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The turnaround of the Swedish economy: lessons from large business sector reforms

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Abstract

How can a country improve the 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, we first survey the industrial restructuring literature and then examine the reform package using Swedish matched plant-firm-worker data. The removal of barriers to growth for new and productive firms and increased rewards for investment in human capital were crucial to the success of Sweden's reforms. We also discuss how the reform experience from a developed country such as Sweden can be useful for developing countries that are in the process of transforming their business sectors. We also discuss evidence from developing countries that have undergone similar micro-based business sector reform programs. Our 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: D220, E230, J210, J230, K230, L110, L160, L510.

Keywords: regulations, allocative efficiency, productivity, job dynamics, matched employer-employee data, industrial structure and structural change.

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1. INTRODUCTION

Although the economic policy debate has long centred on the importance of macroeconomic policies, a growing awareness 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 report:¹

“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.”

A malfunctioning system of micro-economic regulation can hinder economic growth and make standard macro policies less effective or even lead to deep macroeconomic crises. In this paper, we will argue that the Swedish experience in the 1970s and 1980s is an illustrative example of how a dysfunctional system of micro-economic regulations can lead to a severe macroeconomic crisis. However, we will also show how micro-economic 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, we will argue that 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. As we will argue, 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

¹ See also two recent articles in the Journal of Economic Perspectives (Besley, 2015 and Thimann, 2015) stressing the importance of the microeconomic foundations.

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 world view 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 macro-economic 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 macro-economic 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 US) experienced the highest labour productivity growth in the OECD 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 micro-economic reforms, we first survey the industrial restructuring literature 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 practises. 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.

We then describe in detail the structural reform package that Sweden undertook and discuss 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

analysing issues related to firm employment and productivity dynamics possible 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 labour 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 micro-economic reforms that made the playing field between different ownership and organization forms more level were crucial for Sweden's successful transformation.

Why, then, may our 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, we end the paper in Section 4 with a discussion of an emerging 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

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

business sector in these countries. This literature also points to an interesting pattern, where 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. Section 4 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.

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, our 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.

2. 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, we analyse the potential effects of the economic reforms undertaken in Sweden in the 1990s on employment and productivity dynamics. This overview focuses on the economy's microeconomic features, thus centring on what the World Bank refers to as the "nuts and bolts" of the economy. We divide the description 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 practises. Thereby, economically efficient decisions

³ See Acs and Audretsch (2005), Caves (1998), Santarelli and Vivarelli (2007), and Sutton (1997) for an overview of the literature on market structure and firm dynamics. For specific articles, see, e.g., Audretsch (1991), Bartelsman et al. (2005), Ericson and Pakes (1995), Hjalmarsson (1974), Hopenhayn (1992), Klepper (1996), Jovanovic (1982), and 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.

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. In our study of the Swedish business sector, we focus on external factors in a large reform package implemented in Sweden in the early 1990s, which included reforms of the labour and product markets, tax reforms and the removal of FDI barriers. Such reform packages are not unique to developed countries, as we will discuss in Section 4.

2.1. 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. *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 We discuss some of the more important firm-specific factors below.

2.1.1. 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 (ICT), 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

⁴ See Besanko et al. (2003) for an overview.

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 labour saving or due to the outsourcing of non-core business activities.⁵

2.1.2. Ownership and Management

Expanding productive firms are typically associated with active owners and up-to-date and incentive-based management practises. 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).

2.1.3. 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

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 et al. (2007 and 2009) also show the connection between good leadership and high productivity.

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

M&As). These FDI's often have positive externalities on labour through higher wages and on local firms through knowledge spillovers.⁸

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

2.2. 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, e.g., Bergh (2014), Bergh and Erlingsson (2006), Calmfors (2012), Edquist and Henrekson (2013), Henrekson and Jakobsson (2005), Jonung et al. (2008), Lindbeck (1997), 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 labour market regulations were implemented in the early 1970s. 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 labour 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,

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.

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 US 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.

In the following sub-sections, we 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.

