swedish House Building Reminiscent of East Germany,” Eurotopics.net, August 29, 2012, http://www.eurotopics.net/en/home/presseschau/archiv/results/archiv_article/ARTICLE110348-Swedish-house-building-reminiscent-of-East-Germany.
18. Mäntysalo, Saglie and Cars 2011.
19. Hüfner and Lundsgaard 2007.
20. Mäntysalo, Saglie and Cars 2011.
21. New Zealand, Ministry of Environment, “An Everyday Guide to the Resource Management Act Series 1.1: Getting in on the Act,” <http://www.mfe.govt.nz/publications/rma/everyday/overview/>.
22. New Zealand, Ministry of Environment 2008.
23. Yuen 2012.
24. Hüfner and Lundsgaard 2007, p. 39.
25. Mäntysalo, Saglie and Cars 2011; Hüfner and Lundsgaard 2007.

Regulation for firms' access to finance



Without access to finance, aspiring entrepreneurs and small businesses struggle to get their ideas and products into the market—and to expand their operations once they get them launched. Sweden has a relatively high start-up rate among OECD high-income economies, but only 25% of its new businesses grow to more than 50 employees. By contrast, 48% do in Finland, and 38% in Norway—both countries where firms have better access to finance.¹

The World Bank Group's *Doing Business* project measures 4 areas of regulation affecting access to finance for small and medium-size businesses—through its indicators on getting credit, registering property, protecting investors and resolving insolvency. These indicators assess the extent to which an economy's credit information system and collateral and bankruptcy laws support transparency and efficiency in lending, increasing the chances that businesses can access credit. They measure the efficiency of systems for registering property transfers—systems that create secure property rights and thus facilitate transactions in assets and enable their use as collateral.² The indicators measure legal safeguards of the rights of minority shareholders against self-dealing by directors and majority shareholders—safeguards that encourage investment in firms. And they evaluate the extent to which bankruptcy laws reduce financial risk for firms and creditors by helping insolvent but viable firms continue their operations and enabling creditors to recover a higher share of their loans.

How does Sweden perform on these *Doing Business* indicators? The country's rankings in the 4 areas measured

show some variation. Its lowest ranking is on the ease of getting credit (42nd among 189 economies)—and its highest is on the ease of resolving insolvency (20th). Its rankings on the ease of registering property and the strength of investor protections are 38th and 34th, respectively.³

This chapter compares Sweden's performance as measured by *Doing Business* in these 4 areas with the average for other Nordic economies (referred to as the Nordic average), for OECD high-income economies and for G7 economies—as well as with the performance of individual economies in these groups. The contrasts highlight relative strengths and weaknesses as well as opportunities for improving access to finance.

GETTING CREDIT

More effective credit information systems and collateral registries and stronger legal rights of borrowers and lenders increase firms' access to finance and bank lending.⁴ Mandatory credit reporting improves financial intermediation and access to finance.⁵ And the sharing of information among creditors reduces the probability of financial crisis and increases growth.⁶

Doing Business uses 2 main indicators to measure these aspects of the credit system and assess the ease of getting credit for individuals and firms.⁷ The depth of credit information index captures the extent to which rules and practices allow effective credit reporting about borrowers. The strength of legal rights index measures the extent to which the legal framework supports the rights of secured creditors in the event of default. Rankings

- Sweden's regulatory environment for credit markets is among the most conducive to private sector borrowing. But Sweden could do more to support access to finance for small and medium-size enterprises.
- Broadening the scope of credit information and extending the period over which credit bureaus make historical credit information available for distribution could make it easier for both individuals and small businesses to gain access to credit.
- Unifying Sweden's fragmented legal framework for secured lending could strengthen the legal rights of borrowers and lenders, supporting greater efficiency in lending.
- Sweden is generally protective of minority investor rights. But it could strengthen these protections by making it easier for minority shareholders to hold directors liable for harming their company through self-dealing and to recover the ill-gotten profits.
- Completing the insolvency process takes longer and costs more in Sweden than in many other high-income economies. Eliminating duplicate or unnecessary steps and setting reasonable deadlines that are adhered to in practice could shorten the duration of insolvency proceedings, help lower the cost and increase the recovery rate.

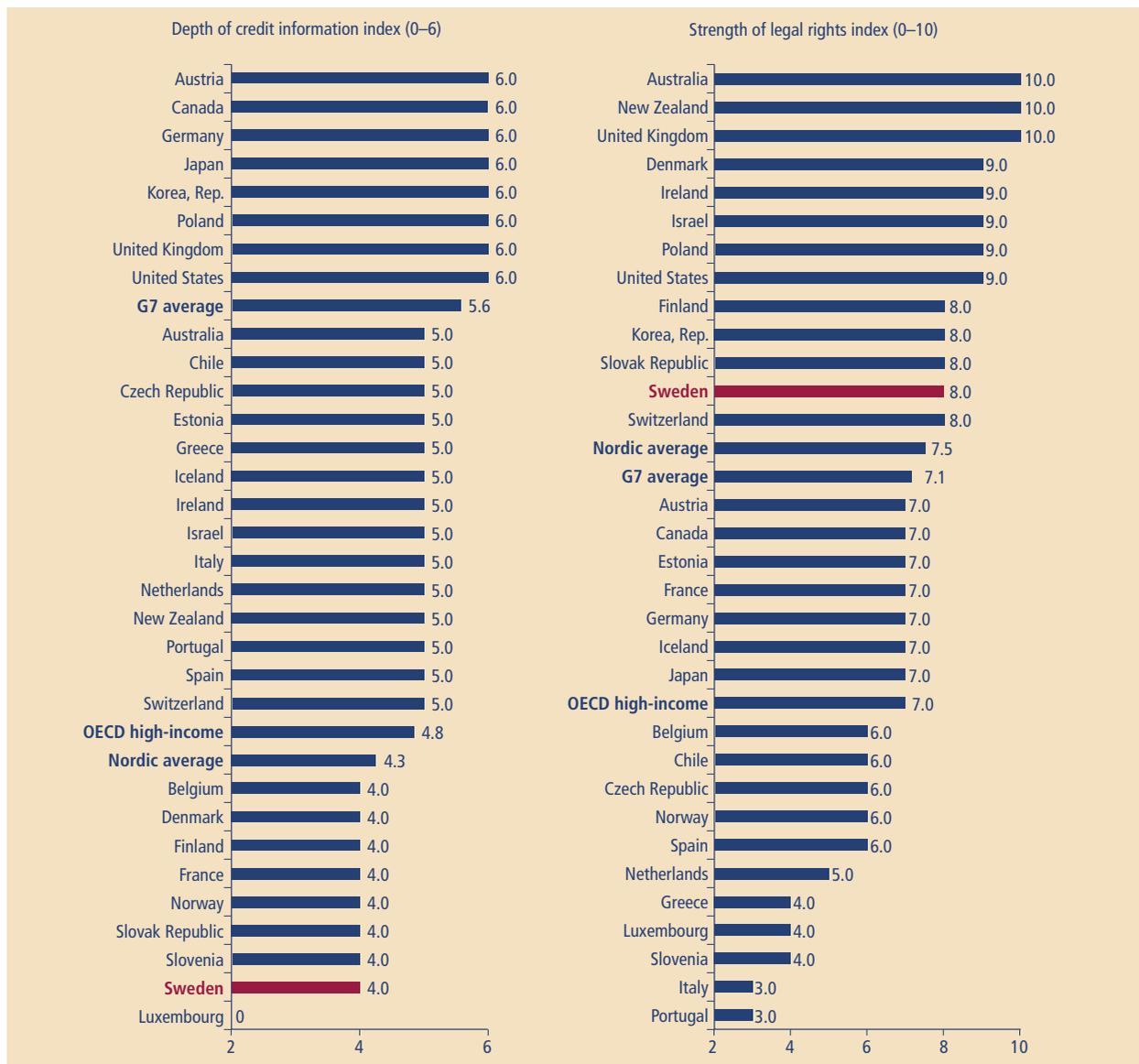
on the ease of getting credit are based on the sum of the 2 indexes.

Doing Business is not the only source of rankings in this area. The Fraser Institute's Economic Freedom of the World project computes an indicator on regulation of credit markets using 3 macroeconomic indicators: the share of total deposits in private banks, the fiscal deficit as a share of gross savings, and interest rate controls.⁸

On this indicator Sweden ranked number 1 in 2011. Its 2013 *Doing Business* ranking on the ease of getting credit, which focuses on credit reporting and the legal rights of borrowers and lenders, is 42nd among 189 economies.⁹ Sweden's ranking on the ease of getting credit, while higher than the Nordic and OECD high-income averages, is below the average G7 ranking as well as the rankings of the United Kingdom, the United States and Denmark.

Perhaps more informative than the ranking on the ease of getting credit are the scores on the underlying measures. On the depth of credit information index Sweden has a score of 4 out of 6, lower than the G7, OECD high-income and Nordic averages (figure 5.1). On the strength of legal rights index Sweden's score is 8 out of 10. This score is higher than the Nordic, G7 and OECD high-income averages, though lower than the scores of the

FIGURE 5.1 Sweden performs comparatively better on legal rights than on credit information sharing



Note: Nordic average excludes Sweden. OECD high-income refers to the average of 31 OECD high-income economies. Higher values indicate better credit information and stronger legal rights of borrowers and lenders.

Source: World Bank Group, *Doing Business* database, 2013 edition.

United Kingdom, Denmark and the United States.

One important factor affecting Sweden's score on the depth of credit information index is that the country's largest credit bureau (UC) collects and distributes credit information only from financial institutions. In 19 other OECD high-income economies—including Canada, Denmark, Germany, New Zealand, the United Kingdom and the United States—credit bureaus also include data from retailers and utilities in credit reports. Doing so is an effective way of expanding coverage by credit registries and bureaus. Collecting and distributing information on the payment of electricity and phone bills, for example, can help establish good credit histories for people without previous bank loans or credit cards.

Distributing historical information also helps expand coverage. In Sweden the largest credit bureau preserves historical information and makes it available for distribution for 1 year. In 24 other OECD high-income economies—including Canada, Finland, Germany, New Zealand, Norway, the United Kingdom and the United States—the largest credit bureau distributes more than 2 years of historical data, including information on repaid defaults.¹⁰

Beyond the features of credit reporting systems measured by *Doing Business*, other prominent ones include the development of online platforms to retrieve data and the provision of additional value added services. In Sweden financial institutions can access credit bureaus' online platforms (such as UC's site at <https://www.uc.se/>) to retrieve and exchange credit information. Additional services—such as fraud detection, debt collection, marketing services and credit scoring—are not yet offered by the country's largest credit bureau.

The main issue affecting Sweden's score on the strength of legal rights index is the fragmentation of its legal framework for secured lending (for example, collateral laws). Sweden does not have a unified law that regulates secured lending as a whole. Case law has solved some of the legislative weaknesses over the years through the introduction of security instruments (such as financial leasing, the floating charge and

security transfer of ownership). But rules for publicizing security interests and determining the priority of creditors' claims vary depending on the type of security instrument used. For some types, registration of the security interest is necessary to establish the secured lender's priority over the collateral; for others, possession of the collateral is enough.

The use of different publicity and priority rules undermines predictability and transparency in secured lending—by making it difficult for secured creditors to determine whether there are existing rights to collateral and creating uncertainty about which priority rules apply to competing claims. The fragmentation of the legal framework also limits the collateral options of borrowers, by disallowing the use of some security instruments for specific types of assets or limiting their use to only part of a business.

Countries such as New Zealand and the United States have solved this issue by taking an integrated and functional approach to the legal framework for secured lending. These countries apply the same publicity and priority rules to all types of security instruments, limiting the possibility for secret liens on the movable assets of a potential borrower.¹¹

For Sweden, implementing this type of modern legal framework for secured lending would require a legislative review and consolidation of the existing security instruments. It would also require reform of the country's collateral registries. So far, Sweden's only reform recorded by *Doing Business* in this area was its amendment of the Rights of Priority Act in 2009, to give priority to secured creditors' claims in cases of default outside bankruptcy.

REGISTERING PROPERTY

Registered property rights support investment, productivity and growth.¹² Evidence from economies around the world suggests that property owners with registered titles are more likely to invest.¹³ They also have a better chance of getting credit when using their property as collateral. For governments, having reliable, up-to-date information in cadastres and land registries is essential to

correctly assess and collect taxes. It also improves their ability to map the different needs in their cities and strategically plan the provision of services and infrastructure in the areas of each city where they are most needed.

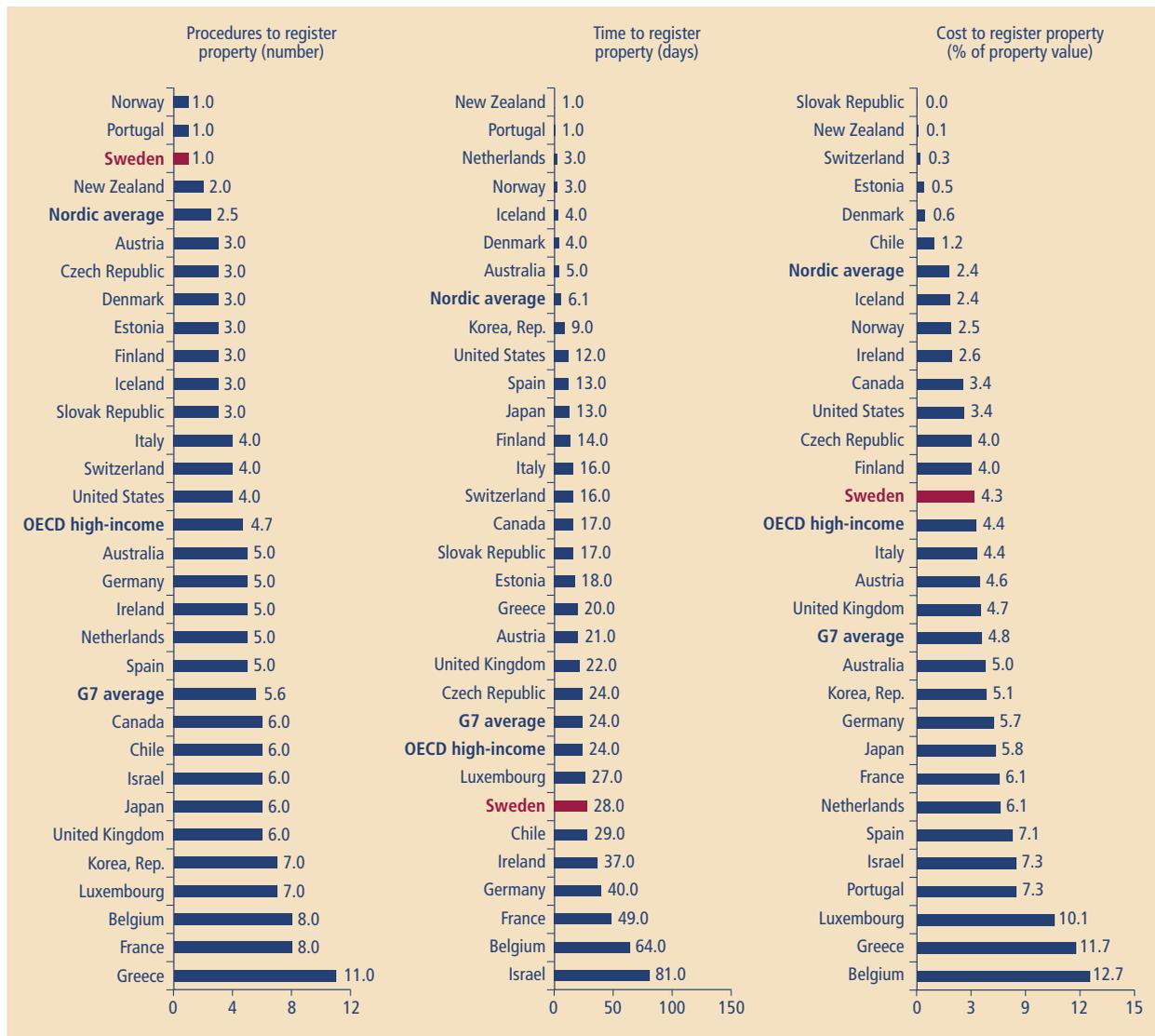
To assess the efficiency of property registration systems in each economy, *Doing Business* records every procedure necessary for a business to purchase a property in the main business city and transfer the title to the buyer's name. For each procedure, it also measures the time (in days) and cost (as a percentage of the property value). The ranking on the ease of registering property is the simple average of the percentile rankings on its 3 components: procedures, time and cost.¹⁴

Among 189 economies around the world, Sweden ranks 38th on the ease of registering property. Among OECD high-income economies it ranks 14th—lower than all other Nordic economies, 2 G7 economies (the United States and Italy) and the 2 OECD high-income economies with the best performance, New Zealand and Denmark.¹⁵

Sweden ranks among the top economies on the number of procedures: it requires only 1, an interaction with the land registry (figure 5.2). This is half as many as were required before 2010, when Sweden eliminated the need for clearance of preemption rights by the municipality.¹⁶ Registering property takes longer in Sweden, at 28 days, than in almost any other OECD high-income economy, however. The Nordic average is only 6 days. But the time measure for Sweden should improve: over the past 2 years the land registry has been introducing a new information technology system for registration of applications. Full implementation is expected in 2014. Meanwhile the land registry is using the old system as well as the new one, leading to backlog and delay. Despite the addition of more staff, processing applications is taking longer while the new system is being implemented.

Over the long term, though, computerizing the property transfer process helps reduce processing times and enhance efficiency. Going electronic also makes it easier to identify errors and overlapping titles, improving title security. Denmark

FIGURE 5.2 Registering property in Sweden requires only a single procedure—but it takes a month to complete



Note: Nordic average excludes Sweden. OECD high-income refers to the average of 31 OECD high-income economies. Source: World Bank Group, *Doing Business* database, 2013 edition.

implemented an efficient and reliable electronic registration system over the past 5 years. In 2009 the government started to modernize its land registry, progressively digitizing its records—more than 80 million documents. Once digitization was complete, the land registry introduced electronic lodgment of property transfers. By 2011 it was accepting property transfer applications only online. The information technology system allows rapid screening of all applications. Implementation of the new system has cut the

time required to transfer property in Denmark from 42 days to only 4.

The Danish system was designed to respond to the needs of a range of stakeholders, from citizens to financial institutions. With online access to a single source of land registry information, citizens and businesses can transfer property on their own, with no need for a third party. They can also get information on any property. And to facilitate access to credit as well as information, the Danish

financial sector created a central hub allowing banks and the land registry to share land registration data.

The cost to register property in Sweden, at 4.3% of the property value, is also high relative to the Nordic average, at 2.4%. Sweden has the highest stamp duty rate among the Nordic economies. In 2011 its stamp duty for corporate purchasers of real estate rose from 3% of the property value to 4.25%. By comparison, Iceland's stamp duty is only

0.4% of the official real estate valuation (usually lower than the purchase price). In Denmark the entire cost to register property is 0.6% of the property value. In Norway it is 2.5% of the property value, and in Finland 4%.

Some economies have reduced the cost by moving from proportional fees to low fixed fees. Poland made registering property less costly by switching from variable registration fees to a fixed fee schedule. All costs related to property transfers are also fixed in New Zealand and the Slovak Republic.

PROTECTING INVESTORS

In economies with stronger protections of minority investors in related-party transactions, market capitalization tends to be higher and the concentration of corporate ownership lower.¹⁷ Strong investor rights also increase corporate risk taking and economic growth.¹⁸

Through its protecting investors indicators, *Doing Business* measures the strength of minority shareholder protections against directors' misuse of corporate assets for personal gain. The indicators measure 3 aspects of investor protections: approval and transparency of related-party transactions (extent of disclosure index), liability of company directors for self-dealing (extent of director liability index) and shareholders' ability to obtain corporate documents before and during derivative or direct shareholder litigation (ease of shareholder suits index). The ranking on the strength of investor protection index is the simple average of the percentile rankings on the 3 indexes identified here. All range from 0 to 10, with higher values indicating stronger protections.¹⁹

Sweden ranks 34th among 189 economies on the strength of investor protections as measured by *Doing Business*.²⁰ It has the 25th highest number of listed firms worldwide, 15th highest stock market turnover ratio and 13th highest market capitalization as a percentage of GDP.²¹ Together, these data suggest an economy with a relatively high concentration of large companies. Having larger, more stable companies provides

economic benefits for a country. But over the longer term such companies may also pose higher risks of management entrenchment, lower managerial initiative and fewer incentives for research and development (R&D) spending.²²

Sweden's performance varies across the protecting investors indicators. Its best performance is on the extent of disclosure index. Its score of 8 (out of 10) is the highest among the Nordic economies and higher than the G7 and OECD high-income averages, pointing to strong ex ante safeguards to protect minority shareholder interests. Sweden has a score of 7 on the ease of shareholder suits index—above the OECD high-income and Nordic averages but below the G7 average—showing that it offers above-average access to evidence for minority shareholder plaintiffs in civil jurisdictions. But its score of only 4 on the extent of director liability index, lower than the scores of the majority of OECD high-income economies, reflects a liability regime that tends to shelter company executives appointed or supported by majority stakeholders from court remedies initiated by minority shareholders (figure 5.3).

Thus while Sweden is generally protective of minority investor rights, some aspects of its regulation of related-party transactions could be further strengthened. One relates to the level of evidence required for shareholder plaintiffs to prevail in court: shareholders must show that a director intentionally or through negligence caused damage to the company when performing his or her duties.²³ In New Zealand they need only show that there was a conflict of interest and that the transaction led to unfair results, even if nothing in the director's conduct or decision was found to be negligent.²⁴

Even when plaintiffs win their case in Sweden, the only remedy available is compensation for damages caused by directors found to be liable. There is no additional requirement for directors to give up any remaining profits gained from the transaction causing damages. Nor is there any possibility for shareholders to request that the transaction be annulled by the court. In such countries as Canada, Israel, New Zealand and the United States shareholders can not only recover

damages in court; they can also demand that liable directors return to the company any personal profit made from a transaction in which they had a conflict of interest if the transaction was found to have harmed the company.²⁵

In addition, the Swedish Companies Act 2005 imposes no obligation on directors to disclose any potential conflict of interest to the rest of the board.²⁶ Fourteen other OECD high-income economies—including Australia, Canada, France, Japan, New Zealand, the United Kingdom and the United States—require detailed disclosure by directors of all material facts relating to their potential interests in proposed transactions.²⁷

Moreover, in Sweden access to documentary evidence and information from defendants and witnesses is limited to information that directly proves specific facts in the plaintiff's claim.²⁸ To increase the likelihood that shareholders can obtain incriminating evidence held by the company, such countries as Belgium and Germany allow shareholders to access any information that may lead to the discovery of relevant information when attempting to compel evidence from the opposing party or its witnesses.

RESOLVING INSOLVENCY

Effective insolvency proceedings are important on several fronts. They enable insolvent but economically viable firms to continue operating as a going concern, helping to sustain feasible economic activities and saving jobs.²⁹ They help nonviable firms exit the market faster and at minimal cost, speeding up the reallocation of resources. And they enable creditors to recover high shares of their loans from insolvent firms, increasing the availability of credit for other firms and for entrepreneurs.

The *Doing Business* indicators on resolving insolvency measure the time, cost and outcome of the most likely insolvency proceeding—foreclosure, receivership, liquidation or reorganization—for a domestic entity.³⁰ The ranking on the ease of resolving insolvency is based on the recovery rate, which is recorded as cents on the dollar recouped by creditors through

no controls on interest rates. But Sweden could do more to support access to finance for small and medium-size enterprises. It could increase the coverage of credit information, clarify its legal framework for secured lending, strengthen the protection of minority shareholder rights, and make the processes for both registering property and resolving insolvency speedier and less costly.

Broadening the coverage of credit information could make it easier for both individuals and small businesses to gain access to credit. One way to do so is to have Sweden's credit bureaus collect and distribute information from retailers and utilities in addition to financial institutions, as those in many other OECD high-income economies do. Another is to extend the period over which credit bureaus make historical credit information available for distribution. While Sweden's largest credit bureau retains information for only 1 year, those in more than three-quarters of OECD high-income economies distribute more than 2 years of historical data, including information on repaid defaults.

Unifying Sweden's fragmented legal framework for secured lending could strengthen the legal rights of borrowers and lenders, supporting greater efficiency in lending. While case law has patched some of the legislative weaknesses, the use of different publicity and priority rules for different types of security instruments creates uncertainty for secured lenders by opening possibilities for competing claims to collateral. Applying the same publicity and priority rules to all types of security instruments, as countries such as New Zealand and the United States do, would limit the possibility for secret liens.

Registering property in Sweden costs about 80% more than the Nordic average as a share of the property value. This is thanks to Sweden's stamp duty rate, the highest in the region. Moving from proportional fees to low fixed fees—as such countries as New Zealand, Poland and the Slovak Republic have done—would make property registration less costly. The time to register property in Sweden, now among the longest in the OECD high-income group, is expected to

improve once the land registry has fully implemented its new system for registering property transfer applications.

When directors of a company cause it harm through a related-party transaction, it can be difficult for minority shareholders to hold them liable in Sweden. Under Swedish law, directors can be made liable only when they harmed the company intentionally or through negligence—and then they need only pay compensation for the damages caused. Many other OECD high-income economies—and all other Nordic economies except Finland—make it easier to hold directors liable. Many also apply harsher penalties. And unlike Sweden, 14 other OECD high-income economies have laws obligating directors to disclose potential conflicts of interest to the rest of the board, reducing their opportunities to cause harm in the first place.

When companies in Sweden run into financial difficulties and must go through insolvency, completing the process takes longer and costs more than in many other high-income economies—and creditors recover smaller shares of their loans. Litigation of creditors' claims takes the most time during the proceedings, and attorneys' fees and payment of the administrator account for much of the high cost. Eliminating duplicate or unnecessary steps and setting reasonable deadlines that are adhered to in practice could shorten the duration of insolvency proceedings. This might also help lower the cost.

NOTES

This chapter has been written by Hulya Ulku with the assistance of Santiago Croci, Nan (Charlotte) Jiang, Hervé Kaddoura, Olena Koltko and Frédéric Meunier.

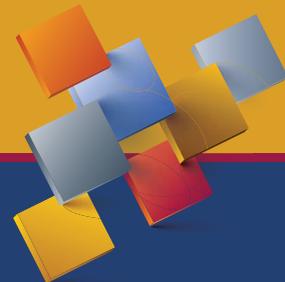
1. Start-up rate is measured by new business density, defined as newly registered limited liability companies per 1,000 people ages 15–64. Data are from the World Bank's World Development Indicators database, 2013 edition. Data on the growth of small enterprises and their access to finance are from Napier and others (2012). Access to finance is measured based on debt financing, venture capital and stock markets. Each indicator is computed using several indicators from international data sources, which

are then normalized to range between 0 and 100. See Napier and others (2012) for more details.

2. Besley and Ghatak 2009.
3. For rankings of the Doing Business indicators, see <http://www.doingbusiness.org/>.
4. Love, Martínez Pería and Singh 2013; Haselmann, Pistor and Vig 2010; Giannetti and Jentzsch 2013.
5. Giannetti and Jentzsch 2013.
6. Houston and others 2010.
7. The getting credit indicators are aimed at providing information on whether the laws are favorable to borrowers and lenders using movable assets as collateral, whether bankruptcy laws protect the rights of borrowers and lenders and whether lenders have sufficient information on entrepreneurs who would like to borrow money. For more detail on the methodology of the indicators, see <http://www.doingbusiness.org/methodology/getting-credit>.
8. Gwartney, Lawson and Hall 2013.
9. See annex table A.1 for the rankings of OECD high-income economies on the ease of getting credit.
10. See annex table A.2 for data showing which OECD high-income economies collect credit information from utilities and retailers and which keep historical information for more than 2 years.
11. The United States was the first to tackle this type of issue, through the introduction of article 9 of the Uniform Commercial Code in the 1950s. Other economies have done so since, including New Zealand in 2001 and Australia in 2012.
12. Deininger 2003.
13. Dower and Potamites 2012.
14. For more detail on the methodology of the registering property indicators, see <http://www.doingbusiness.org/methodology/registering-property>.
15. See annex table A.1 for the rankings of OECD high-income economies on the ease of registering property.
16. Before 2010 the municipality of Stockholm had the possibility to buy any property that was being transferred. In most cases the municipality would not use this preemption right and would instead issue a certificate to clear the property transfer.
17. Djankov and others 2008.
18. John, Litov and Yeung 2008.
19. For more detail on the methodology of the protecting investors indicators, see <http://www.doingbusiness.org/methodology/protecting-investors>.
20. See annex table A.1 for the rankings of OECD high-income economies on the strength of investor protections.
21. World Bank, Financial Development and Structure Database, 2010 edition.
22. Shleifer and Vishny 1989; Brossard and others 2013.

23. Swedish Companies Act 2005, chapter 29, sections 1 and 3.
24. New Zealand Companies Act of 1993, sections 131, 133, 137, 139 and 141.
25. In Canada, for example, section 241(3)(h) of the Canadian Business Corporations Act gives courts the power to “set aside a transaction or contract to which a corporation is a party.”
26. Swedish Companies Act 2005, chapter 8, sections 23 and 34.
27. In Australia section 191 of the Companies Act requires that interested directors give notice to the other directors. The notice must give details of the nature and extent of the interest and the relationship of the interest to the affairs of their company and must be sufficient to allow the board to understand the scope of the benefit and the potential profit to the interested director.
28. Under chapters 36 and 38 of the Code of Judicial Procedure.
29. Lilienfeld-Toal, Mookherjee and Visaria 2012; Giné and Love 2010.
30. For more detail on the methodology of the resolving insolvency indicators, see <http://www.doingbusiness.org/methodology/resolving-insolvency>.
31. Foreclosure and receivership are generally faster and less costly procedures; however, they usually result in a piecemeal sale of the underlying business. At the same time, companies are more likely to continue operating at the end of liquidation and, especially, reorganization proceedings, but these proceedings may take longer and be more costly.
32. See annex table A.1 for the rankings of OECD high-income economies on the ease of resolving insolvency.
33. Typical procedures for closing a business in Sweden are as follows: After a bank files the claim to commence liquidation proceedings, the court issues a decision declaring the debtor insolvent and appointing an administrator (trustee). The debtor verifies its inventory in court. The administrator prepares a report on the debtor's financials. Creditors submit proof of their claims, and any disputes about creditors' claims are litigated. No creditors' meetings are held during the proceedings, and the court is not heavily involved. Assets are normally sold through a tender; the administrator advertises the sale, and potential buyers submit their bids.

Regulation of foreign direct investment



Many countries have removed the most important regulatory barriers to foreign investment. But further reforms targeting more nuanced regulatory issues may be a key to staying at the forefront in attracting global foreign direct investment (FDI). Drawing on the World Bank Group's FDI Regulations project, this chapter looks at 5 regulatory areas directly relevant to FDI, comparing legal and regulatory practices in Sweden with those of other economies. It also identifies good practices in economies that have succeeded in attracting large FDI inflows.

Research has shown that outside the extractive industries, factors important in attracting FDI include a large and growing market, a well-educated labor force, good infrastructure, trade openness, and macroeconomic and political stability.¹ Institutional and regulatory quality is also associated with higher FDI inflows.² An efficient regime for arbitrating commercial disputes and a low number of procedures to start a foreign subsidiary are strongly associated with larger FDI stocks.³ Moreover, in economies with less burdensome business and labor regulations, FDI has a greater impact on economic growth.⁴

A wide range of research has documented positive direct and indirect knowledge transfers to the host economy resulting from FDI.⁵ And numerous studies provide evidence that FDI has a positive impact on growth.⁶ An overarching conclusion of these studies is that FDI contributes to growth when there is a good match between the technology that foreign investors use and the technology needs and learning capacity of the domestic firms they interact with—and when the investment climate is conducive to knowledge transfer and innovation.

Most international organizations and assessments recognize Sweden as a favorable environment for investment. The country offers a competitive, largely corruption-free economy with access to new products, technologies, skills and innovations.⁷ Low corporate tax levels, the absence of a withholding tax on dividends and a favorable holding company regime make Sweden particularly attractive to foreign companies. Other positive factors include a well-educated labor force, an outstanding telecommunications network and a stable political environment.⁸

The Economist Intelligence Unit adds further detail, stating that "Sweden's main attraction as an investment location is its exceptional infrastructure, particularly its facilities for research and development."⁹ The World Economic Forum puts Sweden at number 4 in a ranking of 144 countries on overall competitiveness and productivity in its *Global Competitiveness Report 2012–2013* and has ranked it among the top 5 for the past 10 years.

Sweden also performs well on the United Nations Conference on Trade and Development (UNCTAD) FDI Potential Index, which captures 4 key determinants of an economy's attractiveness for foreign direct investors.¹⁰ Sweden ranks high in the first quartile—alongside such countries as Australia, Austria, Belgium, Canada, Chile, Finland, France, Germany and the United States—while most other Nordic economies are found in the second quartile (table 6.1).

TRENDS IN FDI INFLOWS AND REGULATIONS IN SWEDEN

A range of data shows that Sweden is a strong destination for FDI. While it was

- Sweden offers a favorable environment for foreign investors and attracts large inflows of foreign direct investment (FDI).
- The country's laws and practices in the regulatory areas affecting FDI are mostly in line with best practices.
- The country is very open to foreign equity, though requirements to obtain operating licenses in some sectors can be burdensome for investors.
- Foreign investors setting up a company in Sweden complete the same few procedures as domestic investors do. But the process takes a bit longer, and the minimum capital requirement is higher, than in many other economies.
- Sweden's laws, regulations and institutions for alternative dispute resolution follow—and indeed set the trend for—international best practices. Mediation could be further developed, however.
- Laws on employing skilled expatriates are transparent and generally follow best practices. But obtaining a temporary work permit takes much longer in Sweden than in other OECD high-income economies.
- Like most OECD high-income economies, Sweden maintains a fully open foreign exchange regime.

TABLE 6.1 OECD high-income economies by ranking on the UNCTAD FDI Potential Index

First quartile (best)	Second quartile	Third quartile	Fourth quartile (worst)
Australia; Austria; Belgium; Canada; Chile; Czech Republic; Finland; France; Germany; Hungary; Italy; Japan; Republic of Korea; Netherlands; Poland; Spain; Sweden ; Switzerland; United Kingdom; United States	Denmark; Estonia; Greece; Iceland; Ireland; Israel; New Zealand; Norway; Portugal; Slovak Republic; Slovenia	Luxembourg	

Source: UNCTAD 2012.

heavily affected by the global financial crisis, FDI inflows for 2012 indicate that the country is well on its way to making a full recovery in attracting investment.

