MULTINATIONAL ENTERPRISES IN DENMARK… Value Added, Investments and Jobs!

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1 INTRODUCTION

The Danish economy is under pressure. Demographic changes indicate that the labor force is shrinking, and that the population is becoming disproportionally older with a growing number of people relying on public pensions and early retirement schemes. This has led to a substantial public deficit, and has reduced the growth potential of the economy.

In the period 1995 to 2008, labor productivity—production per working hour—increased only 0.75 percent per year, which is less than half that experienced in comparable countries. This suggests that the labor productivity in the top five most productive OECD countries is 35 percent higher than in Denmark. Furthermore, in 1995, Danish productivity was nearly 30 percent higher than the OECD average and in 2008 it was less than 10 percent higher than the average.[2] In addition, in 2008 and 2009 a large decrease in productivity occurred, but improved in 2010. The fluctuations in 2008, 2009 and 2010 were mainly due to the effects of the financial crisis.

Due to low productivity increases, Denmark has become poorer relative to other countries. In 1998, Denmark had the fifth highest GDP per capita among all OECD countries—however in 2009 Denmark ranked 13.[3] To halt this decline, it is necessary to increase labor productivity to a level that is at least comparable to other countries.

There are several ways to improve productivity, such as education (Junge & Skaksen, 2010), innovation (Junge & Sørensen, 2010), further product market competition (McKinsey & Company, 2010), exporting (Munch & Skaksen, 2008) or international outsourcing (Munch & Skaksen, 2009).

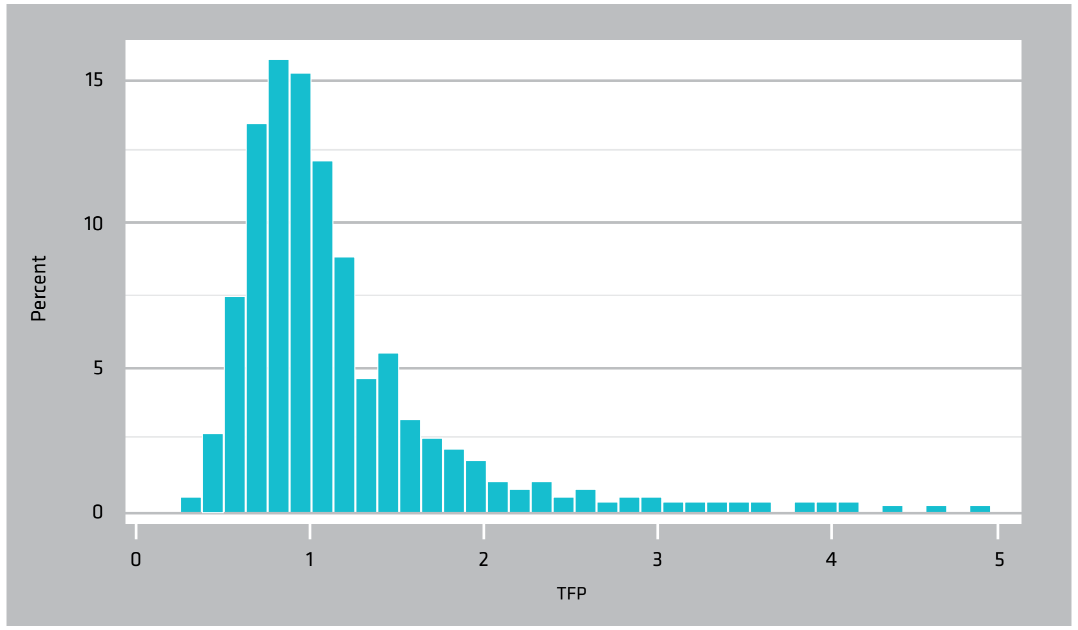


Figure 1
The distribution of TFP among workplaces in the Danish manufacturing sector 2006

Source: Kromann et al. (2010)

