

Summary

This report was written when Sweden was experiencing one of the biggest economic shocks since the Second World War. The spread of COVID-19 had paralysed major parts of Swedish society, along with the rest of the world. These circumstances made it imperative to better understand how efficient restructuring of Swedish industry can be accomplished in response to economic crises. The purpose of this report is to give an overview of the economic research on the effects of economic crises on industry restructuring and productivity and job trends. This report also explores how efficient industry restructuring and job development can be accomplished in response to economic crises.

The questions posed in this report are analysed partly based on existing theoretical frameworks and empirical findings in economic literature and partly based on a new empirical analysis of the dynamics of the Swedish business sector. The starting point for the policy analysis is to identify potential market and regulation failures associated with restructuring during crises. This approach has the advantage of focusing on the parts of industry where inefficient resource allocation is caused by the market and where various policy measures can bring industry closer to an efficient allocation of resources. At the same time, the costs of regulations are limited, as the parts of the industry where the market causes fairly efficient resource allocation can function without greater restrictions.

Our review of the literature shows that the effect of a crisis on a firm's activity, productivity and demand for labour depends on a sequence of important decisions. These decisions comprise both short-term decisions such as pricing, management practices and personnel policy, and long-term decisions, such as research and development. Firms that can quickly adjust their pricing and production range will retain higher profitability during extensive

fluctuations in demand and input prices. Firms that are able to rapidly hire more personnel with relevant skills and firms that are able to retrain their employees will be able to grow faster post-crisis. Another important aspect of productivity-enhancing and job-creating restructuring in response to economic crisis is that firms that are efficient in the long-term will restructure and expand, whereas inefficient firms will decrease in size or exit the market. Consequently, resources are allocated to activities that are viable in the long term.

Efficient restructuring during crises depends on important institutions functioning well during and after a crisis. This includes insolvency processes that ensure that businesses that are productive in the long term will survive short-term problems and that inefficient firms restructure or exit the market. It is crucial for a well-functioning insolvency process that decision-makers can assess how different measures influence the ability to differentiate between economic assets that are sustainable in the short term and long term, and the ability to avoid losing valuable resources during the restructuring associated with the insolvency process. A well-functioning market for acquisitions can ensure that assets which are viable in the long-term will go to efficient owners under the new economic conditions. In this context, it is important that regulations are not too extensive and that transaction costs are not too high, as that would risk limiting the ability of smaller firms to make such acquisitions. Moreover, the labour market must be able to meet changes in demand for various vocational skills. From a societal perspective, there is a risk that inadequate returns in retraining following investments in education and training by both the individual and the firm fall not only fall on the party making the investment but also on other parties. It is therefore important that regulations and institutions address this problem.

Our empirical analysis of the effects of job and productivity dynamics in Swedish industry during the period from 1990 to 2015 is based on an extensive and detailed database from Statistics Sweden (SCB). With access to detailed information on firms, plants, and the individuals who work in firms, it is possible to comprehensively analyse questions regarding restructuring and effects of negative economic shocks.

Our empirical analysis shows that job dynamics – i.e. how jobs are created when established productive firms expand or when new firms establish themselves, and how jobs disappear when less productive firms exit the market or reduce their operation – functions relatively well before, during and after crises. Nevertheless, we have found that during deeper crises, such as the crisis in the 1990s and the financial crisis, large productive firms also cut back drastically on staff, which undermines the restructuring process. However, these same firms then increase their staff following crises. Therefore, the negative effects on restructuring tend to be short-term. At the same time, it cannot be ruled out that the Swedish economy would have recovered sooner after crises if leading Swedish firms had been able to increase their international competitiveness at a faster pace. A common feature of the various crises we studied is that the job dynamics, in terms of the number of jobs lost in connection to the crises, is stronger in more competitive export-intensive and ICT-intensive industries.