Inward FDI in Sweden's manufacturing sector seems to be dominated by market-seeking FDI—investment attracted by the size of the domestic market and its potential for growth. Technologically advanced industries attract a large share of FDI, while natural resources, such as the country's forestry industry, attract relatively little.¹¹ Foreign companies invest in Sweden's manufacturing and services sectors in part because of the country's comparative advantage in capital-, human- and energy-intensive products and because of the appeal of industries offering assets in the form of well-known products and strong brand names.¹²

Local technological competencies are probably an important factor in attracting FDI in Sweden, since the operations of the majority-owned foreign affiliates in the country are part of an asset-seeking strategy.¹³ While traditional cost factors continue to affect investment locations, agglomeration forces—as measured by the physical and intellectual sophistication in a country—are extremely important in attracting production to the Scandinavian countries.¹⁴

The inflow of foreign firms and owners seems to strengthen Sweden's future prospects rather than erode the basis for the competitiveness and attractiveness of dynamic local sectors.¹⁵ The substantial increase in foreign ownership in Sweden in the 1990s led to greater relative demand for skilled labor in the country. And the larger presence of foreign multinational enterprises in an industry appears to increase the relative demand for skills in Swedish multinationals within

the same industry as well as technology transfers.¹⁶

A shift in regulatory approach

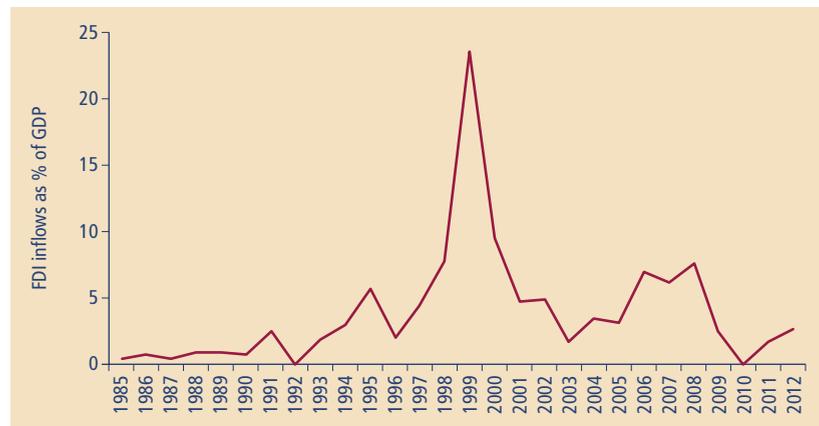
Until the mid-1980s Sweden took a fairly restrictive approach to FDI, governing it through a complex system of laws and regulations. In 1973, possibly as a reaction to the increase in FDI inflows during the 1960s, new legislation restricted foreign ownership of natural resources and stated that other assets of national interest—such as technical know-how, patents and trademarks—needed protection from foreign ownership. The law also declared that acquisitions of “large” domestic firms could be stopped, as well as acquisitions of firms in industries that already had significant foreign ownership. In 1982 a new law made the acquisition of all companies with more than 10 employees or more than 3.8 million Swedish kronor (SKr) in assets subject to review by the authorities. There was a general feeling that “the

control over Swedish firms should be preserved to safeguard Swedish interests.”¹⁷

A more liberal approach was introduced toward the end of the 1980s, when the government removed many of the obstacles to foreigners acquiring Swedish firms. Sweden abolished its foreign exchange controls and the rule restricting foreigners to “restrictive shares” of Swedish corporations.¹⁸ It also eliminated the requirement for foreigners to get permission from the authorities to acquire shares in Swedish companies. This shift in approach, together with a general trend of more international mergers and acquisitions in most industrial economies, led to greater foreign ownership in Swedish business sectors. These changes are highly correlated with changes in FDI inflows.¹⁹

Sweden's entry into the European Union (EU) in 1995 also greatly improved the investment climate and attracted foreign investors to the country (figures 6.1 and

FIGURE 6.1 Sweden saw a surge in FDI inflows following its entry into the European Union



Source: UNCTAD FDI/TNC database, 2013 edition, based on data from Statistics Sweden.

6.2). In Sweden the globalization of corporate networks was reflected in a surge from 3,300 foreign-owned firms in the middle of the 1990s to 7,800 at the beginning of the 2000s.²⁰

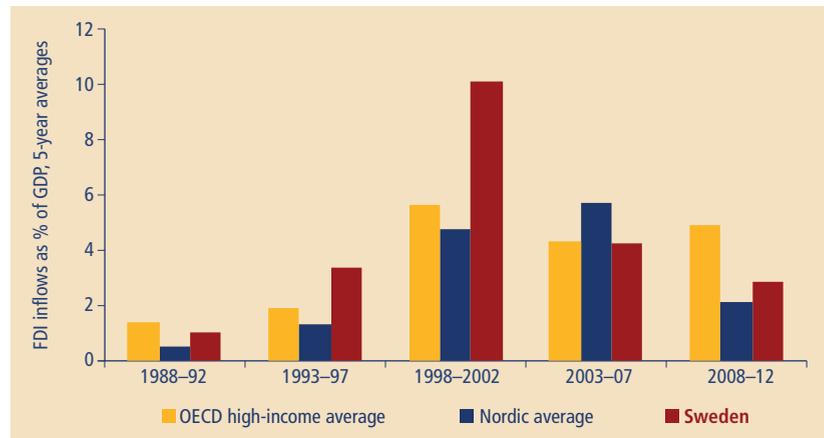
Recent trends in FDI inflows

Sweden, like other EU countries, was heavily affected by the global financial crisis. Swedish GDP contracted severely in 2009, rebounded in 2010 and then continued to grow at a steady but moderate rate in 2011 amid the continuing euro zone crisis. FDI inflows to Sweden were also severely affected by the global economic downturn. Annual inflows during 2008–11 averaged SKr 97.6 billion (about US\$14 billion), down from the precrisis (2005–07) average of SKr 163.3 billion (about US\$23 billion). Despite the recovery of the economy in 2010, FDI flows were slower to improve, and the decline was so sharp that in 2010 divestment exceeded new investment by almost SKr 9 billion (about US\$1.4 billion).²¹ Ernst & Young, in its 2010 *European Attractiveness Survey*, reported that in 2009 Europe, hit by the downturn and its aftershocks, received a smaller amount of investment and smaller FDI projects in fewer locations. Sweden accounted for only 2% of the total number of foreign investment projects in Europe in 2009 (32% fewer deals than in the previous year). The country did not make it into the top 20 in the report's ranking of jobs created by foreign investments into Europe.²²

Despite the drop in FDI inflows in 2009–10, the stock of FDI in Sweden has been steadily growing. In 2011 it amounted to 63% of GDP, putting Sweden in 8th place among OECD economies—after Luxembourg, Belgium, Ireland, Switzerland, Iceland, Estonia and the Netherlands. The OECD average in 2011 was about 29% of GDP.²³

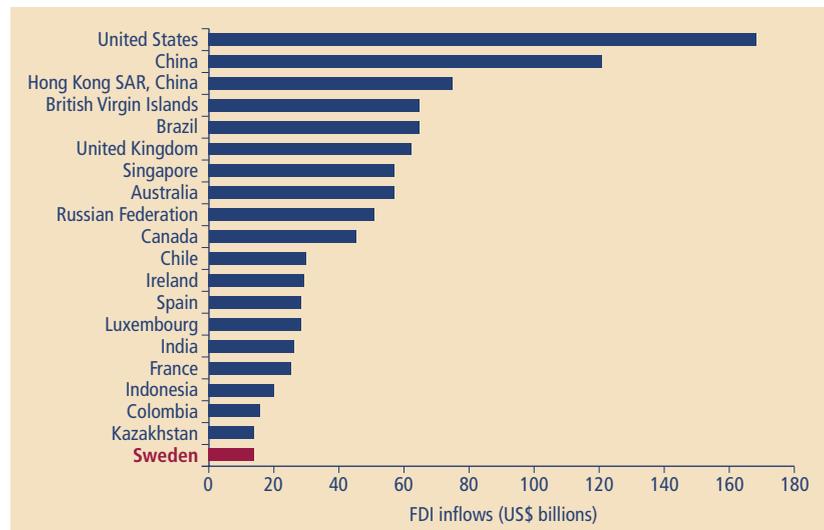
In 2012 Sweden ranked among the top 20 host economies for FDI inflows in absolute terms, according to UNCTAD's *World Investment Report 2013*, ahead of all other Nordic economies (figure 6.3). Among OECD high-income economies, on a per capita basis, Sweden was the 6th largest recipient of FDI (figure 6.4).

FIGURE 6.2 Comparative data highlight the big increase in FDI inflows in Sweden in 1998–2002



Note: Nordic average excludes Sweden.
Source: UNCTADstat database, 2013 edition.

FIGURE 6.3 Sweden was among the top 20 recipients of FDI in 2012



Source: UNCTAD 2013b.

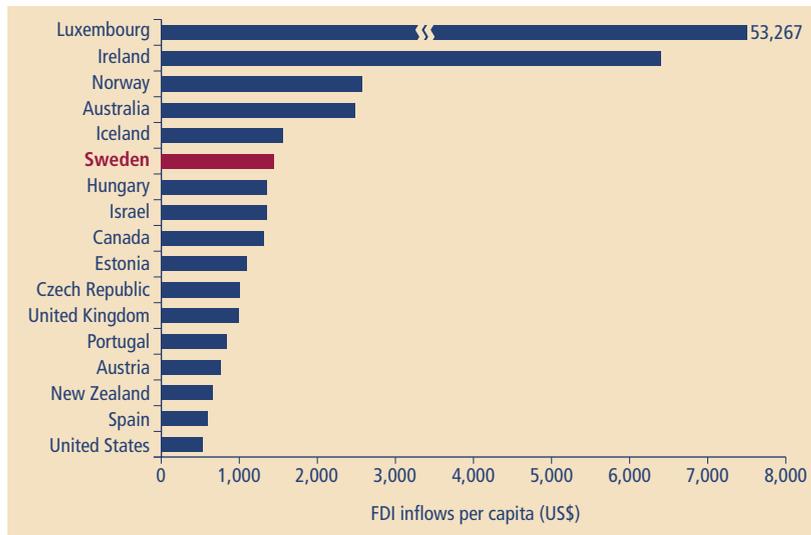
Patterns in origins and forms of FDI

Foreign direct investments in OECD economies like Sweden have primarily taken the form of acquisitions, in which foreign multinationals expand their network of production, sales, and research and development (R&D) units and locate them as FDI firms across a set of countries.²⁴ In Sweden about 50% of foreign-owned firms are acquisitions, and 30% new establishments.²⁵

Ownership of FDI assets in Sweden is dominated by companies registered in Europe, mainly in EU member states. While the origin of FDI in Sweden fluctuates greatly from year to year, the countries with the most investment assets in Sweden are the Netherlands, Luxembourg and the United Kingdom, followed by Finland, Denmark, the United States and Norway.²⁶

Between 2002 and 2011 the EU-27 countries' share of the FDI assets in Sweden rose

FIGURE 6.4 Among OECD high-income economies, Sweden ranked 6th in FDI inflows per capita in 2012



Source: UNCTADstat database, 2013 edition.

from just under 61% to almost 80% (figure 6.5). During the same period the U.S. share fell from about 21% to around 7%, with the decline between 2007 and 2010 due mainly to transfers and other changes in direct investment loans. Asia's direct investment assets in Sweden are still relatively small, at just over 1% of the total.²⁷

Foreign ownership in Sweden has increased rapidly in the past decade. Foreign-owned firms now employ almost 25% of the workforce in business and industrial sectors, mostly in services and

manufacturing. In 2011 foreign companies employed about 631,000 workers in Sweden. Foreign ownership in urban areas is dominated by Norway and EU countries.²⁸

Manufacturing accounts for almost half the FDI assets in Sweden (figure 6.6). Within manufacturing, the chemicals and pharmaceuticals industry accounts for the largest share (38%), followed by engineering (23%), the wood and paper

industry (13%), the food industry (19%) and others (6%).

THE FDI REGULATIONS INDICATORS

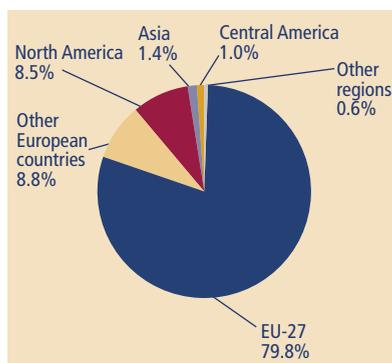
The World Bank Group's FDI Regulations project offers one means of identifying reform possibilities that countries could pursue to stimulate further growth in FDI. The project measures and compares regulation of FDI across 105 economies, making it possible to benchmark economies against one another and to identify good practices.²⁹

The standard definition of FDI is an investment in a foreign economy in which the investor has some management control over the newly invested enterprise.³⁰ Such investment could include new equity capital, reinvested earnings or intracompany loans, but does not include portfolio investment abroad or short-term foreign capital flows. The FDI Regulations case study approach focuses the regulatory analysis on a particular type of FDI: wholly foreign-owned subsidiaries of international firms. The aim in doing so is to measure regulations affecting investments that are long term and engaged in productive economic activities.

The FDI Regulations indicators focus on legal and regulatory issues affecting foreign investors in 5 areas:

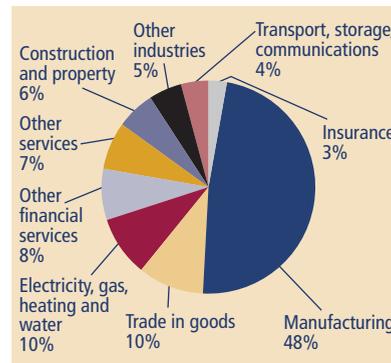
- *Investing across sectors*—measuring restrictions on foreign equity ownership in various manufacturing, services and natural resource sectors of the economy.
- *Starting a foreign investment*—measuring the regulatory regime and procedural burden that foreign companies face when establishing a subsidiary firm in a new market.
- *Arbitrating and mediating disputes*—measuring the legal regime for, and implementation of, alternative dispute resolution (ADR) for international and domestic commercial disputes.
- *Employing skilled expatriates*—measuring the rules and practices for obtaining temporary work permits for foreign directors and specialist staff.

FIGURE 6.5 EU-27 countries accounted for the largest share of FDI assets in Sweden in 2011



Source: UNCTADstat database, 2013 edition.

FIGURE 6.6 Among industries, manufacturing claimed the largest share of FDI assets in Sweden in 2011



Source: Statistics Sweden 2012.

- *Converting and transferring currency*—measuring foreign exchange restrictions on the inflow of foreign capital, the repatriation of investment proceeds and other current transactions related to international business.

What the indicators measure

The *investing across sectors* indicators identify legal restrictions on foreign equity holdings in new investment projects. Such ownership restrictions usually specify the permissible maximum of foreign equity participation, ranging from sectors being either completely closed or completely open to foreign ownership. The indicators measure ownership restrictions on FDI across 32 sectors classified into 12 sector groups and report on a scale of 0 to 100 the degree of openness to FDI in each sector.³¹

Restrictions on foreign ownership limit and in some cases prohibit FDI in certain sectors. But abolishing foreign ownership restrictions and having a completely open economy do not guarantee success in attracting more FDI; besides openness to foreign ownership, there are many other determinants of FDI, including market size, infrastructure quality, cost factors, political stability and economic growth, actual and potential. The main goal of the investing across sectors indicators is to help economies benchmark their policies against those of their peers and to use these comparisons to inform their policy decisions.

The *starting a foreign investment* indicators build on the data on starting a business collected by the World Bank Group's *Doing Business* project and look specifically at the process of establishing a wholly foreign-owned business. Establishing a foreign-owned company often involves 2 types of procedural steps: those required of both foreign and domestic companies (for example, company registration) and those required only of foreign companies (for example, a foreign investment approval). The indicators cover both types, because both matter to foreign companies seeking a new location for their investment.

Based on case study assumptions, the starting a foreign investment indicators measure the time and procedures required to set up a wholly foreign-owned

subsidiary, established as a limited liability company in the manufacturing sector. In addition, the indicators evaluate the characteristics of the regulatory and administrative regimes for business start-up, such as foreign investment approval requirements (nature of investment approval requirement, possibility of appeal, minimum required amount of investment, period of validity), the availability of online services (online laws, regulations, documents and registration) and minimum capital requirements.

The *arbitrating and mediating disputes* indicators focus on alternative dispute resolution—specific procedures for settling disputes outside of court litigation, including commercial arbitration, mediation and conciliation.³² The indicators identify economies that have adopted generally accepted good practices, including consolidated ADR laws, regulations following the United Nations Commission on International Trade Law (UNCITRAL) Model Law on International Commercial Arbitration and laws encompassing substantially all aspects of commercial mediation and conciliation.³³

The arbitrating and mediating disputes indicators also identify where functional ADR institutions exist to ensure the efficient conduct of arbitration proceedings, to enhance the likelihood that time limits assigned by the arbitration tribunal will be respected and to increase the certainty that the arbitral award will withstand the scrutiny of a domestic court. In particular, the indicators include data on the strength of ADR laws and institutions; the ease of the arbitration process, before and after arbitration proceedings are initiated; and judicial assistance in recognizing and enforcing foreign arbitral awards (including the length of the usual recognition and enforcement proceedings for such awards).³⁴

The *employing skilled expatriates* indicators measure the ease of hiring skilled expatriates. The indicators focus on elements that are generally agreed to contribute to streamlining a regime for temporary work permit applications, making it faster and more accessible, flexible and user-friendly. These elements include the possibility to complete an application for a temporary work permit online, the presence

of a one-stop shop and availability of a fast-track option for temporary work permit applications, the portability of a temporary work permit, the availability of an appeal procedure, the possibility to obtain permanent residency or citizenship and the existence of a spousal work permit. All these are elements that companies as well as skilled individuals take into account in their investment location decisions.

The *converting and transferring currency* indicators measure foreign exchange restrictions, with the goal of identifying regulatory reforms that could improve this aspect of the investment climate for foreign investors. The indicators focus on regulations affecting 4 types of transactions: Receiving investment inflows—including whether controls exist on receiving inflows of foreign equity or foreign loans. Repatriating investments and income—covering whether there are controls on repatriating liquidated investments or restrictions on making dividend payments or loan repayments abroad. Making payments abroad—including whether there are restrictions on paying for imported goods, paying for imported services, paying for international travel and making personal payments or transferring wages abroad. Holding foreign exchange—identifying whether export proceeds must be repatriated and surrendered and whether a firm can hold foreign exchange bank accounts at home and abroad.

How the data are collected

The data for the FDI Regulations indicators are gathered through questionnaires administered to local legal and regulatory experts in each economy, including private lawyers and accountants working with international firms and government regulators in charge of implementing national law. To ensure that the data are comparable across economies, the questionnaires use a case study approach, asking respondents to provide information about the regulatory framework relating to a specified type of standard medium-size foreign investor. The data are supplemented by technical review of the national laws and regulations governing FDI. The data thus comprise both a de jure review of the regulatory framework and a de facto perspective on how the laws and regulations are implemented in practice.

For Sweden, the project gathered data from August to November 2013. For all other economies included in the FDI Regulations database, the data were collected in 2012. The FDI Regulations project team is particularly grateful to the lawyers who agreed to contribute to this project, on a pro bono basis. Their names are listed in the acknowledgments section.

While the FDI Regulations database includes 18 OECD high-income economies, Sweden is the only Nordic economy that it currently includes.³⁵

INVESTING ACROSS SECTORS

Sweden made much progress in deregulating its product markets in the 1990s, and the country's markets are generally open and competitive. In a number of areas, including electricity and telecommunications, Sweden has been on the leading edge of reform to increase efficiency and lower prices. The country is far ahead of the European Union in market deregulation, and it continues to push the organization to accelerate the opening of markets in other member countries.³⁶

As a result of these deregulation efforts, Sweden's economy is among the most open to foreign equity ownership as measured by the investing across sectors indicators—both globally and among the OECD high-income economies included in the FDI Regulations database (figure 6.7).

Openness to foreign equity ownership

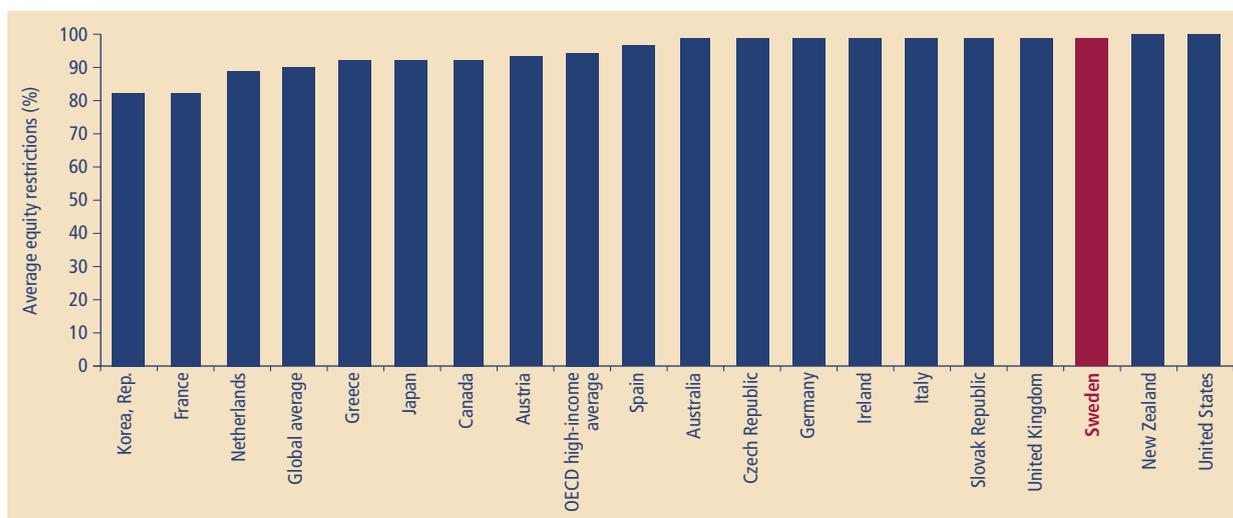
The indicators show that in Sweden all but one of the 32 sectors covered are fully open to foreign capital participation. Like other EU countries, Sweden imposes ownership restrictions in the international passenger air transport sector, where foreign equity is limited to 49%. But this equity restriction applies only to investors from economies outside the European Economic Area (that is, the EU member states plus Iceland, Liechtenstein and Norway).

Foreigners do not need permission or prior government approval to acquire equity or voting rights in Swedish companies, and individual companies are not allowed to limit foreign equity. Some foreign ownership restrictions remain for companies involved in the production

of defense material (though these too are being eased),³⁷ but the nonstrategic side of the defense industry is open to foreign investment. Notable examples of recent foreign investments are the state's sale of the distiller Vin och Sprit to the French company Pernod Ricard in March 2008 and the merger of Posten with Danish Post in June 2008. The government also encouraged the purchase of Volvo Cars by the Chinese carmaker Geely and supported the acquisition of Saab by Spyker Cars (now called Swedish Automobile) in early 2010. But the second deal ended in December 2011 with Saab filing for bankruptcy. In early 2010 the government privatized the pharmaceutical company Apoteket, allowing for private retailing of pharmaceuticals.³⁸

The Nordic economies opened to foreign banks relatively recently, and Sweden was the last to liberalize its banking sector. It did so in 1985, and a number of foreign banks entered at that time.³⁹ Foreign banks, insurance companies, brokerage firms and cooperative mortgage institutions are permitted to establish branches in Sweden on equal terms with domestic firms, though permits are required.

FIGURE 6.7 Sweden's economy is among the most open to foreign equity ownership



Note: The equity restriction is calculated as an unweighted average of all foreign equity ownership indices across the 32 sectors covered. A value of 100% indicates that an economy is fully open to foreign equity ownership across all 32 sectors, and a lower value that limitations are imposed in one or more of them. The global average includes the 103 economies covered by the FDI Regulations data on investing across sectors, and the OECD high-income average all OECD high-income economies shown in the figure.

Source: World Bank Group, FDI Regulations database, 2012 edition.

Practical impediments

Despite Sweden's openness to foreign equity ownership, practical impediments to FDI remain. These include a fairly extensive (though nondiscriminatory) system of permits and authorizations needed to engage in many activities. Another is the dominance of a few very large players in certain sectors, such as construction and food wholesaling.⁴⁰ In construction a tight web of regulations limits competition in all stages of the building process.

Foreigners seem to be particularly discouraged by licensing requirements, restrictions on their own machines and equipment (testing and certification requirements) and requirements to pay Swedish salaries, insurance and certain union fees, even for foreign workers. These regulations apply to all companies, regardless of origin, and are not directed against foreign companies. But the collective effect of these regulations appears to have stifled the entry of foreign contractors in Sweden.⁴¹

Finally, despite extensive deregulation, foreign and domestic investors are still barred from the retail sale of alcoholic beverages. Government monopolies over alcohol are typically driven by public health considerations and are created to

prevent overconsumption and to reduce the profit motive for the sale of alcohol. They exist in all Nordic economies except mainland Denmark, as well as in Canada (except the province of Alberta).

STARTING A FOREIGN INVESTMENT

Governments around the world have made changes to ease business start-up, helping domestic and foreign companies alike avoid excessive administrative hurdles when setting up a business. A study measuring restrictions on FDI in the services sector finds that difficulty in navigating the requirements involved in starting a foreign investment can have a critical impact on companies' investment decisions.⁴² In almost every economy observed, establishing a local subsidiary of a foreign company takes longer and requires more steps than establishing a domestic enterprise.

In Sweden, however, domestic and foreign investors go through the same process when setting up a business. The most common way to establish a subsidiary in Sweden is to buy a preregistered shell company (one that has been set up but is not operating), which expedites the

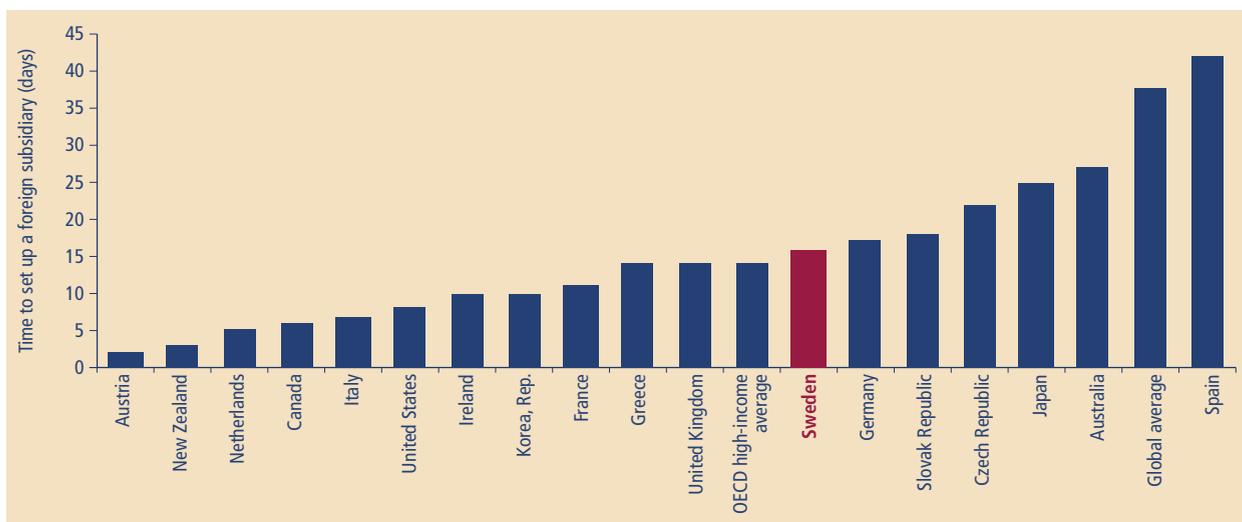
establishment process. Otherwise, investors go through the Swedish Companies Registration Office (Bolagsverket), and the process takes 16 days on average. Foreigners have the same rights as Swedes to form and operate corporations, make investments and acquire shares. The prohibition on foreigners serving as board chairs of Swedish companies ended when Sweden joined the European Union in 1995.

In addition, foreign companies establishing a subsidiary are not required to go through a local counsel or notary. This is good because foreign companies often prefer to deal with their own in-house lawyers. Sweden is party to the 1961 Hague Apostille Convention, which facilitates the authentication of documents for foreign firms.

A bit of a wait at start-up

While the equal treatment of foreign and domestic firms is good practice, setting up a foreign limited liability company in Sweden nevertheless takes slightly longer (at 16 days) than the average for OECD high-income economies (14 days) as measured by the FDI Regulations database. In some countries the process can take as little as 3 days (New Zealand) or even 2 (Australia).

FIGURE 6.8 Starting a foreign subsidiary takes longer in Sweden than the OECD high-income average



Note: The global average includes the 103 economies covered by the FDI Regulations data on starting a foreign investment, and the OECD high-income average all OECD high-income economies shown in the figure.

Source: World Bank Group, FDI Regulations database, 2012 edition.

Sweden's process is much faster than the global average of 38 days. But the country could nevertheless work toward reducing the processing time to bring it closer to the time in some of the best performers (figure 6.8). For more about the process of starting a business in Sweden, see the chapter on business entry regulation.

Procedures few and straightforward

The procedures required to start a foreign subsidiary in Sweden are straightforward. Commercial banks are allowed to approve applications for capital transfers into Sweden, though approval from Bolagsverket is also necessary to list a new corporation. Bolagsverket must also approve the new company's name, ensuring that it is neither the same as, nor too similar to, existing names. And it must grant approval if more than half the company's board members (or its managing director and his or her deputy) are not residents of the European Economic Area.

Unlike in other high-income economies included in the FDI Regulations database, in Sweden the founder of a limited liability

company must reside within the European Economic Area—unless Bolagsverket grants an exception. Under the Swedish Companies Act 2005, Bolagsverket may do so on the basis of a derogation application. Processing the application for company registration may take longer if the application also includes a derogation application.⁴³

In all, only 3 procedures are required to start a business in Sweden—just 1 more than in some of the global best performers, such as Australia, Canada and New Zealand (figure 6.9).

Online services available

One way to ensure speedier processes is to put procedures online—and Sweden, like most high-income economies, provides a wide range of online services for company registration. Bolagsverket, the Swedish Tax Agency (Skatteverket) and the Swedish Agency for Economic and Regional Growth (Tillväxtverket) operate a joint website for company registration. Using this website, people can register all types of companies allowed under Swedish law and can file applications for the appropriate tax status with the tax authorities once they have obtained

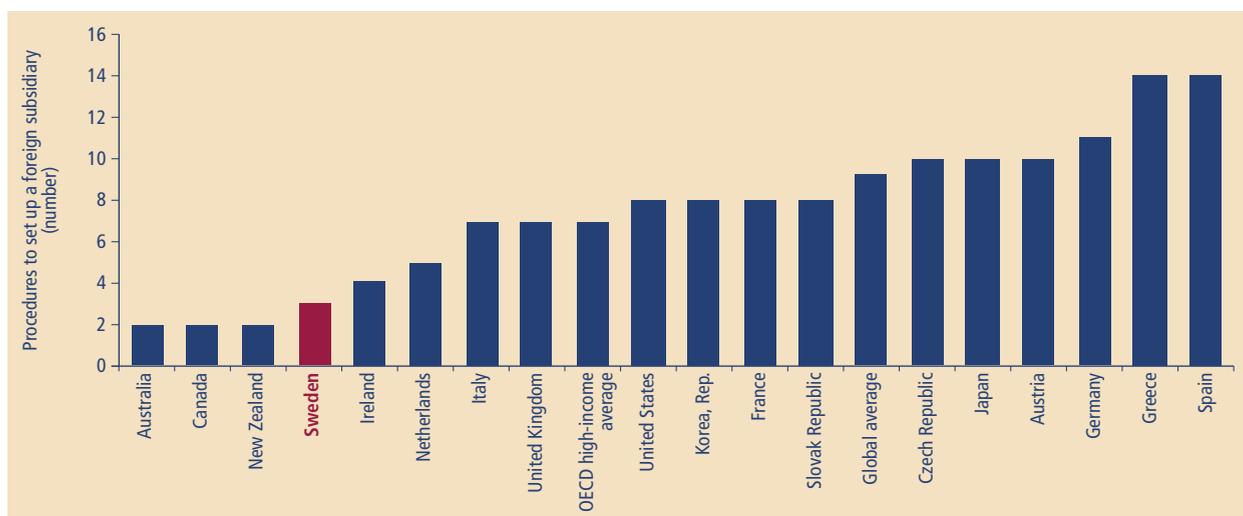
approved, electronic identification. Those without electronic identification can download the forms from the website and mail the signed and completed forms to the registration and tax authorities.⁴⁴

A continuing requirement for minimum capital

Sweden imposes a paid-in minimum capital requirement on both domestic and foreign investors. For a private limited liability company, as well as corporations, the minimum required capital is SKr 50,000 (US\$7,800); for a public limited liability company the minimum required share capital is SKr 500,000 (US\$78,000). The capital must be initially paid into an account opened in a credit institution based in the European Economic Area. There is no minimum capital requirement for partnership and branch offices.

Sweden's minimum capital requirements tend to be less of an impediment for foreign companies (especially for large multinationals) than for domestic small and medium-size enterprises. Even so, most high-income economies have done away with this requirement or reduced it to a very small or symbolic amount.

FIGURE 6.9 Sweden requires fewer procedures to start a foreign subsidiary than all but the best performers



Note: The global average includes the 103 economies covered by the FDI Regulations data on starting a foreign investment, and the OECD high-income average all OECD high-income economies shown in the figure.

Source: World Bank Group, FDI Regulations database, 2012 edition.

ARBITRATING AND MEDIATING DISPUTES

A good ADR regime is part of the overall attractiveness of the investment climate for foreign investors. When facing a dispute, foreign investors need to be able to rely on effective ADR regimes that provide the ability to tailor the dispute and ensure the necessary confidentiality.⁴⁵

Sweden has a long tradition of arbitration. The practice goes back to the 14th century, when it was established that disputes could be submitted to “entrusted persons.”⁴⁶ The Swedish Arbitration Act of 1999 replaces the Arbitration Act of 1929 and the related Act on Foreign Arbitration Agreements of 1929, which had remained unchanged for 65 years. The 1999 law applies to both international and domestic arbitration, which is considered good practice. While the law does not follow exactly the wording of the UNCITRAL Model Law on International Commercial Arbitration, many of its provisions are identical or similar to the model law’s.

The Swedish Arbitration Act has special provisions for foreign parties to disputes. It triggers special considerations

for waivers when the parties are not domiciled in Sweden, allowing them to waive, in writing, their rights to challenge the award for procedural irregularities (Swedish parties cannot do so). It also includes specific provisions on the taking of evidence and the choice of law for the arbitration agreement, which gives the parties more security in the proceedings. There is no particular restriction on the types of disputes that can be submitted to arbitration or the freedom of the parties to appoint their counsels and the arbitrators.