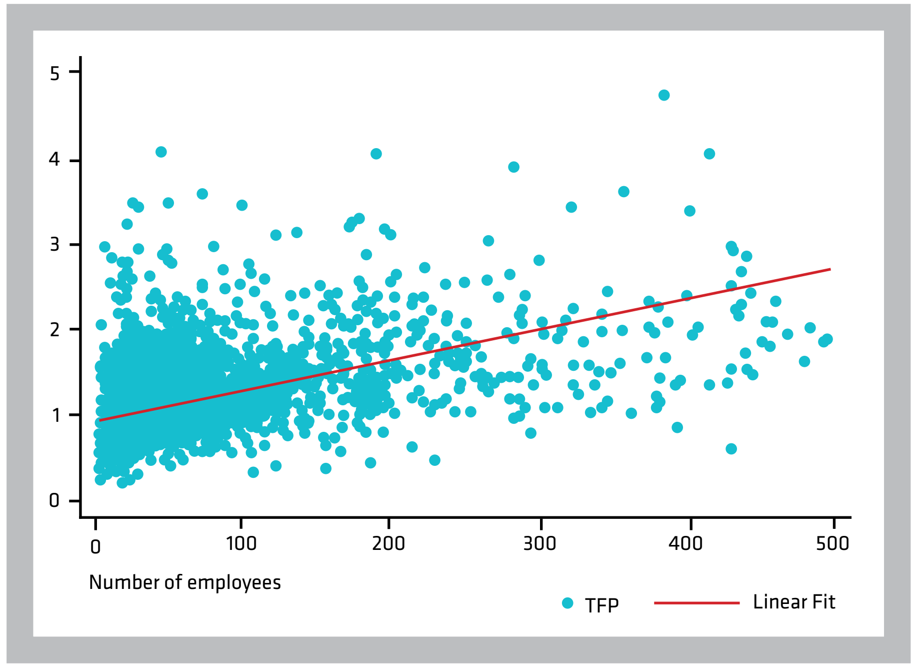


Figure 2
TFP and number of employees at Danish workplaces inthe manufacturing sector

Source: Kromann et al. (2010)

However, the importance of multinational enterprises (both foreign multinationals with subsidiaries in Denmark and Danish multinationals with subsidiaries abroad) has been more or less neglected in the Danish debate.

Therefore, in this paper we take a closer look at some of the existing evidence on the impact of multinational enterprises on productivity. By examining foreign multinationals in Denmark (as this is where we have solid data) we found that the Danish GDP today is DKK 50 billion higher than it would have been without these companies because their productivity level is generally higher than the average Danish company.[4] Danish multinationals are also having a positive effect on GDP, but it is not possible to assess their exact effect because no data exists for their productivity compared with other Danish firms.

Examining the productivity of different types of firms reveals huge differences. The most common way of measuring a firm's productivity is by Total Factor Productivity (TFP). This is a measure of the efficiency in which a firm exploits inputs such as capital and labor. In other words, if two firms use the same amount of capital and labor and one firm has a 50 percent higher TFP than the other firm, then it produces 50 percent more.

In Figure 1 we show the distribution of TFP in 2006 among workplaces in the Danish manufacturing sector. The numbers express the productivity relative to the median productivity (=1).

The graph shows that there is an enormous difference in the productivity of Danish workplaces. The productivity of many workplaces is double the median. Similarly, there are also many with only half of the productivity of the median workplace.

There may be many reasons for the substantial differences in productivity, and one of them is the size of the company. Figure 2 illustrates how the productivity levels from Figure 1 depend on the size of the workplace.

[2] These numbers can be found in "Konkurrenceevneredegørelsen" (Økonomi og Erhvervsministeriet, 2010).

[3] This ranking can be found in a report from McKinsey & Company from 2010.

[4] Note that this is the impact on the value of activities taking place in Denmark irrespective of the direction of the income to Danish or foreign employees.

There is a tendency for larger workplaces to be more productive than smaller ones (illustrated by the median line). The productivity of many small workplaces is below the median (TFP=1), whereas only three workplaces with more than 250 employees have a productivity level below the median.

The figure shows that companies are very heterogeneous with respect to productivity. This is not unique to Denmark, as similar results can be found in most other countries.[5] It is, of course, interesting to understand why such differences occur. One possibility is that companies are 'born' with different productivity potentials; another is a consequence of management practices. A recent study by Blum, Sadun and Van Reenen (2010) shows that management practices are, in fact, closely related to productivity. The study looks at 'management practice scores' and it follows, for instance, that U.S. companies have a higher management score on average than companies from other countries. The only Scandinavian country in the sample is Sweden. Swedish companies have the third highest average score out of 17 countries, while Greek companies have the lowest score.