2.2.1. The Labour Market

Labour market regulations significantly affect firm employment and productivity development. On the one hand, labour market institutions can increase hiring and productivity by reducing matching and search problems in the labour market. On the other hand, rigid labour markets may offer too much protection to insiders, thereby hampering creative destruction processes and, to a lesser extent, rewarding productive labour and firms. Various types of labour 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 labour market.

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

Let us now use this background to discuss the impact of the crucial labour 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.

2.2.1.1. 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 labour market, in which low productivity firms would be driven out of the market, thus freeing labour 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 (Davis and Henrekson, 2000 and Lindbeck, 1997). A market mechanism through which high-productivity firms could attract labour by paying higher wages did not exist; instead, active labour market policies were pursued, whereby resources were allocated to help the unemployed gain new competences and to reduce frictions and search costs in the labour market. How well the government was able fulfil 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 favoured 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 US labour 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 it 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 (Skedinger, 2010), and the regulations concerning temporary work were relaxed. This development created what is referred to as the dual Swedish labour market, with strong employment protections for regular workers and weak employment protections for temporary workers. This reform was also evident in the Allard 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.

We conclude our description of the reforms of the labour market as follows:

Conclusion 1. The incentive and insider-outsider problems in the Swedish labour market may have been mitigated by the labour 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.

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).

2.2.2. 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 behaviours, 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., 2005, Norbäck and Persson, 2012, and Vives, 2008).

2.2.2.1. 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 (SOU 2005:4). 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, e.g., 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 (SOU 1993:16), 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 we see 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 sectors were substantially lower in Sweden than the average of the EU 15, and they were even lower than such costs in the US and the UK.

Since the late 1990s, the OECD has also constructed a system of indicators to measure on-going 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. We can summarize our description of Sweden’s product market reforms 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.

2.2.4. 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, and Perotti and Volpin, 2007). Moreover, in more open economies, lobbying for international protection might occur (Spencer and Brander, 1983, and Grossman and

Helpman, 1994). Politicians might also have an incentive to favour domestic owners in the market for corporate control (Horn and Persson, 2001, and Norbäck et al. 2014).

Thus, regulation might affect the efficiency of the corporate ownership market by favouring 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.

2.2.4.1. 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 per cent throughout the 1980s; in addition, less than 5 per cent 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). One other important factor in the liberalization of FDIs in Sweden was that Sweden joined the European Union in 1995.

From a mere 7 per cent in 1989, the share of foreign ownership skyrocketed to 40 per cent 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 per cent at the end of the 1980s to 23 per cent 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 in 1995 to 630,000 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 labour 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., Stenkula et al., 2015 and Edquist and Henrekson, 2013 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.

3. 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 US. During the 1970–1990 period, Sweden performed worse than both the US 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 US 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, employment as a share of the total labour force, the so-called participation rate, 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 labour force participation rate steadily increased, and it was again substantially higher than those in the EU 15 and the US. In particular, Sweden showed high growth in private sector employment as a

share of its total labour force in the 1995–2011 period. Although substantially lower than that in the US, 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

3.1. Allocative Efficiency

In the previous section, we emphasized the structural reforms that began in the 1980s: the reforms in the product market, the reforms affecting inward FDI, and the labour 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.

In this section, we summarize 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 analyse productivity and reallocation. To measure productivity, we used labour productivity, defined as value added per employee.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 labour is strictly positive, then more productive firms will tend to attract larger shares of workers, which is what we would expect in a well-functioning market economy.

To examine whether this allocative efficiency has changed over time in Sweden, we computed the Olley and Pakes covariance term 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

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 et al. (2014) for recent articles based on these data).

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

¹³ See, e.g., Foster et al. (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.

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 analyse 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, they find that Sweden has the largest allocative efficiency. This result is consistent with the substantial changes in Sweden that we have 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.

3.2. Where does the increase in productivity come from?

Our institutional analysis suggested that labour 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, we also applied a decomposition method to analyse the drivers of overall productivity in greater detail (see Foster et al. (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

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

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 our 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 the 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 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).