Sweden is a party to major international conventions on arbitration. In 1972 the country acceded to the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, 1958.⁴⁷ And since 1965 it has been a party to the Convention on the Settlement of Investment Disputes between States and Nationals of Other States (ICSID Convention), 1965.⁴⁸

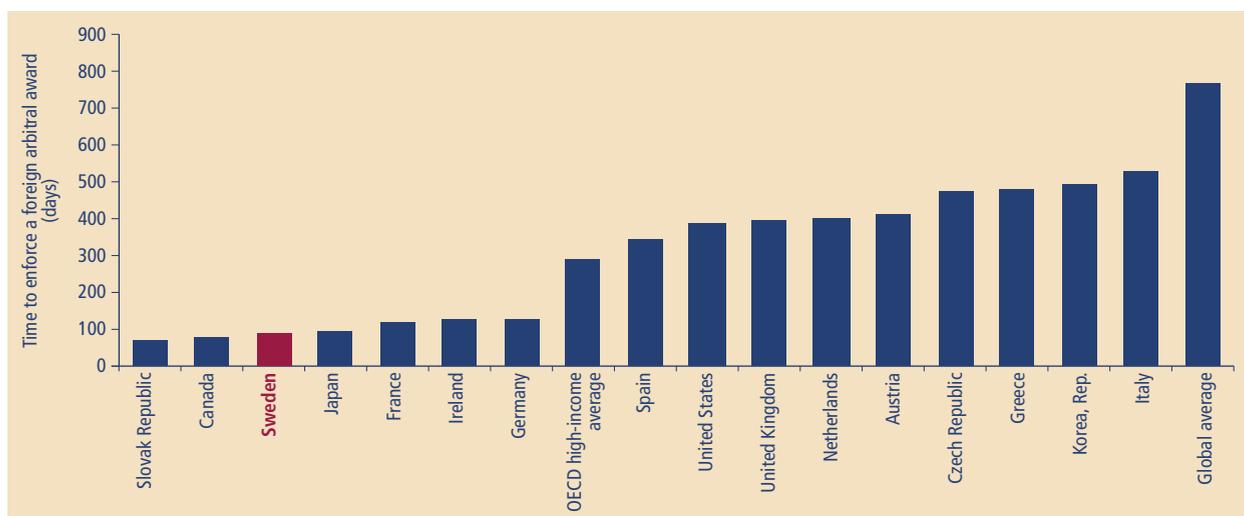
In contrast with arbitration, mediation and conciliation are less developed than they could be in Sweden. This could be an area of improvement. Both these practices complement arbitration and can be beneficial for the business environment.

Good practices in proceedings and enforcement

Speed is one of the advantages of arbitration over court litigation—the speed of arbitration proceedings means not only a quick resolution of a dispute but also lower costs for the parties. In Sweden arbitration proceedings take 300 days on average. This is in line with the average for OECD high-income economies—335 days. Some countries report shorter times, such as the Czech Republic (158 days) and Spain (226). And some report longer times, including Canada (495) and the United Kingdom (431).

Sweden is generally viewed as a pro-enforcement jurisdiction. As a general rule, foreign arbitral awards are recognized and enforced in Sweden.⁴⁹ The procedure for enforcement of a domestic award typically takes about 1–2 weeks, as long as the opposing party raises no objections. The procedure for recognition of a foreign award in the Svea Court of Appeal takes roughly 3 months, as long as the opposing party raises no objections to the enforcement. If the Svea Court of Appeal approves an application for recognition and enforcement of a foreign award, the award is immediately enforceable. This gives Sweden one of the

FIGURE 6.10 Sweden has among the fastest processes for enforcing foreign arbitral awards



Note: The global average includes the 100 economies covered by the FDI Regulations data on arbitrating and mediating disputes, and the OECD high-income average all OECD high-income economies shown in the figure.

Source: World Bank Group, FDI Regulations database, 2012 edition.

fastest processes for enforcing foreign arbitral awards—much faster than the average for OECD high-income economies (around 10 months) and the global average (around 2 years). In some OECD high-income economies included in the FDI Regulations database, the process can take as long as 16 months (Republic of Korea) or even 17 (Italy) (figure 6.10).

How long recognition and enforcement proceedings take in a particular economy depends on such factors as the number of steps required to execute the foreign arbitral award. Among the economies included in the FDI Regulations database, 70% require parties to apply for recognition of a foreign arbitral award prior to its enforcement before the competent court. The recognition phase is the conversion of the arbitral award into a court judgment. In Sweden the recognition and enforcement happen together, speeding up the process.

Other requirements may also add to the time required for enforcement of foreign arbitral awards. These include proving that the parties consented to arbitration and providing evidence of the validity of the arbitration proceedings. Neither of these requirements apply in Sweden.

The proceedings in Sweden may take considerably longer, however, if recognition and enforcement is disputed in court and before the execution authority. Ten years is the time limit under Swedish law for seeking enforcement of an award; after that the courts will no longer enforce it. The grounds for refusal of enforcement are based on the New York Convention and laid down in the Swedish Arbitration Act.

Effective arbitration institutions

The arbitration rules and case management of the Arbitration Institute of the

Stockholm Chamber of Commerce (SCC) are in line with best practices established at other major arbitration institutions. The SCC has both a specialized arbitration and mediation institute and is one of the leading arbitration centers in the world. According to the SCC's website, it registered 177 new arbitration cases in 2012, among which a majority (99 cases) were administered under the SCC Arbitration Rules.⁵⁰ The SCC also registered 63 expedited arbitrations, for which the proceedings are limited to 3 months from the time the case is referred to arbitration (also called fast-track arbitration). The SCC does not yet offer online arbitration services.

In this, the practice in Sweden is consistent with the typical practice among the OECD high-income economies included in the FDI Regulations database: most offer fast-track arbitration, but only half offer online arbitration services (table 6.2).

Mediation and conciliation less developed

Mediation, another common ADR mechanism, differs from arbitration in that it is a negotiated settlement between the parties, typically assisted by a third party (the mediator). Businesses around the world engage in mediation as an alternative to litigation because it is cost-efficient and fosters collaboration.⁵¹ Mediation generally takes less time than litigation or arbitration, keeping the costs down for the parties. It also allows the parties to maintain greater control over the outcome and is more likely to lead to a result agreeable to both. Thus mediation is often seen as the best way to maintain good commercial relationships while resolving disputes as they arise.

Sweden has a long tradition of using mediation in some areas, such as in labor disputes and certain copyright disputes. But arbitration has long been the

predominant method of resolving commercial disputes. The use of institutional or structural mediation or other forms of ADR remains fairly limited.⁵²

The development of a formal mediation practice faces some obstacles in Sweden. The implementation of the European Directive on Mediation (EU Directive 2008/52/EC) has led to the development of a new Swedish law on mediation, the Law on Mediation of Certain Private Law Disputes (2011). But this law does not cover formal conciliation proceedings as defined by the UNCITRAL Model Law.

Conciliation differs from mediation in that the conciliators usually have expert knowledge of the domain in which they conciliate and can make suggestions for settlement terms and give advice on the subject matter. Among the economies included in the FDI Regulations database, 64% have laws providing for court referral of cases to mediation or conciliation in commercial disputes where court proceedings have been initiated.

In Colombia, for example, conciliation is a prerequisite of litigation in commercial, family and administrative law cases. During commercial trials there is a special preliminary hearing for the purpose of conciliation in which the judge acts as a conciliator. According to 2010-11 statistics provided by the Colombian Ministry of Justice website, some 50% of the cases referred to conciliation are settled, highlighting the importance of such practices.⁵³

EMPLOYING SKILLED EXPATRIATES

The ease of hiring skilled expatriates is among the factors that multinationals take into consideration in location

TABLE 6.2 Availability of fast-track and online arbitration services in OECD high-income economies

Fast-track and online arbitration	Fast-track arbitration only	Neither
Canada; Czech Republic; France; Germany; Italy; Netherlands; Spain; United Kingdom; United States	Australia; Austria; Japan; Republic of Korea; New Zealand; Slovak Republic; Sweden	Greece; Ireland

Source: World Bank Group, FDI Regulations database, 2012 edition.

decisions.⁵⁴ When they cannot obtain the required expertise in the host country, they need skilled immigrants to start up new subsidiaries and train workers. Or they may need to deploy a skilled immigrant with specific expertise from within the corporate group. Where skilled immigration regimes are overly restrictive or cumbersome, the result can be long processing times for work permits. For the foreign firms affected, this can mean stalled productivity or the loss of strategic or first-mover advantage in a field. And restrictions such as quotas may affect the viability of new ventures, leading companies to invest in economies with less restrictive skilled immigration policies.

Economies that have smart, fast-acting immigration regimes for skilled expatriates have a competitive advantage in attracting FDI flows. A recent research paper provides evidence that a less restrictive skilled immigration regime is conducive to attracting FDI.⁵⁵ In a 2010 report the McKinsey Global Institute concluded that “limits on the immigration of skilled workers handicap US companies when competing abroad and in some cases discourage investment at home.”⁵⁶ In addition, there is a consensus among experts that international migration can contribute to global economic growth and development. Among hosting (predominantly developed) economies, it is widely acknowledged that skilled immigrants enhance their productivity and competitiveness and contribute significantly to their GDP.⁵⁷

Sweden’s application process for temporary work permits generally follows best practices. Completing the process can take much longer than in other OECD high-income economies, however.

A legal framework in line with best practices

The main laws applicable to temporary work permit applications in Sweden are the Aliens Act (2005), Aliens Ordinance (2006) and the Posting of Workers Act (1999). All these laws are available online.⁵⁸

Sweden’s application process for temporary work permits is almost fully online: the application form is available online,

documents can be submitted online, the process can be monitored online, and notifications are received online. The only missing element for a fully online process is online receipt of confirmation. Most OECD high-income economies included in the FDI Regulations database offer some combination of these options. Only the Republic of Korea and the Netherlands allow the entire process—including monitoring and the receipt of confirmation—to be completed online.

Sweden has no skilled expatriates program. While having a special program for expedited processing of skilled labor is not essential for effective management of foreign workers, many countries have created one. For example, Canada’s Federal Skilled Worker Program allows the country to annually select the type of workers most needed by the economy and most likely to integrate in the labor market. Skilled expatriates programs like Canada’s often include a list of occupations that would benefit from the program.

Like most countries, Sweden imposes a labor market test to hire foreign workers, though that test was relaxed in 2008. Such tests enable countries to determine whether suitably qualified national workers are available, or could be easily trained to do the work, and should be offered the employment rather than overseas temporary workers. Some labor market tests are more stringent than others. In New Zealand, for example, the test is done by the Department of Labor and involves seeking advice from industry representatives and government agencies to determine skill shortages. In deciding an employer’s case, the government also seeks evidence that the employer has made genuine attempts to find New Zealand workers, such as by advertising or by using a recruiting company.

Sweden has phased out the agency-based labor market test, making it easier to hire foreign workers. The Swedish Public Employment Services is no longer able to argue that qualified labor is available in Sweden, in other members of the European Union or European Economic Area, or in Switzerland. Instead, decisions are based on employers’ own assessments of their needs. Employers need only show that they have tried to recruit

Swedish nationals with similar qualifications. They must have advertised the job in Sweden and the European Union for at least 10 days and offered terms of employment and salary on the same level as under Swedish collective agreements (a minimum monthly pretax salary of SKr 13,000, roughly US\$1,975).

Sweden offers neither a one-stop shop nor a fast-track procedure for processing temporary work permits. Having a one-stop shop makes the process easier for applicants by eliminating the need for them to coordinate the approvals and documents that are typically required from different authorities. While no guarantee of a speedy process, a one-stop shop typically also results in shorter waits. Many countries offer one, including Australia, France, Germany and Singapore. A fast-track procedure is another option for accelerating the processing of temporary work permits: companies are often willing to pay a premium for fast-tracking the process once they’ve identified the right candidate. This option is offered by fewer economies—only about 10% of those surveyed by the FDI Regulations database, including Spain, the United Kingdom and the United States.

In some economies the ability of a foreign-owned firm to hire an expatriate is sometimes conditional on its having a minimum amount of capital investment or registered share capital. These requirements limit investors’ ability to bring in expatriates. Sweden does not impose such requirements. Nor does it apply quotas on skilled foreign workers. But it does require that at least half the members of a company’s board of directors be residents of the European Economic Area, unless the company obtains an individual exemption from Bolagsverket.⁵⁹ If a company has no authorized representative who is resident in Sweden, the board of directors is required to authorize a person who is resident in the country to act as agent for service of process on the company’s behalf (a special agent for service of process).⁶⁰

Residency requirements like these, though not uncommon, have been eliminated by many economies. Only 16% of economies around the world still have such requirements; among the OECD

high-income economies surveyed by the FDI Regulations database, 27% still do. One is Canada, which requires that at least 25% of the members of a company's board be permanent Canadian residents. Ireland requires companies to have at least one director who is a resident of the European Economic Area. Japan requires that at least one representative director live and be domiciled in Japan. And Singapore requires that at least one director reside in the country.

Longer processing times

Any company bringing a foreign worker into Sweden must obtain a work permit. The competent authority, the Migration Board, examines whether the terms of employment (salary, insurance and other terms) are in accordance with the conditions that apply to employees already resident in Sweden and that have been established by collective agreements. While foreign companies may be asked to specify why a Swedish national cannot do the job, authorities generally do not block permits for regular foreign workers.

Swedish unions were historically concerned about foreign workers entering the market, and some conflicts occurred. In one well-known incident, union members staged a blockade at a school building project in the town of Vaxholm,

intended to force the Latvian company Laval un partneri to sign a Swedish collective agreement for its workers.⁶¹ Such conflicts led the government to make changes to the labor laws in 2009. Under the amended law, unions may not take action (such as a blockade) against foreign companies whose workers are in Sweden if those workers have wages and benefits that are at least equal to the minimum in Swedish collective agreements. In addition, to help avoid problems that could lead to conflicts similar to that with Laval, the Swedish Work Environment Authority was appointed to serve as a liaison between Swedish unions and foreign companies sending workers to Sweden. The changes took effect on April 1, 2010.⁶²

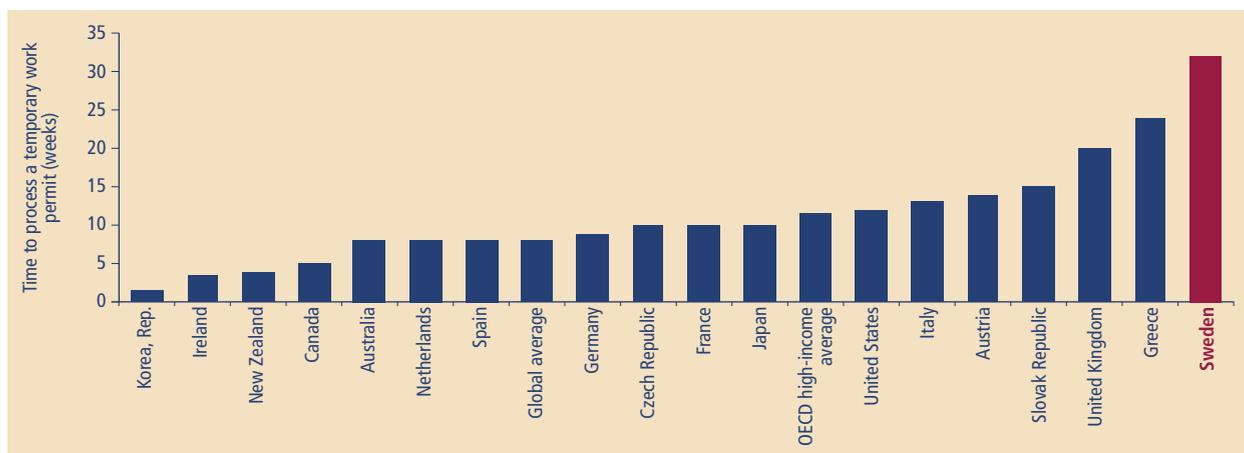
Processing times by the Migration Board can vary greatly depending on a foreigner's nationality and employer.⁶³ According to the data collected by the FDI Regulations team, obtaining a temporary work permit can take up to 32 weeks for an information technology specialist (figure 6.11). The Migration Board website shows a processing time of 11 months for online applications for a work permit.⁶⁴ This is much longer than the processing time in other high-income economies. The average for OECD high-income economies is 11.5 weeks, while the global average is only 8 weeks.

Positive practices in work permits and residency status

Time limits for work permits in Sweden were extended in 2008. A temporary permit can be granted for the duration of the employment, up to a maximum of 2 years. If the person is still working after this, the permit may be extended once or several times, though the total permit period may not exceed 4 years. After 4 years a permanent residence permit can be granted. The examination of an application for an extension of a work permit takes place in Sweden, and the applicant does not need to return home to apply for the extension. The validity of temporary work permits is linked to a single employer, a specific job function and a specific industry but not to a geographic area.

After having had a temporary residence permit for 48 months, an employee can acquire permanent residency status through the Migration Board. A permanent residence permit remains valid as long as the employee lives in Sweden. Obtaining permanent residency status takes up to 10 months. Foreign workers can also obtain citizenship, a process that similarly takes up to 10 months. The path to citizenship is an important part of the package for foreign workers and is offered by all the OECD high-income economies covered by the FDI Regulations indicators on employing skilled expatriates.

FIGURE 6.11 Processing temporary work permits takes much longer in Sweden than in other OECD high-income economies



Note: The global average includes the 93 economies covered by the FDI Regulations data on employing skilled expatriates, and the OECD high-income average all OECD high-income economies shown in the figure. The data are based on the case study of an information technology specialist.

Source: World Bank Group, FDI Regulations database, 2012 edition.

In conjunction with a successful application for a work permit, the employee's spouse and other family members can also obtain work permits. A spousal work permit provides immediate access to Sweden's labor market and is not tied to a specific employer, job, industry or geographic area. Sweden recognizes common law marriages as well as same-sex marriages in granting spousal work permits.

Granting work permits to spouses is a positive practice that eases the immigration process for families. But many high-income economies do not offer this option. Among the OECD high-income economies surveyed, only Australia, Canada, New Zealand and the United Kingdom join Sweden in doing so.

CONVERTING AND TRANSFERRING CURRENCY

The foreign exchange regime that regulates currency conversion and transfers of currency abroad is a crucial part of a country's investment climate for foreign investors. Firms undertaking foreign investment rely on the ability to bring in foreign capital, freely convert local currency and foreign exchange and repatriate investment returns. Firms also rely on access to foreign exchange to pay for imports, and the ability to use export proceeds freely is an incentive to engage in international business.

Perceptions of global business leaders confirm the importance of converting and transferring currency. In response to a recent survey by the Multilateral Investment Guarantee Agency, 22% of senior executives from multinational firms investing in developing economies identified political risk—including currency convertibility—as the greatest constraint to cross-border investment in the next 3 years.⁶⁵ Forty percent pointed to transfer and convertibility restrictions as the political risk that concerned them the most. And nearly 30% of companies reported having withdrawn or canceled planned investments because of such restrictions in the previous 12 months.

Foreign investors face no obstacles in converting and transferring currency in

Sweden, according to contributors to the FDI Regulations database. Sweden maintains a fully open foreign exchange regime. As part of the country's harmonization with EU rules, the central bank (Sveriges Riksbank) abolished virtually all exchange controls in 1989 and eliminated the rest in 1994. There are no controls on FDI-related capital flows, and investment-related payments may be made freely. And there are no restrictions on making current payments in foreign exchange, other than a need for reporting related to anti-money-laundering or tax requirements.

Contributors to the FDI Regulations database note that the central bank has the authority to request transaction information for statistical purposes, which is done monthly for large firms. These reporting requirements are common in most economies. They are not viewed as cumbersome in Sweden and do not affect a firm's ability to do business there. Firms may freely open foreign currency bank accounts in Sweden or abroad, and there are no restrictions on export proceeds.

CONCLUSION

Sweden is an attractive destination for FDI, and inflows are on the rise since the financial crisis. The data collected in the FDI Regulations database confirm that the regulatory framework in areas of interest to foreign investors is strong. Indeed, Sweden performs very well in all 5 areas measured by the FDI Regulations indicators. Alongside the good practices, however, are some areas of potential improvement:

The country is very open to foreign equity. But while the market is open, the requirements to obtain operating licenses in some sectors can be burdensome for investors.

Sweden's process for setting up a company does not discriminate against foreign investors, and only a few procedures are required. But setting up a business in Sweden takes a bit longer than in many other economies. In addition, the country could consider eliminating (or reducing) its minimum capital requirement.

Overall, Sweden's ADR laws, regulations and institutions follow—and indeed set

the trend for—international best practices. However, the country could consider further developing mediation and conciliation, which are less widely used than arbitration but offer many benefits for companies.

Laws on employing skilled expatriates are transparent and generally follow best practices. Obtaining a temporary work permit in Sweden takes much longer than in other OECD high-income economies, however.

Like most OECD high-income economies, Sweden maintains a fully open foreign exchange regime.

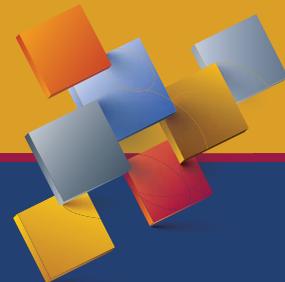
NOTES

This chapter has been written by Tanya Primiani with the assistance of John Anderson, Tania Ghossein, Sophie Pouget, Dieter De Smet and Christian De la Medina Soto.

1. Hornberger, Battat and Kusek 2011.
2. Daude and Stein 2007.
3. Waglé 2011.
4. Djankov and others 2002; Busse and Groizard 2008; World Bank Group 2012; Lopez-Claros 2013.
5. Javorcik 2004, 2010; Smeets 2008; Moran, Graham and Blomström 2005.
6. Hansen and Rand 2006; Lim 2001; OECD 2002.
7. Transparency International ranked Sweden as one of the most corruption-free countries in the world in 2012, placing it 4th in its ranking of 176 countries.
8. U.S. Department of State 2013.
9. Economist Intelligence Unit 2013, p. 4. It adds this about Sweden: "Its strong technological base, the close relationship between academia and industry, a highly educated workforce, a traditionally strong and stable economy and well-informed consumers and suppliers also enhance Sweden's attractions as a research and manufacturing base, particularly in high-technology, capital-intensive industries."
10. The UNCTAD FDI Potential Index measures FDI potential based on 4 FDI determinants and proxy indicators: the attractiveness of the market (for market-seeking FDI), the availability of low-cost labor and skills (to capture efficiency-seeking FDI), the presence of natural resources (resource-seeking FDI) and the presence of FDI-enabling infrastructure.
11. Modén 1998a.

12. Karpaty and Poldahl 2007.
13. Ivarsson and Jonsson 2003.
14. Kottaridi and Nielsen 2003.
15. Holm, Malmberg and Sölvell 2003.
16. Bandick and Hansson 2009.
17. Bandick and Hansson 2009, p. 115.
18. These allowed corporations to have rules in their bylaws stipulating that all or part of the shares in the company may not be acquired by any person who is not a Swedish citizen.
19. Modén 1998b.
20. Johansson and Löf 2011.
21. UNCTAD 2013a.
22. Ernst & Young 2010.
23. U.S. Department of State 2013.
24. Lipsy 2002.
25. U.S. Department of State 2013.
26. Statistics Sweden 2012.
27. Statistics Sweden 2012.
28. U.S. Department of State 2013.
29. While the FDI Regulations project includes 105 economies overall, some indicators cover fewer than 105 for reasons related to data collection. The number of economies covered by each indicator is noted in relevant figures in the chapter.
30. A rule-of-thumb threshold is that a 10% equity ownership in a foreign enterprise represents sufficient managerial control to be counted as FDI (see for example the International Monetary Fund's *Balance of Payments Manual* and the UNCTAD classification of FDI).
31. The sector groups and sectors are (1) agriculture and forestry; (2) mining and oil and gas; (3) manufacturing (food processing, manufacturing of basic chemicals and light manufacturing); (4) electricity (electric power generation, including biomass, solar and wind; transmission; and distribution); (5) waste management and water supply (waste management and recycling and water distribution); (6) transport (freight rail transport, freight transport by road, internal waterways freight transport, international passenger air transport, port operation and courier activities); (7) telecoms (fixed-line telecommunications infrastructure and services and wireless or mobile telecommunications infrastructure and services); (8) media (newspaper publishing and television broadcasting); (9) financial services (banking, life insurance and health insurance); (10) education (higher education); (11) accounting (accounting, bookkeeping and auditing services; tax consultancy); (12) tourism (accommodation services).
32. Through commercial arbitration, the parties agree to submit their dispute to an independent and impartial arbitrator or arbitration tribunal that issues a final and binding arbitral award. Mediation is a structured and interest-focused process, facilitated by one or more mediators, enabling the parties to agree on the resolution of their dispute through a mediation agreement. Conciliation is a process in which the parties are assisted in their attempt to reach an amicable settlement of their dispute.
33. Considered good practice for arbitration laws, the UNICTRAL Model Law was adopted by UNICTRAL on June 21, 1985. It provides a pattern that national lawmakers can adopt as part of domestic legislation on arbitration.
34. For more information, see Pouget (2013).
35. The 18 OECD high-income economies included are Australia, Austria, Canada, the Czech Republic, France, Germany, Greece, Ireland, Italy, Japan, the Republic of Korea, the Netherlands, New Zealand, the Slovak Republic, Spain, Sweden, the United Kingdom and the United States.
36. Economist Intelligence Unit 2013.
37. Economist Intelligence Unit 2013.
38. U.S. Department of State 2013.
39. Engwall and others 2001.
40. U.S. Department of State 2013.
41. OECD 1993.
42. Golub and Ling 2006.
43. With respect to the founders of a limited liability company in Sweden, chapter 2, section 1 of the Swedish Companies Act 2005 states that "a company is formed by one or more founders. A founder must be: (1) a natural person domiciled within the European Economic Area; (2) a Swedish legal person; or (3) a legal person which has been formed pursuant to the laws of a state within the European Economic Area and which has its registered office, its head office or its principal place of business within the Area. A partnership or equivalent legal person which has been formed pursuant to the laws of a state within the European Economic Area, may be a founder only where each partner with unlimited liability is domiciled within the Area. The Swedish Companies Registration Office may, in a particular case, allow a person other than as referred to in the first and second paragraphs to be a founder."
44. Economist Intelligence Unit 2013, p. 16.
45. ADR is now widely recognized as the preferred dispute resolution mechanism over litigation for many investors and entrepreneurs (McLaughlin 1979). Even if no systematic evidence has been found about the impact of ADR on FDI (Governance and Social Development Resource Centre 2013), authors recognize that to attract FDI, economies need to improve their ADR regimes and allow flexible and faster dispute settlement. More than two-thirds of multinational corporations prefer commercial arbitration over traditional litigation, either alone or in combination with other ADR mechanisms, to resolve cross-border disputes (PricewaterhouseCoopers and Queen Mary University of London 2006). Commercial arbitration is considered to provide a neutral forum for the settlement of FDI-related disputes, which can often be sensitive, and thus to limit the risks associated with FDI (Schwartz 2009).
46. Nordenson and Öhrström 2013.
47. The Convention on the Recognition and Enforcement of Foreign Arbitral Awards, also known as the New York Convention, was adopted by a United Nations diplomatic conference on June 10, 1958, and entered into force on June 7, 1959. The convention requires courts of contracting states to give effect to private agreements to arbitrate and to recognize and enforce arbitral awards made in other contracting states. Widely considered the foundational instrument for international arbitration, it applies to arbitration awards that are not considered to be domestic awards in the state where recognition and enforcement is sought.
48. The International Centre for Settlement of Investment Disputes (ICSID) is an international arbitration institution that facilitates arbitration and conciliation of legal disputes between international investors. It is part of the World Bank Group.
49. See section 53 of the Swedish Arbitration Act of 1999.
50. <http://www.sccinstitute.com/skiljedomsregler-4.aspx>.
51. PricewaterhouseCoopers and Queen Mary University of London 2006.
52. Lundblad 2012.
53. National Conciliation Program, <http://conciliacion.gov.co>.
54. Medina 2012.
55. Medina 2012.
56. Cummings and others 2010, p. 6.
57. WEF 2010a.
58. Government Offices of Sweden, "Public Administration," <http://www.government.se/sb/d/3288/a/19564>; and "Labour Legislation," <http://www.government.se/sb/d/3288/a/19565>.
59. See chapter 8, section 9 of the Swedish Companies Act 2005.
60. See chapter 8, section 40 of the Swedish Companies Act 2005.
61. In the "Laval" decision, the court ruled that the blockade inhibited free movement of labor and was illegal under EU regulations.
62. Economist Intelligence Unit 2013.
63. Economist Intelligence Unit 2013.
64. "Swedish Work Permit Application Waiting Times," http://www.migrationsverket.se/info/2272_en.html.
65. MIGA 2013.

Gender equality and economic opportunity for women



While the intrinsic value of gender equality is widely recognized and documented, a growing body of literature focuses on its economic, or instrumental, value. The World Bank's *World Development Report 2012* presents gender equality both as important in its own right and as "smart economics" that could help achieve other development goals. The "smart economics" argument rests on 3 premises: Addressing gender inequality in education, economic opportunities and access to inputs can generate productivity gains for society as a whole. Improving women's absolute and relative status can lead to better outcomes in children's education and health. And promoting women's access to decision-making can foster more representative and more inclusive institutions and policy choices.¹

Recent research has pointed to the potential economic gains for high-income economies from promoting greater gender equality. One study suggests that raising women's labor force participation rate to the same level as men's would increase output by 5% in the United States, 9% in Japan and 12% in the United Arab Emirates.² The same study suggests that in aging economies, increasing women's participation in the labor force could mitigate the effects of a shrinking workforce. In Japan, for example, raising women's labor force participation rate to the average for the G7 economies could increase the annual growth rate by about 0.25 percentage points.

Sweden has made tremendous progress toward gender equality over the years. The United Nations Development Programme (UNDP) places Sweden among the countries with the least gender inequality, ranking it number 1 on its Gender Inequality Index in 2010 and number 2

in 2012, behind the Netherlands but ahead of Switzerland, Denmark, Norway and Germany.³ The World Bank Group's *Women, Business and the Law* indicators support a similar conclusion, showing that Sweden has fewer regulatory restrictions on women's economic opportunities than most of the 142 other economies covered. Even so, Sweden could do more to consolidate and deepen gender equality, so as to reap the full benefits of greater equality between men and women.

Drawing on the *Women, Business and the Law* indicators, this chapter uses a comparative lens to explore some persisting obstacles to women's full and fair participation in the Swedish economy. The chapter analyzes several characteristics of women's economic participation in Sweden as well as in comparator economies—Nordic economies and selected OECD and G7 economies.

THE WOMEN, BUSINESS AND THE LAW INDICATORS

The *Women, Business and the Law* project examines laws and regulations that differentiate between men and women in ways that may affect women's opportunities and incentives to work and actively participate in economic activity. The indicators focus on 6 areas:

- *Accessing institutions*—explores women's legal ability to interact with public authorities and the private sector in the same way as men.
- *Using property*—analyzes women's ability to access and use property based on their ability to own, manage, control and inherit it.
- *Going to court*—considers the ease and affordability of accessing justice

- Swedish laws and regulations concerning women's economic participation on equal terms with men are consistent with best practices.
- Sweden has higher participation of women in employment than several other Nordic economies as well as most OECD high-income economies and G7 economies.
- Despite a favorable legal and regulatory environment in Sweden, the gender gap in wages remains higher than that in all other Nordic economies except Finland, though it is close to the OECD average.
- Occupational segregation, both horizontal and vertical, remains prevalent in Sweden as well as in most developed economies. Research shows that this can account for a significant share of the gender gap in wages.
- Gender differences in educational choices mirror the persistent distinction between female- and male-dominated sectors and translate into gender differences in career choices.

by examining small claims courts as well as a woman's ability to testify in court and the incidence of women on constitutional courts.

- *Getting a job*—assesses restrictions on women's work, such as prohibitions on working at night or in certain industries. Data in this area also cover laws on work-related maternity, paternity and parental benefits; retirement ages; equal remuneration for work of equal value; and nondiscrimination in hiring.
- *Building credit*—identifies minimum loan thresholds in private credit bureaus and public credit registries and tracking those that collect information from microfinance institutions, utilities and retailers.
- *Providing incentives to work*—examines personal income tax credits and deductions available to women relative to men, and the provision of child care and education services.

Taken together, these 6 areas constitute a set of 103 data points on which the 143 economies covered by the indicators can be compared. A seventh area of focus is legislation covering certain types of violence against women, where indicators examine the laws, regulations and institutions that deal with domestic violence and sexual harassment.

A COMPARATIVE LENS THROUGH COMPOSITE MEASURES

To simplify analysis, *Women, Business and the Law* has developed composite measures, one assessing the number of legal differences between men and women, and the other the number of legal incentives for women to work. Sweden performs comparatively well on these measures. Results show that Swedish laws and regulations establish few differences between men and women and provide incentives for women's employment.

How many legal differences between men and women?

Women, Business and the Law draws on its 6 main thematic areas in developing its composite indicator of the legal differences and restrictions that may affect

BOX 7.1 Components of the *Women, Business and the Law* measure of legal differences

Differences between men and women of the same marital status

- Applying for a passport
- Traveling outside the home
- Traveling outside the country
- Getting a job or pursuing a trade or profession without permission
- Signing a contract
- Registering a business
- Being "head of household" or "head of family"
- Conferring citizenship on their children
- Opening a bank account
- Choosing where to live
- Obtaining a national identity card
- Having ownership rights over property
- Having inheritance rights over property
- Working the same night hours
- Doing the same jobs
- Enjoying the same statutory retirement age
- Enjoying the same tax deductions or credits
- Having their testimony carry the same evidentiary weight in court
- Absence of a gender or sex nondiscrimination clause in the constitution
- Validity of customary law if it violates the constitution
- Validity of personal law if it violates the constitution

Differences applicable to married women

- Being legally required to obey their husband
- Being able to convey citizenship to their non-national husband
- Administering marital property
- Having legal recognition of non-monetary contribution to marital property
- Having inheritance rights to the property of their deceased husband

women's capacity to seize economic and professional opportunities (box 7.1). The indicator covers 47 potential restrictions on women's rights and autonomy.⁴

None of the 143 economies covered by *Women, Business and the Law* establishes all 47 potential legal differences. Saudi Arabia has the highest number, with 27.25. These differences include additional requirements for women applying for a passport or national identification document, different statutory retirement ages and restrictions on night work and certain categories of jobs (such as mining, construction, metalworking and factory work).

