
The Turnaround of the Swedish Economy: Lessons from Large Business Sector Reforms

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How can a country improve productivity growth in its business sector and reach its growth potential? Sweden during the 1970–2010 period can serve as an example to help other countries understand how to efficiently reform a business sector. In the 1990s, Sweden implemented a reform package that ignited a successful reorganization of a business sector that had faltered for decades. To understand the economic forces behind this process, the paper first surveys the industrial restructuring literature and then examines the reform package using Swedish matched plant–firm–worker data. The removal of barriers to growth for new and productive firms, as well as increased rewards for investment in human capital, were crucial to the success of Sweden’s reforms. The paper also discusses how the reform experience of a developed country such as Sweden can be useful for developing countries that are in the process of transforming their business sectors. The findings suggest that policymakers have much to learn from country case studies and that the Swedish experience can be a valuable case study for developing countries that are attempting to promote growth by developing their business sectors.

JEL codes D22, E23, J21, J23, K23, L11, L16, L51

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Although the economic policy debate has long centered on the importance of macroeconomic policies, a growing awareness among policymakers and researchers acknowledges that the microeconomic functioning of markets is vital. This shift in focus can be illustrated in the following quote from Kaushik Basu, Senior Vice President and Chief Economist of the World Bank, in the foreword to the *Doing Business 2015*

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report: “The public discourse on economic policy is overwhelmingly focused on fiscal measures, monetary interventions, welfare programs, and other such highly visible instruments of government action. Thus when an economy does poorly, a disproportionate amount of our debate centers on whether or not it needs a fiscal stimulus, whether there should be liquidity easing or tightening, whether its welfare programs have been too profligate or too paltry and so on. What gets much less attention but is equally—and, in some situations, even more—important for an economy’s success or failure is the nuts and bolts that hold the economy together and the plumbing that underlies the economy.”¹

A malfunctioning system of microeconomic regulation can hinder economic growth and make standard macro-level policies less effective or even lead to deep macroeconomic crises. This paper will argue that the Swedish experience in the 1970s and 1980s is an illustrative example of how a dysfunctional system of microeconomic regulations can lead to a severe macroeconomic crisis. However, we will also show how microeconomic reforms can play an important role in turning the trajectory of the economy towards growth and prosperity.

Despite the disparity in institutions, income, and development between Sweden and many developing countries today, the historic experience from developed countries such as Sweden can be useful for developing countries that are in the process of transforming their societies into modern economies. This view is increasingly shared by key scholars in the field, and there are also examples of developing countries that have undergone similar micro-based reform programs, with the business sector performance improving significantly post-reform.

In the 1980s and early 1990s, Sweden faced its most severe economic crisis in the post-war period: Swedish companies lost in global competition, while the state became very highly leveraged. The period of 1991–1994 was characterized by a substantial decline in GDP and increasing unemployment. Our institutional and theoretical analysis suggests that the substantial slowdown of the Swedish economy in the 1980s and the subsequent economic crisis in the early 1990s was to a large extent caused by increasingly interventionist business policies, reflecting a change in worldview to one in which economic incentives and private entrepreneurship not associated with large firms were regarded with suspicion (Lindbeck 1997).

In response to the crises in the early 1990s, Sweden undertook a major structural reform package. Attention has hitherto largely been on the macroeconomic contents of the Swedish reforms, which involved adopting a flexible exchange rate with an independent central bank, targeting price stability and improved government fiscal discipline. While it is clear that these macroeconomic reforms likely promoted a recovery, it is less known that a substantial part of the Swedish reform package was aimed at improving the microeconomic functioning of markets, which ignited a successful industrial reorganization process in the business sector. Once the reforms were implemented, subsequent governments did not reverse them, which was a fundamental aspect of their success. Sweden (together with Ireland and the United States)

experienced the highest labor productivity growth of all Organisation for Economic Co-operation and Development (OECD) countries during the 1995–2011 period (OECD 2013). Sweden's productivity growth was also primarily driven by factors that increased the effectiveness of its business sector. This process took place while the welfare state was largely preserved. Although inequality in Sweden, as in many other countries, has increased, it still exists at a low level compared to that in other countries.

To understand the economic forces associated with the Swedish restructuring process ignited by microeconomic reforms, the industrial restructuring literature is surveyed in search of mechanisms that are important in explaining firm, employment, and productivity dynamics. The overview indicates that productive, expanding firms are typically associated with active owners and up-to-date and incentive-based management practices. Consequently, economically efficient decisions are made, and well-functioning business cultures are developed, leading to a motivated workforce. The employment of skilled workers and the early adoption of new technologies create competitive advantages in both local and global markets, thereby spurring productivity growth. Start-ups and expansions are associated with high degrees of uncertainty, meaning that many businesses fail; thus, the observed number of highly successful and expanding ventures is low, but they are still an important factor in productivity and employment growth. Firms' productivity and employment also crucially depend on external factors such as institutions and access to production factors.

Following the industrial restructuring literature survey, the paper continues by detailing the structural reform package that Sweden undertook, and then discussing empirical results that provide indicative support for our institutional predictions. This discussion builds on the analysis in Heyman, Norbäck, and Persson (2015), which is based on Swedish matched employer-employee data over the period 1996–2009 from Statistics Sweden (SCB), and allows for analyzing issues related to firm employment and productivity dynamics in greater detail than has been possible in most other international studies.²

First, there was an increase in allocative efficiency in Sweden, as measured by greater market shares for the more productive firms in the economy, during the period from 1996–2009. This suggests that the reforms mitigated the insider and incumbency problems in the Swedish business sector and enabled more productive firms to better attract capital and employees than they had previously. The relationship between firms' productivity and wage increases was strengthened over the period studied, which suggests that productive firms and productive employees became more rewarded in the Swedish business sector. There was also an increase in jobs created in small firms, while most of the productivity gains were created in large incumbent firms, suggesting that the reforms facilitated the division of labor between large incumbents and small, growing firms. Finally, foreign firms contributed significantly to productivity and employment growth in the business sector during this period, which

suggests that the liberalization of foreign direct investment (FDI) was an important factor driving the restructuring process.

Thus, a crucial element of the success of the Swedish business sector turnaround was the emergence of firms with different ownership and organization (foreign firms and small firms). Therefore, the microeconomic reforms that made the playing field between different ownership and organization forms more level were crucial for Sweden's successful transformation.

Why, then, may this study of the Swedish experience of industrial reorganization in the 1990s be a valuable case study for developing countries that are in search of efficient regulation of their business sectors? As [Besley \(2015\)](#) writes in his overview article of the World Bank's Doing Business project, case studies of successful countries complement studies using the Doing Business indices:

“Policymakers in China or Brazil or Egypt have good reasons to be interested in how economies like Singapore or Sweden approach business regulation without deciding blindly that they should copy these practices.”

It is not obvious that what worked in Sweden in the last decades automatically works in a developing country setting of today. To address this issue, the paper concludes with a section discussing an emerging body of literature that studies the impact of structural reforms in developing countries. This literature shows examples of developing countries that have implemented similar reforms to those that Sweden underwent that have significantly improved the efficiency of the business sector in these countries. This literature also points to an interesting pattern in which structural reforms appear to have had the strongest impact in developing countries that are not too far away from the frontier of developed countries in terms of technology or institutions. The final section also discusses some fundamental similarities and differences between Sweden in the 1980s and the developing countries of today and highlight that any successful reforms need to be politically feasible and sustainable, as the Swedish reforms were. This paper's results also relates to recent research regarding structural reforms in developing countries that focuses on the role played by the so-called “structural” and “fundamental” aspects of growth. This research suggests that technological change and increased globalization imply that the type of reforms in terms of fundamentals that Sweden and other developed countries have undergone will be of increasing importance to developing countries. Finally, this section ends with a discussion of the role played by macro-level financial reforms that were also implemented in Sweden and how they interact with the micro-level reforms.

To summarize, we believe that the insights from a detailed discussion of the Swedish reforms can serve as an interesting example to help us understand how a business sector's regulation and deregulation affect a country's growth potential. The Swedish case shows that imposing regulations without carefully considering how these affect the incentives and efficiency of the business sector might be counterproductive. In particular, the institutional and empirical analysis suggests that reforms

that remove barriers to entry and growth for new and productive firms and increase the return on capital and human capital investments—similar to those implemented in Sweden during the 1990s—are likely to spur economic growth.

Conceptual Framework: Industrial Restructuring and Economic Reforms

To understand the restructuring processes that took place in Swedish industry in the 1990s and 2000s, we begin with an overview of the basic economic mechanisms that have been important in explaining employment and productivity dynamics in general.³ Beginning from this general knowledge of the functioning of industrial restructuring processes, the potential effects of the economic reforms undertaken in Sweden in the 1990s on employment and productivity dynamics are analyzed. This overview focuses on the economy's microeconomic features, thus centering on what the World Bank refers to as the “nuts and bolts” of the economy. The description is divided into firm-specific factors and external factors. As shown in [figure 1](#), firm-specific and external factors affect firm performance in terms of firms' productivity and employment dynamics, which, in turn, determines the aggregate performance of the business sector.

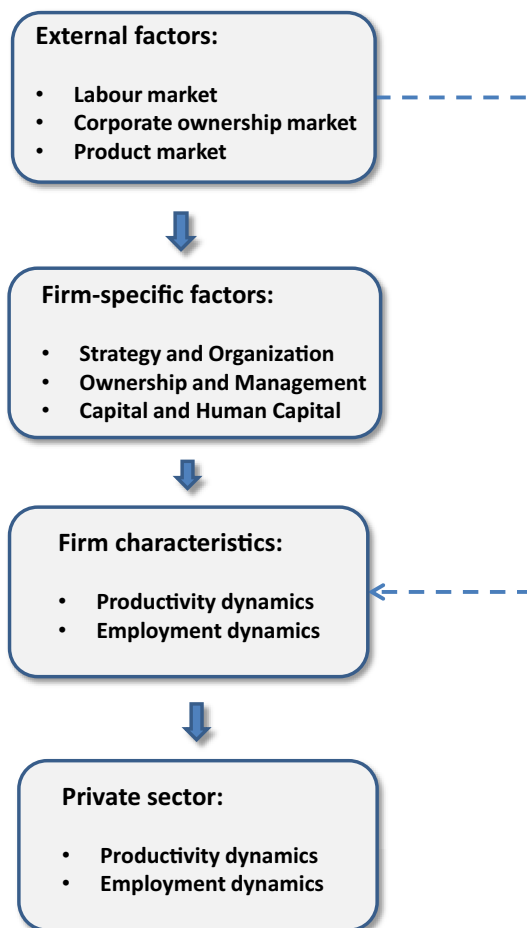
Firm-specific factors concern how firms are organized or which business strategies are used. The overview suggests that expanding productive firms are typically associated with active owners and up-to-date and incentive-based management practices. Thereby, economically efficient decisions are made, and well-functioning business cultures are developed, thus leading to a motivated workforce. Employing skilled workers and adapting new technologies early have also been shown to create competitive advantages in local and global markets and to thereby spur productivity growth. Start-ups and expansions are often associated with high degrees of uncertainty, meaning that many businesses will fail and, consequently, that the observed number of highly successful and expanding ventures will be low.