Regardless of why some companies are more productive than others, it is important to know if certain types of companies tend to be more or less productive than others. This leads us to consider the productivity of multinational enterprises (MNEs) in this paper. MNEs are special in the sense that they are part of a global network and are more mobile than other firms. MNEs are likely to have more knowledge about the advantages of certain locations and are also better able to relocate their activities across borders. Therefore, when compared to domestic firms, multinational enterprises are probably more responsive towards the general business conditions in a country when making investment decisions.

In section 2 we look at some statistics concerning multinational enterprises in Denmark. Subsequently, in section 3, we elaborate on the extent to which multinational enterprises tend to be more productive than local companies, and in section 4, we focus on the evidence concerning positive spillovers from multinational enterprises to local companies. In section 5, we briefly examine the evidence concerning international outsourcing, which is closely related to the behavior of multinational enterprises. Finally, in section 6, we conclude and put our results into perspective.

[5] For instance, in Bartelsman & Doms (2000) it is shown that studies using U.S. data find similar differences in productivity.

2 DESCRIPTIVE STATISTICS

Foreign Direct Investments (FDIs) are company-specific investments conducted across borders in order to obtain control of subsidiaries or associated companies in other countries.

Thereby, FDI usually generates direct and constant long-term financial linkages between economies contributing to increased economic integration (Meyer & Sinani, 2009). As direct investments are basically financial flows (such as investments in equity and company debt among associated firms) they do not capture more substantial flows in themselves (jobs, etc.). However, financial flows and more real-economic activities are often correlated.[6] For this reason, direct investments can be seen as a proxy for the real-economic flows of jobs, assets, or knowledge across borders. Additionally, FDIs are often used as an important indicator for the level of globalization and the extent to which countries are integrated in the global economy.

Moreover, data exists for FDIs that are comparable over time and across countries, making it possible to document trends and compare development among countries. In contrast, information on cross-border flows of real-economic activities is limited due to a lack of data. In particular, the stocks of FDI are relevant in this context as they are not subject to annual fluctuations caused, for instance by major cross-border acquisitions. Therefore, this report will mainly focus on analyzing the stock of inward and outward FDIs in Denmark, including pass-through investments for cross-border comparisons.[7]

We will first present and discuss some of the current FDI trends in Denmark and abroad and compare Denmark's position with similar countries. Then we will explore the available data on real-economic flows, such as job flows in and out of Denmark.

Until recently, almost all FDIs were flows among the industrialized countries in Europe, America and Asia. However, this pattern is changing because the BRIC countries are catching-up economically. They are not only becoming more attractive as FDI recipients, but they are also beginning to make major outward investments as well. This development reflects that these countries have become more active and engaged in the global economy (OECD, 2010).