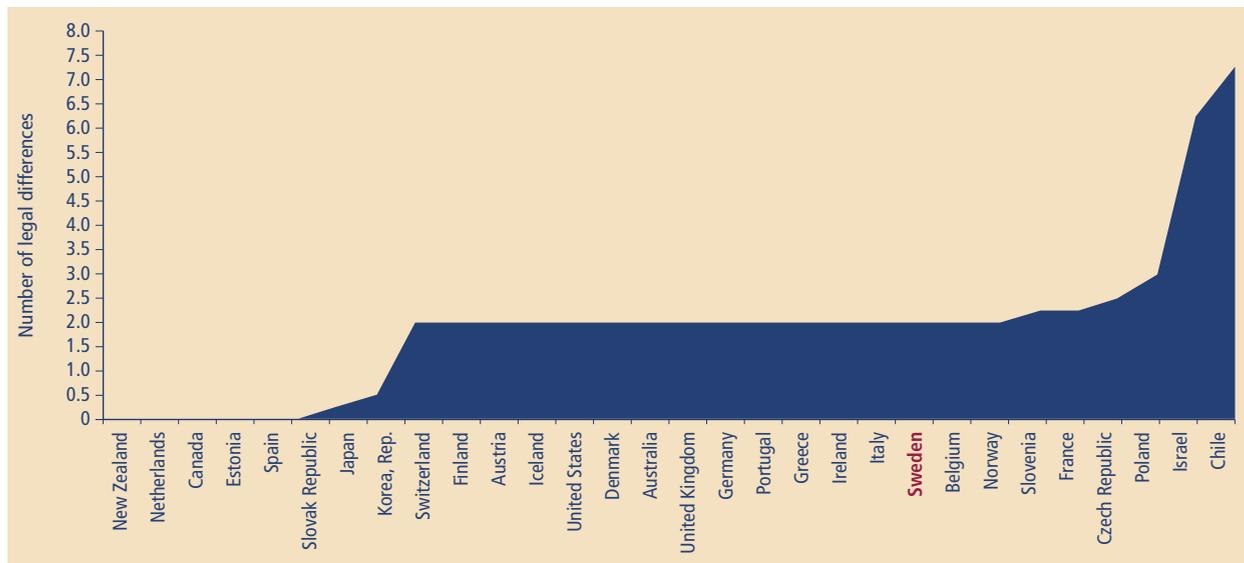
Fifteen economies have no legal differences between men and women.⁵ Among them are 6 OECD high-income economies: Canada, Estonia, the Netherlands, New Zealand, the Slovak Republic and Spain.⁶ Six other economies have between 0.25

and 1.75 legal differences between men and women, 2 of them OECD high-income economies—Japan (with 0.25) and the Republic of Korea (0.5).⁷

Sweden, along with 15 other OECD high-income economies, has 2 legal differences between men and women (figure 7.1).⁸ Sweden's arise from the fact that its constitution lacks a provision specifically prohibiting discrimination based on gender or sex. Since this legal difference affects both married and unmarried women, it is counted twice. This is also the case for 13 of the other OECD high-income economies with 2 legal differences.

Canada does have a constitutional provision specifically prohibiting discrimination based on gender or sex. Article 15(1) of the 1982 Constitution Act provides that "every individual . . . has the right to the equal protection and

FIGURE 7.1 Like most OECD high-income economies, Sweden has only 2 legal differences between men and women



Source: World Bank Group, *Women, Business and the Law* database, 2013 edition.

equal benefit of the law without discrimination . . . based on race, national or ethnic origin, color, religion, sex, age or mental or physical disability.” By contrast, in Sweden article 13 of the 1974 Instruments of Government, one of the country’s 4 fundamental laws, prohibits “unfavorable treatment of anyone on grounds of gender” yet does not mention discrimination.

Reference to the legal concept of discrimination can help cover the many forms that limitations on women’s rights may take, as illustrated in United Nations instruments. For example, article 1 of the Convention on the Elimination of All Forms of Discrimination against Women defines “discrimination against women” as “any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field.” Thus according to this United Nations convention, the concept of discrimination not only refers to certain acts and behaviors, but also covers their stated purposes and unforeseen consequences.

Switzerland, one of the other OECD high-income economies with 2 legal differences, has a constitutional prohibition on gender-based discrimination. Its 2 differences arise from the difference in statutory retirement age between men and women, both married and unmarried. In the other 6 OECD high-income economies the number of legal differences ranges from 2.25 (in France and Slovenia) to 7.25 (in Chile). These differences stem from unequal property rights for spouses (Chile), differences in statutory retirement ages (Israel) and restrictions on the job categories available to women (mining in the Czech Republic, Poland and Slovenia).

How many legal incentives for women to work?

Another way to compare gender equality across economies is to assess the policies they adopt to provide incentives for women’s participation in the labor force. *Women, Business and the Law* does this through an aggregate measure of 12 legal provisions. Ten are provisions directly related to promoting women’s employment (such as quotas, fiscal incentives, and maternity and paternity benefits), while the other 2 are provisions aimed at equalizing the treatment of men and women in

the workplace (such as equal remuneration for work of equal value and nondiscrimination in hiring practices).

This aggregate measure shows that Sweden has a high number of incentives for women to work, with 5.7 (table 7.1). Among the 30 OECD high-income economies covered, only 5 have a higher number of incentives than Sweden: the Czech Republic, the Slovak Republic, Spain, Norway and Belgium (figure 7.2).

Even so, Sweden is among 14 OECD high-income economies that do not mandate equal remuneration for work of equal value, as recommended by the International Labour Organization (ILO). These 14 include 2 other Nordic economies (Finland and Iceland) and 3 G7 economies (France, Germany and Japan). By contrast, 16 OECD high-income economies do mandate equal remuneration for work of equal value—including Canada, Denmark, Italy, Norway, the United Kingdom and the United States.⁹

Sweden has established a set of regulations, policies and implementation mechanisms to promote equal pay for equal work (box 7.2). Still, it does not explicitly mandate the principle established by the ILO’s 1951 Equal

TABLE 7.1 Decomposition of Sweden's performance on the *Women, Business and the Law* measure of legal incentives

Component	Score
Measure of the maximum length of fully paid maternity leave (in days) ^a	0.3
Measure of the maximum length of fully paid paternity leave (in days) ^a	0.4
Ratio of the length of fully paid paternity leave to fully paid maternity leave	1.0
Law mandating equal remuneration for work of equal value ^b	0.0
Law mandating nondiscrimination in hiring practices ^b	1.0
Law penalizing employers for or preventing them from firing women for pregnancy-related reasons ^b	1.0
Law requiring employers to give the same or an equivalent position to female employees when they return from maternity leave ^b	1.0
Law requiring employers to provide break times for nursing mothers ^b	1.0
Tax deduction applicable to women	0.0
Legal quota for women on corporate boards ^c	0.0
Legal quota for women in parliaments ^c	0.0
Legal quota for women in local governments ^c	0.0
Total	5.7

a. The value of this measure is reflected on a scale from 0 to 1, where 0 represents the shortest fully paid maternity/paternity leave and 1 represents the longest fully paid maternity/paternity leave. For example, a score of 0.7 means that, for this economy, the fully paid maternity/paternity leave is 0.3 (or 30 percentage points) away from the longest fully paid maternity/paternity leave.

b. If there is an explicit legal provision, the score is 1.0. If there is no such legal provision, the score is 0.0.

c. The score reflects the value of the quota (for example, a 20% quota would be reflected by a score of 0.2). If there is no quota in place, the score is 0.0.

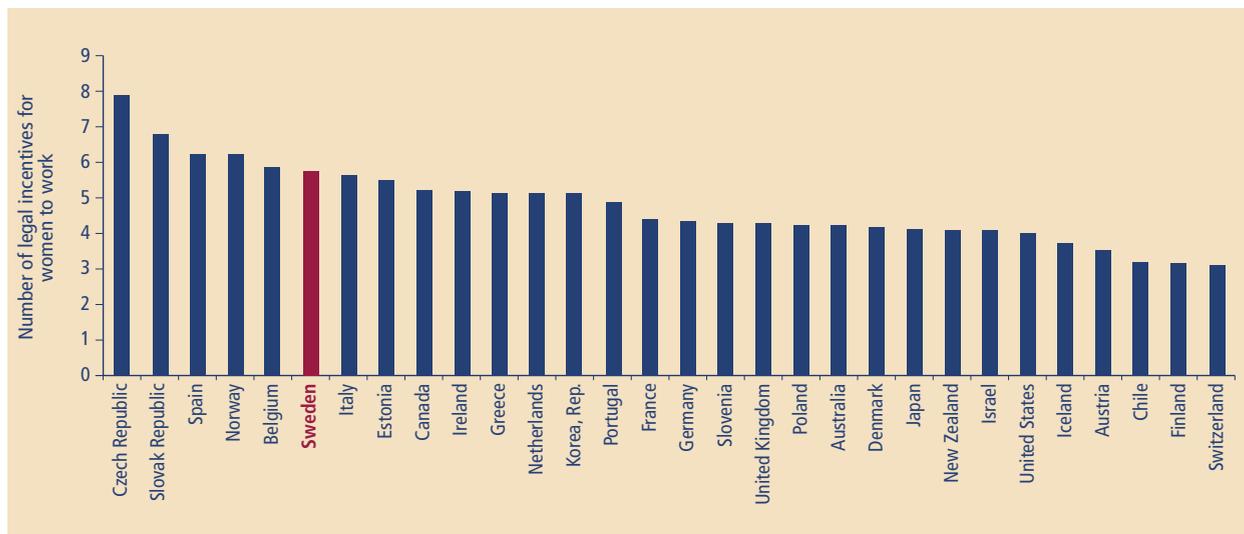
Source: World Bank Group, *Women, Business and the Law* database, 2013 edition.

Remuneration Convention (No. 100). This convention's definition of equal remuneration encapsulates not only wages but also additional emoluments and work-related benefits, whether direct or indirect, cash or in kind—benefits that can amount to a substantial share of overall remuneration.

Along with 22 other OECD high-income economies, Sweden prohibits gender-based discrimination in hiring. Norway is the only other Nordic economy to do so. All OECD economies prohibit the dismissal of women on the grounds of pregnancy. But only 22 of them, including Sweden, make it mandatory for employers to reinstate a woman returning from maternity leave to her former position and salary. Sweden, along with 23 other OECD economies, also makes it mandatory for employers to provide break time for nursing mothers. These protections and guarantees are crucial to women's ability to participate in the job market and retain their position after giving birth.

A strong incentive favoring women's participation at higher levels of management and decision making is a legal quota on the share of women on corporate boards. Of the 143 economies covered, only 6 have established such quotas. Other than Rwanda, all are OECD high-income

FIGURE 7.2 Sweden has established more legal incentives for women to work than any G7 economy



Source: World Bank Group, *Women, Business and the Law* database, 2013 edition.

economies—Belgium, France, Iceland, Italy and Norway.

Norway led the way. In 2002 its secretary of state for trade and industry proposed voluntary quotas to increase women’s representation on corporate boards to 40% in 2005, up from 6%. But by 2005 voluntary compliance had led to only 25% representation. So the Norwegian Parliament amended the Public Companies Act to enforce mandatory quotas by applying gradual and increasingly strict penalties: fines, followed by delisting from the Oslo Stock Exchange and, ultimately, dissolution. By 2008, 80% of Norway’s listed firms had complied with the 40% quota, increasing women’s presence among senior corporate decision makers.

Sweden has opted for a voluntary and self-regulatory approach. Under rule 4.1 of the Swedish Code of Corporate Governance, listed companies should “strive for equal gender distribution on the board” while ensuring that “board members . . . collectively . . . exhibit diversity and breadth of qualifications, experience and background.” In January 2013 women made up 25.5% of board members in Swedish listed companies.¹⁰

LABOR MARKET PARTICIPATION AND WAGE GAP

Two key aspects of women’s participation in the economy are the difference in employment rates between men and women and the difference in wages between them.

Narrowing gaps in labor market participation

In Sweden participation in the labor force is high among both men and women. Employment rates for 2012 show little difference between them, though the rate is slightly higher for men (figure 7.3). Other Nordic and most G7 economies also have very high employment rates among both men and women—above 60% in 2012. The exception is Italy, where the employment rate was below 50% for women but was 68% for men.

Nordic economies, including Sweden, have relatively small differences in em-

BOX 7.2 Swedish policies favoring gender equality in wages

In 2009 Sweden’s new Discrimination Act replaced 7 previous acts, including the Equal Opportunities Act of 1991. To promote pay equity, the new act requires all companies with 25 or more employees to draw up an action plan for equal pay every 3 years. The plan is supposed to provide a precise outline of the measures needed to achieve pay equity, including cost estimates for these measures and a timeline (of less than 3 years) for implementing them. In addition, the act creates mechanisms for supervision and transparency, establishing an equality ombudsman to oversee compliance and permitting access by employees’ organizations to confidential information on pay.

Many other OECD economies (such as Austria, Finland, France, Italy and Norway) also have compulsory reporting. And other Nordic economies (for example, Finland and Iceland) as well as Spain have requirements in place for equal pay plans.^a

a. Foubert 2010.

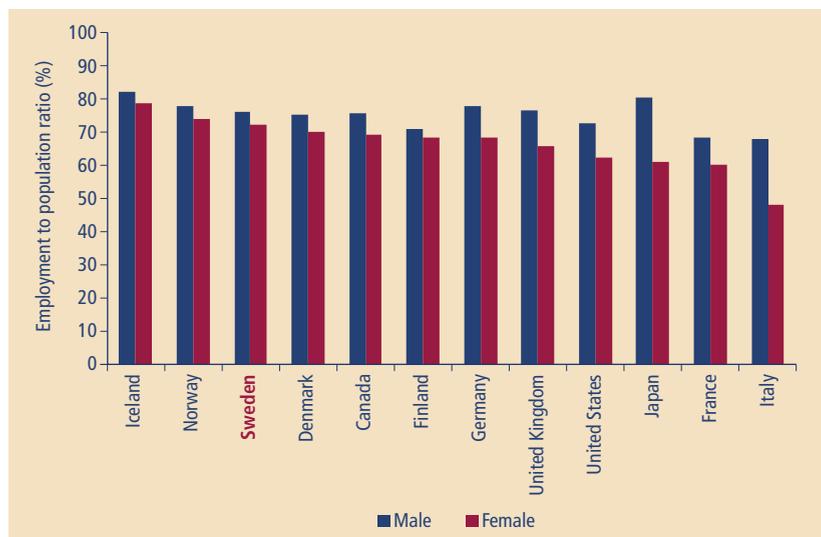
ployment rates between men and women; in 2012 all had a gender gap of less than 5 percentage points. The G7 group offers a more varied picture, with a gender gap ranging from 6 percentage points in Canada to almost 20 in Japan and Italy (figure 7.4).

But all Nordic and G7 economies had at least a moderate reduction in the gender gap in employment rates between 2000 and 2012—and some a substantial one

(see figure 7.4). In France the gender gap narrowed from 14 percentage points to 8, in Canada from 11 percentage points to 6 and in Germany from 15 percentage points to 10. Japan and Italy, starting from comparatively large gender gaps, also experienced substantial reductions—Japan from 24 percentage points to 20, and Italy from 29 percentage points to 20.

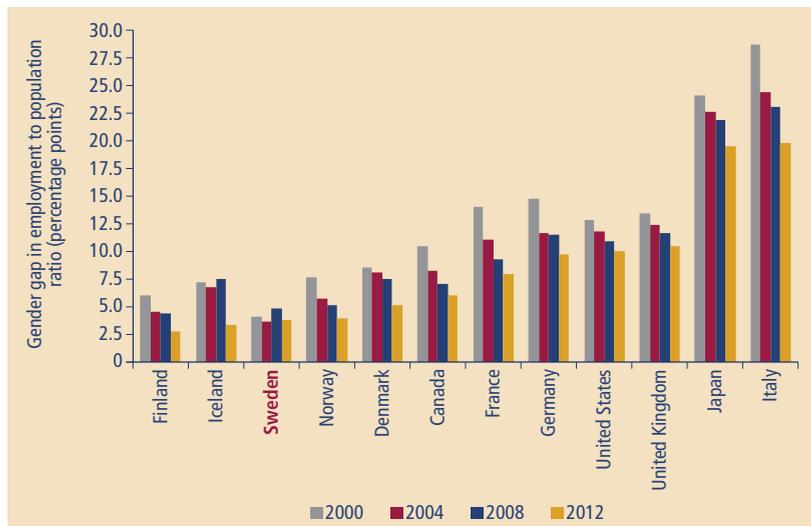
Nordic economies, including Sweden, had both a high female employment

FIGURE 7.3 Sweden had the third highest male and female employment rates among G7 and Nordic economies in 2012



Note: The employment to population ratio is the percentage of the working-age population that is employed. Source: OECD Employment Database, 2012 edition.

FIGURE 7.4 Sweden has had a small but steady gender gap in employment rates



Source: OECD Employment Database, 2012 edition.

rate and a small gender gap (averaging 7 percentage points) in 2000. In most of these economies the gender gap in employment rates narrowed over time. Sweden's, however, remained steady at around 4 percentage points. This is larger than the gender gaps in Finland and Iceland in 2012, though both countries had started out with larger gender gaps than Sweden's in 2000.

Persisting gender gap in wages

The gender gap in wages varies widely among all OECD economies. According to 2012 data from the OECD Employment Database, the gender gap in wages among full-time employees averages 15.02% among OECD economies.¹¹ Sweden, along with 9 other OECD economies, has a gender gap in wages between the OECD average and 10%—Sweden's

is 14.33%.¹² Six OECD economies have a gender gap in wages of less than 10%, ranging from 7.78% in Norway to 4.22% in New Zealand. And 12 OECD economies have a gender gap in wages greater than the OECD average, ranging from 16.66% in the Netherlands to 37.47% in the Republic of Korea.

There is also much variation across economies in how the gender gap in wages evolved over time (figure 7.5). Between 2000 and 2012 the gap narrowed substantially in Belgium (from 13.60% to 7.04%) and in Hungary (from 14.10% to 6.86%). Conversely, the gap widened in Italy (from 7.41% to 10.64%) and in France (from 9.52% to 14.34%).

Sweden saw a more modest change in the gender gap in wages between 2000 and 2012, with the gap narrowing from 15.50% to 14.33%. Denmark, starting with a roughly equivalent gap (14.70%), also experienced a moderate reduction (to 11.80%). Iceland, with a much larger gender gap in wages in 2004 (19.20%), saw its gap narrow substantially by 2012, to slightly below the level in Sweden (13.30%).

WHY GENDER GAPS IN WAGES PERSIST—A LOOK FOR CAUSES

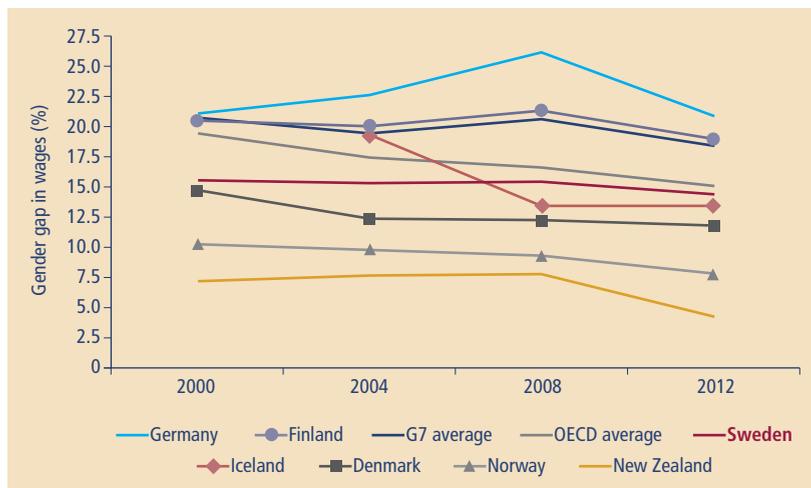
Where gender gaps in wages persist, the possible causes can be analyzed through the hypotheses of gender discrimination and occupational segregation—both horizontal and vertical.

Discrimination

A first explanation commonly identified for a gender gap in wages is direct gender-based discrimination—when individuals with the same level of educational attainment and work experience are treated differently because of their gender. Differentiated treatment can take several forms, such as receiving different pay for the same work or having different job requirements for the same pay.

Many countries have addressed direct discrimination through laws or supportive institutions. Sweden's Discrimination Act, which prohibits gender-based wage discrimination and establishes compliance

FIGURE 7.5 The gender gap in wages barely changed in Sweden between 2000 and 2012



Note: The gender gap in wages is based on data for full-time employees and is unadjusted. It is defined as the difference between male and female median wages divided by male median wages.
Source: OECD Employment Database, 2012 edition.

mechanisms, is a good example (see box 7.2).

Precisely accounting for the role of direct discrimination in the gender gap in wages is difficult, however. A typical approach is to estimate wage regressions specifying the relationship between wages and productivity-related characteristics for men and women. The gender gap in wages can then be statistically decomposed into 2 components. The first derives from gender differences in measured characteristics (such as educational attainment). The second is considered “unexplained” and potentially stems from gender-based discrimination. Relying on this statistical residual method presupposes that all necessary explanatory variables are taken into account.¹³

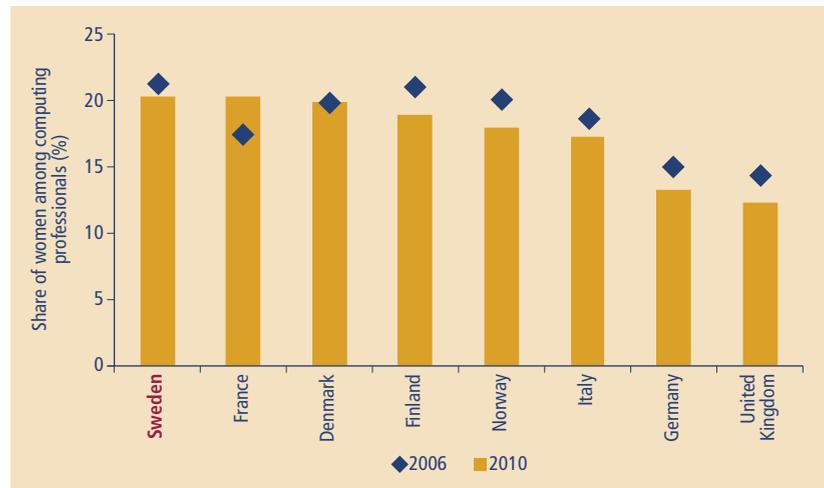
Horizontal segregation in occupations

Beyond direct gender-based discrimination, occupational segregation can also play a role in the persistence of a gender gap in wages. One type is horizontal segregation, defined as an under- or overrepresentation of a certain group in occupations or sectors.¹⁴ Gender-based horizontal segregation—the concentration of women or men in occupations or sectors—occurs at varying degrees across the labor markets of all OECD economies.

A good illustration of horizontal segregation is women’s representation in public sector employment. The public sector accounts for about 20% of total employment on average in most OECD economies—and well above 30% in Sweden and Denmark. Looking at the role of public sector employment in women’s labor market outcomes, a recent study found that in a large majority of OECD economies women are overrepresented in public sector jobs.¹⁵

Interestingly, economies with high female labor force participation—such as Canada, New Zealand and the Nordic economies—also tend to have a larger overrepresentation of women in public sector employment, with female employees accounting for well over 60% of the total. Women also tend to be concentrated in certain segments and activities

FIGURE 7.6 Women are underrepresented among computing professionals, including in Sweden



Source: ILO Laborsta Database, 2012 edition.

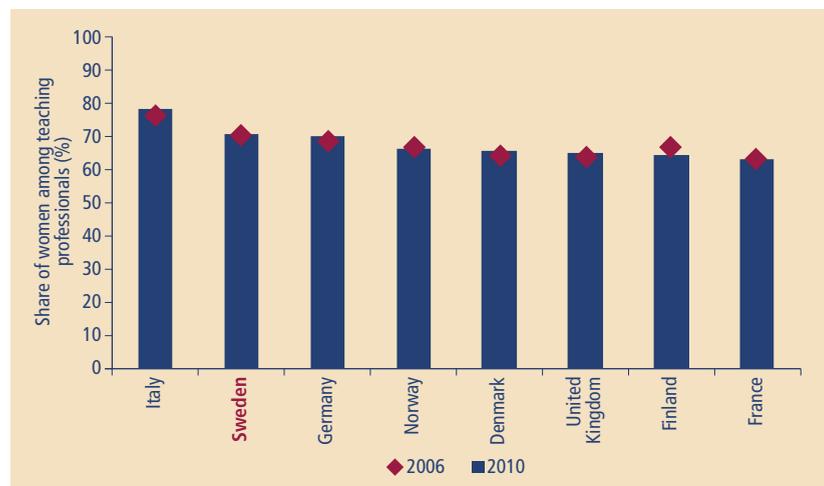
within the public sector. Drawing on the ILO’s Laborsta Database, the same study shows that in almost all OECD economies women in the public sector are employed predominantly in education and health and in social work.¹⁶

Gender-based horizontal segregation also occurs in other sectors and occupations. A good example is computing professionals, a group in which men tend to be overrepresented.¹⁷ Within

a set of comparator economies, Sweden had the highest share of women among computing professionals in 2010 (figure 7.6). But women were still underrepresented: 80% of computing professionals were men.

A look at the teaching profession in the same group of economies reveals the reverse picture, with women overrepresented (figure 7.7).¹⁸ Sweden shows a relatively high level of horizontal segregation,

FIGURE 7.7 Women are overrepresented among teaching professionals, including in Sweden



Source: ILO Laborsta Database, 2012 edition.

with women making up more than 70% of its teaching professionals.

How does horizontal segregation affect the gender gap in wages? The impact varies across economies. One study found that in the United States 11.3% of the gender difference in wages is due to the concentration of women in low-paying industries and 15.6% to their overrepresentation in establishments with lower relative wages.¹⁹ By contrast, other studies found that horizontal segregation plays no significant role in explaining the gender difference in wages in Nordic economies such as Norway and Denmark.²⁰ But a study in Sweden shows that while horizontal segregation accounts for only 9.1% of the gender gap in wages among white-collar workers, it explains 67.6% of the gap among blue-collar workers.²¹

Vertical segregation in occupations

Beyond horizontal segregation, women are also subject to vertical segregation—underrepresentation at upper levels of responsibility and decision making or in jobs with desirable levels of income, prestige or stability.²²

Women's high representation in part-time employment is a good illustration

of vertical segregation. OECD data for years between 2000 and 2012 show that women's overrepresentation in part-time employment was sustained over time in a sample of OECD economies (figure 7.8). In all but 3 of these economies—Finland, Sweden and Denmark—women's share of part-time employment stayed above 70%. And it remained well above 80% in 3 of the G7 economies—France, the United Kingdom and Germany. But while this level of overrepresentation stagnated in France and Germany, it decreased sharply in Sweden, Denmark and Iceland.

Several studies look at how the incidence of female part-time work affects the gender gap in wages. For example, one study analyzed the evolution of the gender gap in wages in France between 1990 and 2002.²³ The authors found that part-time employment was a key factor in explaining the gender gap in wages over the period, with 60% of the explained part of the wage gap due to the length of working hours.

Studies have also looked at the impact of differences in occupations within sectors. A study analyzing the Finnish manufacturing sector, for example, found that at least half the gender gap in pay stemmed from horizontal segregation, such as

white-collar women's concentration in administrative support and service occupations rather than in production occupations.²⁴ A study found that in Sweden vertical segregation accounts for 75% of the gender gap in wages among white-collar workers.²⁵

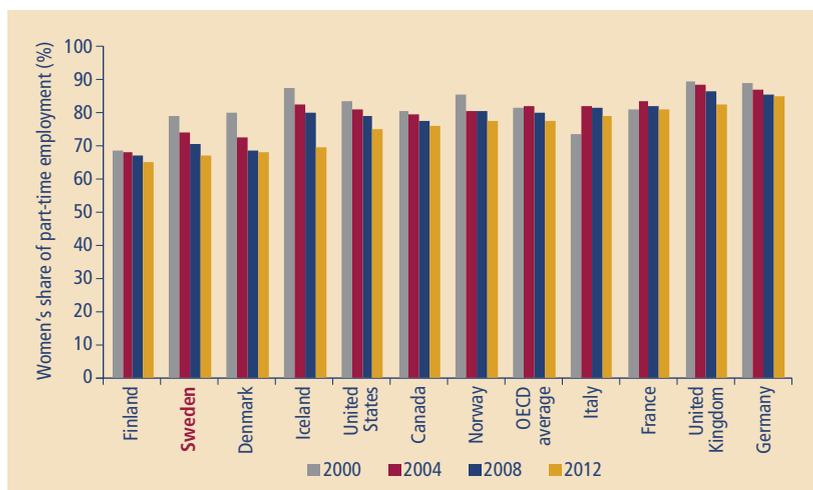
POSSIBLE EXPLANATIONS FOR OCCUPATIONAL SEGREGATION

Two factors can help explain occupational segregation: the concentration of female graduates in certain educational fields that then translate into occupational choices; and the need to reconcile family responsibilities with professional obligations.

Educational segregation through traditional choices

Gender differences in education trajectories can translate into differences in professional choices, reinforcing occupational segregation.²⁶ Using data from 14 OECD economies, one study analyzed gender differences in the relationship between tertiary-level education choices and labor market outcomes.²⁷ The study observed significant gender differences in the choice of fields of study: women make up the majority of graduates in education, humanities and health, while men make up the majority in engineering and architecture. Women also acquire a little more tertiary education than men on average.

FIGURE 7.8 Women's overrepresentation in part-time employment has dropped sharply in Sweden



Source: OECD Employment Database, 2012 edition.

Data from a sample of OECD economies on the share of tertiary qualifications awarded to women in different fields in 2010 support similar conclusions (figure 7.9). The data cover education, computing, health and welfare, and engineering, manufacturing and construction—as well as all fields. Immediately clear is that in all economies in the sample women are overrepresented among tertiary graduates overall (all fields). This overrepresentation can be significant and well above the OECD average (56%). Iceland has the highest representation of women among graduates overall, with 67%, followed by Sweden with 64%. Germany, France and the United Kingdom have more balanced representation of women among tertiary graduates overall (55%).

A comparison across fields illustrates the extent of gender segregation in education. In all economies in the sample, women are massively overrepresented among graduates in education and health and welfare, while they make up a much smaller share of graduates in computing and engineering. Patterns in Sweden are consistent with this: young men rarely pursue studies in health and welfare, where they make up only 17% of graduates (8 percentage points below the OECD average). And young women make up a minority of the graduates in computing and engineering, with shares of 24% and 29% (slightly above the OECD averages).

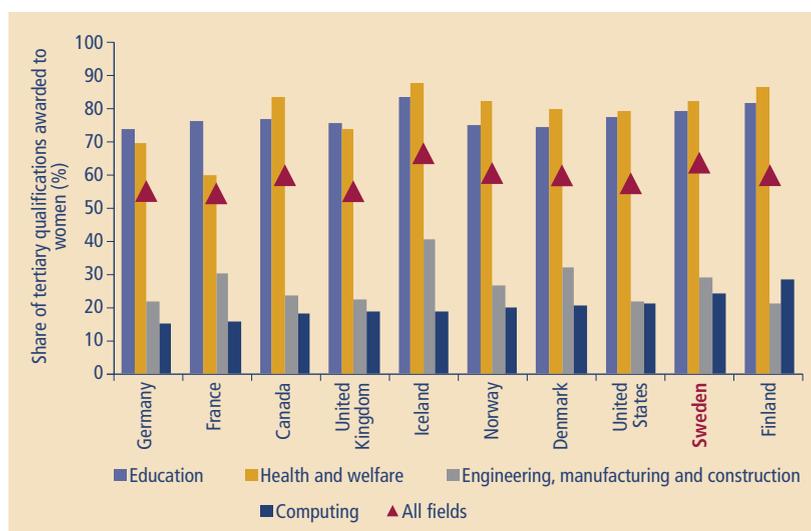
The study analyzing 14 OECD economies shows that these differences in educational choices translate into differences in occupational patterns among professionals and technicians.²⁸ Women represent a large majority of the teachers in these economies, while men dominate in professions relating to physics, mathematics and engineering.

Another study analyzed how educational segregation at the tertiary level translates into occupational segregation across 17 economies of the European Union.²⁹ Its findings confirm the high correlation between educational segregation and occupational segregation in these countries, though with noticeable variations: in Belgium, France, Germany, Ireland, Portugal, the Slovak Republic and Spain lower levels of educational segregation do not automatically translate into lower levels of occupational segregation.

A need to reconcile work and family responsibilities

The need to reconcile family responsibilities and professional obligations can dictate labor market strategies and occupational choices that deepen occupational segregation. One study documents the impact of the “compensating differentials” offered by public sector employment on women’s occupational choices in 15 OECD economies.³⁰ The authors suggest that even if private sector jobs may offer higher wages, public sector jobs provide other employment terms—such as shorter or more flexible working hours and more flexible leave

FIGURE 7.9 Women were greatly overrepresented in some fields of tertiary study in Sweden in 2010



Source: OECD Education at a Glance Database, 2012 edition.

policies—that appear to attract married women with children.

Evidence also shows that the growth of part-time employment and women’s overrepresentation among part-time workers have been driven in large part by a search by women with children for ways to balance formal paid employment with caring responsibilities.³¹ But while part-time work often offers greater flexibility in working hours, it comes at the cost of lower hourly earnings, less job security and fewer opportunities for training and promotion, with long-term effects on career prospects, pension benefits and old-age poverty.³² A recent study shows that in Belgium almost half the promotion gap between men and women is explained by differences in working hours, both contractual and overtime.³³ Women’s overrepresentation in part-time employment can thus be seen not only as a manifestation of vertical segregation but also as a factor that reinforces it—by limiting opportunities for career advancement.

Also promoting work-life balance are child-related leave entitlements. All OECD economies except the United States and the Republic of Korea mandate paid parental leave, with varied policies on the duration of leave and entitlements to pay. Sweden’s parental leave scheme is

often presented as a major factor in the economy’s high female labor force participation (box 7.3).³⁴

While good for work-life balance, paid leave can have ambiguous effects on labor market outcomes for women. One study shows that in 30 OECD economies between 1970 and 2010, the provision of paid leave had a positive effect on women’s employment rate as long as the duration of the leave did not exceed 2 years.³⁵ As paid leave gradually lengthens and becomes more generous over time, however, it is correlated with a widening of the gender gap in pay for full-time employees.