When we study productivity trends during crises, we find that productivity increases in the periods leading up to the crisis but decreases during the crisis. Increases in productivity in the business sector are mainly driven by the ‘intra-firm effect’. This effect reflects increases in productivity in firms with specific market shares and is especially prominent within the manufacturing industry. Market exits positively influence productivity, as firms exiting the market have below-average productivity. The establishment of new firms has a negative effect on productivity in the short term, but a positive effect in the long term, as a small share of the new firms eventually becomes very successful. In general, productivity trends are worse in markets with little competition and low ICT-intensity, as an increasing number of firms with low productivity enter those markets. Local firms active in industries with low product market competition and not dependent on export, tend to manage most successfully during a crisis. Swedish multinational firms active in industries with high product market competition and with extensive exports tend to manage least successfully during a crisis. While jobs are mostly created in small and young firms, productivity is created in large and established firms. In this context, there is also a great deal of homogeneity and heterogeneity across the various crises.

Moreover, we find that acquisitions of firms is an important element of the restructuring of the business sector before, during, and after crises. The acquisition of firms secures efficient growth of high-productivity firms and rapid readjustment of low-productivity firms.

Furthermore, education and reskilling tend to be a profitable investment for individuals in recent decades. Our findings indicate that it is profitable to change from occupations that can be automated to occupations that are harder to automate, and that this positive effect is greater during crises.

In general, our findings based on the dynamics of firms in Swedish industry imply that Sweden underwent a balanced restructuring during the 2000s when economic crises hit the country. We find that different types of firms play different roles before, during and after crises. Large leading firms (with a highly educated workforce) reduce their staffs during crises, but they can also gear up their operations and productivity relatively quickly following a crisis. Younger and smaller firms (with a less-educated workforce) maintain their employment levels during crises, particularly in the service sector. Moreover, we find that employment level fluctuations during crises become more pronounced in more-competitive markets.

During acute economic crises, different types of temporary support for restructuring may be motivated, although it may lead to problems with incentives and that support goes to firms without strong foundation. An alternative and compliment to traditional support is to improve the restructuring capacity of firms. A number of possible measures can come into consideration. An initial measure is to improve the process of insolvency by offering firms with financial problems that are viable in the long term the possibility of reducing their debt burden and unloading non-viable assets. Supporting increased financial competence in the juridical process is one possible measure to improve the process of insolvency from an economic perspective. An additional measure is to improve operations in the acquisition market. For firms to be able to quickly readjust, they must be able to quickly purchase other firms or their assets. In crises, these transactions need to transpire more quickly. An important measure, therefore, is a reduced regulatory burden for such transactions and reduced transaction costs, in particular. The

Swedish Competition Act prohibits acquisitions that potentially make a firm too dominant in the market. However, there is an exception called the 'failing firm defence', according to which an acquisition may be allowed if the selling company is at risk of impending bankruptcy. Thus, a potential measure during severe economic crises is to create a fast track for company acquisitions under the failing firm exception.

A well-functioning system of education, further education and re-skilling is also essential to emerging from economic crises efficiently. A fundamental economic problem associated with this process is that the returns on educational investments, from the perspective of both the individual and the firm, fall not only on the party making the investment but also on other parties. From a societal perspective, this creates a risk of too little further education and re-skilling. Regulations and institutions that stimulate further education and retraining are therefore also decisive for a functioning restructuring in the context of crises.

Institutions that channel savings for start-ups and business development are important for an efficient restructuring. In this context, a well-functioning stock exchange plays an important role. By listing on the stock exchange, growing firms can gain access to financing for future investments. Firms already on the stock exchange can also issue new shares to raise capital for growth investments. Venture capital is important for firms that are in an early stage of development and for developing, restructuring or upscaling of existing firms. Finally, well-functioning global supply chains have proved to be vital for the operations of Swedish firms and their competitiveness during the pandemic. Therefore, it is also important that Sweden continues to develop stable international trade and investment agreements, so as to be able to compete in the world market.