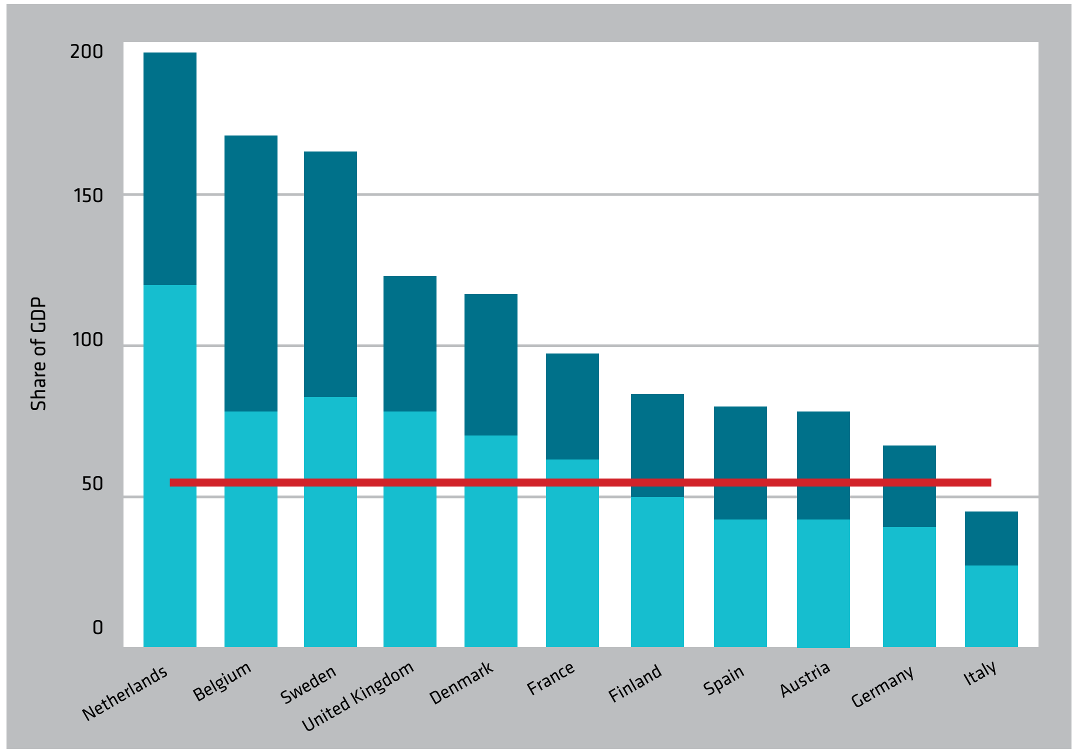
In Figure 3, the level of FDIs in 2009 for a number of comparable countries in Europe is depicted. The level of FDI is measured as the sum of inward FDI (upper green bars) and outward FDI (lower blue bars) for each country as a share of its GDP. This measurement allows us to compare countries of different sizes. Typically, smaller countries have a higher level of FDI and are more exposed to changes in the global economy. This is also the case in Europe, where the Netherlands, Belgium, and Sweden are the three countries with the highest level of FDI. In most of the countries, inward and outward FDIs are approximately the same size, which indicates that foreign firms are investing (inward) approximately as much in a particular country as domestic firms are investing abroad (outward). With a value of 113[8], Denmark is clearly above the EU country average of 54, but still below some of the comparable countries like the Netherlands, Belgium, and Sweden.

[6] *The correlation between inward FDI and number of employees in foreign-owned firms in Denmark 2000-2008 is as high as 0.95 indicating that FDI is a very good proxy for real-economic activities like employment.*

[7] *Although those investments do not create real economic activity, they are included in the comparative analysis to ensure international comparability as most countries include pass-through investments in their statistics.*

[8] *I.e., the total stock of inward and outward FDI is on a level of 113 compared to the total Danish GDP in 2009 (=100).*

Figure 3
Inward and Outward FDI as a share of GDP by countries in 2009



Source: EUROSTAT (2011)

Danish statistics for cross border flows other than FDIs, such as the flow of jobs, value added or knowledge is rather poor, because Statistics Denmark only recently started to collect these type of data. However, some rather general and descriptive data on foreign-owned companies' share of business activities in Denmark, as well as on activities of Danish firms abroad, are now available. Table 1 lists figures for foreign-owned companies' business activity shares among private companies in Denmark. The information is primarily based on data from 2006–the most comprehensive data available, but, where possible, we compare this to 2008 data–the most recent year with available data.

It is striking that only 1.2 percent of all private companies in Denmark are foreign owned. This is a total of 3,774 foreign-owned companies, which employed 292,642 workers in 2008. However, foreign-owned firms are generally much larger than Danish companies. On average foreign-owned companies employed 78 people and generated a turnover of DKK 211 million in 2008.

In terms of employee numbers, value added, turnover, and export, the share of foreign-owned companies varied between 18.3 to 26.6 percent in 2006. Foreign-owned companies play a significant role in the Danish economy as they generate one fifth of the total number of jobs and value added, and account for as much as one fourth of private sector exports. In 2008, job numbers and turnover levels increased slightly. The figures in Table 1 also indicate that on average, foreign-owned companies create more value added, turnover and export per employee than the average Danish-owned company. This indicates that foreign-owned companies are not just an important part of the Danish economy, but they are also more efficient and productive than the average Danish company. This is a point we will further explore.