These findings are consistent with the *Women, Business and the Law* analysis of the impact of paid maternity leave and parental leave on women’s labor force participation in 103 economies.³⁶ The ambiguity in effects reflects the potential impact of child-related leave entitlements on vertical segregation: long periods of leave may reduce women’s opportunities for career advancement and earnings progression. One analysis suggests, for example, that employers, anticipating that women will take advantage of leave entitlements, may engage in statistical discrimination against women as a group by limiting the opportunities for advancement available to them.³⁷

BOX 7.3 Parental leave in Sweden

According to *Women, Business and the Law* data, Sweden's current parental leave scheme grants 480 days of paid leave. The government covers the cost of the parental leave benefit, paying 80% of the parent's wages. Each parent must take 60 days of the 480-day period, with the rest allocated as the family decides. Another 491 days of unpaid parental leave may be taken by either parent with no restrictions. Beyond this, mothers are entitled to 98 days of unpaid maternity leave, and fathers to 10 days of paid paternity leave.

Women's professional and earning prospects can improve when fathers take a portion of shared parental leave. One study showed that in Sweden a mother's future earnings increased by almost 7% on average for every month of shared parental leave taken by the father.^a While incentives such as reserved days and tax credits encourage Swedish parents to share parental leave days more equally, mothers continue to take more leave than fathers, with the latter taking about a quarter of all days.

a. Johansson 2010.

CONCLUSION

A review of Sweden's performance on *Women, Business and the Law* indicators shows that the country's laws and regulations establish a framework conducive to women participating in the economy on equal terms with men. This is reflected in women's relatively high rate of participation in employment in Sweden compared with rates in other Nordic economies as well as in OECD and G7 economies.

Yet despite the favorable legal and regulatory environment, the persistence of the gender gap in wages—around 15% between 2000 and 2012—calls for additional efforts to ensure women's fair participation in the Swedish economy. Occupational segregation—both horizontal and vertical—remains prevalent in Sweden, as it does in other Nordic and OECD economies. Of particular concern are patterns of educational choices that perpetuate traditional career choices, with female- and male-dominated sectors and occupations offering unequal earning prospects. Through vocational guidance and targeted training, young women and young men alike could be encouraged to enter nontraditional fields.

The tradeoffs between professional obligations and family responsibilities also remain a significant obstacle to women's career and earnings progression—despite

the family-friendly policies and incentives put in place in recent years. Increasing incentives for parents to share parental leave more equally, and actively promoting women's participation in corporate decision-making structures, could have positive effects on their career and earning prospects.

NOTES

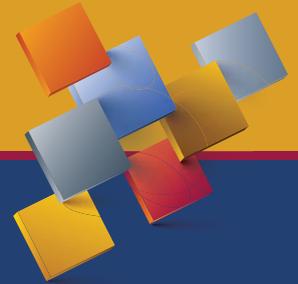
This chapter has been written by Thibault Meil-land with the assistance of Katrin Schulz.

1. World Bank 2011.
2. Aguirre and others 2012.
3. Introduced in the UNDP's *Human Development Report 2010*, the Gender Inequality Index is a composite measure reflecting inequality in achievements between women and men in 3 dimensions: reproductive health, empowerment and the labor market.
4. The measure of legal gender differences is constructed by adding the restrictions on married and unmarried women together. Five restrictions that apply only to married women are counted once, while 21 restrictions that apply to married or unmarried women are counted twice, for a total of 47 restrictions. The measure can sum to a whole number or a decimal for any economy because the question on job restrictions has 8 subquestions (each equal to one-eighth) examining specific restrictions on women's work.
5. These 15 economies are Armenia, Canada, the Dominican Republic, Estonia, Hungary, Kosovo, Mexico, Namibia, the Netherlands, New Zealand, Peru, Puerto Rico (territory

- of the United States), the Slovak Republic, South Africa and Spain.
6. Whenever used in this chapter, OECD high-income economies refer to the following economies: Australia; Austria; Belgium; Canada; Chile; the Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Iceland; Italy; Israel; Japan; the Republic of Korea; the Netherlands; New Zealand; Norway; Poland; Portugal; the Slovak Republic; Slovenia; Spain; Sweden; Switzerland; the United Kingdom; the United States.
7. The other 4 economies are Bosnia and Herzegovina (with 0.75 legal differences between men and women), Ecuador (1.5), Ethiopia (0.5) and Thailand (1.75).
8. The other 15 OECD high-income economies are Australia, Austria, Belgium, Denmark, Finland, Germany, Greece, Iceland, Ireland, Italy, Norway, Portugal, Switzerland, the United Kingdom and the United States.
9. The other 10 OECD high-income economies doing so are Australia, Belgium, the Czech Republic, Greece, Ireland, the Republic of Korea, the Netherlands, Poland, Portugal and Spain.
10. Deloitte 2013.
11. The OECD Employment Database's measure of the gender gap in wages is based on data for full-time employees and is unadjusted. The measure is defined as the difference between male and female median wages divided by male median wages.
12. The 9 other OECD economies with a gender gap in wages between the OECD average and 10% are the Slovak Republic (14.84%), France (14.34%), Australia (14.04%), Portugal (13.45%), Iceland (13.33%), Greece (12.17%), Denmark (11.75%), Ireland (10.68%) and Italy (10.64%).
13. Vandenberghe 2011.
14. Bettio and Verashchagina 2009.
15. Anghel, de la Rica and Dolado 2011.
16. Anghel, de la Rica and Dolado 2011.
17. The International Standard Classification of Occupations (ISCO) definition used by the ILO defines computing professionals as performing a range of tasks such as conducting research into the theoretical aspects of and operational methods for the use of computers; designing hardware and software configurations for specific applications; designing computer programs; and preparing manuals. For the full list of tasks, see to the ISCO website (<http://www.ilo.org/public/english/bureau/stat/isco/isco88/213.htm>).
18. The ISCO definition used by the ILO defines teaching professionals as performing a range of tasks such as conducting classes at a particular educational level, including private lessons; conducting adult literacy programs; teaching and educating handicapped persons; designing curricula; conducting research in their particular subjects;

- and preparing scholarly papers and books.
For the full list of tasks, see to the ISCO website (<http://www.ilo.org/public/english/bureau/stat/isco/isco88/23.htm>).
19. Bayard and others 2003.
 20. Petersen and others 1997; Datta Gupta and Rothstein 2001.
 21. Meyersson Milgrom, Petersen and Snartland 2001.
 22. Bettio and Verashchagina 2009.
 23. Meurs and Ponthieux 2007.
 24. Korkeamäki and Kyrrä 2005.
 25. Meyersson Milgrom and others 2001.
 26. World Bank 2011.
 27. Flabbi 2011.
 28. Flabbi 2011.
 29. Smyth and Steinmetz 2008.
 30. Anghel, de la Rica and Dolado 2011.
 31. OECD 2010a.
 32. Thévenon 2013.
 33. Deschacht 2013.
 34. Elborgh-Woytek and others 2013.
 35. Thévenon and Solaz 2013.
 36. World Bank Group 2013b.
 37. Blau and Kahn 2013.

Education, skills and innovation



Education and continuous global technology learning contribute to an economy's competitiveness, innovation and growth by providing current and future workers with the skills most valued by employers and by improving the ability of managers and entrepreneurs to operate in an increasingly complex business environment. This chapter provides an overview of recent reforms in Sweden's education system and reviews evidence on education outcomes and their relationship with labor market and innovation issues. It presents data for Sweden along with key high-income comparators—the other Nordic economies (particularly Finland, which has been regarded as a world-class performer in education), the United States and other G7 economies, and all OECD economies as a group.

SWEDEN'S EDUCATION SYSTEM—RECENT REFORMS AND DEBATES

In the past 20 years Sweden has undertaken major education reforms aimed at both strengthening the school curriculum and granting greater independence to schools. In 1993 it launched a voucher system designed to foster competition between public and private schools by allowing students to freely choose between them. More recently, 2011 legislation introduced better integration of child care and preschool into the education system and applied an equal legal framework to public and approved private schools. New curricula and grading criteria were also introduced.

In addition, Sweden invests substantial resources in education. Its public expenditure on education in 2010 amounted to 7% of GDP, higher than the OECD average of 5.8%. Even more telling is

Sweden's annual spending per student, which was considerably higher than the OECD average at all levels of education and up to 45% higher at the tertiary level.¹

Sweden's investment in education is reflected in a number of highly positive indicators (from high preschool enrollment rates to high secondary completion rates, from low private expenditure to low student-teacher ratios). Yet the country's education system faces a few worrying problems. These include a steady downward trend in student performance on international tests in reading, math and science;² the limited attractiveness of the teaching profession and related concerns about teachers' skills; and mismatches between skills developed in school and those demanded in the labor market. There are also concerns on the innovation front. Although Sweden's research and development (R&D) spending as a share of GDP is among the highest in the world, the country lags behind comparators in grassroots entrepreneurship, internationalization of knowledge and managerial skills upgrading.

In 2000–10 Sweden saw both a large increase in the share of students enrolled in private schools and a deterioration in the performance of its students on international tests. Particularly striking is the difference with neighboring Finland, whose students have been top performers in these assessments. These results have led many to believe that the expansion of private schools has had a negative effect on overall student performance, but there is no evidence of this. Indeed, students in private schools have tended to have better test scores than those in public schools, though this difference narrowed in the latest test results.³

One difference between private and public schools in Sweden is that private

- Swedish firms have difficulties filling vacancies, and compared with international averages more Swedish workers are underqualified for their job. But many tertiary graduates are overeducated for theirs.
- About a third of adults ages 25–64 have a tertiary education, but only half of tertiary students go on to graduate.
- Swedish universities lack dynamism and are losing scientific competitiveness. Though still high in global rankings of innovation, the country has slipped a few notches.
- Average reading, math and science scores of ninth graders have been declining—and variability in these scores remains among the highest in the OECD group. Differences between immigrant and native students could be tackled by promoting early enrollment of immigrant children.
- Swedish teachers earn less than their peers, and measures of their abilities have declined. Making the profession more selective and attractive would benefit student performance.
- Higher mobility and internationalization of skills could help Sweden tap into a wider talent pool and attract top researchers.
- Expanding trade in products, capital, and ideas could enhance continuous global technology learning.
- Broader use of incentives management practices—rewarding performance more than seniority—would support the upgrading of managerial skills.

schools have a much smaller share of teachers who have completed qualified teacher training (58%) than do public schools (80%). But the quality of teachers' skills in public schools appears to be an issue: a recent study using data on male teachers at municipal schools for 1980–2006 found evidence of a decline in teachers' grade point averages and in other measures of cognitive and social abilities.⁴ To address such issues, the 2011 reforms changed the qualification requirements and introduced new teacher training programs.

Salary levels for teachers raise questions about the attractiveness of the teaching profession in Sweden. The highest pay levels for primary school teachers are 20% lower than the OECD average. And Swedish teachers earn 20% less on average than other full-time Swedish workers with a tertiary education. By contrast, Danish and Finnish teachers—at least those in upper secondary schools—earn more than their peers. Yet despite the lower salaries in teaching, a large share of tertiary graduates in Sweden are in education (15%, compared with 6% in Finland).

A fundamental role of the education system is to provide students with the skills they need to succeed in the labor market. In the past, Swedish employers had complained that the country's vocational education and training was too theoretical and did not adequately prepare students for the labor market.⁵ In response to these concerns Sweden reformed the vocational education and training system in 2011, by restructuring the curriculum and the programs offered. In the first academic year after the reform, the 3 programs attracting the most students were building and construction, electricity and energy, and vehicle and transport⁶—3 areas where employers report difficulty in hiring. In 2008 the programs with the largest enrollments had been social sciences, natural sciences, electrical and electronics, and arts. The new enrollment rates seem to better reflect the needs of the labor market.

MIXED OUTCOMES IN EDUCATION

Evaluating education systems is not easy. Getting a better picture requires looking

at a range of indicators, including measures of participation (such as enrollment rates), educational attainment and learning outcomes. For Sweden such indicators provide a mixed picture, suggesting some possible policy directions as well as questions warranting further research.

High primary and secondary enrollment

Like most developed economies, Sweden has very high enrollment rates in primary and lower secondary education. Policy makers in these economies therefore focus their attention on participation rates either at very early stages of education (preschool and preprimary) or in upper secondary education.

Growing international evidence shows that receiving a good education in early childhood has a large impact on socioeconomic outcomes later in life.⁷ High preprimary enrollment rates are common among the Nordic economies. In Sweden the rate in 2012 was 94.7% among children ages 4–5 and 77.2% among those ages 1–3, according to the Swedish National Agency for Education. Finland, the regional champion in international student tests, stands out as an exception: its enrollment rate in 2011 was just below 50% for 3-year-olds and below 70% for 5-year-olds, similar to rates in the United States.⁸

Data on secondary enrollment in Sweden may be cause for concern, however. Sweden's secondary enrollment rate is similar to or higher than those in other developed economies. Yet 8% of children of lower-secondary-school age were out of school in 2011—a share that has been steadily increasing from 0% in 2006. Moreover, a growing share of young people are not in employment, education or training: among 15- to 29-year-olds this share rose from 9.2% in 2005 to 10.3% in 2010, putting Sweden at 27th place in a ranking of 32 OECD economies on this indicator.⁹

Falling international test scores at primary and secondary levels

The main concern in the public debate on education in Sweden is that despite large investments in education, results

in international assessments of student competencies have been declining. This is reflected, for example, in results from the Programme for International Student Assessment (PISA), a triennial survey of competencies of ninth graders in reading, math and science.¹⁰ The average scores of Swedish students dropped in all 3 subject areas between 2000 and 2012 (figure 8.1). Using PISA and other test scores, a recent study found that among 49 countries, Sweden suffered the largest decline in international comparisons of student achievement between 1995 and 2009.¹¹

Sweden's PISA results are not only below the OECD average but also far below those of neighboring Finland, often regarded as having among the best education systems in the world. The gap with Finland also exists at lower levels of education, as reflected in the average scores on international tests taken in fourth grade under the Progress in International Reading Literacy Study (PIRLS) and Trends in International Mathematics and Science Study (TIMSS).

PISA results for reading reveal interesting patterns. A Nordic Council of Ministers report estimates that among the PISA study participants, the share of weak readers increased in Sweden from 13% in 2000 to 17% in 2009.¹² Meanwhile, in Denmark and Norway this share fell to around 15%, and in Finland it increased by 1 percentage point, to only 8%. In Sweden some groups were overrepresented among weak readers: boys, students with an immigrant background, students who did not attend preschool and students with weaker relationships with teachers.¹³ The report emphasizes the large differences among schools and suggests that they might be explained by the growing number of private schools and of schools with a large share of students with an immigrant background.

The PISA results indeed show greater variability of scores among students in Sweden than in other countries. Compared with Finland, Sweden has not only lower average scores but also higher variability of scores across all 3 subject areas (figure 8.2). The results of the PISA 2009 study, which focused more on reading, show that the

variance in reading performance in Finland was 83% of the average variance across all OECD economies, while the variance in Sweden was 110% of the OECD average. And the variability of scores in Sweden increased for all subjects between 2000 and 2009.

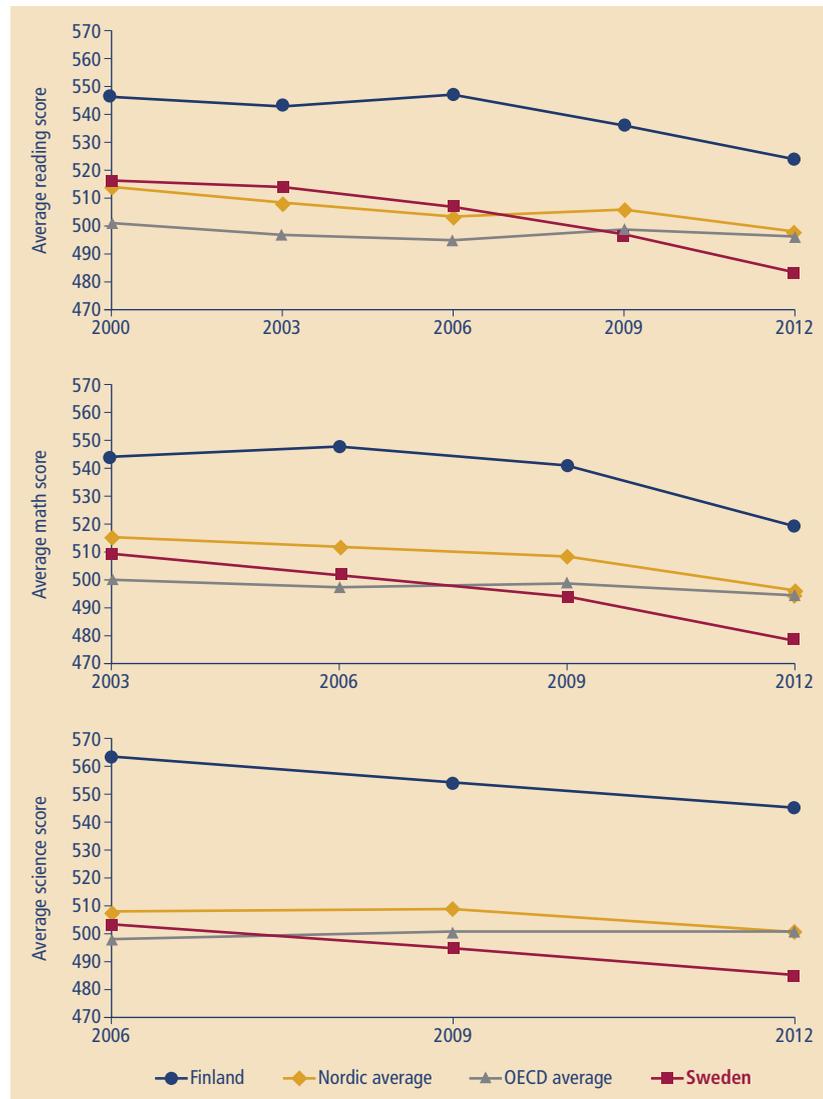
Test scores and policy questions

The variability of scores in Sweden raises an important question: Do high-performing students tend to concentrate in certain schools, or are there high-performing students in most schools? One way to address this question is by comparing how much scores vary within schools and how much between them. The PISA 2009 results for reading show that in Finland the variance in scores within schools was more than 10 times the variance between schools, while in Sweden the variance within schools was 4.5 times that between schools. Similar differences were found in 2012 for math performance. This means that Sweden has more pronounced differences between high- and low-performing schools.

Schools can differ along many dimensions, but the most interesting one in Sweden is whether they are public or private. Students in private schools had higher average PISA scores than students in public schools across all 3 subject areas in 2009.¹⁴ This difference in scores persisted in 2012 in reading and to a lesser extent in science, but not in mathematics. Overall, test scores of private school students (and their difference with public school scores) increased until 2006 and decreased afterward (figure 8.3 shows the trend for reading).

What does research show about the effect of the growing private school enrollment since the 1993 school voucher reform in Sweden? A recent study assessing the reform’s effect on education outcomes at the municipality level found that an increase in the share of private school students leads to better average grades and better longer-term education outcomes.¹⁵ Interestingly, the study notes that the improvement in average municipality performance was due not to private schools’ outcomes improving more than public schools’ but to greater competition among schools.

FIGURE 8.1 Swedish students’ average PISA scores have been declining in all 3 subject areas



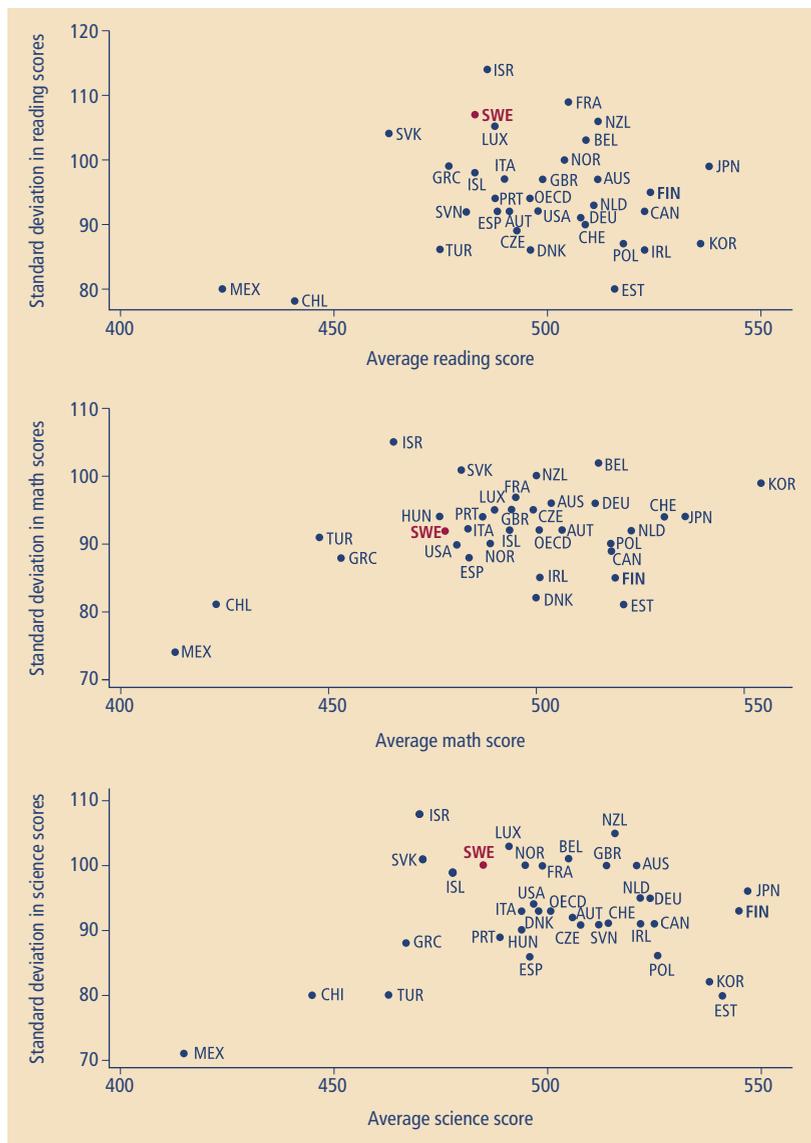
Note: Nordic average includes Sweden.
Source: OECD, PISA 2000, 2003, 2006, 2009 and 2012 results.

More research is needed to assess the causal relationship between private school attendance and test performance in Sweden. In parallel, more needs to be done to understand what causes some students to attend public schools and others to attend private ones. While private schools are not allowed to select students using criteria other than time of application, presence of siblings and place of residence, children in private schools score significantly higher on an indicator of economic, social and

cultural status than do children in public schools.¹⁶

Preschool can help to establish a level playing field for students with different economic backgrounds. Results from the 2009 PISA study show that students who attended preschool tend to have higher scores than students who did not, in almost all countries and even after taking into account the socioeconomic status of students.¹⁷ Evidence from Finland, for example, shows that preprimary

FIGURE 8.2 PISA 2012 scores show greater variability in Sweden than in many other countries



Source: OECD, PISA 2012 results.

programs are particularly effective in improving the reading performance of children with an immigrant background.

Policy choices emerge from looking at the relationship between resources invested in education and test results. For example, average test scores across countries (whether from TIMSS/PIRLS or PISA) have no clear relationship with the student-teacher ratio or the level of spending per student, in either primary

or secondary education. But PISA scores have a strong positive correlation with the ratio of primary teachers' salary to the salary of other workers with a tertiary education (figure 8.4). While this is not sufficient evidence of a causal relationship, it suggests that the skills and status of teachers matter more than the overall level of spending in education. Other studies confirm this by showing that although smaller class sizes have a positive effect on student outcomes,

higher teacher salaries are associated with a bigger improvement in student performance.¹⁸

Room for improvement in tertiary education

Advanced economies like Sweden rely heavily on high-level technical and professional skills that are usually acquired through tertiary education. And global competition—including in the labor market—constantly raises the bar for workers' qualifications.

How many people in Sweden have graduated from a tertiary education program—and how do its rates compare internationally? Among those ages 25–64, some 35% have attained a tertiary education (figure 8.5). This share is higher than the OECD average of 32% but lower than the shares in Finland (39%) and Norway (38%). Younger adults (ages 25–34) in Sweden are doing better: 43% have attained a tertiary education—a higher share than in Finland (40%) though still lower than in Norway (47%). Moreover, while the gross enrollment ratio for tertiary education is just above 70% in Sweden, it is more than 90% in Finland.¹⁹ Sweden also lags behind other countries in the completion of tertiary education: only 53% of students who enter a tertiary education program go on to graduate, compared with 68% for all OECD economies, 76% in Finland and 81% in Denmark.

Sweden's low tertiary completion rate, particularly worrisome given its high youth unemployment rate, might be explained at least in part by lack of incentives: the average earnings of workers with a tertiary education are only 25% higher than those of workers with an upper secondary education. On average among OECD economies, they are 57% higher.²⁰ Eurostat data for 2010 show a similar contrast: while the median hourly earnings of upper secondary and postsecondary graduates in Sweden are higher than the EU-27 average, those of tertiary graduates are lower than the EU-27 average. Differences in average hourly wages between tertiary and upper secondary graduates in Sweden are particularly small in the public sector and even

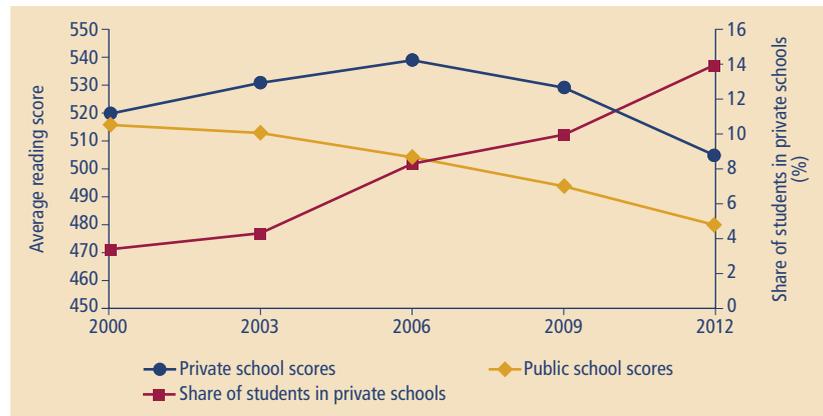
negative in education, health and social services.

Tertiary education is often regarded as the crucial phase in which students develop skills—either managerial or technical—that will foster innovation and productivity once they enter the labor market. Sweden has a very high level of higher education expenditure in R&D (twice the OECD average), according to the OECD Review of Innovation Policy for Sweden.²¹ In addition, 4 universities (Karolinska, Lund, Stockholm and Uppsala) regularly appear among the top 100 in global rankings (such as the *Times Higher Education Supplement*).

But the OECD report also points out that Sweden has lost scientific competitiveness. For example, while Sweden is among the 39 countries with the largest production of scientific publications, it had the third smallest increase in the mean citation rate over the past 2 decades. And the average annual growth in publications between 2000 and 2008 was only 3.5%, compared with an average 5.1% in the European Union.

The report's findings suggest a need to address several issues. One of these is the very low mobility in the higher education sector: 58% of instructors have a PhD from the same institution in which they teach, there is only a limited inflow and

FIGURE 8.3 A rising then falling trend in PISA reading scores for private schools in Sweden



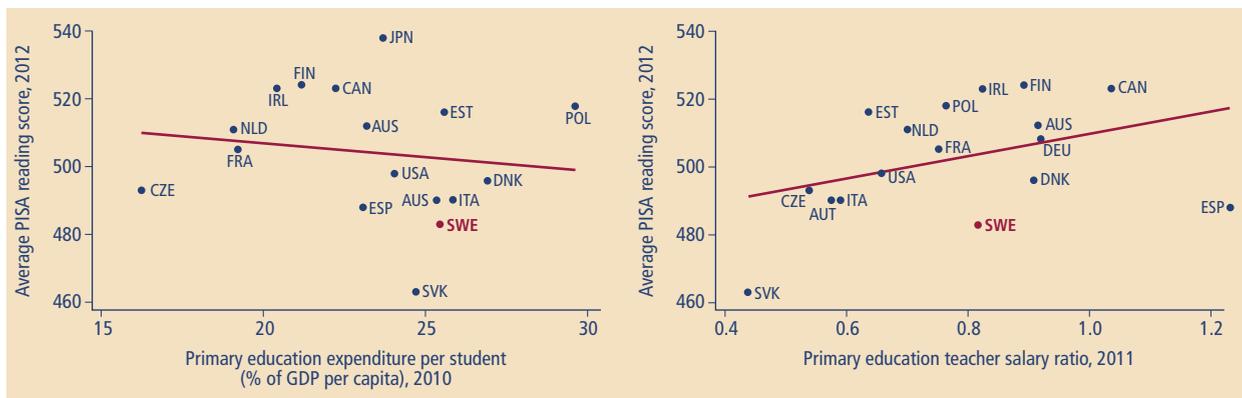
Source: OECD, PISA 2000, 2003, 2006, 2009 and 2012 results.

outflow of grant recipients, and the introduction of tuition costs for students from outside the European Economic Area has reduced the inflow of foreign students. In addition, research conducted in Swedish universities has a low impact as measured by citations, and it is concentrated mostly in a few successful fields (such as biomedicine). Moreover, the system attracts few elite authors: according to a recent study, only 3.7% of academic authors in Sweden during 1996–2010 would be considered elite, compared with 5.0% in Denmark and 7.7% in Switzerland.²² And

while the increase in the number of universities (by 17 since the 1970s) accommodates the educational needs of a sparsely distributed population, it has had an unclear impact on their overall R&D effectiveness.

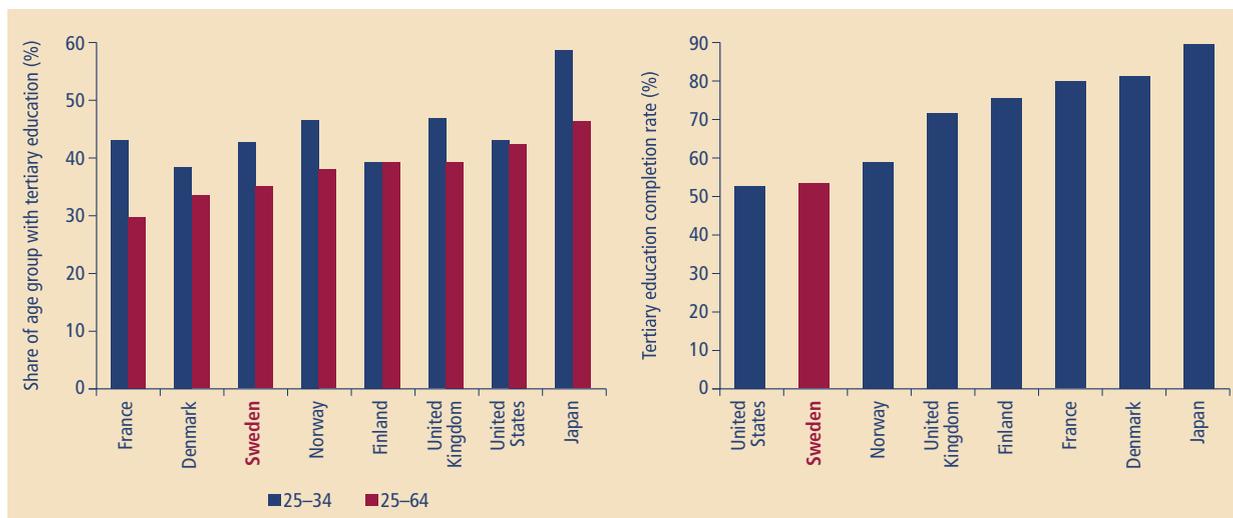
The OECD report also suggests some possible causes of the decline in Sweden's research effectiveness. These include the fragmented funding system and the limited power of university leadership in contrast to the strong power of individual professors.

FIGURE 8.4 PISA scores have no clear relationship with primary education spending—but a strong one with primary teachers' relative salary



Note: Primary education teacher salary ratio compares primary teachers' average salary with the average earnings of peers—full-time, full-year workers ages 25–64 with a tertiary education.
Source: OECD, PISA 2012 results and *Education at a Glance 2013*.

FIGURE 8.5 Sweden lagging behind some OECD comparators in tertiary education attainment and completion rates in 2011



Source: OECD, *Education at a Glance 2013*.

PROBLEMS OF SKILLS MATCHING IN THE LABOR MARKET

Ideally, the supply of skills developed through the education process should match the demand for skills in the labor market. This match may not happen for everyone, however, and some percentage of the population will experience either a lack of match (when unemployment and vacancies coexist) or a mismatch between the qualifications and skills they have and those that would be most appropriate for their job. Both problems seem to be relevant for Sweden, as demonstrated by the large share of firms having difficulties in filling vacancies and by the substantial share of underskilled workers.

Unemployment coexisting with vacancies

A substantial share of Swedish employers have difficulties filling vacancies. According to a new survey, 24% reported such difficulties in 2013, compared with 36% in 2012.²³ The top 10 jobs for which employers have difficulties filling vacancies are engineers, sales representatives, skilled trades, managers, cooks, technicians, drivers, supervisors, accountants and machine operators. Small firms have

more difficulties filling vacancies than larger firms, possibly because of less attractive employment conditions.²⁴

An earlier survey by Svenskt Näringsliv found that the number of unfilled vacancies increased by 40% between 2005 and 2010, even though the unemployment rate was the same in both years.²⁵ According to projections by Statistics Sweden, the demand for workers with secondary and tertiary education will increase over the period to 2030. But while the supply of workers with tertiary education will expand, the supply with lower qualification levels will shrink. It is expected that when the older generation exits the labor market, there may be shortages of skilled labor, particularly in small towns and rural areas.

Whatever the level of vacancies, some groups have more difficulties than others in finding jobs, a fact that immediately becomes clear when unemployment rates are broken down by age group, country of origin and educational attainment. In Sweden the unemployment rate among 15- to 24-year-olds is far higher than in any other age group—and higher than in comparator economies. The unemployment rate for foreign-born individuals is more than twice the rate for Swedish-born people, though the rates show a similar trend over the period 2000-12.

While immigration to Sweden follows patterns similar to those in neighboring economies, immigrants to Sweden include a relatively large share of refugees, who have more difficulties finding jobs.²⁶

Unemployment rates among people at all education levels have been declining since 2005—with the exception of the 2007-10 period, reflecting the global financial crisis. But the unemployment rate has always been higher among people with up to a lower secondary education than among those with higher levels of education. The unemployment rate among people with an upper secondary education is remarkably close to the rate among those with a tertiary education. Unlike in other Nordic economies, however, in Sweden unemployment is higher among people with a vocational upper secondary education than among those with a general upper secondary education.²⁷

Sweden's overall unemployment rate is low compared with that of other European countries. But the process that matches the demand for and supply of labor seems to have deteriorated in recent years. Evidence for this can be seen in the relationship between the unemployment rate and the job vacancy rate from the early 2000s to 2012 for Finland and Sweden (figure 8.6). This

relationship is also called a Beveridge curve, which typically has a negative slope. When the mechanism for matching labor supply and demand improves, it leads to a shift of the Beveridge curve toward the bottom left-hand part of the graph—because at a given level of unemployment, employers are able to fill vacancies faster, leading to a lower vacancy rate. But while this has occurred in Finland, in Sweden the curve has moved in the opposite direction, indicating a less efficient matching mechanism.