External factors are factors over which firms have no influence; however, these factors can directly and indirectly affect firm productivity and employment through the limitations that they set or the incentives that they provide regarding firm-specific choices. The focus of the study of the Swedish business sector is on external factors in a large reform package implemented in Sweden in the early 1990s, which included reforms of the labor and product markets, tax reforms, and the removal of FDI barriers. Such reform packages are not unique to developed countries.

Firm-Specific Factors

To compete in the marketplace, firms need to undertake efficient decisions in several dimensions. *Short-term* decisions include optimal pricing and efficient marketing.

Figure 1. Explanatory factors behind the aggregate productivity and employment development in the business sector



Source: Elaborated by author.

Medium-term decisions involve aspects such as correct location of activity and the hiring of productive staff. Finally, *long-term* decisions involve decisions on updated R&D and the optimal organizational form.⁴ Some of the more important firm specific factors are discussed below.

Business Strategy and Organization

Productivity and employment dynamics in firms essentially depend on the changes that firms—and their rivals—make to their business strategies and organization. Firms that have good business ideas need to decide on how to grow—but what should be produced internally, and what should be bought on the market when they expand? On the one hand, economies of scale and scope imply that increasing firm size reduces

costs and increases profits. On the other hand, larger firms face problems related to free riding, a lack of control over activities, and lost motivation among staff, all of which, in turn, limit the optimal firm size.

The optimal firm size also differs between individual firms and between industries, and depends on factors such as technology, market conditions (demand levels), and presiding institutions and laws (corporate tax system and rule of law). Start-ups and expansions are also associated with high degrees of uncertainty and problems of asymmetric information. Therefore, many businesses will fail and, consequently, the observed number of highly successful and expanding ventures will be low.

Overall, these results indicate that firms with strong business ideas typically increase their productivity levels, but they might not necessarily increase their employment levels due to labor savings or due to the outsourcing of non-core business activities.⁵

Ownership and Management

Expanding productive firms are typically associated with active owners and up-to-date and incentive-based management practices. Thereby, economically efficient decisions are made at the right time. Moreover, active ownership typically creates a well-functioning business culture, leading to a motivated work force.⁶

Why then do inefficient firms not implement more efficient management? First, some firms are family owned with management that is difficult to replace. In addition, firms possibly face problems of corporate control, whereby managers use their superior information to shirk their responsibilities or to hide their incompetence. Different incentives and monitoring systems have been developed to mitigate these problems (see, e.g., [Tirole 2006](#)).

Capital and Human Capital

Some firms are able to expand and maintain high productivity because they educate and hire productive employees and invest in high-quality capital. Efficient human resource management enables firms to acquire talent and further develop their skills so that they can facilitate the generation of high profits and firm expansion.⁷ The implementation of ICT is a prominent example of how the adoption of new technology was able to spur firm growth and productivity. The acquisitions of small growing firms are another important explanation for growth in expanding firms' employment and productivity. Moreover, multinational enterprises (MNEs) use their firm-specific assets to undertake FDIs in different countries. FDIs are typically achieved by either setting up new plants (greenfield investments) or acquiring existing domestic target firms (cross-border M&As). These FDIs often have positive externalities on labor through higher wages and on local firms through knowledge spillovers.⁸

We now examine how the changes in external factors caused by the economic reform package undertaken in Sweden in the 1990s affected firm performance.

External Factors: The Expanded Regulations in the 1970s and 1980s and the Structural Economic Reforms of the 1990s

We first describe the institutional setting of the Swedish business sector and then turn to the crucial reforms that were implemented in the 1990s. We rely on detailed descriptions of the Swedish business sector and the policy reforms that affected firms in Sweden, as described by, for example, [Lindbeck \(1997\)](#), [Henrekson and Jakobsson \(2005\)](#), [Bergh and Erlingsson \(2006\)](#), [Jonung, Kiander, and Vartia \(2008\)](#), [Calmfors \(2012\)](#), [Edquist and Henrekson \(2013\)](#), [Bergh \(2014\)](#), and the references therein.

Let us begin with a brief description of the development of economic institutions in Sweden prior to the reforms. Staying out of two world wars and engaging in international trade by exploiting its abundant natural resources while developing efficient institutions, Sweden experienced a long period of sustained growth, the so-called “golden years” of 1870–1970. At the end of this century-long period, Sweden was fourth in the OECD rankings of GNP per capita. In the decades after the Second World War, a relatively rapid GDP growth rate was combined with full employment and a fairly egalitarian distribution of income.

In the 1970s, government policies became increasingly interventionist under the influence of the more radical political ideas that emerged during the decade. Tight labor market regulations were implemented in the early 1970s. The so-called “solidaristic wage policies” led to a compressed wage structure, and workers’ wages became detached from individual firm productivity. Marginal tax rates gradually increased, ultimately culminating in a 1971 tax reform that made Sweden’s tax rate very high in comparison with those of comparable countries.

In the business sector, the government, trade unions, and bank-related business groups embodied an explicit tripartite negotiating culture. A fairly small number of dominating owners or ownership groups of corporations acknowledged and accepted that the government would use its political power to implement far-reaching welfare reforms as long as the labor movement abstained from socializing the industrial sector. Moreover, the government attempted to influence aggregate savings, the credit supply and investment through public sector savings, capital market regulations, taxes and subsidies, which all affected the functioning of the business sector. As noted by [Lindbeck \(1997\)](#), this approach mirrors a world view in which markets, economic incentives, and private entrepreneurship not associated with large firms are regarded with suspicion.

These interventionist policies reduced the efficiency of the economy and likely served as an important factor in Sweden’s inferior performance compared with those of the EU 15 countries and the United States during the 1970–1990 period in terms of GDP per capita growth. Internal problems in the Swedish model and external shocks eventually led to deep economic crises that included a significant decrease in output and soaring unemployment in the early 1990s. In response,

economic-efficiency and growth-induced institutional reforms were undertaken in the late 1980s and 1990s. In addition, macroeconomic policy reforms were implemented in the 1990s to reduce the inflationary bias in the Swedish economy. These reforms included the establishment of an independent central bank with an inflation target and a floating currency.

Most of the literature has thus focused on the importance of these macroeconomic reforms. By contrast, this study focuses on the reforms that were undertaken to improve resource allocation and the microeconomic functioning of the markets in response to the underperforming Swedish economy.⁹ Notable reforms included the decentralization of the wage negotiation system and the liberalization of temporary work contracts, the deregulation of the product market, greater openness to inward FDI, and tax system reforms.

The following sub-sections proceed with a review of the Swedish reforms before presenting some empirical evidence showing that these reforms increased economic efficiency in the Swedish business sector.

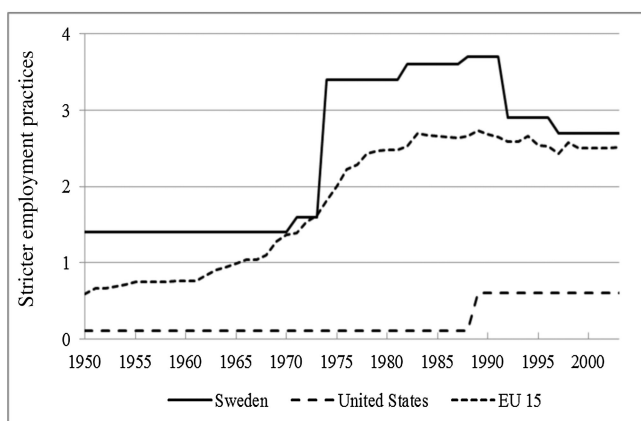
The Labor Market

Labor market regulations significantly affect firm employment and productivity development. On the one hand, labor market institutions can increase hiring and productivity by reducing matching and search problems in the labor market. On the other hand, rigid labor markets may offer too much protection to insiders, thereby hampering creative destruction processes and, to a lesser extent, rewarding productive labor and firms. Various types of labor turnover costs give insiders market power, which has implications for talent allocation, work incentives, and employment and unemployment patterns (see [Lindbeck and Snower 2001](#) for an overview). In particular, such insider market power might distort incentives for firm development, education, and efforts in the workplace. This is the *insider-outsider problem* of the labor market.

Let us now use this background to discuss the impact of the crucial labor market reforms in Sweden in the 1990s, the decentralization of the wage negotiation system and the liberalization of temporary work contracts on the efficiency of the restructuring of the Swedish business sector.

The Decentralization of the Swedish Wage Negotiation System and the Liberalization of Temporary Work Contracts. After the Second World War, wage bargaining was highly centralized in Sweden. In the 1950s and 1960s, economy-wide wage increases were negotiated centrally between the Swedish Employers' Confederation and the Trade Union Confederation. In the 1960s and 1970s, wages were set according to solidaristic wage policies under the principle of "equal pay for equal work", whereby wages would be equalized between sectors for similar tasks and occupations. Ideally, the system would have mimicked a competitive labor market, in which low productivity

Figure 2. Employment protection legislation, 1950–2003



Source: Allard (2005).

Note: Scale from 0–5; a higher index value indicates stricter employment protection legislation. The EU 15 values are based on our calculations, and they exclude Luxembourg.

firms would be driven out of the market, thus freeing labor to seek high-productivity firms that were able to support higher wages. In practice, however, considerable wage compression occurred as ambitions moved from equity goals to promoting more outright equality (Lindbeck 1997; Davis and Henrekson 2000). A market mechanism through which high-productivity firms could attract labor by paying higher wages did not exist; instead, active labor market policies were pursued, whereby resources were allocated to help the unemployed gain new competences and to reduce frictions and search costs in the labor market. How well the government was able fulfill this allocative task is debatable. With constraints on wage setting, the ability to incentivize workers in firms was also hampered.

In 1974, a new employment protection law (LAS) was implemented. The law mandated that employees could not be fired without reasonable cause, such as abuse or a lack of work opportunities. Insiders were also favored with respect to firing and hiring procedures through the so-called “last in, first out” rule, which further reduced workers’ incentives to change jobs. Temporary contracts also became limited. Figure 2 shows that the introduction of LAS had a significant impact on the so-called Allard index of the strictness of employment protections (Allard 2005), which nearly doubled during this period. This measure of the strictness of employment protections continued to increase until the beginning of the 1990s. The average employment protection in the EU 15 countries also increased over this period, though not to the same extent as in Sweden. The U.S. labor market continued to maintain a low level of employment protection.