3.3. 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, labour

¹⁵ Figure 3 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 et al. (2012) show that, in 2008, the firm size distribution in Sweden had again become more similar to other comparable EU countries.

productivity increased by approximately three per cent 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

We also repeated the analysis of foreign ownership and foreign acquisitions 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, foreign ownership and acquisitions also appear to have contributed to higher employment and wages, which is what we 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, we extended the decomposition method of productivity growth by Foster et al. (2001) to also distinguish between Swedish and foreign firms. We then found 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

4. 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 developed 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 the last decades would automatically work in a developing country setting of today.

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 in Section 2; i.e., 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.

This section discusses why the Swedish experience in the 1980s and 1990s can be relevant for developing countries. 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. To this end, we will first relate our findings to recent literature that examines the productivity and growth effects of micro based structural reforms in developing countries, as well as 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 the Sweden of the 1980s and the middle-income developing countries of today. We also note some specific institutional features of the Swedish economy that might be important for understanding the success of the Swedish business reforms. Finally, we discuss underlying factors that might explain why Sweden undertook these micro-based reforms and why the reforms were stable in the long run.

4.1. Studies of micro-based structural reforms in developing countries

There is a new and growing 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, labour 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, they 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 labour and capital adjustments. The example of Colombia suggests that reforms that are conducive to improving the 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.

There is also a recent emerging literature studying micro-based reforms in multiple developing countries over time. Prati et al. (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. They 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 et al. (2013) found that domestic financial and trade reforms

are associated with economic growth, but only in middle-income countries. Moreover, they 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 et al. (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.

While the reforms examined in these studies differ from the Swedish reforms in several dimensions, they share the feature that they include elements that remove barriers to entry and increase return on investment in the business sector. Thus, the results in the above studies suggest that reforms along the lines of the Swedish ones might also provide benefits in developing countries. Furthermore, the long-run successful development following the Swedish reforms suggests that it is worthwhile to investigate the details and longevity of these reforms.

4.2. Comparing Sweden in the 1980s with the developing countries of today

The empirical literature thus suggests that structural reforms like the Swedish reforms may work in developing countries, given a sufficiently high level of sophistication in technology and institutions. In this respect, it is 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*.¹⁹ In fact, according to this measure, Sweden was more regulated in the 1980s than examples of emerging markets of 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*

¹⁹ 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>.

Report.²⁰ On a general level, the human development condition in the Swedish economy in the 1980s and that in the economies of many developing countries as 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.²¹ 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?"²² 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 labour 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).

4.3. 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

²⁰ See <http://hdr.undp.org/en/content/human-development-index-hdi>.

²¹ See <http://www.transparency.org/research/cpi/overview>.

²² See <http://www.worldvaluessurvey.org>.

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 a 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, p. 77):

“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, p. 77) 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.”

5. 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 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. Our study thus supports the view that addressing micro-economic 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 *market* failure in the Swedish business sector during this period was that incumbent firms and labour 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 labour market outsiders. The dominance of incumbents and insiders in labour unions was substantially mitigated by the deregulation of the labour and product markets.

A fundamental *political* failure regarding the business sector was that politicians favoured incumbent firms and insider employees. The corporate tax system and FDI restrictions impeded ownership changes and business formation, which, in turn, harmed entrepreneurs, labour, 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.

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.

An alternative or 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 and low inflation. This, in turn, benefitted Swedish firms and industries through lower interest rates and lower labour costs in an international comparison. Indeed, exports were a major driving force behind the Swedish recovery, growing strongly and increasing as a share of the GDP. The depreciation of the *krona* after November 1992 (when Sweden switched from a fixed to a floating exchange rate) also increased the Swedish competitiveness. Exports were also favourably

affected by Sweden's entry into the EU in 1995, which promoted trade directly and indirectly by promoting FDIs.

While these monetary and fiscal reforms were surely important for the recovery of the Swedish economy, a characteristic of the above explanation stressing monetary and fiscal reform is that lower interest rates and lower labour costs should benefit virtually all types of firms, production factors and sectors. In contrast, 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, we find that 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, we find that 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 labour between the two. Finally, we show that foreign firms, to a large extent, contributed to the productivity and employment growth in the business sector during this period.