Table 1
Foreign owned firms' share of private business activities in Denmark in 2006

Number of enterprises	1.2% (2008=1.2%)
Number of employees	18.3% (2008=18.8%)
Value added	21.5%
Turnover	21.8% (2008=23%)
Export	26.6%

Source: Statistics Denmark (2011)

Danish companies are also making substantial investments abroad; however, statistics are limited to very general information on employee numbers. Shown in Table 2, Danish companies have 10,939 subsidiaries located abroad with a total of 1,368,598 employees. This number is almost the same as the total employment in the private sector in Denmark, which amounts to 1,553,757 employees. This indicates that, in total, all private companies in Denmark have almost as many employees abroad as in Denmark. One caveat however is that one specific firm, (ISS), accounts for more than 500,000 employees abroad. If we remove ISS from the calculation, the average size of a foreign subsidiary is approx. 79 employees, which is similar to the size of foreign-owned companies in Denmark. However, Danish companies have established many more subsidiaries abroad than foreign-owned firms have established in Denmark. In conclusion, even without ISS, Danish companies conduct a large share of their activities abroad and employ more people outside Denmark than the foreign-owned companies employ in Denmark.

In terms of industry, 23 percent of the employees in subsidiaries abroad are in manufacturing, 54 percent are in finance and business service, and the remaining 23 percent are in other services. In terms of geographical locations, 45 percent of the Danish multinationals' employees abroad are located in the EU, 8 percent in the rest of Europe, 8 percent in North America and 28 percent in Asia and the remaining 11 percent in the rest of the world. The bulk of the Danish multinationals' activities abroad can therefore be characterized as service activities in other European countries, although this pattern might be slowly changing, as increasingly, manufacturing activities are offshored to Asian countries.

Almost two thirds of all Danish subsidiaries, (64 percent), are located in one of the 27 EU countries, but only 45 percent of the employees are located in the EU.

Table 2
Danish firms affiliates abroad in 2008

Number of subsidiaries abroad owned by Danish firms	10,939
Employment abroad by Danish firms	1,368,598

Source: Statistics Denmark (2011)

For Asia, the opposite is the case: only 10 percent of all subsidiaries are located there, but foreign affiliates employ 28 percent of the total number of employees. The subsidiaries in Asia are typically larger and more labor-intensive than the subsidiaries located in EU countries, which often concentrate on more knowledge-intensive activities.

These figures clearly indicate that foreign-owned companies are an integral part of Danish business activities and contribute significantly to the growth of the Danish economy. It also demonstrates that Danish companies have located a considerable part of their business activities outside Danish borders. These figures reinforce the fact that the Danish economy is highly integrated in the global economy with numerous business links and relationships across borders.

The development of inward and outward FDI, respectively, for Denmark in a ten-year period from 1999 to 2009 is illustrated in Figure 4. In the first four years (1999-2003) the inward and outward FDIs were almost the same size and showed a steady increase. In 2003, there was a balance between inward and outward investments. After the burst of the dot.com-bubble in 2003, and the economic downturn that followed, both inward and outward investments increased more rapidly, but investments abroad by Danish companies increased even more than investments of foreign companies in Denmark. In 2009, the gap between inward and outward FDIs reached DKK 275 billion.

The pattern of FDIs can be used as an indicator of new trends, because companies with international activities are probably the first to take advantage of new opportunities that arise around the globe. These companies are largely more mobile and better positioned to take advantage of the new realities in a globalized world. Both the pattern of inward and outward FDIs in Denmark seem to confirm that investments are flowing out of Denmark rather than into Denmark. In the following, we will analyze the gap (between inward and outward FDI) in detail and explore which industries and locations contribute most to the gap.