Centralized bargaining for private-sector, blue-collar workers gradually broke down in the 1980s, and was replaced by uncoordinated industry-level bargaining. Intermediate industry-level bargaining is a form of collective bargaining that should be more conducive to wage inflation.¹⁰ In 1990, the Employers' Confederation attempted to introduce a more decentralized system. However, this attempt failed, and, instead, a fully centralized wage stabilization deal was negotiated for 1991–1992. In 1994, state-owned firms joined the employers' organization, which weakened the political influence in wage setting (Nycander 2008). In 1997, the so-called *Industry Agreement* was concluded. The agreement included a system that continued industry-level bargaining but with strong *informal coordination* based on pattern bargaining with the manufacturing sector to conclude initial wage agreements in a bargaining round. This system established a norm for wage increases for others to follow. The reformed wage-bargaining system turned out to be consistent with lower nominal wage increases than those in the past. Moreover, it allowed for greater individual wage flexibility (Calmfors 2012). Sweden thus progressed from a more coordinated wage negotiation system than those in other EU countries in the 1980s to a moderately coordinated wage negotiation system in the 1990s.

In 1992, a major employment protection reform was implemented that permitted staffing agencies, and the regulations concerning temporary work were also relaxed (Skedinger 2010). This development created what is referred to as the dual Swedish labor market, with strong employment protections for regular workers and weak employment protections for temporary workers. This reform was also evident in the Al-lard index of employment protection, which declined significantly. Another measure of the strictness of employment protections from the OECD demonstrates that the strictness of employment protections concerning temporary contracts was significantly reduced in Sweden—from a very high level in 1985 to a very low level in 2010. However, the strictness of the employment protections concerning regular contracts remained at a relatively high level over the same period.

The description of the labor market reforms can be summarized as follows:

Conclusion 1. The incentive and insider-outsider problems in the Swedish labor market may have been mitigated by the labor market reforms undertaken in the 1990s. These reforms may also have improved firms' flexibility and thereby their ability to adjust their workforce and invest in and reward human capital.

Product Market Regulation

The absence of artificial barriers to entry and expansion is crucial for employment and productivity growth. Incumbent firms have incentives to exploit their market power to protect their market share by preventing rivals from expanding and new firms from entering their markets. For instance, incumbent firms can practice different forms of predatory behaviors, such as engaging in exclusive dealing contracts or input cartels, lobbying for special restrictions on entry, or making entry-detering

acquisitions. Even if incumbents are ineffective, they may not be replaced by more productive entrepreneurs due to excessive barriers to entry.

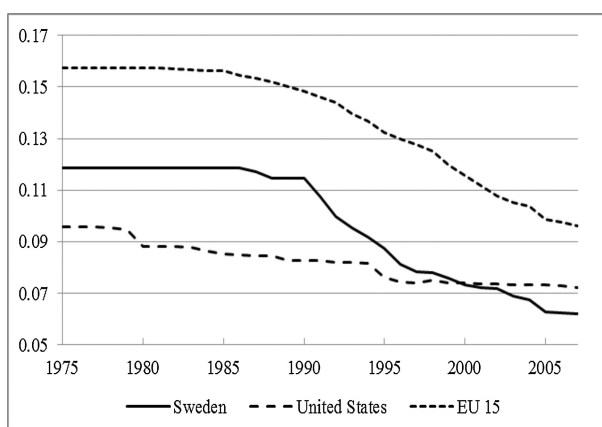
We refer to these product market problems as the *problem of weak creative destruction*. Well-functioning competition policy and legislation can mitigate such entry-detering and predatory problems (see [Motta 2004](#) and [Tirole 2006](#)). Moreover, a well-functioning competition policy must ensure that innovative firms are not deterred by rivals to expand and are able to reap the benefits of temporary market power. Moreover, these innovative firms need to put competitive pressure on firms that are lagging behind ([Aghion et al. 2005b](#); [Vives 2008](#); [Norbäck and Persson 2012](#)).

The Deregulation of Product Markets in Sweden. Throughout most of the twentieth century, many product markets for different services in Sweden were public monopolies. Thus, new firms had no or very few opportunities to enter these markets, and consumers' influences were limited ([Statens offentliga utredningar \(SOU\) 2005](#)). Moreover, the competition law was rather lax for a long period. The first competition legislation was implemented in 1925, which enabled authorities to investigate companies that could have monopolistic characteristics. A new Competition Act was implemented in 1993 that was based on three cornerstones: the prohibition of restrictive agreements, the prohibition of abuse of dominance, and the prohibition of control of concentrations (mergers). This new competition law indicated that the competition policy had become much stricter.

In the 1980s, discussions concerning how to reform the Swedish welfare state became increasingly intense. The centre-right government that came to power in 1991 was seemingly intent on implementing an economic policy based on extensive deregulation in response to the country's economic crisis in the 1990s. However, the possibility of implementing such reforms, for example, the deregulation of the air traffic system, the electricity market, and the postal service, had already been thoroughly investigated, and government policies had previously been outlined in government white papers prepared by the Social Democratic government in the late 1980s and early 1990s. Moreover, in 1993 ([Statens offentliga utredningar \(SOU\) 1993](#)), the so-called Lindbeck Commission presented a number of proposals to improve the efficiency and functioning of markets in Sweden ([Lindbeck et al. 1994](#)). Overall, the intensity of competition increased substantially in many Swedish product markets during the 1990s.

The OECD has long calculated an index of the “knock-on” cost that regulations in the service and utility industries impose on manufacturing industries. This index is shown in [Figure 3](#), where one sees that regulations on utilities and services imposed high additional costs on manufacturing in the 1970s and 1980s, but these costs decreased sharply as Sweden began to deregulate in the late 1980s and early 1990s. Thus, beginning in the mid-1990s, the costs of regulation in the services and utilities

Figure 3. Regulation impacts, 1975–2007



Source: OECD Indicators of Regulation Impact.

Note: Measurement of potential costs of anti-competitive regulation in intermediate input sectors. The EU 15 values are based on our calculations, and they exclude Luxembourg. A higher index value indicates a higher cost of regulation.

sectors were substantially lower in Sweden than the average of the EU 15, and they were even lower than such costs in the United States and the United Kingdom.

Since the late 1990s, the OECD has also constructed a system of indicators to measure ongoing developments in product market regulation (PMR) across the OECD countries (Wölfl et al. 2009). For Sweden, the “barriers to entrepreneurship” category has improved the most. Particularly between 1998 and 2008, considerable improvements were made to licensing and permit systems and communications. Furthermore, simplifications of rules and procedures were made; certain legal barriers were removed; antitrust exemptions were allowed; and barriers to competition in network sectors and services were reduced.

The product market reforms substantially reduced the power of the iron triangle of the Swedish business sector: the government, incumbent firms, and unions. A crucial feature of these product market reforms was that they not only made it easier for new firms to enter industries but also made it more difficult for inefficient firms to remain in the product market. The description of Sweden’s product market reforms can be summarized as follows:

Conclusion 2. The deregulation of the Swedish product markets and the strengthened competition policy may have mitigated the weak creative destruction problem in the Swedish business sector. These reforms may have forced inefficient firms out of the market, thus making room for more productive entrants, but they also may have caused incumbent firms to reach their potential through more intensive development.

Foreign Direct Investment (FDI)

Business regulation affects the actions that firms can take and the balance of power that exists between various firm stakeholders. Politicians may benefit from protecting owners from competition by gaining political support or by sharing the rents that result from such protection (Olson 1965; Stigler 1971; Perotti and Volpin 2007). Moreover, in more open economies, lobbying for international protection might occur (Spencer and Brander 1983; Grossman and Helpman 1994). Politicians might also have an incentive to favor domestic owners in the market for corporate control (Horn and Persson 2001; Norbäck, Persson, and Douhan 2014).

Thus, regulation might affect the efficiency of the corporate ownership market by favoring certain types of ownership over others, such as domestic ownership over foreign ownership. We refer to the problem as the *foreign discrimination problem in the market for corporate ownership*. Let us now use this background to discuss the implications of the Swedish reforms for the corporate ownership market to predict how such reforms might have affected the performance of the Swedish business sector.

The Liberalization of Foreign Direct Investment in Sweden. Foreign exchange controls were introduced in Sweden shortly after the onset of the Second World War. As expected, legal impediments ensured that foreign ownership remained low, with foreign ownership of listed stocks never exceeding 8 percent throughout the 1980s; in addition, less than 5 percent of private sector employees worked in foreign-owned companies (Henrekson and Jakobsson 2005).

Between 1989 and 1993, the government undertook measures that opened the market to foreign ownership. This change could be considered the final deregulation of the Swedish capital market that began in the early 1980s, thus following a global trend of credit market deregulation in response to the more globalized economy (see Henrekson and Jakobsson 2005, for a description of the major steps in the international deregulation process). Another important factor in the liberalization of FDIs in Sweden was that Sweden joined the European Union in 1995.

From a mere 7 percent in 1989, the share of foreign ownership skyrocketed to 40 percent only ten years later (Henrekson and Jakobsson 2005). This increase also led to significant growth in the share of employees working in foreign-owned firms, which increased from approximately 5 percent at the end of the 1980s to 23 percent in 2011. The increase in foreign ownership was especially strong in the mid-1990s. Employment in foreign-owned firms almost tripled between 1995 and 2013, from approximately 240,000 employees in 1995 to 630,000 employees in 2013.

The injection of foreign ownership likely improved productivity development in the Swedish business sector. Having a larger pool of potential owners should increase the potential for synergies. Foreign ownership may increase productivity through the better use of assets, but bidding competitions may also generate large asset returns for

previous Swedish owners, who can then use these proceeds to invest in new projects or industries (Norbäck and Persson (2007)). We can summarize as follows:

Conclusion 3. The liberalization of inward FDI in Sweden may have substantially mitigated the problem of foreign discrimination in the market for corporate control in the Swedish business sector. These reforms may have caused more efficient foreign owners to acquire inefficient Swedish target firms, which should have improved these firms' productivity. Moreover, this development may have spurred the incentive to create start-ups for sale in the market for corporate control.

We end this section by noting that in addition to the reforms of the labor and product markets and the removal of FDI barriers, Sweden also implemented several tax reforms. Due to space constraints, we do not describe these in this paper (see, e.g., Edquist and Henrekson 2013 and Stenkula, Johansson, and Du Rietz 2015 for details). The reforms of the corporate and capital taxes in Sweden created opportunities for firm development, particularly for the growth of new small firms and firm formation, and thus mitigated the problem of outsider discrimination in the market for corporate ownership. The reduced taxes on corporate external financing may also have led to increased entry and the growth of new, productive firms in the Swedish business sector.

Evidence from Swedish Matched Employer-Employee Data

Let us first give an aggregate picture of the Swedish crises and recovery. In 1970, the Swedish GDP per capita exceeded the average GDP per capita of the EU 15 group but was lower than that of the United States. During the 1970–1990 period, Sweden performed worse than both the United States and the EU 15 average. When Sweden entered a severe crisis in the early 1990s, its GDP per capita fell below that of the EU 15 average.

In the years after the crisis in the 1990s, propelled by the significant reforms to its economy, Sweden showed a much stronger trend, and its GDP per capita grew faster than that of the EU 15 and kept up with U.S. growth. At the end of the 1990s, the Swedish GDP per capita again surpassed the EU 15 average. The gap in GDP per capita between Sweden and the EU 15 widened further after the turn of the millennium. Sweden clearly appears to have managed the recent crisis better than the EU countries.