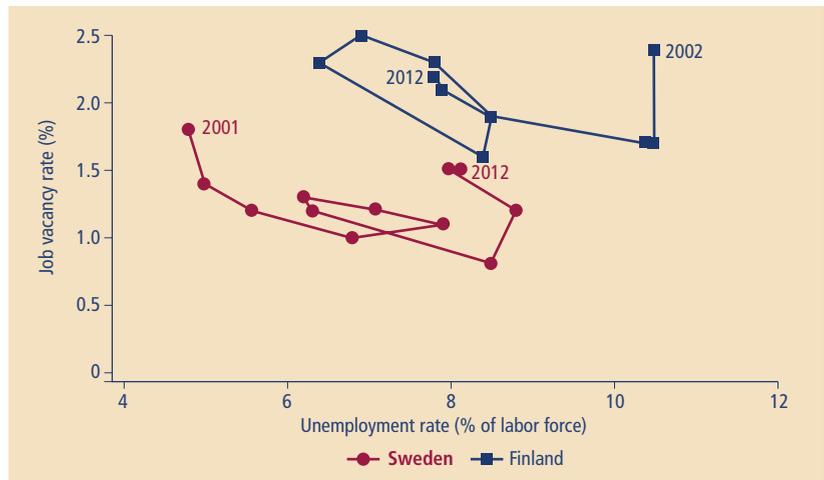
While knowing the overall vacancy rate for an economy is useful, this aggregate rate reveals little about matching problems that may be happening in specific sectors. In Sweden the arts and entertainment sector had the highest vacancy rate in 2012, and the agriculture, forestry and fishing sector the lowest (figure 8.7). But because there are no data about how many people look for jobs in each sector, it is difficult to assess whether there are matching problems in particular sectors. According to data from Statistics Sweden, in the last quarter of 2010 recruitment times were longest for information technology specialists and for professionals. Among geographic areas, Stockholm had the longest recruitment times.²⁸

Skills and education mismatch

A growing literature is trying to assess the extent of education or skills mismatches in the labor market. These concepts are sometimes used interchangeably, and both can be measured in different ways. But generally speaking, *education mismatch* refers to a situation in which workers have an education level that is higher or lower than the level considered most appropriate for their job, and *skills mismatch* to a situation in which workers' skills are underutilized or insufficient for performing well on the job.²⁹

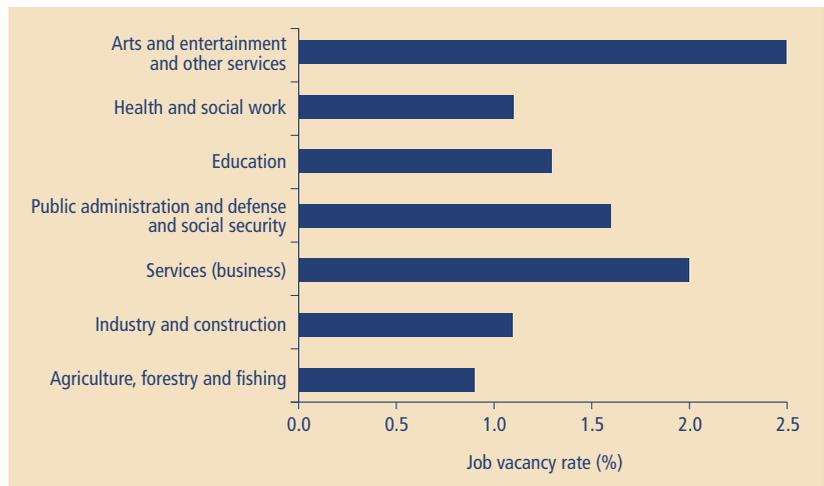
These phenomena are difficult to measure, and they have unclear effects on wages and productivity.³⁰ Only a few empirical studies have focused on Sweden. One shows that overeducated workers are penalized early in their career by a lower rate of return to schooling, from which they do not recover later on.³¹ Another found that men are more likely to have jobs that do not match their field

FIGURE 8.6 Beveridge curve for Sweden shows declining efficiency in matching labor supply and demand



Note: Job vacancy rate is the number of vacancies divided by the sum of vacancies and occupied jobs. Each dot represents a different year, starting in 2001 or 2002 and ending in 2012. Source: Eurostat data.

FIGURE 8.7 Job vacancy rates varied widely across sectors in Sweden in 2012



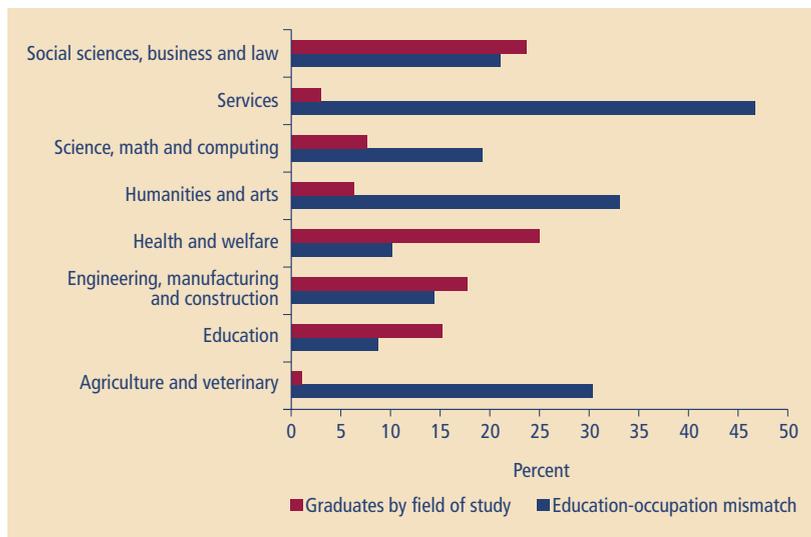
Note: Job vacancy rate is the number of vacancies divided by the sum of vacancies and occupied jobs. Source: Eurostat data.

of education in female-dominated occupations (such as preschool teaching and pharmacology), while women are more likely be mismatched in male-dominated occupations (such as engineering and other technical fields).³²

Moreover, as a study in the United States and Britain noted, the skills mismatch may be exacerbated by spatial

mismatches—situations in which the unemployed and jobs that are suitable for them are too far away to be able to meet.³³ This issue may be particularly relevant for Sweden, where labor mobility is somewhat limited by long distances and by highly regulated rental housing markets, particularly in the main cities. Newspapers recently reported the case of a woman who managed to rent an

FIGURE 8.8 High education-occupation mismatch in fields of study with large percentages of graduates in Sweden in 2007



Note: Education-occupation mismatch is defined as the percentage of people ages 25–34, with a tertiary education, whose job requires a lower qualification than they have.

Source: Eurostat, EU Labour Force Survey 2007; UNESCO Institute for Statistics data, <http://www.uis.unesco.org/>.

apartment in Stockholm after 28 years on a waiting list.³⁴

What do available data suggest about the extent of mismatches in the Swedish labor market? One set of data comes from a comparison of the education of young university graduates with their job

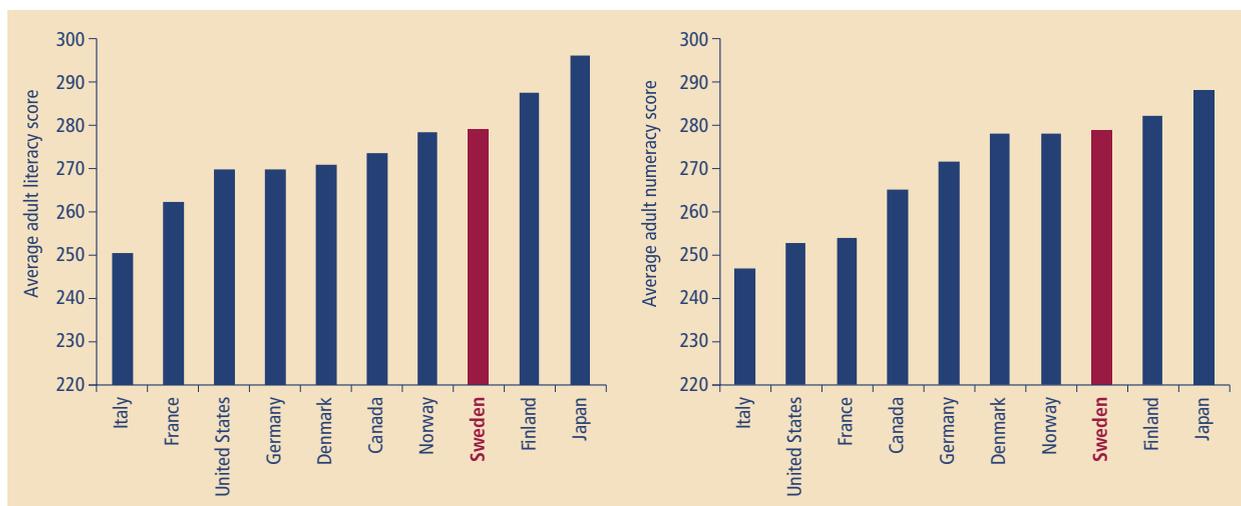
requirements (figure 8.8). The results show that in 2007 a large percentage of these graduates were overqualified for their job, especially for fields of study such as services (more than 45%), humanities and arts (about 35%), and the agriculture and veterinary sector (close to 30%). These sectors account for a

relatively small share of total graduates, however, and so are probably of less concern than the social sciences, business and law sector (where 21% of young university graduates were overqualified) or the engineering and construction sector (where 14% were).

To collect data on the level of workers' skills and how these skills are utilized on the job, the OECD launched the Survey of Adult Skills within the Programme for the International Assessment of Adult Competencies (PIAAC). The PIAAC survey measures skills in literacy, numeracy and problem solving—skills that may not be reflected in the level of education.³⁵ Results for 2012 show above-average levels of literacy and numeracy skills in Sweden (figure 8.9). Literacy scores for the age group 16–24 were within the average range, however. And within the group of participating countries, Sweden had the largest difference in average literacy scores between immigrants and native speakers—and among the largest differences between tertiary graduates and people with up to a lower secondary education.

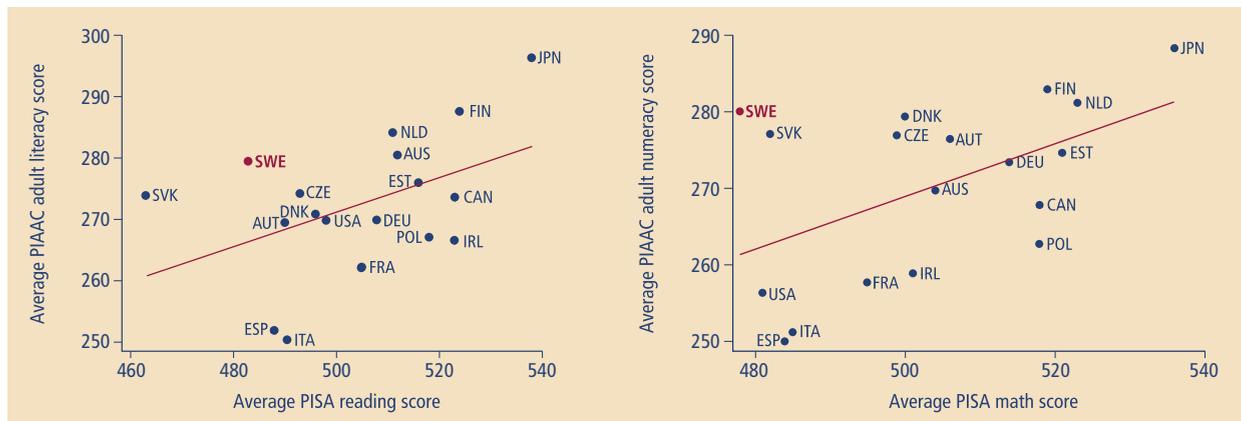
The PIAAC survey also collects information allowing assessment of education and skills mismatch.³⁶ According to the results for Sweden, the share of workers who report that their highest *qualifications*

FIGURE 8.9 Survey results show above-average adult literacy and numeracy skills in Sweden



Source: OECD, PIAAC 2012 results.

FIGURE 8.10 A strong correlation between average adult literacy and numeracy scores and corresponding average PISA scores in 2012



Source: OECD, PIAAC 2012 and PISA 2012 results.

exceed the qualifications that they deem necessary to get their job today is slightly less than 20%, below the average for participating countries. But the share of workers reporting that their qualifications are lower than would be required to get their job today exceeds 20%, well above the international average. At the same time, analysis of the *skills* mismatch on the basis of literacy shows that Sweden has a larger share of underskilled workers and a smaller share of overskilled workers than the international average.³⁷

The availability of new data on adult skills allows a comparison of the proficiency results for adults with those for ninth graders in countries participating in both the PISA and PIAAC studies (figure 8.10). Across countries, there is a strong positive correlation between adult literacy and PISA reading scores as well as between adult numeracy and PISA math scores. In Sweden, however, the differences between the competencies of adults (in both literacy and numeracy) and those of ninth graders are much larger than those in other countries.

FROM EDUCATION AND SKILLS DEVELOPMENT TO BOOSTING INNOVATION

Education and skills development contribute to business competitiveness and sustainable growth largely through their impact on innovation. Innovation is about

entrepreneurs using new ideas to improve productivity within an enterprise—including through product, process, managerial and marketing technologies. It requires skilled people who have both the ability and the incentives to continue learning throughout their tenure in a job. And it demands access to global knowledge to enable continuous global technology learning as well as incentives for experimentation and rapid scaling up. Because human capital is the foundation for all investments in innovation capabilities, education and continuous global technology learning play a paramount role in fostering innovation.

Sweden has been at the vanguard of innovation-driven growth, but there is room for improvement. In 2012 labor productivity in Sweden was only 89% of that in the United States.³⁸ Investments in knowledge-based capital accounted for more than a fifth of labor productivity growth in Sweden in 1995–2007.³⁹ But this share, while higher than that in Finland, is less than the share in the United States, where investments in knowledge capital accounted for a third of labor productivity growth over the same period.⁴⁰

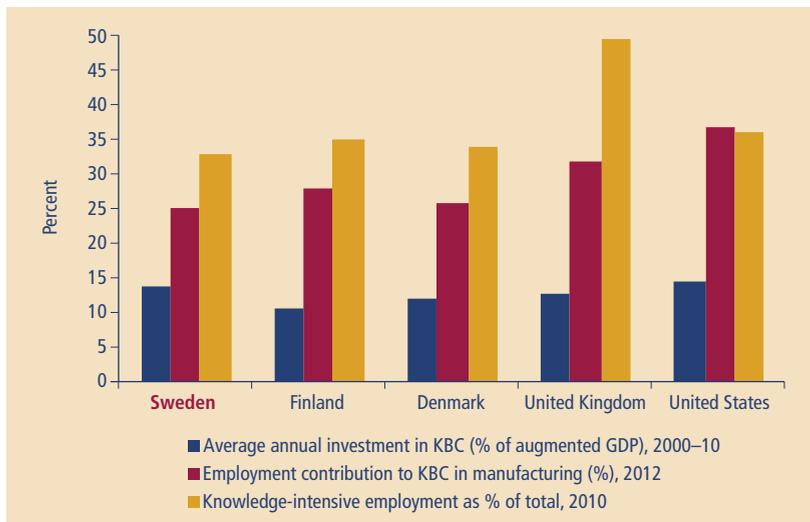
Investments in innovation capabilities vary substantially across countries (figure 8.11). Sweden's investment levels in knowledge-based capital are the highest in Europe. In 2000–10 these investments amounted to 14% of an augmented GDP measure a year on average, higher than

the levels in such comparator economies as the United Kingdom, Denmark and Finland. But Sweden's investment levels were lower than those of the United States, which averaged almost 15% of augmented GDP a year.⁴¹

The country appears to be lagging behind top performers in other areas as well. Sweden has the lowest level of employment contribution to knowledge-based capital in manufacturing among comparator countries, at 25%; the United States has the highest, at 37% (see figure 8.11). (This indicator measures the share of manufacturing employees who are in occupations that contribute most to the formation of knowledge-based capital—in particular, those directly contributing to R&D, design and software development and to firms' organizational know-how.) Sweden also ranks behind comparator countries in knowledge-intensive employment, with only 33% of the workforce in such employment (according to an International Labour Organization classification of employment that includes managers, professionals and technicians).

Differences across countries in the rate of investment in different types of innovation capabilities have implications for the competitiveness of both young emerging and large established enterprises. Swedish businesses are facing ever tougher global competition, with the number of top Swedish corporations recognized by objective measures as being

FIGURE 8.11 Investments in innovation capabilities vary widely across countries



Note: KBC = knowledge-based capital.

Source: Corrado and others 2013 (for investment in KBC); OECD 2013g (for employment contribution to KBC); Cornell University, INSEAD and WIPO 2013 (for knowledge-intensive employment).

among “the top 100 innovators” falling from 6 to 2 over the past 3 years.⁴² Only Ericsson and Sandvik have remained on the list since 2011, with Alfa Laval, Atlas Copco, Scania and Volvo displaced by businesses such as Taiwan Semiconductor (TSMC).

Not just individual Swedish companies but Sweden itself has fallen in rankings of innovation and competitiveness. Between 2010 and 2013 it fell from 1st place to 3rd in the ranking on the Innovation Capacity Index, largely because of drops in its ranking on 2 “pillars” of the index: regulatory and legal framework (from 11th place to 16th) and adoption and use of information and communication technologies (from 2nd place to 12th).⁴³ During the same period Sweden fell from 2nd place to 6th in the ranking on the World Economic Forum’s Global Competitiveness Index. Its fall in the ranking on this index occurred largely because of drops in rankings on 5 pillars: institutions (from 2nd place to 5th), infrastructure (from 10th place to 20th, with the biggest fall related to adoption and use of information and communication technologies—from 10th place to 48th in mobile telephone density), higher education and training (from 2nd place to 8th), goods market efficiency (from 5th place to 12th)

and business sophistication (from 2nd place to 7th).⁴⁴

Analysis of innovation indicators points to innovation challenges for Sweden in 3 areas relating to education and skills development where policy actions could improve competitiveness⁴⁵—by training people with entrepreneurial talent and increasing the attractiveness of starting new businesses so as to foster grassroots entrepreneurship,⁴⁶ by enhancing continuous global technology learning opportunities through internationalization and by supporting further managerial skills upgrading.

Training entrepreneurs and making new ventures more attractive

Sweden has a strong export-oriented business sector, with the top 10 firms each having a turnover of more than €10 billion in 2010.⁴⁷ The very success of Sweden’s top firms means dependency on relatively few large businesses. A business environment that makes it more attractive for entrepreneurs to allocate their talent to higher-risk start-ups could reduce this dependency and facilitate the growth of young transformational firms. To foster grassroots entrepreneurship, Sweden could consider policy actions in several areas.

One possible area is in entrepreneurship training and complementary support to facilitate patenting by young firms. In Sweden only 8% of patents filed in 2009–11 came from young firms (less than 5 years old), a substantially smaller share than in comparator countries (figure 8.12). The share of patents filed by young firms was almost twice as high in the United Kingdom (14%) and almost 3 times as high in the United States (22%) and Finland (23%).

Another is in tilting public R&D support toward smaller firms. In Sweden more than 80% of government-financed R&D support to the business sector goes to large businesses (with more than 250 employees). By contrast, Finland directs 48%, and Denmark 55%, of public R&D support to smaller firms (with less than 250 employees; see figure 8.12).

Yet another possible area for policy action is in reducing the costs of experimentation. Grassroots entrepreneurship will be attractive relative to employment in large, already successful businesses only if the cost of experimenting, learning from failure and starting up again is not too high—and if the full resale value of initially invested assets can be rapidly recovered (through efficient insolvency procedures) for redeployment in new ventures. As measured by the World Bank Group’s *Doing Business* project, the efficiency of Sweden’s insolvency regime lags behind those of comparators. Creditors can expect to recover 75 cents on the dollar through reorganization, liquidation or foreclosure in Sweden, compared with almost 89 cents in the United Kingdom and more than 90 cents in Finland (see figure 8.12).

Promoting continuous global technology learning

Swedish businesses need to operate in a learning environment that is as international as possible—so that they are aware of every incremental improvement to technology made by competitors and can rapidly introduce improvements before others do so. Creating such an environment means providing all businesses with opportunities to learn through open access to global technology flows—whether through trade in products, in capital

(including R&D-related inward and outward investment by international businesses), in ideas (including open innovation models) or in talent (including active participation in international innovation networks and research cooperation). Indicators relating to such learning opportunities suggest that Sweden could enhance opportunities to learn from foreign direct investment (FDI) inflows, from foreign intellectual property and from patents (figure 8.13).

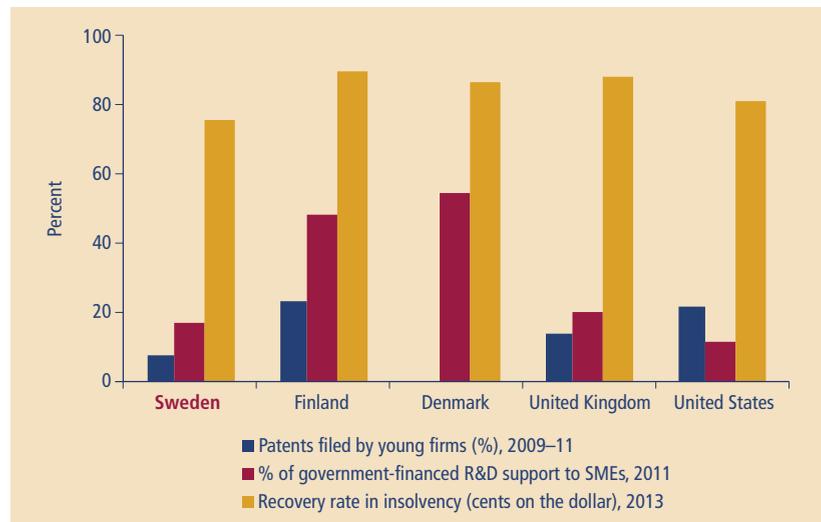
With net FDI inflows averaging 0.6% of GDP in 2010–12, Sweden lags in opportunities to learn from foreign investors compared with Finland and the United States, with net FDI inflows averaging roughly 1.5% of GDP—and even more so compared with the United Kingdom, with net FDI inflows averaging 2.1% of GDP. Sweden also lags in opportunities to learn from foreign intellectual property. Royalties, license fees and similar payments to nonresidents—which reflect learning opportunities from the use of patents, copyrights, trademarks, industrial processes and franchises—account for 3.2% of service imports in Sweden. This share is larger in all comparator countries except Denmark, and especially so in the United States, where these payments account for more than 8% of its significantly larger service imports. The extent to which domestic patents are sold or licensed is another indicator of the ease and extent of knowledge flows. Here too Sweden lags behind its comparators, with 8% of patents sold and 7% licensed.

Supporting further managerial skills upgrading

Supporting improvements in managerial quality through education could also have an important impact on innovation. Sweden lags behind comparator countries on some indicators of managerial quality, perhaps in part because of the growing business sophistication of knowledge workers in other countries and in part because of inadequate dissemination of structured management practices essential for consistent top-of-class performance.

To support the upgrading of managerial skills, Sweden could therefore consider efforts to enhance the business

FIGURE 8.12 What is the extent of grassroots entrepreneurship—and of support for it?

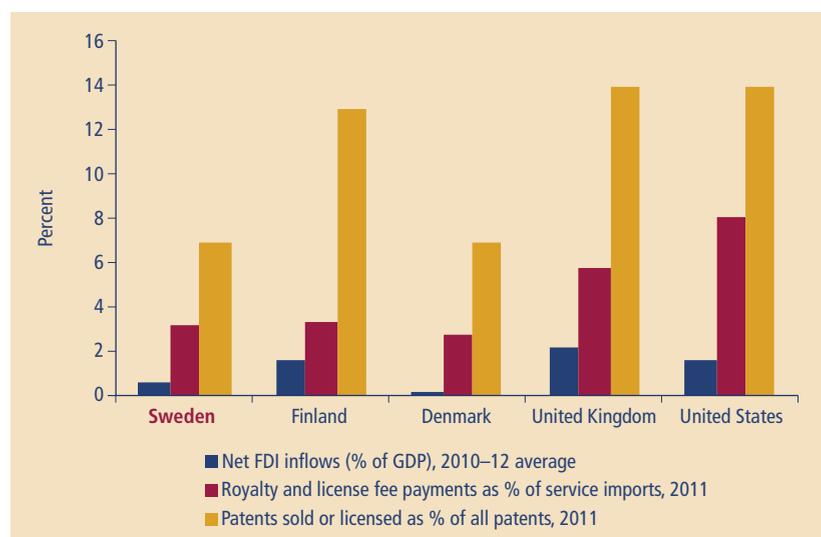


Note: SMEs = small and medium-size enterprises. No data on patents filed by young firms are available for Denmark. Source: OECD 2013g (for patents and SMEs receiving public R&D support); World Bank Group, *Doing Business* database, 2013 edition (for recovery rate in insolvency).

sophistication of its own knowledge workers. One indicator of knowledge workers' business sophistication included in the latest edition of the Global Innovation Index is a country's average score on the Graduate Management Admission

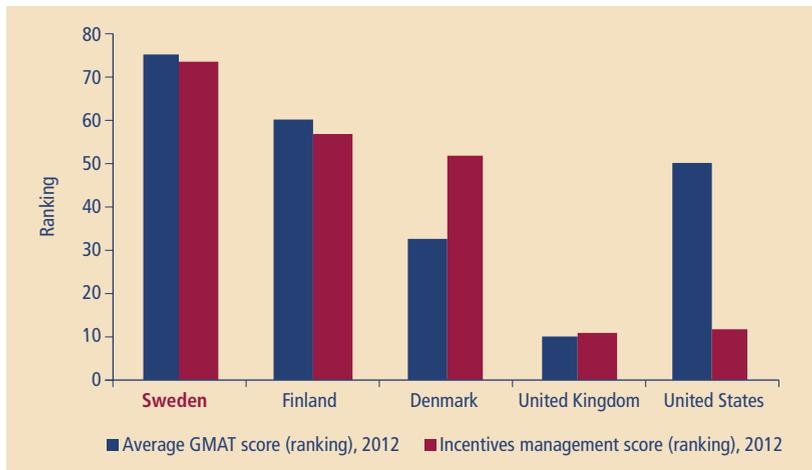
Test (GMAT).⁴⁸ This standardized test measures aptitude for academic success in graduate business studies—including English fluency, essential in today's globalized business world. Sweden's average score of 500 puts it in 76th place in

FIGURE 8.13 For Sweden, indicators of continuous global technology learning opportunities suggest room for growth



Source: World Bank, World Development Indicators database, 2013 edition (for FDI inflows); Cornell University, INSEAD and WIPO 2013 (for royalty and license fee payments); OECD 2013j (for patents).

FIGURE 8.14 Sweden ranks below comparators on measures of business and managerial aptitudes



Note: Lower rankings reflect better performance.

Source: Cornell University, INSEAD and WIPO 2013 (for GMAT score ranking); WEF 2013 (for incentives management score ranking).

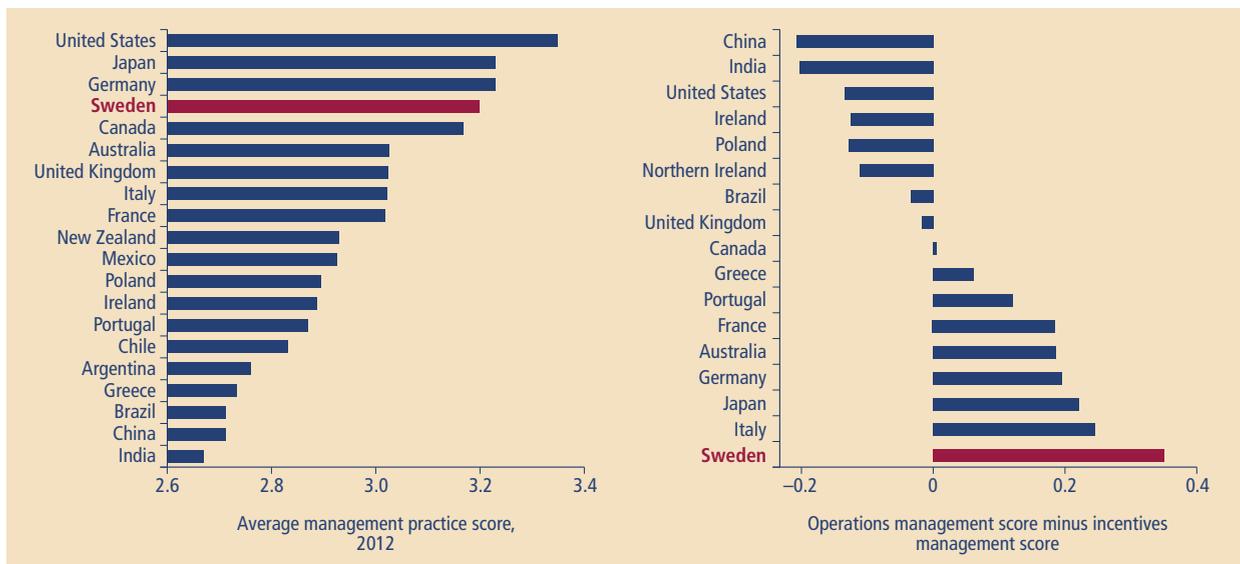
a ranking of 142 countries (figure 8.14). Its average score is more than 10% lower than that of Denmark (33rd in the ranking) and almost 20% lower than that of the United Kingdom (10th).

Sweden could also use education to encourage managers to link pay more closely with worker productivity. The perception of global businesspeople is that Sweden lags behind comparators in

the extent to which managers follow this practice. In a ranking of 148 countries on the perceived use of this management practice, Sweden is in 74th place, far below the United Kingdom (11th) and the United States (12th).⁴⁹

Across countries, businesses with more educated employees tend to follow more structured management practices for both operations management (performance monitoring and target setting) and incentives management (use of merit-based rather than seniority-based rewards). And businesses that employ these more structured management practices perform better, with higher rates of innovation, greater productivity and profitability, and faster employment growth. Among a sample of countries in which the use of such practices has been measured—through “management practice scores”—Sweden ranks 4th, behind the United States, Japan and Germany (no other Nordic country is in the sample; figure 8.15).⁵⁰ Sweden lags behind the United States largely because the best U.S. firms perform significantly better than the best Swedish firms. The scores also show that Sweden has by far the

FIGURE 8.15 Sweden could invest more in incentives-intensive managerial capital



Note: The left-hand chart shows each country's average score, for businesses across the country, on operations management (performance monitoring and target setting) and incentives management, on a scale of 1 (worst practice) to 5 (best practice). The right-hand chart shows the difference between each country's average scores on the 2 measures, with a positive value indicating that the country is relatively better at operations management and a negative value that it is relatively better at incentives management.

Source: Bloom, Sadun and Van Reenen 2012.

biggest relative advantage in operations management, while the United States, China and India are relatively better at incentives management. So Sweden may wish to focus especially on helping its top businesses make more effective use of incentives management.⁵¹

Finally, Sweden may wish to consider adding a managerial upgrading initiative to other, complementary policy actions aimed at “going from one to three strong engines of growth in the Swedish economy,” as a McKinsey report puts it—by stimulating productivity growth in service businesses and relevant public sector activities, including in hard-to-measure industries such as health care.⁵² According to recent research on management practices and the quality of health care, the adoption of more structured management practices by cardiac units in U.S. hospitals has been associated with improvements both in process of care and in rates of mortality from acute myocardial infarction.⁵³ Similar evidence comes from public hospitals in England. Improvements in their management quality (as measured by both higher operations and incentives management scores) is strongly correlated with better financial and clinical outcomes. And higher competition is positively correlated with management quality.⁵⁴

CONCLUSION

Among the education reforms undertaken by Sweden in recent decades, one of the most important was to introduce the voucher system giving students the freedom to choose between public and private schools—at no cost to their families. The consequent large increase in private enrollment was accompanied by a decline in the performance of ninth graders on international tests in reading, math and science. There is no evidence of a causal link between these two things, however. On the contrary, students at private schools have tended to have higher scores than those at public schools, though this gap narrowed in the latest results.

But the high variability in scores, especially between schools, suggests a need to do more to reduce differences between high- and low-performing schools—and

to ensure that every child has the same opportunity to attend a good school. One possible approach could be to create incentives for teachers from high-performing schools to spend time teaching at low-performing ones.⁵⁵ In addition, sharing more information about outcomes at individual schools could help students and their families make more informed choices.

The differences in performance between students with a Swedish background and those with an immigrant background need to be tackled as early as preschool age. Promoting the participation of immigrant children in preschool would take advantage of the positive effects of preschool attendance on reading skills. More effort is also needed to better integrate immigrant students who enter the school system at an older age.

Sweden's education outcomes have been deteriorating despite its high level of education spending. But evidence shows that not all spending is equal: increasing teachers' salary—and therefore their status—improves student performance more than spending on other education inputs (such as a low student-teacher ratio). Making the teaching profession more attractive could help improve outcomes across all levels of schooling. Making the profession more selective is also critical. Criteria based on measured (or otherwise demonstrated) skills could prove to be a useful complement to specific training requirements.

Other important concerns are the comparatively low percentage of tertiary students who proceed to graduation, and the comparatively high percentage of young people who are neither pursuing education nor working. In addition, compared with international averages, Sweden has a larger percentage of workers who are underqualified or underskilled for their job. And there is significant education-occupation mismatch in areas with large shares of the country's tertiary graduates, such as social sciences, law, engineering and construction.

Among the ways to help improve tertiary completion rates, the hardest to achieve would be a higher wage premium for tertiary education. But measures could

be taken to improve the quality of tertiary education. For example, supporting greater mobility of both students and faculty would increase the effectiveness of Sweden's research sector in attracting top researchers and in fostering productivity and innovation.