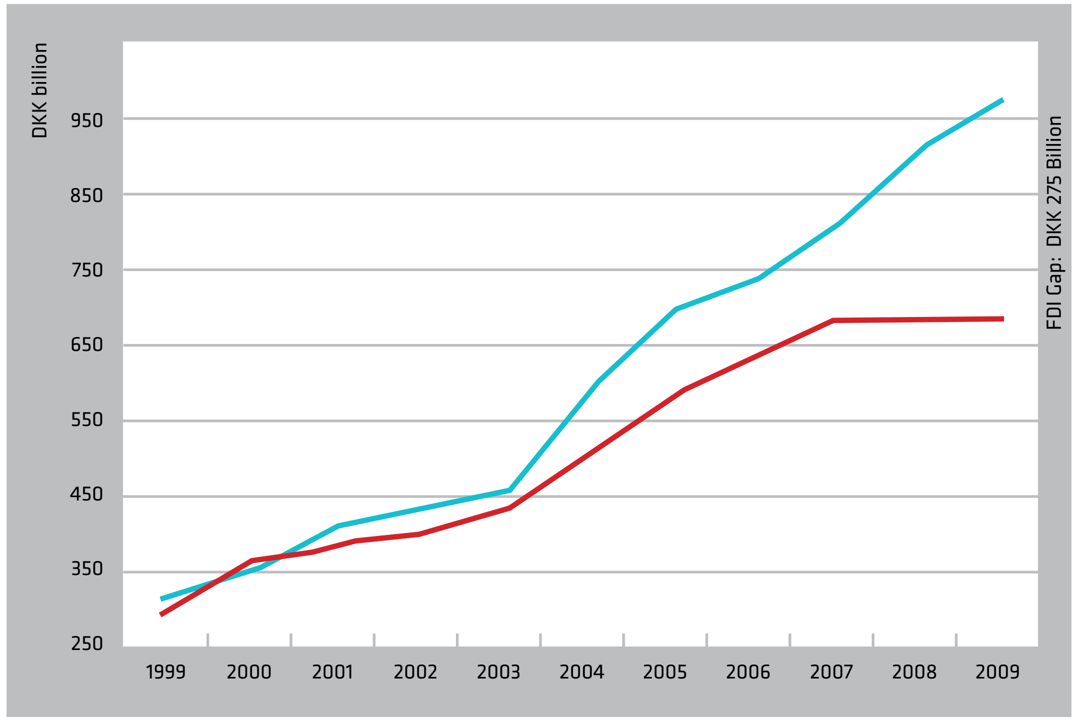
The gap between outward and inward FDIs in 2009 (DKK 275 billion) is divided into industries in Figure 5. It appears that the gap is mainly associated with the manufacturing industry. In fact, foreign companies invest a little more in financial intermediation and information and communication services, than Danish companies invest abroad in these industries. Danish companies invest more abroad in trade, transport and business services than foreign companies do in Denmark. However, by far the largest gap can be found within manufacturing, where more investments are flowing out of Denmark than into Denmark. This is consistent with the observation that Danish companies are very active in offshoring labor intensive manufacturing to low-cost countries, while Denmark does not receive substantial investments from foreign companies within manufacturing (Carlsen & Melgaard Jensen, 2008). What is also interesting (and rather alarming) is the fact that the outflow of investments in manufacturing is not compensated by an inflow of investments in other industries.

In Figure 6, the gap between outward and inward FDIs is divided into geographical areas. Interestingly, the geographical area with the largest gap is 'Other European Countries' (i.e., EEA countries and Switzerland) led by Switzerland and Norway. This means that Danish firms have invested much more in Switzerland and Norway than Swiss and Norwegian firms have invested in Denmark.

The second largest gap occurs in the Americas—in particular the USA. The two countries with the largest gap are Switzerland and the USA. This implies that the gap is not just about Danish firms investing in low-cost countries. The third largest gap occurs in Asia. Here, the values for Singapore exceed the ones for China. At first glance this might come as a surprise, but Singapore has often been seen as an attractive starting point for entering other Asian markets, especially the Chinese market.

But, is the gap between outward and inward FDIs a problem, and, if so, why? The gap itself indicates that the Danish economy misses out on investments that could potentially boost economic activity in Denmark. FDIs are an important vehicle for enabling companies and countries to connect to the global economy and tap into new technological and knowledge-based developments, in order to achieve higher productivity. This suggests that when FDI levels fall, so to do company investments, which, in turn, affects long-term productivity because MNEs possess technology, knowledge, and management skills – all factors that have a positive influence on productivity. Therefore, in the following section, we examine how multinational enterprises affect productivity.