Throughout the period of 1990–2011, the participation rate (the sum of all employed workers divided by the working age population) was very high in Sweden. After a substantial post-crisis decline in the 1990s due to layoffs in the private and public sectors during the initial restructuring process, the labor force participation rate steadily increased, and it was again substantially higher than those in the EU 15 and the United States. In particular, Sweden showed high growth in private sector employment as a share of its total labor force in the 1995–2011 period. Although

substantially lower than that in the United States, private sector employment surpassed the EU 15 levels after the financial crises.

We now turn to describing the recovery from a micro perspective. This section presents a summary of our previous empirical work based on matched employer-employee data for the period of 1990–2009. Details of the empirical analysis can be found in [Heyman, Norbäck, and Persson \(2015\)](#).¹¹

Allocative Efficiency

The previous section emphasized the structural reforms that began in the 1980s: the reforms in the product market; the reforms affecting inward FDI; and the labor market reforms with more decentralized wage setting and less job security for workers with temporary contracts. In addition, it can be argued that the tax system discriminated against smaller firms with high growth potential.

This section summarizes the evidence regarding the reforms' effects on the efficiency of the economy in [Heyman, Norbäck, and Persson \(2015\)](#). We begin by using a productivity decomposition proposed by [Olley and Pakes \(1996\)](#) to analyze productivity and reallocation. Labor productivity, defined as value added per employee, is used to measure productivity.¹² The Olley and Pakes method divides aggregate productivity into two terms, thus implying that the weighted productivity in the business sector can be written as the sum of the simple (unweighted) average productivity over all firms and the covariance between their productivity and market share.¹³ The second term has a natural efficiency interpretation term, and it can be interpreted as the *extent to which market share is allocated to high-productivity firms*. If the covariance between firms' productivity and their share of labor is strictly positive, then more productive firms will tend to attract larger shares of workers, which is what one would expect in a well-functioning market economy.

To examine whether this allocative efficiency has changed over time in Sweden, the Olley and Pakes covariance term was computed at the two-digit industry level for each year during the 1996–2009 period. The results show an increasing allocative efficiency in Sweden, which is consistent with the notion that the reforms should have improved the market's allocation of resources.¹⁴ We observe much higher estimates of the allocative efficiency term in the final years of our sample compared with the first years.

This calculation presents one drawback: we cannot compare developments in Sweden with those in other countries. However, to analyze how structural policies affect resource allocation efficiency, [Andrews and Cingano \(2014\)](#) use firm-level data from a commercial data source covering 21 OECD countries in 2005. Investigating the Olley and Pakes covariance, these authors find that Sweden has the largest allocative efficiency. This result is consistent with the substantial changes in Sweden that was accounted for in the previous section and the increase in allocative efficiency.

Interestingly, [Andrews and Cingano \(2014\)](#) also examine the source of the variation in the allocative efficiency term. The authors report that regulations related to employment protection, product market competition, and FDI are negatively related to productivity through a worsening of allocative efficiency, which indicates a reduced ability to allocate resources to more productive firms.

A high degree of allocative efficiency implies that highly productive firms are able to attract workers from less productive firms. This mechanism was weakened under the solidaristic wage policy, as described in our institutional analysis. The aggregate picture from our empirical analysis appears consistent with the view that the deregulation of the Swedish wage-setting system implied that productive and expanding firms found hiring and rewarding productive employees easier.

Where Does the Increase in Productivity Come from?

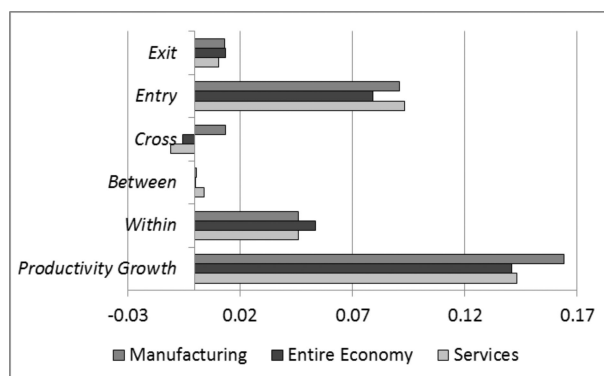
Our institutional analysis suggested that labor market reforms and particularly product market reforms combined with tax reforms may have reduced the barriers to entry and that these actions might have played an important role in the turnaround of the Swedish business sector by improving the creative destruction process.

To distinguish the effect of the entry of new firms and the exits of incumbents from that of the expansion and contraction of existing firms, a decomposition method was used to analyze the drivers of overall productivity in greater detail (see [Foster, Haltiwanger, and Krizan \(2001\)](#) for a discussion of different decomposition methods). The decomposition allows us to distinguish aggregate productivity changes at the intensive margin from those at the extensive margin (again, see [Heyman, Norbäck, and Persson \(2015\)](#) for details). We can then investigate if the aggregate Swedish productivity growth originated from firm-level productivity growth (i.e., within-industry dynamics), from a reallocation of market shares between existing firms (incumbents), or from the entry and exit of firms. Even with no change of productivity in individual firms, the overall productivity could have changed substantially due to changes in the market shares of firms with different productivity levels.

The main results from the productivity decomposition for the entire 1996–2009 period reveals that more than half of the overall increase in productivity in the business sector originated from new firms (see [figure 4](#)). The new firms that survived gradually became more efficient than the average firm and thus contributed positively to long-term productivity growth. The entering firms' contribution to productivity growth exceeded that of the incumbents (firms that were active throughout the 1996–2009 period).¹⁵

Hence, over the period studied, the entry of new firms was clearly a main driving factor behind the increase in productivity in the Swedish business sector.¹⁶ This result is consistent with the lower entry barriers in Sweden enhancing the creative destruction process (conclusion 2). Increased entry also emerged due to corporate

Figure 4. Decomposition of change in labor productivity, Sweden 1996–2009 (expressed in millions of SEK per employee)



Source: Own calculations by the authors based on the Swedish matched-employer database described in Heyman, Norbäck, and Persson (2015). See Heyman, Norbäck, and Persson (2018) for details on the labor productivity decomposition.

tax reforms (which levelled the playing field between entrants and incumbents) by promoting new firm start-ups and, as we will see below, opening up the economy to FDI (Conclusion 3).

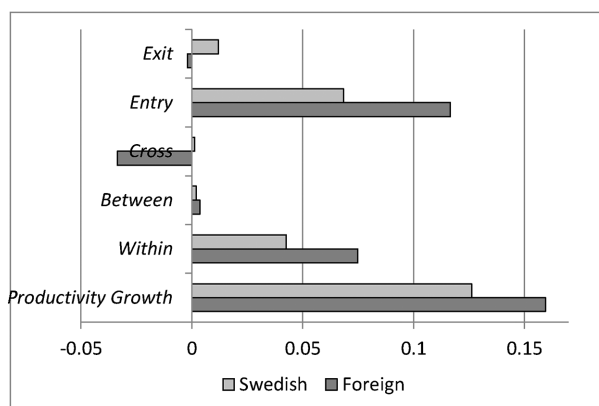
Liberalization of Foreign Direct Investment

One of the major reforms undertaken in Sweden was the lifting of restrictions on foreign ownership. This reform led to remarkably strong employment growth in foreign-owned affiliates in Sweden between 1980 and 2013, when nearly one-fourth of workers were employed by foreign-controlled firms. We have also argued that the increase in foreign ownership represented a much-needed productivity boost in the business sector, as a much larger pool of potential owners became available.

The impact of the foreign acquisitions of Swedish firms on productivity in the Swedish business sector is an empirical question. Heyman, Norbäck, and Persson (2015) provided a detailed empirical analysis based on matched employer-employee data. The results showed that on average, labor productivity increased by approximately three percent when ownership was transferred from Swedish ownership to foreign ownership. This effect was completely driven by local Swedish firms without any foreign operations being acquired by foreign firms.¹⁷

The analysis of foreign ownership and foreign acquisitions was also repeated on other performance measures, such as the average wage and employment. The results indicate the existence of a significant wage and employment premium when considering both average differences and the average change after an acquisition. Thus,

Figure 5. Decomposition of change in labor productivity, separated by ownership status, Sweden 1996–2009 (expressed in millions of SEK per employee)



Source: Own calculations by the authors based on the Swedish matched-employer database described in Heyman, Norbäck, and Persson (2015). See Heyman, Norbäck, and Persson (2018) for details on the labor productivity decomposition.

foreign ownership and acquisitions also appear to have contributed to higher employment and wages, which is what one would expect if foreign firms provide new knowledge, better management, and better products and production methods.

How important were the foreign firms for the aggregate productivity growth in Sweden? To answer this, the decomposition method of productivity growth by Foster, Haltiwanger, and Krizan (2001) was extended to also distinguish between Swedish and foreign firms. The results of that analysis showed that foreign-owned firms contributed more to productivity growth than did domestic Swedish firms (see figure 5). In fact, both the within-firm increase in productivity and the productivity increase from entry were almost twice as large for foreign-owned firms compared with Swedish-owned firms.¹⁸

Why the Swedish Experience in the 1980s and 1990s Can be Relevant for Developing Countries

Why would the lessons from reforms undertaken in the 1980s and 1990s in Sweden carry over to developing countries of today, or even to some of them? Does what works in Sweden automatically work in developing countries, given the difficulties in developing countries of copying policies implemented in developed countries? The reforms in one country are not necessarily successful in another country if the reforms are not compatible with the latter country's informal and formal institutions. Over the last century, Sweden has had a set of premises to make the country suitable for

a prosperous business sector: good basic institutions, a high level of trust, an abundance of natural resources, and a well-functioning educational system. Thus, it is not at all obvious that what has worked in Sweden in recent decades would automatically work in a developing country setting of today.

While these are valid concerns, we argue that the Swedish experience of industrial reorganization in the 1990s is, indeed, a valuable case study for developing countries that are in search of efficient regulation of their business sectors. We will first relate our findings to recent studies that examine the productivity and growth effects of micro-based structural reforms in developing countries, in addition to cross-country studies on structural reforms in developing countries. An important insight from these studies is that structural reforms seem to have a higher chance of succeeding in countries that are not lagging too far behind the institutional or technological frontier in developed countries. We then point to some similarities between Sweden of the 1980s and the middle-income developing countries of today, and discuss some specific institutional features of the Swedish economy that might be important for understanding the success of the Swedish business reforms. This section also discusses underlying factors that might explain why Sweden undertook these micro-based reforms and why the reforms were stable in the long run. We also relate our results to recent research on structural reforms in developing countries that focuses on the role played by the “structural” and “fundamental” aspects of growth. This research suggests that technological change and increased globalization imply that the type of reforms in terms of fundamentals that Sweden and other developed countries have undergone will be of increasing importance to developing countries. Finally, we end this section with a discussion of the role played by monetary and fiscal reforms that were also implemented in Sweden and how these interact with the micro-level reforms.