Sweden's investments in innovation capabilities, though sizable, still lag behind those of the United States. Policy actions in 3 areas relating to education and skills development could help boost innovation: First, expanding entrepreneurship education and increasing the attractiveness of entrepreneurial ventures so as to foster grassroots entrepreneurship—by providing entrepreneurship training and complementary support to facilitate patenting by young firms, tilting public R&D support toward smaller firms and reducing the costs of experimentation. Second, enhancing continuous global technology learning opportunities through internationalization—by expanding trade in products, capital, ideas and talent as embodied in such things as FDI inflows and intellectual property. And third, supporting the upgrading of managerial skills by enhancing the business sophistication of knowledge workers and promoting the practice of linking pay more closely with productivity. Promoting productivity-linked pay could in turn involve putting greater emphasis on incentives management practices, not only in manufacturing but also in services and in relevant public sector activities.

NOTES

This chapter has been written by Mark Andrew Dutz and Valeria Perotti.

1. OECD 2013c.
2. OECD 2013h.
3. The causal link between higher enrollment in private schools and overall student performance is difficult to assess because many factors are at play. On one hand public and private schools may differ in their effect on student performance; on the other hand different types of schools may attract different types of students (for example, private schools may attract students from more favorable socioeconomic backgrounds). Changes in students' distribution may also affect performance (for example, a more mixed environment may lead to higher overall performance).

4. Gronqvist and Vlachos 2008.
5. Cedefop 2009.
6. Cedefop ReferNet Sverige 2012. ReferNet is a network of institutions created by the European Centre for the Development of Vocational Training (Cedefop) in 2002 to provide information on national vocational education and training systems and policies in the EU member states, Iceland and Norway.
7. See Schweinhart and others (2005); Melhuish and others (2008); Schütz (2009); and Cascio and Whitmore Schanzenbach (2013).
8. OECD, *Education at a Glance 2011*.
9. OECD, *Education at a Glance 2012*.
10. One important caveat is that the PISA tests can measure only a few student skills (for example, they provide no information about creative skills, which may be very important for innovation). And they are inevitably affected by country-specific cultural aspects such as discipline, language complexity, social stigma related to school performance, and frequency of use of PISA-type tests in schools. But these tests have proved useful in comparing education outcomes across countries and in studying the relationship between the skills measured and labor market outcomes later in life.
11. Hanushek, Peterson and Woessmann 2012.
12. Weak readers are students classified below the 2nd of 6 levels of reading skills. They are defined as "able to perform some basic reading skills, but they have difficulties reading more complex texts, using the information in the texts to integrate and interpret the content of the texts as well as difficulties reflecting on and evaluating the texts" (Nordic Council of Ministers 2012, p. 24).
13. The student-teacher relationship is measured by a composite index based on a group of questions asking students about their interactions with teachers.
14. The PISA study presents an in-depth analysis of the differences in performance between public and private schools by taking into account differences in the PISA index of economic, social and cultural status. But this analysis is conducted only for the subject of specific focus in a given edition of PISA (science in 2006, reading in 2009 and mathematics in 2012). The difference in reading and science performance between public and private school students in Sweden was negative and still significant after taking into account the socioeconomic status of students only, but not significant after controlling for the status of both students and schools (see for example table IV.3.9 in OECD 2010b).
15. Böhlmark and Lindahl 2012.
16. OECD 2013h.
17. OECD 2011b.
18. Fredriksson and Öckert 2008; OECD 2010b.
19. The UNESCO definition of gross enrollment ratio is the number of pupils or students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to that level of education. For the tertiary level, the population used is the 5-year age group starting from the official secondary school graduation age.
20. OECD 2013c.
21. OECD 2013f.
22. Karlsson and Persson 2012. Elite authors are defined by Karlsson and Persson as "authors in a given field who have written at least five top-10% publications over a fifteen year period" (2012, p. 42). The data come from the publication database at the Swedish Research Council.
23. Manpower Group 2013.
24. Cerna 2012.
25. Svenskt Näringsliv 2011.
26. Cedefop ReferNet Sverige 2012.
27. OECD, *Education at a Glance 2011*.
28. Statistics Sweden 2011.
29. For a discussion of different measurement approaches, see for example Chevalier (2003); McGuinness (2006); Johansson and Katz (2007); and Leuven and Oosterbeek (2011).
30. According to standard human capital theory (Becker 1964), if workers are more educated they are also more productive and more highly remunerated. By contrast, the literature on job satisfaction claims that overeducation leads to frustration and therefore to lower productivity. An early study on the United States found negative effects of overeducation on productivity through lower job satisfaction (Rumberger 1987), while more recent studies have found a positive relationship between overeducation and productivity (Jones and others 2009; Kampelmann and Rycx 2012).
31. The study, by Korpi and Tählin (2009), tests 2 main hypotheses: "(a) that educational mismatch reflects human capital compensation rather than real mismatch, and (b) that educational mismatch is real but dissolves with time spent in the labour market, so that its impact on wages tends toward zero over a typical worker's career" (p. 183). The findings support neither of these hypotheses.
32. Nordin, Persson and Rooth 2010.
33. Houston 2005.
34. For further details on the Swedish housing market, see Hüfner and Lundgaard (2007); and OECD (2012b).
35. The PIAAC survey includes a computer-based skills assessment (or a paper- and pencil-based one if the respondent lacks adequate computer skills) and complements this information with socio-demographic background and a module on skills use (relating to cognitive, social, physical and learning skills). Results were published in October 2013.
36. As explained by the OECD (2013i, p.172), "the [PIAAC] survey asked workers whether they feel they 'have the skills to cope with more demanding duties than those they are required to perform in their current job' and whether they feel they 'need further training in order to cope well with their present duties'. To compute the OECD measure of skills mismatch, workers are classified as well-matched in a domain if their proficiency score in that domain is between the minimum and maximum score observed among workers who answered 'no' to both questions in the same occupation and country."
37. OECD 2013i.
38. OECD 2012a and updates.
39. Knowledge-based capital captures investments in the "soft" or intangible technologies of software and databases (digital capital); R&D, designs and intellectual property rights (intellectual capital); worker skills and management upgrading (managerial capital); branding and advertising (marketing capital); organizational change and new business models (organizational capital); and networking and peer-to-peer learning from value chains, consultants and other transmitters of global knowledge (collaboration capital).
40. Corrado and others 2013.
41. When expenditures on knowledge assets in an economy are correctly capitalized and treated as longer-lived investments rather than intermediate costs of production, the economy's investment rate and GDP are increased accordingly. For the United States, for example, including investments in the main types of knowledge-based capital would produce an augmented GDP measure for 2006 that is more than 10% larger than the conventional GDP measure for that year.
42. The criteria include volume of new patents (excluding "equivalents," when the same invention is subsequently filed in another country), success based on patents actually being granted and not just recorded as a published application, and global reach based on being registered with the Chinese, European, Japanese and U.S. patent offices (Thomson Reuters 2013).
43. See Lopez-Claros and Mata (2010).
44. See WEF (2010a, 2013).
45. The data underlying these 3 areas are based on innovation indicators on which Sweden lags behind one or more comparator countries. The presumed links between improvements in these indicators and the boosting of innovation in Sweden are hypotheses to spur debate among policy makers and not based on rigorous statistical tests of

- causality (because of lack of sufficient data for such tests).
46. The importance of facilitating broad-based entry of new businesses is emphasized elsewhere in this report. The focus here is on fostering the allocation of entrepreneurial talent to higher-risk start-up ventures rather than to existing large businesses.
 47. OECD 2013f.
 48. The Global Innovation Index is produced by Cornell University, INSEAD and WIPO (2013), which report that the GMAT is an important part of the admissions process for more than 5,600 graduate management programs in approximately 2,000 business schools worldwide.
 49. The ranking is based on subjective scoring, for 148 countries, in which 1 indicates that pay is not related to worker productivity and 7 that pay is strongly related to productivity (WEF 2013).
 50. Management scores, on a scale of 1 (worst practice) to 5 (best practice), are based on surveys of more than 7,500 firms and cover practices in 3 broad areas. For operations management, scores cover both performance monitoring (the collection of production information that allows companies to track what goes on inside their firm and use it for continuous improvement) and target setting (the extent to which companies are setting coherent and binding targets and measuring outcomes, together with taking the right actions if targets and outcomes are inconsistent). For incentives (or people) management, scores cover the extent to which companies are promoting and rewarding employees on the basis of merit, together with questions on the extent to which firms systematically hire and keep their best employees (Bloom, Sadun and Van Reenen 2012).
 51. The available data do not provide a robust story on what factors are causing Sweden's best firms to lag so much in managerial quality (Maloney and Sarrias 2013). This is an area that could benefit from further exploration before deciding on the best strategy for improving performance.
 52. McKinsey Sweden and McKinsey Global Institute 2012, p. 101. The McKinsey report points out that while Sweden's international manufacturing sector has been an indisputably strong engine of growth, with annual value added growth of 4.3% in 1993–2010, local services (accounting for about 40% of the Swedish economy) increased value added by only 2.3% a year and the public sector (accounting for about 30% of the economy) had no appreciable increase in value added over this period.
 53. McConnell and others 2013.
 54. Bloom and others 2011.
 55. As Andreas Schleicher, the OECD deputy director for education and skills, mentioned in a recent interview, Shanghai has improved its test score performance by linking teachers' career advancements to their effort in low-performing schools (Peter Wilby, "The OECD's Pisa Delivery Man," *Guardian*, November 25, 2013, <http://www.theguardian.com/education/2013/nov/26/pisa-international-student-tests-oecd>).

Annex

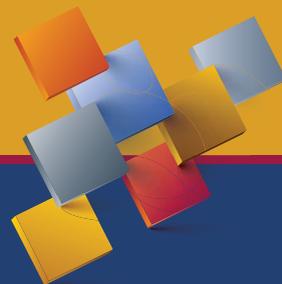


TABLE A.1 Rankings of OECD high-income economies in 4 areas measured by <i>Doing Business</i>							
Getting credit		Registering property		Protecting investors		Resolving insolvency	
Economy	Rank	Economy	Rank	Economy	Rank	Economy	Rank
United Kingdom	1	New Zealand	2	New Zealand	1	Japan	1
Australia	3	Denmark	7	Canada	4	Norway	2
New Zealand	3	Norway	10	Ireland	6	Finland	3
Poland	3	Slovak Republic	11	Israel	6	Netherlands	5
United States	3	Iceland	12	United States	6	Belgium	6
Ireland	13	Nordic average	14	United Kingdom	10	Nordic average	7
Israel	13	Estonia	15	Slovenia	14	United Kingdom	7
Korea, Rep.	13	Switzerland	16	Belgium	16	Ireland	8
Austria	28	United States	25	Japan	16	Canada	9
Canada	28	Finland	26	Norway	22	Denmark	10
Denmark	28	Portugal	30	Chile	34	Iceland	11
Germany	28	Italy	34	Denmark	34	New Zealand	12
Japan	28	Austria	36	Sweden	34	Germany	13
Switzerland	28	Czech Republic	37	G7 average	38	Austria	14
G7 average	36	Sweden	38	Nordic average	44	Korea, Rep.	15
Estonia	42	Australia	40	Iceland	52	United States	17
Finland	42	Netherlands	47	Italy	52	Australia	18
Iceland	42	Poland	54	Korea, Rep.	52	G7 average	18
Slovak Republic	42	Canada	55	Poland	52	Sweden	20
Sweden	42	Chile	55	Portugal	52	Spain	22
Nordic average	46	Ireland	57	OECD high-income average	56	Portugal	23
OECD high-income average	47	OECD high-income average	58	Australia	68	OECD high-income average	27
Chile	55	Spain	60	Estonia	68	Czech Republic	29
Czech Republic	55	Japan	66	Finland	68	Italy	33
France	55	G7 average	68	France	80	Israel	35
Spain	55	United Kingdom	68	Greece	80	Poland	37
Belgium	73	Korea, Rep.	75	Austria	98	Slovak Republic	38
Netherlands	73	Germany	81	Czech Republic	98	Slovenia	41
Norway	73	Slovenia	83	Germany	98	France	46
Greece	86	Luxembourg	124	Spain	98	Switzerland	47
Italy	109	France	149	Netherlands	115	Luxembourg	53
Portugal	109	Israel	151	Slovak Republic	115	Estonia	66
Slovenia	109	Greece	161	Luxembourg	128	Greece	87
Luxembourg	170	Belgium	180	Switzerland	170	Chile	102

Note: Nordic average excludes Sweden. Rankings refer to 189 economies around the world.

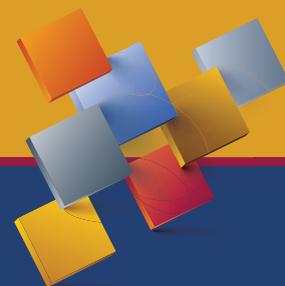
Source: World Bank Group, *Doing Business* database, 2013 edition.

TABLE A.2 Collection and distribution of selected types of credit information in OECD high-income economies			
Economy	Data collected and used from utilities and retailers?	Historical data distributed for more than 2 years?	
Australia	Yes	Yes	
Austria	Yes	Yes	
Belgium	Yes	No	
Canada	Yes	Yes	
Chile	Yes	No	
Czech Republic	No	Yes	
Denmark	Yes	No	
Estonia	Yes	Yes	
Finland	No	Yes	
France	No	Yes	
Germany	Yes	Yes	
Greece	No	Yes	
Iceland	Yes	No	
Ireland	No	Yes	
Israel	Yes	Yes	
Italy	No	Yes	
Japan	Yes	Yes	
Korea, Rep.	Yes	Yes	
Luxembourg	No	No	
Netherlands	Yes	Yes	
New Zealand	Yes	Yes	
Norway	No	Yes	
Poland	Yes	Yes	
Portugal	No	Yes	
Slovak Republic	No	Yes	
Slovenia	No	Yes	
Spain	Yes	No	
Sweden	No	No	
Switzerland	Yes	Yes	
United Kingdom	Yes	Yes	
United States	Yes	Yes	

Source: World Bank Group, *Doing Business* database, 2013 edition.

References

- Acs, Zoltan J., and Charlie Karlsson. 2002a. "Introduction to Institutions, Entrepreneurship and Firm Growth: From Sweden to the OECD." *Small Business Economics* 19 (3): 183-87.
- . 2002b. "Introduction to Institutions, Entrepreneurship and Firm Growth: The Case of Sweden." *Small Business Economics* 19 (2): 63-67.
- Agell, Jonas, Peter Englund and Jan Sodersten. 1996. "Tax Reform of the Century: The Swedish Experiment." *National Tax Journal* 49 (4): 643-64.
- Aguirre, DeAnne, Leila Hoteit, Christine Rupp and Karim Sabbagh. 2012. *Empowering the Third Billion: Women and the World of Work in 2012*. Booz & Company. http://www.booz.com/media/file/BoozCo_Empowering-the-Third-Billion_Briefing-Report.pdf.
- Ahmad, Nadim, and Anders N. Hoffmann. 2008. "A Framework for Addressing and Measuring Entrepreneurship." OECD Statistics Working Paper 2008/2, OECD Publishing, Paris.
- Andersson, Martin, and Steven Klepper. 2013. "Characteristics and Performance of New Firms and Spinoffs in Sweden." *Industrial and Corporate Change* 22 (1): 245-80.
- Andrews, Dan, Aida Caldera Sánchez and Åsa Johansson. 2011. "Housing Markets and Structural Policies in OECD Countries." OECD Economics Department Working Paper 836, OECD Publishing, Paris. doi:10.1787/5kgk8t2k9vf3-en.
- Anghel, Brindusa, Sara de la Rica and Juan J. Dolado. 2011. "The Effect of Public Sector Employment on Women's Labour Market Outcomes." Background paper for *World Development Report 2012*, World Bank, Washington, DC.
- Anxo, Dominique. 2012. "From One Crisis to Another: The Swedish Model in Turbulent Times Revisited." In *A Triumph of Failed Ideas: European Models of Capitalism in the Crisis*, edited by Steffen Lehndorff, 27-40. Brussels: European Trade Union Institute.
- Ardagna, Silvia, and Annamaria Lusardi. 2008. "Where Does Regulation Hurt? Evidence from New Businesses across Countries." Working Paper 14747, Centre for Economic Policy Research, London.
- Ardic Alper, Oya Pinar, and Martin Hommes. 2013. "Access to Credit among Micro, Small, and Medium Enterprises." IFC Advisory Services: Access to Finance, International Finance Corporation, Washington, DC.
- Audretsch, David B., and Michael Fritsch. 2003. "Linking Entrepreneurship to Growth: The Case of West Germany." *Industry and Innovation* 10 (1): 65-73.
- Audretsch, David B., and Max Keilbach. 2004. "Entrepreneurship and Regional Growth: An Evolutionary Interpretation." *Journal of Evolutionary Economics* 14 (5): 605-16.
- Audretsch, David B., and Albert N. Link. 2012. "Entrepreneurship and Innovation: Public Policy Frameworks." *Journal of Technology Transfer* 37 (1): 1-17.
- Bandick, Roger, and Par Hansson. 2009. "Inward FDI and Demand for Skills in Manufacturing Firms in Sweden." *Review of World Economics* 145 (1): 111-31.
- Barrios, Salvador, Harry Huizinga, Luc Laeven and Gaëtan Nicodème. 2009. "International Taxation and Multinational Firm Location Decisions." Taxation Papers, Directorate General for Taxation and Customs Union, European Commission, Brussels.



- http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_papers/taxation_paper_16_en.pdf.
- Bayard, Kimberly, Judith Hellerstein, David Neumark and Kenneth Troske. 2003. "New Evidence on Sex Segregation and Sex Differences in Wages from Matched Employee-Employer Data." *Journal of Labor Economics* 21 (4): 887-922.
- Becker, Gary S. 1964. *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education*. New York: Columbia University Press.
- Bell, Linda A. 1997. "The Impact of Minimum Wages in Mexico and Colombia." *Journal of Economics* 15 (3): 103-35.
- Besley, Tim, and Maitreesh Ghatak. 2009. "Property Rights and Economic Development." In *Handbook of Development Economics*, vol. 5, edited by Dani Rodrik and Mark Rosenzweig. Amsterdam: Elsevier.
- Bettio, F., and A. Verashchagina. 2009. *Gender Segregation in the Labour Market: Root Causes, Implications and Policy Responses in the EU*. Luxembourg: Publications Office of the European Union.
- Bjuggren, Carl Magnus. 2013. "The Effect of Employment Protection Rules on Firm Productivity—A Natural Experiment." HUI Working Paper 82, HUI Research, Stockholm.
- Blackburn, Robert A., and Michael T. Schaper, eds. 2012. *Government, SMEs and Entrepreneurship Development: Policy, Practice and Challenges*. Farnham, U.K.: Gower.
- Blau, Francine D., and Lawrence M. Kahn. 2013. "Female Labor Supply: Why Is the US Falling Behind?" NBER Working Paper 18702, National Bureau of Economic Research, Cambridge, MA.
- Bloom, Nicholas, Carol Propper, Stephan Seiler and John Van Reenen. 2011. "The Impact of Competition on Management Quality: Evidence from Public Hospitals." Department of Economics, Stanford University, Palo Alto, CA. http://www.stanford.edu/~nbloom/Hospitals_2011.pdf.
- Bloom, Nicholas, Raffaella Sadun and John Van Reenen. 2012. "Management as a Technology?" Department of Economics, Stanford University, Palo Alto, CA. <http://www.stanford.edu/~nbloom/MAT.pdf>.
- Boeri, Tito, and Pietro Garibaldi. 2007. "Two Tier Reforms of Employment Protection: A Honeymoon Effect?" *Economic Journal* 117 (521): 357-85.
- Boeri, Tito, Brooke Helppie and Mario Macis. 2008. "Labor Regulations in Developing Countries: A Review of the Evidence and Directions for Future Research." Social Protection Discussion Paper 0833, World Bank, Washington, DC.
- Böhlmark, Anders, and Mikael Lindahl. 2012. "Independent Schools and Long-Run Educational Outcomes—Evidence from Sweden's Large Scale Voucher Reform." Working Paper 2012:19, Institute for Evaluation of Labour Market and Education Policy, Uppsala, Sweden.
- Booth, Richard A. 2005. "Capital Requirements in United States Corporation Law." University of Maryland Legal Studies Research Paper 2005-64, University of Maryland School of Law, Baltimore.
- Botero, Juan, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Shleifer. 2004. "The Regulation of Labor." *Quarterly Journal of Economics* 119 (4): 1339-82.
- Brossard, Olivier, Stephanie Lavigne and Mustafa Erdem Sakinc. 2013. "Ownership Structures and R&D in Europe: The Good Institutional Investors, The Bad and Ugly Impatient Shareholders." *Industrial and Corporate Change* 22 (4): 1031-68.
- Bruhn, Miriam. 2011. "License to Sell: The Effect of Business Registration Reform on Entrepreneurial Activity in Mexico." *Review of Economics and Statistics* 93 (1): 382-86.
- . 2013. "A Tale of Two Species: Revisiting the Effect of Registration Reform on Informal Business Owners in Mexico." *Journal of Development Economics* 103: 275-83.
- Bruhn, Miriam, and David McKenzie. 2013. "Entry Regulation and Formalization of Microenterprises in Developing Countries." Policy Research Working Paper 6507, World Bank, Washington, DC.
- Busck, Anne G., Marjan C. Hidding, Søren B. P. Kristensen, Christer Persson and Søren Præsthholm. 2008. "Managing Rurban Landscapes in the Netherlands, Denmark and Sweden: Comparing Planning Systems and Instruments in Three Different Contexts." *Danish Journal of Geography (Geografisk Tidsskrift)* 108 (2): 1-16.
- Busse, Matthias, and José Luis Groizard. 2008. "Foreign Direct Investment, Regulations and Growth." *World Economy* 31 (7): 861-86.
- Calcagnini, Giorgio, and Ilario Favaretto, eds. 2012. *Small Businesses in the Aftermath of the Crisis: International Analyses and Policies*. New York: Springer.
- Carneiro, Francisco Galrao. 2004. "Are Minimum Wages to Blame for Informality in the Labor Market?" *Empirica* 31: 295-306.
- Cascio, Elizabeth U., and Diane Whitmore Schanzenbach. 2013. "The Impacts of Expanding Access to High-Quality Preschool Education." Final conference draft to be presented at the Fall 2013 Brookings Panel on Economic Activity, Washington, DC, September 19-20, 2013. <http://www.brookings.edu/~media/Projects/BPEA/Fall%202013/2013b%20cascio%20preschool%20education.pdf>.
- Cedefop (European Centre for the Development of Vocational Training). 2009. *Vocational Education and Training in Sweden: Short Description*. Luxembourg: Publications Office of the European Union.
- Cedefop ReferNet Sverige. 2012. *VET in Europe—Sweden Country Report*. Luxembourg: Publications Office of the European Union.
- Cerna, Lucie. 2012. "Sweden." In *Labour Shortages and Migration Policy*, edited by Anna Platonova and Giuliana Urso. Brussels: International Organization for Migration.
- Che Azmi, Anna, and Yusniza Kamarulzaman. 2010. "Adoption of Tax E-filing: A Conceptual Paper." *African Journal of Business Management* 4 (5): 599-603.
- Chevalier, Arnaud. 2003. "Measuring Over-education." *Economica* 70 (3): 509-31.
- Copenhagen Economics. 2007. "Study on Reduced VAT Applied to Goods and Services in the Member States of the European Union." Taxation Papers, Directorate General for Taxation and Customs Union, European Commission, Brussels. http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/how_vat_works/rates/study_reduced_vat.pdf.

- Cornell University, INSEAD and WIPO (World Intellectual Property Organization). 2013. *The Global Innovation Index 2013: The Local Dynamics of Innovation*. Geneva; Ithaca, NY; and Fontainebleau, France.
- Corrado, Carol, Jonathan Haskel, Cecilia Jona-Lasinio and Massimiliano Iommi. 2013. "Innovation and Intangible Investment in Europe, Japan and the U.S." Discussion Paper 2013/1, Business School, Imperial College London.
- Corroon, Meghan, and Elizabeth Stewart. 2010. *Global Youth Employment: An Overview of Need and Interventions*. Ikatu International.
- Crain, Nicole V., and W. Mark Crain. 2010. "The Impact of Regulatory Costs on Small Firms." Small Business Research Summary 371, Office of Advocacy, U.S. Small Business Administration, Washington, DC.
- Cummings, Jonathan, James Manyika, Lenny Mendonca, Ezra Greenberg, Steven Aronowits, Rohit Chopra, Katy Elkin, Sreenivas Ramaswamy and Jimmy Soni. 2010. "Growth and Competitiveness in the United States: The Role of Its Multinational Companies." McKinsey Global Institute. http://www.mckinsey.com/insights/americas/growth_and_competitiveness_in_us.
- Datta Gupta, Nabanita, and Donna Rothstein. 2001. "The Impact of Worker and Establishment-Level Characteristics on Male-Female Wage Differentials: Evidence from Danish Matched Employee-Employer Data." CLS Working Paper, Centre for Labour Market and Social Research, Aarhus School of Business, University of Aarhus, Denmark.
- Daude, Christian, and Ernesto Stein. 2007. "The Quality of Institutions and Foreign Direct Investment." *Economics & Politics* 19 (3): 317-44.
- Daunfeldt, Sven-Olov, Niklas Elert and Dan Johansson. Forthcoming. "The Economic Contribution of High-Growth Firms: Do Policy Implications Depend on the Choice of Growth Indicator?" *Journal of Industry, Competition and Trade*.
- Davis, Steven J., and Magnus Henrekson. 2004. "Tax Effects on Work Activity, Industry Mix and Shadow Economy Size: Evidence from Rich-Country Comparisons." NBER Working Paper 10509, National Bureau of Economic Research, Cambridge, MA.
- Deiningner, Klaus. 2003. *Land Policies for Growth and Poverty Reduction*. World Bank Policy Research Report. New York: Oxford University Press.
- Deloitte. 2013. *Women in the Boardroom: A Global Perspective*. http://deloitte.wsj.com/riskandcompliance/files/2013/05/Women_boardroom.pdf.
- De Mooij, Ruud A., and Sjef Ederveen. 2008. "Corporate Tax Elasticities: A Reader's Guide to Empirical Findings." *Oxford Review of Economic Policy* 24 (4): 680-97.
- Deschacht, Nick. 2013. "Working Hours and Women's Careers: Decomposing the Gender Promotion Gap." Paper presented at the 25th Annual Conference of the European Association of Labour Economists, Turin, September 19-21. http://www.eale.nl/conference2013/program/Parallel%20session%20A/add214674_AeR5f9nLyO.pdf.
- Djankov, Simeon, Tim Ganser, Caralee McLeish, Rita Ramalho and Andrei Shleifer. 2010. "The Effect of Corporate Taxes on Investment and Entrepreneurship." *American Economic Journal: Macroeconomics* 2 (3): 31-64.
- Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Shleifer. 2002. "The Regulation of Entry." *Quarterly Journal of Economics* 117 (1): 1-37.
- . 2008. "The Law and Economics of Self-Dealing." *Journal of Financial Economics* 88 (3): 430-65.
- Djankov, Simeon, and Rita Ramalho. 2009. "Employment Laws in Developing Countries." *Journal of Comparative Economics* 37 (1): 3-13.
- Dolenc, Primož, and Suzana Laporšek. 2010. "Tax Wedge on Labour and Its Effect on Employment Growth in the European Union." *Prague Economic Papers*, no. 4: 344-58.
- Dower, Paul Castañeda, and Elizabeth Potamites. 2012. "Signaling Credit-Worthiness: Land Titles, Banking Practices and Formal Credit in Indonesia." Working Paper 0186, Center for Economic and Financial Research (CEFIR), Moscow.
- Dreher, Axel, and Martin Gassebner. 2011. "Greasing the Wheels? The Impact of Regulations and Corruption on Firm Entry." *Public Choice* 155 (3-4): 413-32.
- Duxbury, Charles. 2014. "Sweden's Riksbank—2014 Outlook." *Real Time Economics* (blog), *Wall Street Journal*, January 5. <http://blogs.wsj.com/economics/2014/01/05/swedens-riksbank-2014-outlook/>.
- Economist*. 2012. "Sweden: The New Model—A Bit More Unequal, A Lot More Efficient." October 13. <http://www.economist.com/node/21564412>.
- Economist Intelligence Unit. 2013. "Country Commerce—Sweden." London.
- Egowan, Ritah. 2011. "Assessing E-services from a User Perspective: A Study of the Swedish Electronic Tax Declaration." Swedish Business School, Örebro University.
- Elborgh-Woytek, Katrin, Monique Newiak, Kalpana Kochhar, Stefania Fabrizio, Kangni Kpodar, Philippe Wingender, Benedict Clements and Gerd Schwartz. 2013. "Women, Work, and the Economy: Macroeconomic Gains from Gender Equity." IMF Staff Discussion Note 13/10, International Monetary Fund, Washington, DC.
- Engwall, Lars, Rolf Marquardt, Torben Pedersen and Adrian E. Tschoegl. 2001. "Foreign Bank Penetration of Newly Opened Markets in the Nordic Countries." *Journal of International Financial Markets, Institutions and Money* 11 (1): 53-63.
- Erixon, Lennart. 2010. "The Rehn-Meidner Model in Sweden: Its Rise, Challenges and Survival." *Journal of Economic Issues* 44 (3): 677-715.
- Ernst & Young. 2010. *2010 European Attractiveness Survey*. <http://www.ey.com/GL/en/Issues/Business-environment/2010-European-attractiveness-survey---The-reality-of-FDI-in-Europe---Investment-plans>.
- European Commission. 2004. "European Tax Survey." Working Paper 3, Directorate General for Taxation and Customs Union, Brussels.
- . 2010. *Monitoring Tax Revenues and Tax Reforms in EU Member States 2010*. European Economy 6/2010. Brussels: European Commission, Directorate General for Economic and Financial Affairs. http://ec.europa.eu/economy_finance/publications/european_economy/2010/pdf/ee-2010-6_en.pdf.

- . 2013a. "Assessment of the 2013 National Reform Programme and Convergence Programme for Sweden." Commission Staff Working Document, Brussels. http://ec.europa.eu/europe2020/pdf/nd/swd2013_sweden_en.pdf.
- . 2013b. "Enterprise and Industry SBA Factsheet 2013: Sweden." Brussels. http://ec.europa.eu/enterprise/policies/sme/facts-figures/analysis/performance-review/files/countries-sheets/2013/sweden_en.pdf.
- . 2013c. "Europe 2020 in Sweden: Taxation." In *Key Areas: Comparing Member States' Performances, Fiscal Policy, Long-Term Sustainability and Taxation*. Brussels. http://ec.europa.eu/europe2020/pdf/themes/03_taxation.pdf.
- . 2013d. "Tax Reforms in EU Member States 2013: Tax Policy Challenges for Economic Growth and Fiscal Sustainability." Working Paper 38-2013, Directorate General for Taxation and Customs Union and Directorate General for Economic and Financial Affairs, Brussels.
- Eurostat. 2013. *Taxation Trends in the European Union: Data for the EU Member States, Iceland and Norway*. Brussels: European Commission, Directorate General for Taxation and Customs Union. http://ec.europa.eu/taxation_customs/resources/documents/taxation/gen_info/economic_analysis/tax_structures/2013/report.pdf.
- Flabbi, Lucas. 2011. "Gender Differentials in Education, Career Choices and Labor Market Outcomes on a Sample of OECD Countries." Background paper for *World Development Report 2012*, World Bank, Washington, DC.
- Fonseca, Raquel, Paloma Lopez-Garcia and Christopher A. Pissarides. 2001. "Entrepreneurship, Start-Up Costs and Employment." *European Economic Review* 45 (4): 692-705.
- Foreign Investment Advisory Service. 2007. "South Africa—Tax Compliance Burden for Small Businesses: A Survey of Tax Practitioners." Investment Climate Advisory Service (FIAS), World Bank Group, Washington, DC.
- Foubert, Petra. 2010. "The Gender Wage Gap in Europe from a Legal Perspective." Directorate General for Employment, Social Affairs and Equal Opportunities, European Commission, Brussels.
- Fredriksson, Peter, and Björn Öckert. 2008. "Resources and Student Achievement—Evidence from a Swedish Policy Reform." *Scandinavian Journal of Economics* 110 (2): 277-96.
- Ganotakis, Panagiotis, and James H. Love. 2012. "The Innovation Value Chain in New Technology-Based Firms: Evidence from the U.K." *Journal of Product Innovation Management* 29 (5): 839-60.
- Giannetti, Caterina, and Nicola Jentzsch. 2013. "Credit Reporting, Financial Intermediation and Identification Systems: International Evidence." *Journal of International Money and Finance* 33: 60-80.
- Giné, Xavier, and Inessa Love. 2010. "Do Reorganization Costs Matter for Efficiency? Evidence from a Bankruptcy Reform in Colombia." *Journal of Law and Economics* 53 (4): 833-64.
- Golub, Stephen S., and Qing Ling. 2006. "Measures of Restrictions on Inward Foreign Direct Investment in the Service Sector for Developing Countries." Department of Economics, Swarthmore College, Swarthmore, PA. <http://www.swarthmore.edu/SocSci/sgolub1/UNCTAD%20Restrictions%20paper5.pdf>.
- Governance and Social Development Resource Centre. 2013. "Helpdesk Research Report: The Influence of International Commercial and Investment Law and Procedure on Foreign Investment and Economic Development/Growth." <http://www.gsdr.org/go/display&type=Helpdesk&id=881>.
- Gronqvist, Erik, and Jonas Vlachos. 2008. "One Size Fits All? The Effects of Teacher Cognitive and Non-cognitive Abilities on Student Achievement." IFAU Working Paper 2008:25, Institute for Labour Market Policy Evaluation (IFAU), Uppsala, Sweden.
- Gwartney, James, Robert Lawson and Joshua Hall. 2013. Economic Freedom Dataset, published in *Economic Freedom of the World: 2013 Annual Report*. Vancouver, Canada: Fraser Institute. http://www.freetheworld.com/datasets_efw.html.
- Hafer, R. W. 2013. "Entrepreneurship and State Economic Growth." *Journal of Entrepreneurship and Public Policy* 2 (1): 67-79.
- Hansen, Harbo N. 2011. "Limiting Long-Term Unemployment and Non-participation in Sweden." OECD Economics Department Working Paper 842, OECD Publishing, Paris.
- Hansen, Henrik, and John Rand. 2006. "On the Causal Links between FDI and Growth in Developing Countries." *World Economy* 29 (1): 21-41.
- Hansson, Åsa. 2007. "Taxpayers' Responsiveness to Tax Rate Changes and Implications for the Cost of Taxation in Sweden." *International Tax and Public Finance* 14 (5): 563-82.
- Hanushek, Eric A., Paul E. Peterson and Ludger Woessmann. 2012. "Achievement Growth: International and US State Trends in Student Performance." PEPG Report 12-03, Harvard's Program on Education Policy and Governance & Education Next, Taubman Center for State and Local Government, Harvard Kennedy School, Cambridge, MA.
- Haselmann, Rainer, Katharina Pistor and Vikrant Vig. 2010. "How Law Affects Lending." *Review of Financial Studies* 23 (2): 549-80.
- Heady, Christopher, Åsa Johansson, Jens Arnold, Bert Brys and Laura Vartia. 2009. "Tax Policy for Economic Recovery and Growth." Discussion Paper KDPE 0925, School of Economics, University of Kent. <http://www.kent.ac.uk/economics/documents/research/papers/2009/0925.pdf>.
- Hedin, Karin, Eric Clark, Emma Lundholm and Gunnar Malmberg. 2011. "Neoliberalization of Housing in Sweden: Gentrification, Filtering, and Social Polarization." *Annals of the Association of American Geographers* 102 (2): 443-63. doi:10.1080/00045608.2011.620508.
- Heine, Dirk, John Norregaard and Ian W. H. Parry. 2012. "Environmental Tax Reform: Principles from Theory and Practice to Date." IMF Working Paper 12/180, International Monetary Fund, Washington, DC. <http://www.imf.org/external/pubs/ft/wp/2012/wp12180.pdf>.
- Henrekson, Magnus, and Nathan Rosenberg. 2001. "Designing Efficient Institutions for Science-Based Entrepreneurship: Lesson from the US and Sweden." *Journal of Technology Transfer* 26 (3): 207-31.