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Figures and Tables

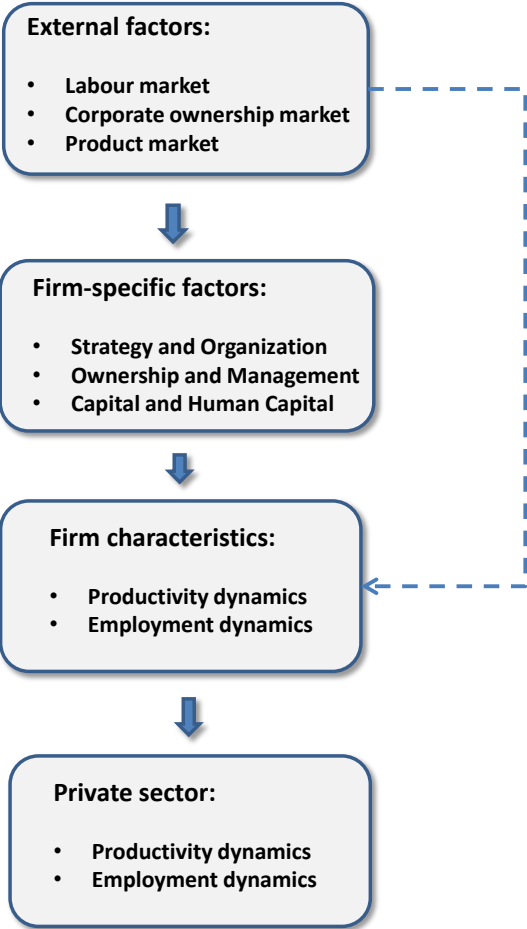


Figure 1: Explanatory factors behind the aggregate productivity and employment development in the business sector

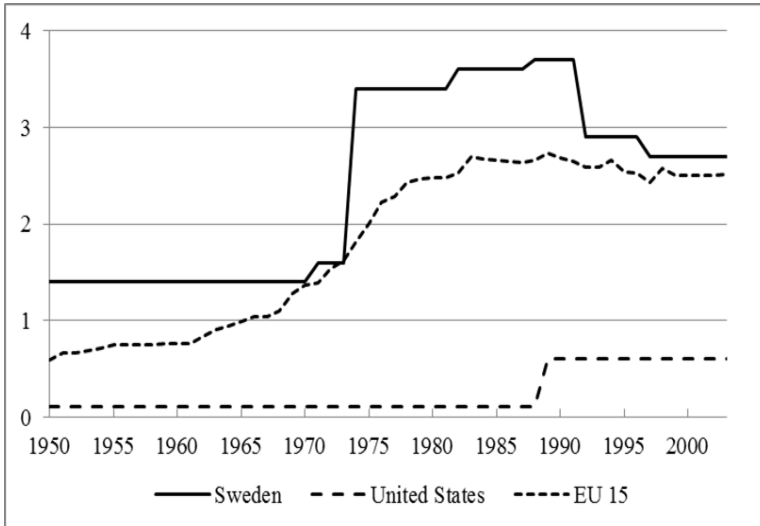


Figure 2. Employment protection legislation, 1950–2003

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

Source: Allard (2005).

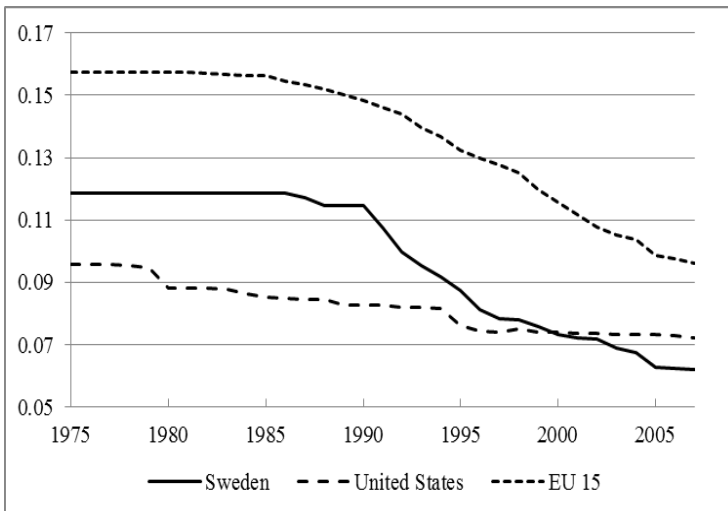


Figure 3. Regulation impacts, 1975–2007

Notes: 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.