Studies of Structural Reforms in Developing Countries

There is a new and growing body of literature that examines the productivity and growth effects of micro-based structural reforms in developing countries. There are, however, few studies of structural reforms in developing countries that use detailed micro-data. A notable example is [Eslava et al. \(2004\)](#), who examined the major trade, labor, and financial market reforms in Colombia in the early 1990s that were designed, just as the Swedish reforms, to improve allocative efficiency. In line with our results for Sweden, these authors also find that market reforms were associated with rising overall productivity driven by reallocation away from low- to high-productivity businesses. [Eslava et al. \(2009\)](#) also studied the same set of Colombian reforms, now focusing on interrelated labor and capital adjustments. The example of Colombia suggests that reforms that are conducive to improving allocative efficiency in the business sector can also work in a developing country. However, in contrast to the Swedish reforms that prevailed under a long time period, the reforms in Colombia were not sustained in the long run.

Another study of interest is that by [Besley and Burgess \(2004\)](#), who examined how the industrial relations climate in Indian states affected the pattern of manufacturing growth during the period of 1958–1992. These authors found that states that amended the Industrial Disputes Act in a pro-worker direction experienced lower output, employment, investment, and productivity in registered or formal manufacturing. In contrast, output in unregistered—or informal—manufacturing increased. Pro-worker regulations were also associated with increases in urban poverty. This result suggests that outsiders in the informal sector were hurt by less-flexible labor market regulations. This example shows that the Swedish reforms—with more-flexible labor market regulations that reduced the power of insiders, benefitted outsiders, and were conducive to increasing productivity—are also relevant to developing countries in which labor is divided between informal and formal sectors.

An important part of the reform package in Sweden was deregulation of product markets. [Aghion et al. \(2005a\)](#) examined industrial delicensing in India, which marked a discrete break from a past characterized by centrally planning of industries via, for example, licensing. Using state-industry data from India for the period of 1980–1997, these authors found that delicensing led to an increase in within-industry inequality in terms of industrial performance. This result is consistent with the view that improved product market regulation benefits the most productive firms and suggests that actions by firms to upgrade their technological capability, or actions by policymakers to improve the institutional environment, will have a central bearing on whether an industry in a given sector or state benefits from or is harmed by the process of product market deregulation.

There is also a recent emerging body of literature studying micro-based reforms in multiple developing countries over time. [Prati, Onorato, and Papageorgiou \(2013\)](#) studied the distance to the frontier both in terms of GDP and institutions, using indicators of constraints on executive power and protection against the risk of expropriation. These authors show that both real and financial sector reforms are on average positively associated with higher growth. The positive reform-growth relationship is also shown to be influenced by a country's constraints on the authority of the executive power and by its distance to the technology frontier. [Christiansen, Schindler, and Tressel \(2013\)](#) found that domestic financial and trade reforms are associated with economic growth, but only in middle-income countries. Moreover, these authors present evidence that a variation in the quality of property rights helps explain variations in the effectiveness of financial and trade reforms in developing countries, which suggests that sufficiently developed property rights are a precondition for reaping the benefits of economic reform. [Dabla-Norris, Ho, and Kyobe \(2016\)](#) found that trade and FDI reforms result in productivity increases, especially in low-income countries, while banking and business regulation reforms are more important for lower-middle income countries.

Recent research also suggests that the type of reforms that Sweden and other developed countries have undergone may be of increasing future importance to developing countries. [McMillan, Rodrik, and Sepulveda \(2017\)](#) used industry-level data to explore the sources of labor productivity growth in developing countries. These authors' framework decomposes labor productivity growth into a part that stems from "fundamentals factors" and a part that emanates from "structural change".¹⁹ The fundamentals part—which drives growth within industries or sectors—is propelled by incentives to save and invest, to accumulate physical and human capital, and to innovate to create new products or production processes. The structural change part, in contrast, comes from productivity growth driven by moving labor from the low-productivity informal sector (dominated by agriculture and simple services) to the formal sector with high productivity (dominated by manufacturing and formal services).²⁰

Improved fundamentals—that is, investments in human capabilities through education and improved institutions—lead to growth and catch-up with developed countries, though at a slower pace. It is instead the structural change component—that is, the growth that is generated by moving labor from parts of the economy with low productivity to parts of the economy with higher productivity—that leads to accelerated growth. This accelerated growth occurs through a process of industrialization in which unskilled labor is pulled from rural agriculture into more-productive urban manufacturing firms, whose output is exported and sold on world markets. This process is essentially how the "growth miracle" occurred in Southeast Asia. It is also the process through which Sweden started its transformation from an agricultural society to a modern welfare state more than one hundred years ago.

However, the increased allocative efficiency in Sweden in the recent period, as documented above, did not stem from structural change. It was instead generated by within-industry productivity improvements—that is, the fundamentals part, in which firms with lower productivity either improve their own business or release labor to firms with higher productivity. This type of within-industry productivity growth will likely become more important for developing countries in the future as structural change through rapid industrialization seems to become increasingly difficult (see, e.g., [McMillan, Rodrik, and Sepulveda 2017](#)). First, technological change, in which manufacturing becomes more skill-intensive over time, is also at work in developing countries. Higher skill intensities make it increasingly difficult to transfer unskilled labor from the informal sectors of agriculture and petty services into formal manufacturing. Second, industrialization is also more difficult to accomplish as developing countries face a more globalized marketplace: their transition starts at lower trade barriers, and they face fierce import competition from, for instance, cheap Chinese consumer goods.

Thus, the Swedish experience with a manufacturing sector with strong productivity improvements but with reduced employment and a service sector with more

Table 1. Differences and Similarities between Sweden and Developing Countries

Country/Region	GDP	Economic Freedom	Economic Freedom excl. Size of Government	Human Development	Trust Level	Education Level	Female Participation Rate
Sweden (1980–1990)	30,900	5.66	6.67	0.815	52.5	10.7	81.5
Sweden	45,500	7.46	8.48	0.907	60.1	11.9	78.9
Kazakhstan	23,500	7.35	7.31	0.788	38.3	—	75.3
Malaysia	25,300	7.25	7.42	0.779	8.5	10.9	47.2
Botswana	14,900	7.27	7.56	0.698	—	—	75.1
Uruguay	20,000	7.08	7.11	0.793	13.8	8.6	67.6
Colombia	13,000	6.43	6.52	0.72	4.1	9.3	60
Latin America & Caribbean	14,600	6.73	6.65	0.607	9.7	8.7	58.4
East Asia & Pacific	15,100	7.2	7.28	0.71	35.3	8.2	67.7
Middle East & North Africa	17,600	6.72	6.89	—	21	7.9	23.2
Sub-Saharan Africa	3,500	6.27	6.26	0.518	13.7	5.4	65.2

Source: World Bank (GDP and Female Participation Rate), *Economic Freedom of the World*, *The Human Development Report*, *World Values Survey (WVS)*, and [Lee and Lee \(2016\)](#) (Education Level).

Note: GDP refers to per capita GDP in constant 2011 international dollars from 2015 (1990 for Sweden). Economic freedom refers to the index published in *Economic Freedom of the World* for 2014 (1980). Human development (HDI) is a summary index published in *The Human Development Report* for 2014 (1990). Trust levels refer to percentage of respondents that reported that most people can be trusted in the question "Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?" in the World Values survey 2010–2013 round (1981–1984 round). Education refers to average total years of schooling among the population aged 15 to 64 in 2010 (1985). Female labor participation rate refers to the share of females aged 15–64 in 2014 (1990), in percent. Economic freedom, trust levels, and education level refer to simple averages for all countries for which data are available within each region, as defined by the World Bank.

modest productivity growth but with high employment growth seems to be relevant to developing countries at present.²¹

Comparing Sweden in the 1980s with the Developing Countries of Today

The empirical literature discussed above suggests that structural reforms like the Swedish reforms may be of relevance for developing countries. In this respect, it is also interesting to compare the level of development in Sweden when the reforms were undertaken with that of developing countries as of today. Such a comparison is presented in [table 1](#).

A first observation from [table 1](#) is that the difference between Sweden in the 1980s and the median-income developing countries in many regions of the world today in terms of wealth (GDP per capita) is large at an aggregate level, but not so large that comparison seems impossible.

A second interesting observation is that the general market conditions in Sweden in the 1980s might not be so different from those of many developing countries today. One indication of that can be found in the Index from the *Economic Freedom of the World*.²² In fact, according to this measure, Sweden was more regulated in the 1980s than examples of emerging markets from today. Thus, on a general level of market

conditions, the Swedish economy in the 1980s and the economy of many emerging developing countries as of today seem to be not too different.

A third interesting observation is that the social conditions in Sweden in the 1980s and 1990s were not much different from those of many developing countries in many regions of the world today, as indicated by the Human Development Index published in *The 2015 Human Development Report*.²³ On a general level, the human development condition in the Swedish economy in the 1980s and that in the economies of many developing countries of today seem not to be too different.

In other dimensions, the differences are larger. Sweden has very low levels of corruption, as measured by the Corruption Perceptions Index published by Transparency International.²⁴ In the World Values Survey, the following question is included: “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?”²⁵ As shown in [table 1](#), Sweden scores very high in trust level and has done so for a long time. It is likely that the low corruption and high trust levels have been important for the success of the business reforms undertaken and that policies that increase trust seem warranted in many countries.

Furthermore, already in 1985, the education level in Sweden was high compared with that of the developing countries of today, as shown in [table 1](#). It is likely that the success of different business reforms is dependent on how well people can capture opportunities created and that high education levels may have been important for the success of the business reforms undertaken in Sweden.

Finally, in Sweden, the labor force participation of women has been and is still very high. It is likely that this has been important for the success of the business reforms undertaken since the talent pool of the population is better used in the restructuring process. Indeed, recent IMF research has also underscored the importance of gender equality for growth (see, e.g., [Hakura et al. 2016](#)).

Why Were the Swedish Reforms Stable in the Long Run?

Why was Sweden able to transit from a growth-adverse political equilibrium in the 1970 and 1980s to a growth-oriented political equilibrium from the 1990s and onwards? One explanation is that the Swedish political system was also growth-oriented in the 1970s and 1980s, but politicians were experimenting with new specific policies that failed, and when the politicians understood the deficits of these policies, they changed back to more growth-oriented business policies.

Another explanation is that a concentration of power between strong incumbents, consisting of unions and the ruling political party, the Social Democrats, was created after the Second World War, which gradually created a political system more aligned to protect insiders than to create wealth for outsiders. The globalization process in the 1980s and 1990s weakened the insiders’ power and broke ground for entrepreneurial

oriented reforms. These reforms were then implemented in consensus by different decision makers to forge a political and economic compromise that made it possible to transform the economy.

More generally, this suggests that the key to the successful implementation of good economic policies and reforms are that they be consistent with a political equilibrium. It might be argued that the key to the success of the Swedish business reforms in the 1990s was that important groups with political power did not oppose the reforms. As noted by [Robinson \(2010\)](#):

“Thus, the reason that industrial policy failed in so many African countries in the 1960s is the same as the reason that economic policies were generally very bad in that region: policies were driven by the desire to maintain political power, and this was generally inconsistent with economic growth.”