- Henrekson, Magnus, and Mikael Stenkula. 2010. "Entrepreneurship and Public Policy." In *Handbook of Entrepreneurship Research*, edited by Zoltan J. Acs and David B. Audretsch, 595-637. New York: Springer.
- Hentilä, Helka-Liisa, and Leena Soudunsaari. 2008. "Land Use Planning Systems and Practices: Oulu-Skanderborg-Umeå." InnoUrba Project, Department of Architecture, Planning and Urban Design, University of Oulu, Finland.
- Heritage Foundation. 2013. *2013 Index of Economic Freedom*. Washington, DC: Heritage Foundation.
- Hibbs, Douglas A., and Violeta Piculescu. 2010. "Tax Toleration and Tax Compliance: How Government Affects the Propensity of Firms to Enter the Unofficial Economy." *American Journal of Political Science* 54 (1): 18-33.
- Holm, Ulf, Anders Malmberg and Örjan Sölvell. 2003. "Subsidiary Impact on Host-Country Economies: The Case of Foreign-Owned Subsidiaries Attracting Investment into Sweden." *Journal of Economic Geography* 3 (4): 389-408.
- Hopenhayn, Hugo, and Richard Rogerson. 1993. "Job Turnover and Policy Evaluation: A General Equilibrium Analysis." *Journal of Political Economy* 101 (5): 915-38.
- Hornberger, Kusi, Joseph Battat and Peter Kusek. 2011. "Attracting FDI: How Much Does Investment Climate Matter?" Viewpoint Note 327, Financial and Private Sector Development Vice Presidency, World Bank Group, Washington, DC.
- Hornuf, Lars, Horst G. M. Eidenmueller, Andreas Engert and Reiner Braun. 2011. "Does Charter Competition Foster Entrepreneurship? A Difference-in-Difference Approach to European Company Law Reforms." ECGI Finance Working Paper 308/2011, European Corporate Governance Institute (ECGI), Brussels.
- Houston, D. 2005. "Employability, Skills Mismatch and Spatial Mismatch in Metropolitan Labour Markets." *Urban Studies* 42 (2): 221-43.
- Houston, Joel, Chen Lin, Ping Lin and Yue Ma. 2010. "Creditor Rights, Information Sharing, and Bank Risk Taking." *Journal of Financial Economics* 96 (3): 485-512.
- Hüfner, Felix, and Jens Lundsgaard. 2007. "The Swedish Housing Market: Better Allocation via Less Regulation." OECD Economics Department Working Paper 559, OECD Publishing, Paris.
- IFC (International Finance Corporation). 2013. "IFC and Small and Medium Enterprises." Washington, DC. http://www.ifc.org/wps/wcm/connect/a16f4f004f36e8539c-3cde032730e94e/AM2013_IFC_Issue_Brief_SMEs.pdf?MOD=AJPERES.
- ILO (International Labour Organization). 2013a. *Global Employment Trends for Youth 2013: A Generation at Risk*. Geneva: ILO.
- . 2013b. *Global Employment Trends 2013: Recovering from a Second Jobs Dip*. Geneva: ILO.
- Imam, Patrick A., and Jacob F. Davina. 2007. "Effect of Corruption on Tax Revenues in the Middle East." IMF Working Paper 07/270, International Monetary Fund, Washington, DC.
- IMF (International Monetary Fund). 2009. *Balance of Payments and International Investment Position Manual*. 6th edition. Washington, DC: IMF. <http://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf>.
- . 2012. "Sweden: Staff Report for the 2012 Article IV Consultation." IMF Country Report 12/154, IMF, Washington, DC. <http://www.imf.org/external/pubs/ft/scr/2012/cr12154.pdf>.
- . 2013a. "Singapore: Staff Report for the 2013 Article IV Consultation." IMF Country Report 13/328, IMF, Washington, DC. <http://www.imf.org/external/pubs/ft/scr/2013/cr13328.pdf>.
- . 2013b. "Sweden: Staff Report for the 2013 Article IV Consultation." IMF Country Report 13/276, IMF, Washington, DC. <http://www.imf.org/external/pubs/ft/scr/2013/cr13276.pdf>.
- Ivarsson, Inge, and Thommy Jonsson. 2003. "Local Technological Competence and Asset-Seeking FDI: An Empirical Study of Manufacturing and Wholesale Affiliates in Sweden." *International Business Review* 12 (3): 369-86.
- James, Sebastian. 2009. *A Handbook for Tax Simplification*. Washington, DC: International Finance Corporation. Available at <http://ssrn.com/abstract=1535499>.
- Javorcik, Beata. 2004. "Does Foreign Direct Investment Increase the Productivity of Domestic Firms? In Search of Spillovers through Backward Linkages." *American Economic Review* 94 (3): 605-27.
- . 2010. "Foreign Direct Investment and International Technology Transfer." *Encyclopedia of Financial Globalization*. Available at <http://www.chch.ox.ac.uk/sites/default/files/Javorcik.pdf>.
- Jienwatcharamongkhol, Viroj, and Mohammad H. Tavassoli. 2012. "Bridging Firm's Innovation, Productivity and Export: An Analysis Using Swedish CIS Data." Centre for Entrepreneurship and Spatial Economics, Jönköping International Business School, Sweden; and School of Management, Blekinge Institute of Technology, Karlskrona, Sweden.
- Johansson, Börje, and Hans Lööf. 2011. "FDI Inflows to Sweden: Consequences for Innovation and Renewal." In *New Directions in Regional Economic Development: The Role of Entrepreneurship Theory and Methods, Practice and Policy*, edited by Sameeksha Desai, Peter Nijkamp and Roger R. Stough. Cheltenham, U.K.: Edward Elgar.
- Johansson, Elly-Ann. 2010. "The Effect of Own and Spousal Parental Leave on Earnings." Working Paper 2010:4, Institute for Labor Market Policy Evaluation, Uppsala, Sweden.
- Johansson, Mats, and Katarina Katz. 2007. "Wage Differences between Women and Men in Sweden: The Impact of Skill Mismatch." Working Paper 2007:13, Institute for Labour Market Policy Evaluation, Uppsala, Sweden.
- John, Kose, Lubomir Litov and Bernard Yeung. 2008. "Corporate Governance and Risk-Taking." *Journal of Finance* 53 (4): 1679-728.
- Jones, Melanie K., Richard J. Jones, Paul L. Latreille and Peter J. Sloane. 2009. "Training, Job Satisfaction, and Workplace Performance in Britain: Evidence from WERS 2004." In "Training and Job Insecurity," special issue, *Labour* 23 (s1): 139-75.
- Jones, Patricia. 1997. "The Impact of Minimum Wage Legislation in Developing Countries Where Coverage Is Incomplete." Working Paper Series 98-2, Centre for the Study of African Economies, Department of Economics, Oxford University.

- Jütting, Johannes, Jante Parlevliet and Theodora Xenogiani. 2008. "Informal Employment Re-loaded." OECD Development Centre Working Paper 266, OECD Publishing, Paris.
- Kampelmann, Stephan, and François Rycx. 2012. "The Impact of Educational Mismatch on Firm Productivity: Evidence from Linked Panel Data." *Economics of Education Review* 31: 918-21.
- Kaplan, David. 2009. "Job Creation and Labor Reform in Latin America." *Journal of Comparative Economics* 37 (1): 91-105.
- Kaplan, David, Eduardo Piedra and Enrique Seira. 2011. "Entry Regulation and Business Start-Ups: Evidence from Mexico." *Journal of Development Economics* 95: 1501-15.
- Karlsson, Staffan, and Olle Persson. 2012. "The Swedish Production of Highly Cited Papers." Vetenskapsrådets Lilla Rapportserie, 5, Vetenskapsrådets, Stockholm. http://www.cm.se/webbshop_vr/pdfer/2012_05L.pdf.
- Karpaty, Patrik, and Andreas Poldahl. 2007. "The Determinants of FDI Flows: Evidence from Swedish Manufacturing and Service Sector." Örebro, Sweden. Available at <http://www.snee.org/filer/papers/339.pdf>.
- Ketels, Christian H. M. 2012. "Sweden's Position in the Global Economy." Globaliseringsforum Rapport 2, Entreprenörskapsforum, Stockholm.
- Kliesen, Kevin L., and Julia S. Maués. 2011. "Are Small Businesses the Biggest Producers of Jobs?" *Regional Economist* (Federal Reserve Bank of St. Louis) 19 (2): 8-9.
- Knabe, Andreas, and Ronnie Schöb. 2008. "Minimum Wage Incidence: The Case for Germany." CESifo Working Paper 2432, Center for Economic Studies and Ifo Institute, Munich.
- Korkeamäki, Ossi, and Tomi Kyrrä. 2005. "The Gender Wage Gap and Sex Segregation in Finland." *Finnish Economic Papers* 18 (2): 57-71.
- Korpi, Tomas, and Michael Tählin. 2009. "Educational Mismatch, Wages, and Wage Growth: Overeducation in Sweden, 1974-2000." *Labour Economics* 16 (2): 183-93.
- Kottaridi, Constantina, and Bo Bernhard Nielsen. 2003. "Determining FDI Flows into Scandinavia: The Role of Physical and Intellectual Infrastructure." Working Paper, Department of International Economics and Management, Copenhagen Business School.
- Kuddo, Arvo. 2009. "Employment Services and Active Labor Market Programs in Eastern European and Central Asian Countries." Social Protection Discussion Paper 0918, World Bank, Washington, DC.
- Kugler, Adriana. 2004. "The Effect of Job Security Regulations on Labor Market Flexibility: Evidence from the Colombian Labor Market Reform." NBER Working Paper 10215, National Bureau of Economic Research, Cambridge, MA.
- Kullander, Mats. 2013. "Sweden: Industrial Relations Profile." Oxford Research. <http://www.eurofound.europa.eu/eiro/country/sweden.pdf>.
- Kushnir, Khrystyna, Melina Laura Mirmulstein and Rita Ramalho. 2010. "Micro, Small, and Medium Enterprises around the World: How Many Are There, and What Affects the Count?" MSME Country Indicators, World Bank Group, Washington, DC.
- Laforet, Sylvie. 2012. "Organizational Innovation Outcomes in SMEs: Effects of Age, Size, and Sector." *Journal of World Business* 48 (4): 490-502.
- La Porta, Rafael, and Andrei Shleifer. 2008. "The Unofficial Economy and Economic Development." *Brookings Papers on Economic Activity* 39 (2): 275-363.
- Lee, Young, and Roger H. Gordon. 2005. "Tax Structure and Economic Growth." *Journal of Public Economics* 89 (5-6): 1027-43.
- Lemos, Sara. 2004. "The Effects of the Minimum Wage in the Formal and Informal Sectors in Brazil." IZA Discussion Paper 1089, Institute for the Study of Labor (IZA), Bonn.
- Leuven, Edwin, and Hessel Oosterbeek. 2011. "Overeducation and Mismatch in the Labor Market." IZA Discussion Paper 5523, Institute for the Study of Labor (IZA), Bonn.
- Lilienfeld-Toal, Ulf von, Dilip Mookherjee and Sujata Visaria. 2012. "The Distributive Impact of Reforms in Credit Enforcement: Evidence from Indian Debt Recovery Tribunals." *Econometrica* 80: 497-558.
- Lim, Ewe-Ghee. 2001. "Determinants of, and the Relationship Between, FDI and Growth: A Survey of the Recent Literature." IMF Working Paper 01/175, International Monetary Fund, Washington, DC.
- Lindh, Thomas, and Henry Ohlsson. 1996. "Self-Employment and Windfall Gains: Evidence from the Swedish Lottery." *Economic Journal* 106 (439): 1515-26.
- . 1998. "Self-Employment and Wealth Inequality." *Review of Income and Wealth* 44 (1): 25-41.
- Lipsey, R. E. 2002. "Home and Host Country Effects of FDI." NBER Working Paper 9293, National Bureau of Economic Research, Cambridge, MA.
- Lopez-Claros, Augusto. 2013. "Removing Impediments to Sustainable Economic Development: The Case of Corruption." Policy Research Working Paper 6704, World Bank, Washington, DC.
- Lopez-Claros, Augusto, and Y. N. Mata. 2010. "Policies and Institutions Underpinning Country Innovation: Results from the Innovation Capacity Index." In *The Innovation for Development Report: Strengthening the Prosperity of Nations*. London: Palgrave Macmillan. Updated in 2013.
- Love, Inessa, María Soledad Martínez Pería and Sandeep Singh. 2013. "Collateral Registries for Movable Assets: Does Their Introduction Spur Firms' Access to Bank Finance?" Policy Research Working Paper 6477, World Bank, Washington, DC.
- Lucas, Robert E. 1988. "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22 (1): 3-42.
- Lundblad, Claes. 2012. *Arbitration Guide-Sweden*. Stockholm: International Bar Association Arbitration Committee.
- Maliranta, Mika, Petri Rouvinen and Pekka Ylä-Anttila. 2010. "Finland's Path to the Global Productivity Frontier through Creative Destruction." *International Productivity Monitor* 20 (Fall): 68-84.
- Maloney, William F., and Jairo Nuñez Mendez. 2004. "Measuring the Impact of Minimum Wages: Evidence from Latin America." In *Law and Employment: Lessons from Latin America and the Caribbean*, edited by James J. Heckman and Carmen Pagés, 109-30. National Bureau of

- Economic Research Conference Report. Chicago: University of Chicago Press.
- Maloney, William F., and M. Sarrías. 2013. "Convergence to the Managerial Frontier." Development Economics Research Group, World Bank, Washington, DC.
- Manpower Group. 2013. *Talent Shortage Survey: Research Results*. Milwaukee, WI. <http://www.manpowergroup.com>.
- Mäntysalo, Raine, Inger-Lise Saglie and Göran Cars. 2011. "Between Input Legitimacy and Output Efficiency: Defensive Routines and Agonistic Reflectivity in Nordic Land-Use Planning." *European Planning Studies* 19 (12): 2109–26. doi:10.1080/09654313.2011.632906.
- McConnell, K. John, Richard C. Lindrooth, Douglas R. Wholey, Thomas M. Maddox and Nick Bloom. 2013. "Management Practices and the Quality of Care in Cardiac Units." *JAMA Internal Medicine* 173 (8): 684–92.
- McGuinness, Séamus. 2006. "Overeducation in the Labour Market." *Journal of Economic Surveys* 20 (3): 387–418.
- McKinsey Global Institute. 2006. *Sweden's Economic Performance: Recent Development, Current Priorities*. Stockholm: McKinsey & Company.
- McKinsey Sweden and McKinsey Global Institute. 2012. *Growth and Renewal in the Swedish Economy: Development, Current Situation and Priorities for the Future*. Stockholm: McKinsey & Company in collaboration with McKinsey Global Institute.
- McLaughlin, Joseph. 1979. "Arbitrating and Developing Countries." *International Law* 13: 211–32.
- Medina, Maria. 2012. "Do Immigration Policies Make Countries More Attractive to Multinational Corporations?" Iowa State University, Ames.
- Meghir, Costas, and David Phillips. 2010. "Labour Supply and Taxes." In *Dimensions of Tax Design: The Mirrlees Review*, edited by J. Mirrlees, S. Adam, T. Besley, R. Blundell, S. Bond, R. Chote, M. Gammie, P. Johnson, G. Myles and J. Poterba. New York: Oxford University Press.
- Melhuish, Edward C., Kathy Sylva, Pam Sammons, Iram Siraj-Blatchford, Brenda Taggart, Mai B. Phan and Antero Malin. 2008. "Preschool Influences on Mathematics Achievement." *Science* 321: 1161–62.
- Meurs, Dominique, and Sophie Ponthieux. 2007. "L'écart des salaires entre les femmes et les hommes peut-il encore baisser?" *Economie et Statistique* 398 (1): 99–129.
- Meyersson Milgrom, Eva M., Trond Petersen and Vemund Snartland. 2001. "Equal Pay for Equal Work? Evidence from Sweden and a Comparison with Norway and the US." *Scandinavian Journal of Economics* 103 (4): 559–83.
- MIGA (Multilateral Investment Guarantee Agency). 2013. *World Investment and Political Risk 2012*. Washington, DC: World Bank Group. <http://www.miga.org/documents/WIPR12.pdf>.
- Milano, Jessica. 2010. *Where Jobs Come From: The Role of Innovation, Investment, and Infrastructure in Economic and Job Growth*. Washington, DC: Democratic Leadership Council.
- Modén, Karl-Markus. 1998a. "Foreign Acquisitions of Swedish Companies—Effects on R&D and Productivity." ISA Studies on Foreign Direct Investment 1998/2, Invest Sweden, Stockholm.
- . 1998b. "Patterns of Foreign Direct Investment into Sweden." In *The Geography of Multinational Firms*, edited by Pontus Braunerhjelm and Karolina Ekholm, 135–56. New York: Springer.
- Mondino, Guillermo, and Silvia Montoya. 2004. "The Effects of Labor Market Regulations on Employment Decisions by Firms: Empirical Evidence for Argentina." In *Law and Employment: Lessons from Latin America and the Caribbean*, edited by James J. Heckman and Carmen Pagés, 351–400. National Bureau of Economic Research Conference Report. Chicago: University of Chicago Press.
- Montenegro, Claudio, and Carmen Pagés. 2004. "Who Benefits from Labor Market Regulations? Chile, 1960–1998." In *Law and Employment: Lessons from Latin America and the Caribbean*, edited by James J. Heckman and Carmen Pagés, 401–34. National Bureau of Economic Research Conference Report. Chicago: University of Chicago Press.
- Moran, Theodore, Edward Graham and Magnus Blomström, eds. 2005. *Does Foreign Direct Investment Promote Development?* Washington, DC: Institute for International Economics.
- Napier, Glenda, Petric Rouvinen, Dan Johansson, Thorvald Finnbjörnsson, Espen Solberg and Katrine Pedersen. 2012. *The Nordic Growth Entrepreneurship Review 2012*. Nordic Innovation Publication 2012:25, Oslo. <http://www.nordicinnovation.org/publications>.
- Nataraj, Shantni, Francisco Perez-Arce, Sinduja Srinivasan and Krishna Kumar. 2012. "What Is the Impact of Labour Market Regulation on Employment in LICs? How Does It Vary by Gender?" Rand Working Paper WR-957, Rand Corporation, Santa Monica, CA.
- Neumark, David, Brandon Wall and Junfu Zhang. 2011. "Do Small Businesses Create More Jobs? New Evidence for the United States from the National Establishment Time Series." *Review of Economics and Statistics* 93 (1): 16–29.
- Neumark, David, and William L. Wascher. 2007. "Minimum Wages and Employment." *Foundations and Trends in Microeconomics* 3 (1–2): 1–82.
- New Zealand, Ministry of Environment. 2008. "A Beginner's Guide to Resource and Building Consent Processes under the Resource Management Act 1991 and the Building Act 2004." Department of Building and Housing, Wellington. <http://www.dbh.govt.nz/UserFiles/File/Publications/Building/Building-Act/resource-and-building-consent-processes.pdf>.
- Nordenson, Harald, and Marie Öhrström. 2013. "Arbitration in Sweden." In *CMS Guide to Arbitration*, vol. 1, edited by Torsten Loercher, Guy Pendell and Jeremy Wilson. Stockholm. http://eguides.cmslegal.com/pdf/arbitration_volume_1/CMS%20GtA_Vol%201_SWEDEN.pdf.
- Nordic Council of Ministers. 2012. *Northern Lights on PISA 2009—Focus on Reading*. Copenhagen: Nordic Council of Ministers.
- Nordic Social Statistical Committee. 2011. "Youth Unemployment in the Nordic Countries—A Study on the Rights of and Measures for Young Jobseekers." Copenhagen.

- Nordin, Martin, Inga Persson and Dan-Olof Rooth. 2010. "Education–Occupation Mismatch: Is There an Income Penalty?" *Economics of Education Review* 29 (6): 1047–59.
- Nyström, Kristina. 2008. "The Institutions of Economic Freedom and Entrepreneurship: Evidence from Panel Data." *Public Choice* 136 (3–4): 269–82.
- OECD (Organisation for Economic Co-operation and Development). 1993. *OECD Reviews on Foreign Direct Investment: Sweden*. Paris: OECD Publishing.
- . 2002. *Foreign Direct Investment for Development: Maximising Benefits, Minimising Costs*. Paris: OECD Publishing. <http://books.google.com/>.
- . 2007a. "Consumption Taxes: The Way of the Future?" OECD Observer, Policy Brief. <http://www.oecd.org/ctp/tax-policy/39495382.pdf>.
- . 2007b. *OECD Employment Outlook 2007*. Paris: OECD Publishing.
- . 2010a. *OECD Employment Outlook 2010: Moving Beyond the Jobs Crisis*. Paris: OECD Publishing.
- . 2010b. *PISA 2009 Results: What Makes a School Successful? Resources, Policies and Practices*, vol. IV. Paris: OECD Publishing.
- . 2010c. "Tax Policy Reform and Economic Growth." OECD Tax Policy Studies, no. 20, OECD Publishing, Paris. <http://www.oecd.org/ctp/tax-policy/46605695.pdf>.
- . 2011a. "Environmental Taxation: A Guide for Policy Makers." <http://www.oecd.org/env/tools-evaluation/48164926.pdf>.
- . 2011b. *PISA in Focus 2011/1*. Paris: OECD Publishing.
- . 2012a. *OECD Compendium of Productivity Indicators 2012*. Paris: OECD Publishing.
- . 2012b. *OECD Economic Surveys: Sweden 2012*. Paris: OECD Publishing.
- . 2012c. *OECD Economic Surveys: Sweden 2012—Overview*. Paris: OECD Publishing. <http://www.oecd.org/eco/surveys/Sweden%202012%20Overview.pdf>.
- . 2013a. "Calculating Summary Indicators of EPL Strictness: Methodology." <http://www.oecd.org/els/emp/EPL-Methodology.pdf>.
- . 2013b. *Detailed Description of Employment Protection Legislation, 2012–2013*. Paris: OECD Publishing.
- . 2013c. *Education at a Glance 2013: Country Note for Sweden*. Paris: OECD Publishing.
- . 2013d. *Entrepreneurship at a Glance*. Paris: OECD Publishing.
- . 2013e. *OECD Employment Outlook 2013*. Paris: OECD Publishing.
- . 2013f. *OECD Reviews of Innovation Policy: Sweden 2012*. Paris: OECD Publishing.
- . 2013g. *OECD Science, Technology and Industry Scoreboard 2013: Innovation for Growth*. Paris: OECD Publishing.
- . 2013h. *PISA 2012 Results: What Students Know and Can Do—Student Performance in Mathematics, Reading and Science*, vol. I. Paris: OECD Publishing.
- . 2013i. *Skills Outlook 2013: First Results from the Survey of Adult Skills*. Paris: OECD Publishing.
- . 2013j. *Supporting Investment in Knowledge Capital, Investment and Innovation*. Paris: OECD Publishing.
- . Various years. *Education at a Glance*. Paris: OECD Publishing.
- Pagés, Carmen, and Claudio Montenegro. 2007. "Job Security and the Age-Composition of Employment: Evidence from Chile." *Estudios de Economía* (University of Chile) 34 (2): 109–39.
- Petersen, Trond, Vemund Snartland, Lars-Erik Becken and Karen Modesta Olsen. 1997. "Within-Job Wage Discrimination and the Gender Wage Gap: The Case of Norway." *European Sociological Review* 13 (2): 199–213.
- Pierre, Gaëlle, and Stefano Scarpetta. 2007. "How Labor Market Policies Can Combine Workers' Protection with Job Creation: A Partial Review of Some Key Issues and Policy Options." Social Protection Discussion Paper 0716, World Bank, Washington, DC.
- Pope, Jeff. 2001. "Estimating and Alleviating the Goods and Services Tax Compliance Cost Burden upon Small Business." *Revenue Law Journal*, vol. 11, issue 1, article 2.
- Pope, Jeff, and Nthathi Rametse. 2001. "Small Business and the Goods and Services Tax: Compliance Cost Issues." Curtin University of Technology, Perth, Australia.
- Portugal, Pedro, and Jose Varejao. 2010. "The Hidden Side of Temporary Employment: Fixed-Term Contracts as a Screening Device." Working Paper 2010–29, Economics and Research Department, Banco de Portugal, Lisbon.
- Pouget, Sophie. 2013. "Arbitrating and Mediating Disputes: Benchmarking Arbitration and Mediation Regimes for Commercial Disputes Related to Foreign Direct Investment." Policy Research Working Paper 6632, World Bank, Washington, DC.
- PricewaterhouseCoopers and Queen Mary University of London. 2006. "International Arbitration Study: Corporate Attitudes and Practices." Available at http://www.arbitrationonline.org/docs/IAstudy_2006.pdf.
- Quintini, Glenda. 2011. "Right for the Job: Over-qualified or Under-skilled?" OECD Social, Employment and Migration Working Papers, no. 120, OECD Publishing, Paris.
- Ricard, Lyse. 2008. "Strategies for the Control of Tax Compliance." Paper presented at the 42nd Inter-American Center of Tax Administrations (CIAT) General Assembly, Antigua, Guatemala, April 21–24.
- Rider, Christopher I., Peter Thompson, Aleksandra Kacperczyk and Joacim Tåg. 2013. "Experience and Entrepreneurship." IFN Working Paper 970, Research Institute of Industrial Economics (IFN), Stockholm.
- Rosenbusch, Nina, Jan Brinckmann and Andreas Bausch. 2011. "Is Innovation Always Beneficial? A Meta-analysis of the Relationship between Innovation and Performance in SMEs." *Journal of Business Venturing* 26 (4): 441–57.
- Rumberger, Russell W. 1987. "High School Dropouts: A Review of Issues and Evidence." *Review of Educational Research* 57 (2): 101–21.
- Saint-Paul, Gilles. 1996. "Unemployment and Increasing Private Returns to Human Capital." *Journal of Public Economics* 61 (1): 1–20.
- Santiago, Carlos E. 1989. "The Dynamics of Minimum Wage Policy in Economic Development: A Multiple Time-Series

- Approach." *Economic Development and Cultural Change* 38 (1): 1-30.
- Schneider, Friedrich. 2013. "Size and Development of the Shadow Economy of 31 European and 5 Other OECD Countries from 2003 to 2013: A Further Decline." Department of Economics, Johannes Kepler University, Linz, Austria. http://www.econ.jku.at/members/Schneider/files/publications/2013/ShadEcEurope31_Jan2013.pdf.
- Schneider, Friedrich, Andreas Buehn and Claudio E. Montenegro. 2010. "Shadow Economies All Over the World: New Estimates for 162 Countries from 1999 to 2007." Policy Research Working Paper 5356, World Bank, Washington, DC.
- Schütz, Gabriela. 2009. "Does the Quality of Pre-primary Education Pay Off in Secondary School? An International Comparison Using PISA 2003." Ifo Working Paper 68, Ifo Institute, University of Munich.
- Schwartz, Eric A. 2009. "The Role of International Arbitration in Economic Development." *International Trade and Business Law Review* 12: 127-39.
- Schweinhart, L. J., J. Montie, Z. Xiang, W. S. Barnett, C. R. Belfield and M. Nores. 2005. *Lifetime Effects: The High/Scope Perry Preschool Study through Age 40*. Ypsilanti, MI: High/Scope Press.
- Shleifer, Andrei, and Robert W. Vishny. 1989. "Management Entrenchment: The Case of Manager-Specific Investments." *Journal of Financial Economics* 25 (1): 123-39.
- Smeets, Roger. 2008. "Collecting the Pieces of the FDI Knowledge Spillovers Puzzle." *World Bank Research Observer* 23 (2): 107-38.
- Smyth, Emer, and Stephanie Steinmetz. 2008. "Field of Study and Gender Segregation in European Labour Markets." *International Journal of Comparative Sociology* 49 (4-5): 257-81.
- Sørensen, Peter Birch. 2010a. "Dual Income Taxes: A Nordic Tax System." In *Tax Reform in Open Economies: International and Country Perspectives*, edited by Iris Claus, Norman Gemmell, Michelle Harding and David White, 78-108. Cheltenham, U.K.: Edward Elgar.
- . 2010b. "Swedish Tax Policy: Recent Trends and Future Challenges." Report to the Expert Group on Public Economics 2010:4, Ministry of Finance of Sweden, Stockholm.
- Statistics Sweden. 2011. *Konjunkturstatistik över vakanser*. SCB, AM 46 SM 1101. February 15. Stockholm.
- . 2012. *Foreign Direct Investment: Assets and Income, 2011*. Stockholm: Statistics Sweden. <http://www.scb.se>.
- Stein, Peer, Oya Pinar Ardic Alper and Martin Hommes. 2013. "Closing the Credit Gap for Formal and Informal Micro, Small, and Medium Enterprises." IFC Advisory Services: Access to Finance, International Finance Corporation, Washington, DC.
- Stockholm County Council, Office of Regional Planning. 2010. "Affordable Housing Position Statements for Stockholm." Stockholm. http://www.eurometrex.org/Docs/Expert_Groups/Affordable_Housing/Affordable_Housing_Position_Statement_Stockholm.pdf.
- Sullivan, Martin A. 2012. "Start-Ups, Not Small Businesses, Are Key to Job Creation." *134 Tax Notes* 158.
- Svenskt Näringsliv. 2011. *Mismatch: Det ekonomiska läget*. Stockholm.
- Swedish National Board of Housing, Building and Planning. 2013a. *Are House Prices Driven by a Housing Shortage?* Market Report. Stockholm.
- . 2013b. *The Housing Shortage and Rent Setting System: A Knowledge Base*. Market Report. Stockholm.
- Swedish National Council for Crime Prevention. 2012. "Economic Crime." <http://www.bra.se/bra/bra-in-english/home/crime-and-statistics/economic-crime.html>.
- Swedish Tax Agency. 2011. "Om RUT och ROT och VITT och SVART." Rapport 2011:1. Stockholm. <http://www.skatteverket.se/download/18.2b543913a42158acf800024807/1356686048917/rapport201101.pdf>.
- Thévenon, Olivier. 2013. "Drivers of Female Labor Force Participation in the OECD." OECD Social, Employment and Migration Working Papers, no. 145, OECD Publishing, Paris.
- Thévenon, Olivier, and Anne Solaz. 2013. "Labour Market Effects of Parental Leave Policies in OECD Countries." OECD Social, Employment and Migration Working Papers, no. 141, OECD Publishing, Paris.
- Thomson Reuters. 2013. *2013 Top 100 Global Innovators: Honoring the World Leaders in Innovation—Findings and Methodology*. New York.
- U.S. Department of State. 2013. "Investment Climate Statement—Sweden." Bureau of Economic and Business Affairs, Washington, DC.
- UNCTAD (United Nations Conference on Trade and Development). 2012. *World Investment Report 2012: Towards a New Generation of Investment Policies*. Geneva: UNCTAD.
- . 2013a. "Investment Country Profiles: Sweden." Geneva. http://unctad.org/en/PublicationsLibrary/webdiaeia2012d18_en.pdf.
- . 2013b. *World Investment Report 2013: Global Value Chains—Investment and Trade for Development*. Geneva: UNCTAD.
- UNESCO (United Nations Educational, Scientific and Cultural Organization). 2012. *World Data on Education—Sweden, 2010/2011*. 7th ed. Paris: UNESCO. http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Sweden.pdf.
- Van Stel, André, Martin Carree and Roy Thurik. 2005. "The Effect of Entrepreneurial Activity on National Economic Growth." *Small Business Economics* 24 (3): 311-21.
- Vandenbergh, Vincent. 2011. "Firm-Level Evidence on Gender Wage Discrimination in the Belgian Private Economy." *Labour* 25 (3): 330-49.
- Waglé, Swarnim. 2011. "Investing across Borders with Heterogeneous Firms: Do FDI-Specific Regulations Matter?" Policy Research Working Paper 5914, World Bank, Washington, DC.
- WEF (World Economic Forum). 2010a. *The Global Competitiveness Report 2010-2011*. Geneva: WEF.
- . 2010b. *Stimulating Economies through Fostering Talent Mobility*. Geneva: WEF. http://www3.weforum.org/docs/WEF_PS_TalentMobility_report_2010.pdf.
- . 2013. *The Global Competitiveness Report 2013-2014*. Geneva: WEF.

- World Bank. 2011. *World Development Report 2012: Gender Equality and Development*. Washington, DC: World Bank.
- . 2012. *World Development Report 2013: Jobs*. Washington, DC: World Bank.
- . 2013. "Labor Markets: Workers in the Informal Economy." <http://go.worldbank.org/1PVGLNWYCO>.
- World Bank Group. 2012. "Does *Doing Business* Matter for Foreign Direct Investment?" Case study in *Doing Business 2013*. Washington, DC: World Bank Group.
- . 2013a. *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*. Washington, DC: World Bank Group.
- . 2013b. *Women, Business and the Law 2014*. Washington, DC: World Bank Group.
- Yuen, Belinda. 2012. "Urban Planning in Southeast Asia: Perspective from Singapore." *Town Planning Review* 82 (2): 145-68.
- Zabala, Jon Mikel, and Charles Edquist. 2011. "Innovation System and Knowledge-Intensive Entrepreneurship: Sweden." CIRCLE Report 2012/03, Centre for Innovation, Research and Competence in the Learning Economy, Lund University, Sweden.
- Zsuzsanna, Szabo K., and Emilian Herman. 2012. "Innovative Entrepreneurship for Economic Development in EU." *Procedia Economics and Finance* 3: 268-75.