Source: OECD Indicators of Regulation Impact.

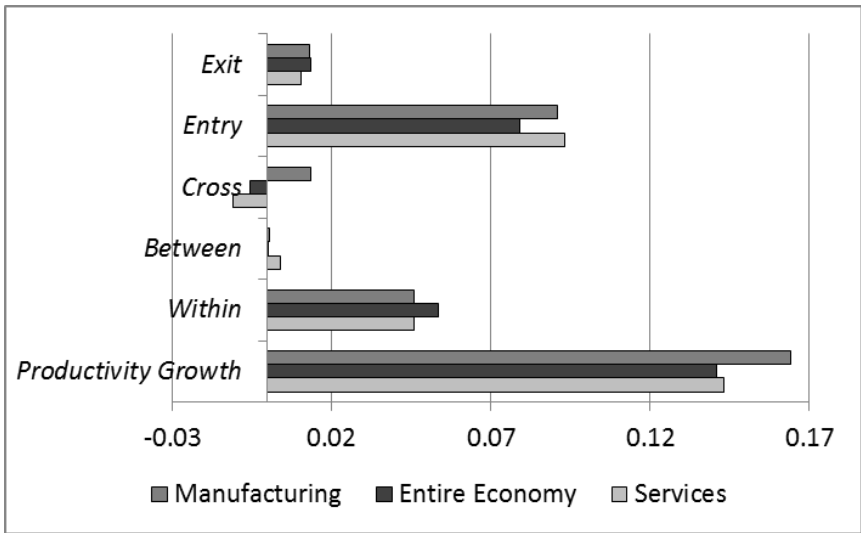


Figure 4: Labour productivity growth decomposition, 1996–2009

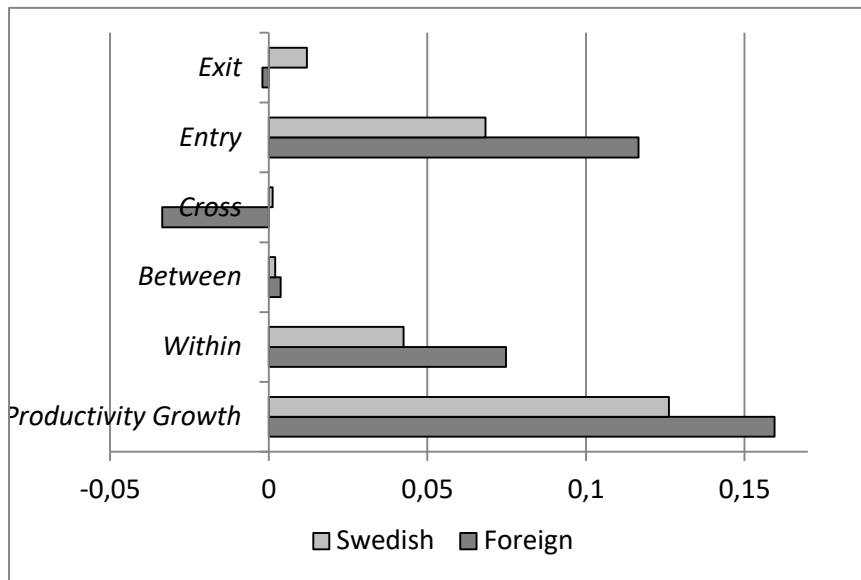


Figure 5: Decomposition of labour productivity growth for the entire economy separated by ownership status, 1996–2009

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

Table 1: Differences and similarities between Sweden and developing countries

Notes: 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 labour 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.

Sources: 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).