Indeed, the Swedish reforms were implemented, and subsequent governments did not reverse them, which is a fundamental aspect of their success. Many strong groups lost power in the reforms, at least in the short term. One of the arguments explaining the success of the reforms is the considerable power of bureaucrats and experts in formulating economic policy in Sweden. Building on a history of trust and respect for knowledge, the political system, industry, and unions have often been able to reach decisions through consensus on issues of great importance or through the efficiency of the Swedish economy. The process has also been open to the influence of many different parties, which has generated broad commitment to the reforms. As [Robinson \(2010\)](#) puts it:

“It is not sufficient just to propose good economic policies; one must propose a way in which they will be endogenously chosen by those with the political power to do so.”

Complementary Reforms: Monetary and Fiscal Economic Reforms

The reforms that Sweden undertook after the crisis also included other measures. An important macrofinancial reform was introducing the independence of the Swedish Central Bank from the government in January 1993. At the same time, the Swedish Central Bank announced a policy of inflation targeting. Moreover, the procedure of fiscal policy making was reformed.²⁶

A complementary explanation for the recovery of Swedish industry after the 1990s crisis is that these monetary and fiscal economic reforms ensured a balanced government budget, low inflation, and a flexible exchange rate. This macroeconomic stability, in turn, benefitted Swedish firms and industries through lower interest rates and lower labor costs relative to other countries. Indeed, the increase in exports was a major driving force behind the Swedish recovery, growing strongly and increasing as a share of GDP.

Causally sorting out the relative importance of these factors—the micro-level reforms that restored incentives and the functioning of markets and the macro-level story—is of course difficult to accomplish. The two types of reforms were likely complementary, at least to some extent. The strong depreciation of the Swedish Krona caused increased domestic demand from increased exports and reduced imports, which was helpful in overcoming the short-term negative effects of deregulation of the labor and product markets. These effects included exits of low-productivity firms, which in turn left workers initially unemployed before they could find jobs in expanding firms. The macro-level reforms—in particular, the adoption of a flexible exchange rate—may then have made the micro-level reforms sustainable.

It is also interesting to compare Sweden's development with that of Finland, which was also badly hit by a recession caused by the collapse of its trade when the Soviet Union collapsed in the early 1990s. Until 2007, Finland's economy grew rapidly at about the same rate as Sweden's. The high growth rates of both Finland and Sweden compared to those of other EU-15 countries is consistent with the view that both countries have relatively efficient institutions in terms of their business sectors. Finland did not over-regulate its business sector in the 1970s and 1980s to the same extent that Sweden did. Consequently, Finland was not forced to pursue the far-reaching reforms of the business sector that Sweden undertook after the early 1990s. Finland's less reform-oriented path in recent decades may then explain why Finland was hit harder than Sweden by the recent financial crisis. One might argue that the problem was the Euro: Finland—unlike Sweden—adopted the Euro in 1999. However, as stressed by [Holmström, Korkman, and Pohjola \(2014\)](#), Finland's problem was a less diversified business sector, primarily relying on growth in two manufacturing sectors: electronics and metals. In Finland, service sector growth was slow compared to that in Sweden. Indeed, Sweden's recovery from the great recession was based not on manufacturing but instead on the strong growth impact of the service sector. This result suggests that Sweden's recent business-sector reforms made the Swedish economy more resilient to economic shocks than the Finnish economy.

Commitment to Joining Economic Unions: Sweden Joining the EU in 1995

The prospect of EU membership influenced the Swedish business sector. Indeed, membership encouraged some specific reforms, at the same time also ensuring their permanence. In the fourth round of enlargement, Sweden, together with Austria and Finland, joined the European Union (EU) on 1 January 1995. Sweden's accession to the EU was approved by a referendum on November 13, 1994 (with a mere 52 percent approval). Prior to becoming a member of the EU, Sweden was already a member of the European Economic Area (EEA). The EEA essentially mimics membership in the EU without requiring formal membership. The so-called “four freedoms”—free movement of goods, services, capital, and labor—apply to EEA members. EEA members

needed to adopt all present and future EU legislation, accept the rulings of the European Court of Justice, and make contributions to the EU budget. Since EEA membership essentially implies all the rights and responsibilities associated with EU membership (absent the right to formally influence the EU decisions), the economic impact of entry into the EU seemed limited.

Erixon and Fölster (2014) examined the effects of the Swedish EU membership, and concluded that although it is difficult to evaluate how important the EU was for the reforms in the 1990s, and although many of these reforms would likely have been undertaken anyway, the general picture is that EU membership encouraged the reform drive, forced some specific reforms, and at the same time ensured their implementation. A prominent example of this was the new Competition Act in 1993, which was part of the adaptation process of the Swedish competition law to future Swedish membership in the EU. Joining the EU likely anchored the Swedish reforms.²⁷

Conclusion and Policy Discussion

In this paper, we have argued that our study of the Swedish experience of industrial reorganization in the 1990s can be a valuable case study for developing countries that are in search of efficient regulation of their business sectors. Sweden's experience can serve as an important example of how an economy undergoing a deep crisis can respond and recover by undertaking economically sound business sector reforms. Furthermore, by comparing insights from economic theory with the results of an actual restructuring process, we argue that we can provide valuable knowledge concerning the economic forces driving creative destruction, which can potentially provide solid ground for policy discussions—particularly those relating to how countries can improve their competitiveness and employment levels. This study thus supports the view that addressing microeconomic inefficiencies is important to provide a solid foundation for a country's growth and prosperity.

Why were the Swedish reforms so successful? We have argued that they resolved fundamental market and political failures that affected the Swedish economy in the 1970s and the 1980s. A fundamental *political* failure regarding the business sector was that politicians favored incumbent firms and insider employees. The corporate tax system and FDI restrictions impeded ownership changes and business formation, which, in turn, harmed entrepreneurs, labor, and consumers. Moreover, the political system underestimated the cost of hampering economic incentives for the business sector when pursuing political goals, such as very low unemployment and highly compressed wages. These political failures were greatly mitigated by the tax reforms, the opening of the economy to FDI, and the decentralization of wage bargaining. A fundamental *market* failure in the Swedish business sector during this period was that incumbent firms and labor unions had gained too much power. This power imbalance enabled them to protect their markets from competition, creating negative

externalities for potential entrants, consumers, and labor market outsiders. The dominance of incumbents and insiders in labor unions was substantially mitigated by the deregulation of the labor and product markets.

The Swedish reforms were implemented, and subsequent governments did not reverse them, which is a fundamental aspect of their success. One of the arguments explaining the success of the reforms is the considerable power of bureaucrats and experts in formulating economic policy in Sweden. Building on a history of trust and respect for knowledge, the political system, industry, and unions have often been able to reach decisions through consensus on issues of great importance or through the efficiency of the Swedish economy.

The focus of this paper has been on the reforms that most directly impacted the business sector. However, important monetary and fiscal reforms were also undertaken in the aftermath of the extraordinary economic problems of the early 1990s. A crucial reform in the financial system was the independence of the Swedish Central Bank from the government. In January 1993, the Swedish Central Bank announced a policy of inflation targeting. The target rate was set at a 2 percent yearly increase within a range of plus/minus one percent. Moreover, the procedure of fiscal policy making was reformed. Expenditure ceilings were introduced, and a surplus target of 2 percent of GDP over the business cycle was established.

While these monetary and fiscal reforms were surely important for the recovery of the Swedish economy, we have emphasized that the crucial aspect of the Swedish micro-based reform package was that it benefitted the more productive firms and factors—or even punished the less effective firms and factors. While finding causal evidence in a single-country study is difficult, we do find indicative support of our proposed hypothesis in our empirical analysis. For instance, the relationship between productivity and wages in firms increased over the period studied, thereby suggesting increased economic efficiency in Swedish industry. This result indicates that the reforms benefitted not only all firms and employees, but also the most productive firms. Moreover, firm dynamics is systematically related to product market competition. Higher competition affects the composition of new firms that survive on the market and those that exit. Overall, this indicates that production factors moved from low- to high-productivity firms, thus increasing the economic efficiency. We also present evidence on the systematic differences between firms of different sizes in terms of their overall contributions to employment and productivity in the Swedish business sector. The results indicate that most of the net jobs were created in small firms, while most of the productivity gains were created in large incumbent firms, thus suggesting a division of labor between the two. We also show that foreign firms, to a large extent, contributed to the productivity and employment growth in the business sector during this period.

Recent changes in economic forces suggest that the type of reforms that Sweden implemented may be of increasing relevance to countries that are early in their

development process. Rapid development could traditionally be achieved through rapid industrialization, in which vast amounts of unskilled labor moved from the informal agricultural sector—or simple services—to productive modern manufacturing. Through increasing complexity and skill demand in modern activities, this route to development is increasingly difficult to adopt for many developing countries—a process labeled premature de-industrialization.²⁸ Instead, growth needs increasingly to come from improving so-called fundamentals, which involves reforms in the labor and product markets, improving conditions and incentives for entrepreneurs, and investments in human capital and education, not least in the modern service sector; in short, many of the types of changes that Sweden underwent during the 1980s and 1990s. However, as [McMillan, Rodrik, and Sepulveda \(2017\)](#) point out, which reforms work may be context-specific, and care needs to be taken to examine which types of constraints are holding development back. We believe that the experience gained in Sweden during the twenty years of reforms can be of value for developing countries, particularly when problems of incentives and insider power are present.

Notes

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1. See also two recent articles in the *Journal of Economic Perspectives* ([Besley 2015](#); [Thimann 2015](#)) stressing the importance of the microeconomic foundations.

2. See [Heyman, Norbäck, and Persson \(2015\)](#) for details of the empirical analysis.

3. See [Sutton \(1997\)](#); [Caves \(1998\)](#); [Acs and Audretsch \(2005\)](#); [Santarelli and Vivarelli \(2007\)](#) for an overview of the literature on market structure and firm dynamics. For specific articles, see, for example, [Audretsch \(1991\)](#); [Bartelsman, Scarpetta, and Schivardi \(2005\)](#); [Ericson and Pakes \(1995\)](#); [Hjalmarsson \(1974\)](#); [Hopenhayn \(1992\)](#); [Klepper \(1996\)](#); [Jovanovic \(1982\)](#); [Luttmer \(2007\)](#). In addition, see [Nelson and Winter \(1982\)](#) for an analysis of firm growth processes with bounded rational decision makers. See [Li and Rama \(2015\)](#) for an analysis of firm dynamics, productivity growth, and job creation in developing countries.

4. See [Besanko et al. \(2003\)](#) for an overview.

5. The literature that addresses firm formation and size was founded by [Coase \(1937\)](#) and was further developed by [Williamson \(1979\)](#). [Grossman and Hart \(1986\)](#) and [Hart and Moore \(1990\)](#) then developed formal frames of analysis to study these questions, focusing on how the division of ownership affected the different stakeholders' incentives to invest in a firm's development. See [Rajan and Zingales \(2001\)](#) for an application for entrepreneurship and enterprise development.

6. Bloom and Van Reenen (2007) find that firms with higher-quality management are more productive. Bertrand and Schoar (2003) follow individuals who have been CEOs at different companies and show that CEO quality has an effect on how profitable these firms are. Lazear (2000) and Bandiera, Barankay, and Rasul (2007, 2009) also show the connection between good leadership and high productivity.

7. See Murphy and Topel (1990) and Gibbons and Roberts (2013) for an overview.

8. See Barba Navaretti and Venables (2004) for an overview of the MNE literature, Javorcik (2015) on the literature on FDI and job creation, and Saggi (2002) on the literature on FDI and technological spillovers.

9. See Besley (2015) and Thimann (2015) for recent articles that focus on the importance of microeconomic foundations.

10. Both highly coordinated wage bargaining and decentralized firm-level bargaining deliver higher wage moderation: highly coordinated bargaining does so because wage setters are forced to make economy-wide considerations, and decentralized bargaining does so because wage setters have to consider competitive pressures. This hypothesis seems to be borne out by the high wage increases in Sweden in the 1980s (Calmfors 2012).

11. The data originate from several register-based datasets from Statistics Sweden (SCB) and cover all firms in the private sector. Individual-, plant- and firm-level data are linked together using unique tracking numbers. From an international perspective, the data are rather unique in terms of both magnitude and the level of detail (see, e.g., Davidson et al. (2014) and Hakkala, Heyman, and Sjöholm (2014) for recent articles based on these data).

12. Another measure of productivity is Total Factor Productivity (TFP). Studies that use both labor productivity and TFP typically find similar results when using the two measures (see, e.g., Bartelsman and Doms (2000); Syverson (2011) for discussions of different productivity concepts).

13. See, e.g., Foster, Haltiwanger, and Krizan (2001) for details. One advantage of their cross-sectional decomposition method is that cross-sectional productivity differences are more persistent and possibly less sensitive to measurement errors and temporary shocks. The Olley and Pakes approach also does not depend on how firm entries and exits are measured.

14. See Heyman, Norbäck, and Persson (2015) for details.

15. Figure 4 also reveals that the overall change in productivity between 1996 and 2009 appears to have been somewhat larger in the manufacturing sector than in the service sector. We also find that established manufacturing firms that expanded increased their productivity (or otherwise established manufacturing firms that reduced their productivity also experienced decreasing employment shares). Interestingly, this “cross effect” is negative in the service sector, which is consistent with the fast-growing nature of the service sector, where many expanding firms experienced declining productivity during their growth phase.

16. Braunerhjelm and Carlsson (1993) show that the number of small firms in the Swedish business sector decreased substantially compared with that in other industrialized countries during the 1970s and 1980s. Henrekson, Johansson, and Stenkula (2012) show that, in 2008, the firm size distribution in Sweden had again become more similar to other comparable EU countries.

17. When the effect of the foreign acquisition of Swedish multinationals was examined, there was no statistically significant effect. This result seems to be consistent with the theory described above, that is, synergies may be more easily generated when a foreign MNE acquires a local firm than when it acquires an indigenous firm.

18. The reason for the smaller overall difference in productivity growth is that the cross effect is negative for foreign-owned firms. However, as explained above, this result may be due to the significant expansion of foreign firms, where the productivity in the expansion phase is below average as the firm is built up.

19. Note that “structural change” is different from structural reforms, which broadly refer to measures that change the fabric of an economy, that is, the institutional and regulatory framework in which businesses and people operate.

20. The structural change part of growth builds on the dual-economy approach (originating by Lewis 1954), which entails a distinction between the agricultural and industry sectors. The fundamentals part can be traced to the neoclassical growth model of Solow (1956), with further developments by, for instance, Grossman and Helpman (1994) and Aghion and Howitt (1992).

21. See also Heyman, Norbäck, and Persson (2018).

22. These data are from the Fraser Institute, and consist of variables associated with economic and business freedom. See <http://www.freetheworld.com/2015/economic-freedom-of-the-world-2015.pdf>.

23. See <http://hdr.undp.org/en/content/human-development-index-hdi>.

24. See <http://www.transparency.org/research/cpi/overview>.

25. See <http://www.worldvaluessurvey.org>.

26. The target rate for inflation was set at a 2 percent yearly increase within a range of plus/minus one percent. In the spring of 1993, the parliament officially backed the inflation target. Expenditure ceilings for the budget were introduced, and a surplus target of 2 percent of GDP over the business cycle was established.

27. This effect of membership may even have been vital for the Eastern European countries that joined the EU as part of the Eastern Enlargement of the European Union in 2004. At the EU summit in Copenhagen approximately ten years earlier, the European Council concluded that EU membership required that a set of criteria be fulfilled. These so-called Copenhagen criteria stated what candidate countries needed to achieve the following upon entry: political stability of institutions that guarantee democracy, the rule of law, human rights, and the respect of minorities; a functioning market economy capable of addressing the competitive pressure in the European Union; and an acceptance of the full *Community Acquis*, that is, the EU law in its entirety. All of this meant that the candidate countries had to undergo a long and painful process of disruption and reform before entry was possible. As Rodrik (2016) puts it, “The prospect of European Union membership—and the promise to becoming a ‘normal European country’ after a half of century of isolation from the West—held the reforms together despite high unemployment and serious economic dislocation early on”.

28. See Rodrik (2015) at <http://voxeu.org/article/premature-deindustrialisation-developing-world>.

References

- Acs, Z. J., and D. B. Audretsch. 2005. “Entrepreneurship, Innovation and Technological Change.” *Foundations and Trends in Entrepreneurship*, 1 (4): 149–95.
- Aghion, P., R. Burgess, S. Redding, and F. Zilibotti. 2005a. “Entry Liberalization and Inequality in Industrial Performance.” *Journal of the European Economic Association* 3 (2-3): 291–302.
- Aghion, P., N. Bloom, R. Blundell, R. Griffith, and P. Howitt. 2005b. “Competition and Innovation: An Inverted-u Relationship.” *Quarterly Journal of Economics* 120 (2): 701–28.
- Aghion, P., and P. Howitt. 1992. “A Model of Growth through Creative Destruction.” *Econometrica* 60 (2): 323–51.
- Allard, G. 2005. “Measuring Job Security Over Time: In Search of a Historical Indicator for EPL (Employment Protection Legislation).” Working Paper 05–17, Instituto de Empresa, Madrid.
- Andrews, D., and F. Cingano. 2014. “Public Policy and Resource Allocation: Evidence from Firms in OECD Countries.” *Economic Policy* 29 (78): 253–96.
- Audretsch, D. B. 1991. “New-Firm Survival and the Technological Regime.” *Review of Economics and Statistics* 73 (3): 441–50.
- Bandiera, O., I. Barankay, and I. Rasul. 2007. “Incentives for Managers and Inequality Among Workers: Evidence from a Firm-Level Experiment.” *Quarterly Journal of Economics* 122 (2): 729–73.
- . 2009. “Social Connections and Incentives in the Workplace: Evidence from Personnel Data.” *Econometrica* 77 (4): 1047–94.

- Barba Navaretti, G., and A. J. Venables. 2004. *Multinational Firms in the World Economy*. Princeton: Princeton University Press.
- Bartelsman, E. J., and M. Doms. 2000. "Understanding Productivity: Lessons from Longitudinal Micro-data." *Journal of Economic Literature* 38 (3): 569–94.
- Bartelsman, E., S. Scarpetta, and F. Schivardi. 2005. "Comparative Analysis of Firm Demographics and Survival: Evidence from Micro-Level Sources in OECD Countries." *Industrial and Corporate Change* 14 (3): 365–91.
- Bergh, A. 2014. *Sweden and the Revival of the Capitalist Welfare State*. Northampton, MA: Edward Elgar.
- Bergh, A., and G. Erlingsson. 2006. "Resilience Through Restructuring: Swedish Policy-Making Style and the Consensus on Liberalisations 1980–2000." Working Papers 110, The Ratio Institute, Stockholm. Available at: <http://ideas.repec.org/p/hhs/ratioi/0110.html>.
- Bertrand, M., and A. Schoar. 2003. "Managing with Style: The Effect of Managers on Firm Policies." *Quarterly Journal of Economics* 118 (4): 1169–208.
- Besanko, D., D. Dranove, M. Shanley, and S. Schaefer. 2003. *Economics of Strategy*, 3rd edition. New York, NY: John Wiley & Sons, Inc.
- Besley, T., and R. Burgess. 2004. "Can Labor Regulation Hinder Economic Performance? Evidence From India." *Quarterly Journal of Economics*, 119 (1): 911–34.
- Besley, T. 2015. "Law, Regulation, and the Business Climate: The Nature and Influence of the World Bank Doing Business Project." *Journal of Economic Perspectives* 29 (3): 99–120.
- Bloom, N., and J. Van Reenen. 2007. "Measuring and Explaining Management Practices Across Firms and Countries." *Quarterly Journal of Economics* 122 (4): 1351–408.
- Braunerhjelm, P., and B. Carlsson. 1993. "Entreprenörskap, Småföretag och Industriell Förnyelse 1968–91." *Ekonomisk Debatt* 21 (4): 317–28.
- Calmfors, L. 2012. "Sweden: from Macroeconomic Failure to Macroeconomic Success." Working Paper 3790, Category 6: Fiscal Policy, Macroeconomics and Growth, CESifo, Munich.
- Caves, R. E. 1998. "Industrial Organization and New Findings on the Turnover and Mobility of Firms." *Journal of Economic Literature* 36 (4): 1947–82.
- Christiansen, L., M. Schindler, and T. Tressel. 2013. "Growth and Structural Reforms: A New Assessment." *Journal of International Economics* 89 (2): 347–56.
- Coase, R. 1937. "The Nature of the Firm." *Economica* 4 (16): 386–405.
- Dabla-Norris, E., G. Ho, and A. Kyobe. 2016. "Structural Reforms and Productivity Growth in Emerging Market and Developing Economies." Working Paper 16/15, International Monetary Fund, Washington, DC.
- Davidson, C., F. Heyman, S. Matusz, F. Sjöholm, and S. Chun Zhu. 2014. "Globalization and Imperfect Labor Market Sorting." *Journal of International Economics* 94 (2): 177–94.
- Davis, S. J., and M. Henrekson. 2000. "Wage-Setting Institutions as Industrial Policy." NBER Working Paper 7502, National Bureau of Economic Research, Cambridge, MA.
- Edquist, H., and M. Henrekson. 2013. "Product Market Reforms and Incentives to Innovate in Sweden." In *What Can We Learn from Economic Reforms in Greece and Sweden?* edited by M. Choupres and H. Edquist, 143–198. Brussels: European Liberal Forum.
- Ericson, R., and A. Pakes. 1995. "Markov-Perfect Industry Dynamics: A Framework for Empirical Work." *Review of Economic Studies* 62 (1): 53–82.
- Erixon, F., and S. Fölster. 2014. "Vad har EU gjort för Sverige—och vad har Sverige gjort för EU?" *Samhällsförlaget*.
- Eslava, M., J. Haltiwanger, A. Kugler, and M. Kugler. 2004. "The Effects of Structural Reforms on Productivity and Profitability Enhancing Reallocation: Evidence from Colombia." *Journal of Development Economics* 75 (2): 333–71.

- . 2009. “Factor Adjustments after Deregulation: Panel Evidence from Colombian Plants.” *Review of Economics and Statistics* 92 (2): 378–91.
- Foster, L., J. Haltiwanger, and C. J. Krizan. 2001. “Aggregate Productivity Growth. Lessons from Microeconomic Evidence.” In *New Developments in Productivity Analysis*, edited by C. R. Hulten, E. R. Dean and M. J. Harper, 303–372. Chicago: University of Chicago Press.
- Gibbons R. and J. Roberts, eds. 2013. *The Handbook of Organizational Economics*. Princeton: Princeton University Press.
- Grossman, S., and O. Hart. 1986. “The Costs and the Benefits of Ownership: A Theory of Vertical and Lateral Integration.” *Journal of Political Economy* 94 (4): 691–719.
- Grossman, G. M., and E. Helpman. 1994. “Protection for Sale.” *American Economic Review* 84 (4): 833–50.
- Hakkala, K., F. Heyman, and F. Sjöholm. 2014. “Multinational Firms and Job Tasks.” *European Economic Review* 66 (February): 248–65.
- Hakura, D., M. Hussain, M. Newiak, V. Thakoor, and F. Yang. 2016. “African Department Inequality, Gender Gaps and Economic Growth: Comparative Evidence for Sub-Saharan Africa.” IMF Working Paper 16/111, International Monetary Fund, Washington D.C.
- Hart, O., and J. Moore. 1990. “Property Rights and the Nature of the Firm.” *Journal of Political Economy* 98 (6): 1119–58.
- Henrekson, M., and U. Jakobsson. 2005. “The Swedish Model of Corporate Ownership and Control in Transition.” In *The Internationalization of Asset Ownership in Europe*, edited by H. Huizinga and L. Jonung, 207–246. Cambridge: Cambridge University Press.
- Henrekson, M., D. Johansson, and M. Stenkula. 2012. “Den Svenska Företagsstrukturen— Utvecklingen i de Medelstora Företagen efter 1990-Talskrisen.” *Ekonomisk Debatt* 40 (2): 27–38.
- Heyman, F., P.-J. Norbäck, and L. Persson. 2015. “The Turnaround of Swedish Industry: Reforms, Firm Diversity and Job and Productivity Dynamics.” IFN Working Paper Series 1079, Research Institute of Industrial Economics, Stockholm.
- . 2018. “Who Creates Jobs and Who Creates Productivity? Small Versus Large Versus Young Versus Old.” *Economics Letters* 164: 50–7.
- Hjalmarsson, L. 1974. “The Size Distribution of Establishments and Firms Derived from an Optimal Process of Capacity Expansion.” *European Economic Review* 5 (2): 123–40.
- Holmström, B., S. Korkman, and M. Pohjola. 2014. “The Nature of Finland’s Economic Crisis and the Prerequisites for Growth.” Mimeo.
- Hopenhayn, H. 1992. “Entry, Exit, and Firm Dynamics in Long Run Equilibrium.” *Econometrica* 60 (5): 1127–50.
- Horn, H., and L. Persson. 2001. “The Equilibrium Ownership of an International Oligopoly.” *Journal of International Economics* 53 (2): 307–33.
- Javorcik, B. S. 2015. “Does FDI Bring Good Jobs to Host Countries?” *World Bank Research Observer* 30 (1): 74–94.
- Jonung, L., J. Kiander, and P. Vartia. 2008. “The Great Financial Crisis in Finland and Sweden – the Dynamics of Boom, Bust and Recovery, 1985–2000.” European Economy, Economic Papers 350, European Commission, Brussels.
- Jovanovic, B. 1982. “Selection and the Evolution of Industry.” *Econometrica* 50 (3): 649–70.
- Klepper, S. 1996. “Entry, Exit, Growth, and Innovation Over the Product Life Cycle.” *American Economic Review* 86 (3): 562–83.
- Lazear, E. P. 2000. “Performance Pay and Productivity.” *American Economic Review* 90 (5): 1346–61.

- Lee, J.-W., and H. Lee. 2016. "Human Capital in the Long Run." *Journal of Development Economics* 122: 147–69.
- Lewis, W. A. 1954. "Economic Development with Unlimited Supplies of Labor." *Manchester School of Economic and Social Studies* 22 (2): 139–91.
- Li, Y., and M. Rama. 2015. "Firm Dynamics, Productivity Growth, and Job Creation in Developing Countries: The Role of Micro- and Small Enterprises." *World Bank Research Observer* 30 (1): 3–38.
- Lindbeck, A. 1997. "The Swedish Experiment." *Journal of Economic Literature* 35 (3): 1273–319.
- Lindbeck, A., P. Molander, T. Persson, O. Sandmo, B. Swedenborg, and N. Thygesen. 1994. *Turning Sweden Around*. Cambridge, MA: MIT Press.
- Lindbeck, A., and D. J. Snower. 2001. "Insiders Versus Outsiders." *Journal of Economic Perspectives* 15 (1): 165–88.
- Luttmer, E. G. J. 2007. "Selection, Growth, and the Size Distribution of Firms." *Quarterly Journal of Economics* 122 (3): 1103–44.
- McMillan, M., D. Rodrik, and C. Sepulveda. 2017. "Structural Change, Fundamentals and Growth: A Framework and case Studies." NBER Working Paper No. 23378, National Bureau of Economic Research, Cambridge, Massachusetts.
- Motta, M. 2004. *Competition Policy: Theory and Practice*. Cambridge: Cambridge University Press.
- Murphy, K. M., and R. H. Topel. 1990. "Efficiency Wages Reconsidered: Theory and Evidence." In *Advances in the Theory and Measurement of Unemployment*, edited by Y. Weiss and G. Fishelson, 103–140. London: Palgrave Macmillan.
- Nelson, R. R., and S. G. Winter. 1982. *An Evolutionary Theory of Economic Change*. Cambridge, MA: Belknap Press.
- Norbäck, P.-J., and L. Persson. 2007. "Investment Liberalizations: Why a Restrictive Cross-Border Merger Policy Can be Counterproductive." *Journal of International Economics* 72 (2): 366–80.
- . 2012. "Entrepreneurial Innovations, Competition and Competition Policy." *European Economic Review* 56 (6): 488–506.
- Norbäck, P.-J., L. Persson, and R. Douhan. 2014. "Entrepreneurship Policy and Globalization." *Journal of Development Economics* 110 (September): 22–38.
- Nycander, S. 2008. *Makten Över Arbetsmarknaden: ett Perspektiv på Sveriges 1900-Tal*. Stockholm: SNS Publishing.
- Organisation for Economic Co-operation and Development (OECD). 2013. *OECD Compendium of Productivity Indicators 2013*. Paris: OECD Publishing.
- Olley, S., and A. Pakes. 1996. "The Dynamics of Productivity in the Telecommunications Industry." *Econometrica* 64 (6): 1263–98.
- Olson, M. 1965. *The Logic of Collective Action*. Cambridge, MA: Harvard University Press.
- Perotti, E., and P. Volpin. 2007. "Investor Protection and Entry." Discussion papers 2007-006/2, Tinbergen Institute, Rotterdam and Amsterdam.
- Prati, A., M. G. Onorato, and C. Papageorgiou. 2013. "Which Reforms Work and under What Institutional Environment? Evidence from a New Data Set on Structural Reforms." *Review of Economics and Statistics* 95 (3): 946–68.
- Rajan, R. G., and L. Zingales. 2001. "The Firm as a Dedicated Hierarchy: A Theory of the Origins and Growth of Firms." *Quarterly Journal of Economics* 116 (3): 805–51.
- Robinson, J. A. 2010. "Industrial Policy and Development: A Political Economy Perspective." In *Lessons from East Asia and the Global Financial Crises, Annual World Bank Conference on Development Economics-Global*, edited by J. Y. Lin and B. Pleskovic, 61–80. Washington DC: World Bank.

- Rodrik, D. 2015. "Premature Deindustrialisation in Developing World." <https://voxeu.org/article/premature-deindustrialisation-developing-world>.
- . 2016. "The Elusive Promise of Structural Reform." *The Milken Institute Review*, Second Quarter.
- Saggi, K. 2002. "Trade, Foreign Direct Investment, and International Technology Transfer: A Survey." *World Bank Research Observer* 17 (2): 191–235.
- Santarelli, E., and M. Vivarelli. 2007. "Entrepreneurship and the Process of Firms' Entry, Survival and Growth." *Industrial and Corporate Change* 16 (3): 455–88.
- Skedinger, P. 2010. *Employment Protection Legislation. Evolution, Effects, Winners and Losers*. Northampton, MA: Edward Elgar.
- Solow, R. M. 1956. "A Contribution to the Theory of Economic Growth." *Quarterly Journal of Economics* 70 (1): 65–94.
- Statens offentliga utredningar (SOU). 1993. *Nya Villkor för Ekonomi och Politik, Report from the Economics Commission*. Stockholm: Allmänna förlaget.
- Statens offentliga utredningar (SOU). 2005. *Liberalisering, Regler och Marknader, Ministry for Enterprise*. Stockholm: Elanders.
- Spencer, B. J., and J. A. Brander. 1983. "International R&D Rivalry and Industrial Strategy." *Review of Economic Studies* 50 (4): 707–22.
- Stenkula, M., D. Johansson, and G. Du Rietz. 2015. "Capital Income Taxation of Swedish Households, 1862 to 2010." *Scandinavian Economic History Review* 63 (2): 154–77.
- Stigler, G. J. 1971. "The Theory of Economic Regulation." *Bell Journal of Economics and Management Science* 2 (1): 3–21.
- Sutton, J. 1997. "Gibrat's Legacy." *Journal of Economic Literature* 35 (1): 40–59.
- Syversen, C. 2011. "What Determines Productivity?" *Journal of Economic Literature* 49 (2): 326–65.
- Thimann, C. 2015. "The Microeconomic Dimensions of the Eurozone Crisis and Why European Politics Cannot Solve Them." *Journal of Economic Perspectives* 29 (3): 141–64.
- Tirole, J. 2006. *The Theory of Corporate Finance*. Princeton: Princeton University Press.
- Vives, X. 2008. "Innovation and Competitive Pressure." *Journal of Industrial Economics* 56 (3): 419–69.
- Williamson, O. E. 1979. "Transaction-Cost Economics: The Governance of Contractual Relations." *Journal of Law and Economics* 22 (2): 233–61.
- Wölfel, A., I. Wanner, T. Kozluk, and G. Nicoletti. 2009. "Ten Years of Product Market Reform in OECD Countries: Insights from a Revised PMR Indicator." OECD Economics Department Working Papers 695, OECD Economic Department, Paris.