Figure 4
Inward and Outward FDI for Denmark 1999-2009



Source: Danmarks Nationalbank (2011)

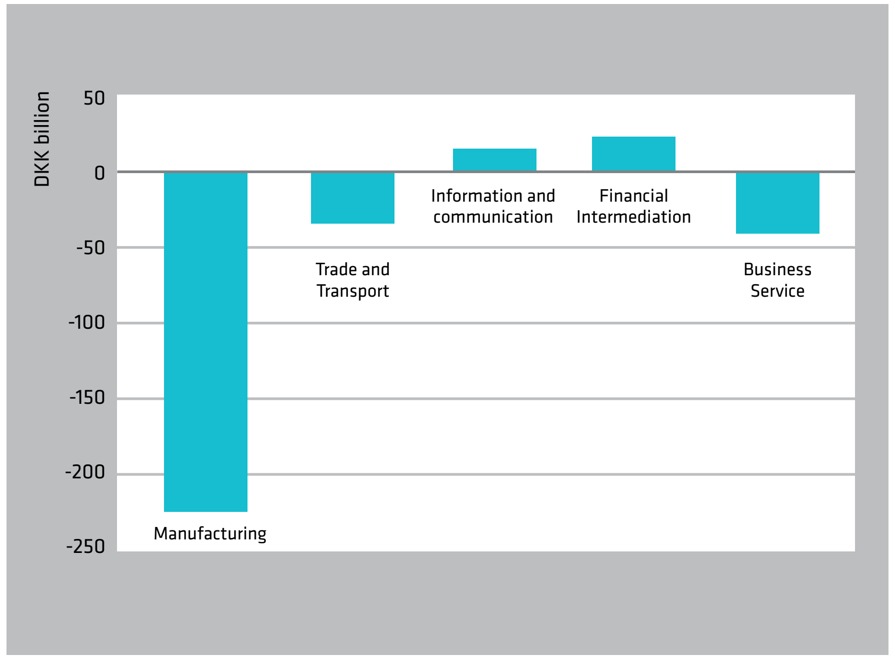
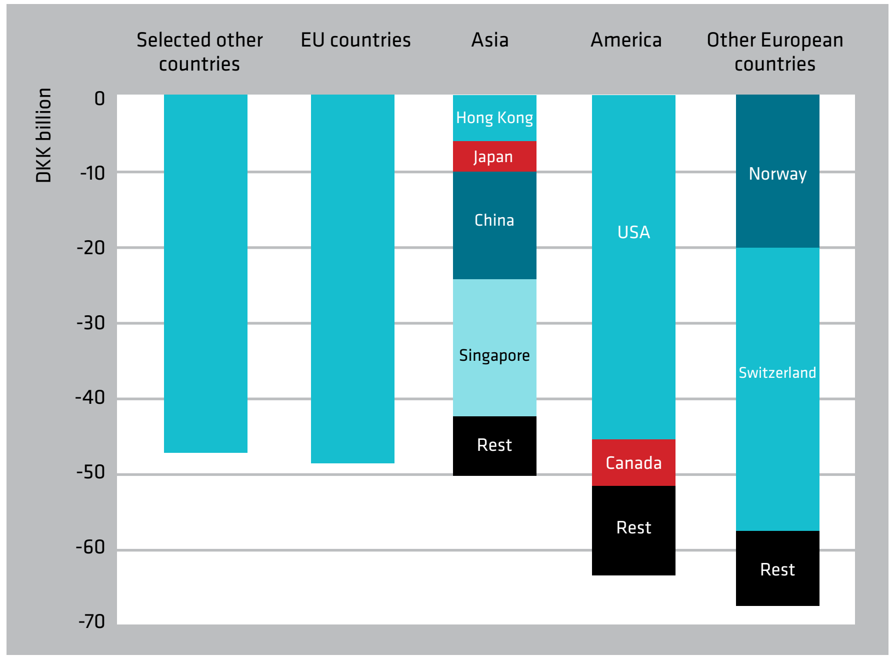


Figure 5
Gap by industry in 2009

Source: Danmarks Nationalbank (2011)

Figure 6
Gap by geographical areas and countries in 2009



Source: Danmarks Nationalbank (2011)

3 THE PRODUCTIVITY OF MULTINATIONAL ENTERPRISES

Numerous studies from a range of countries conclude that multinationals are more productive than non-multinationals (Lipsey, 2002). This is also the case in Denmark. Table 1 shows that foreign-owned companies employ 18.3 percent of the total workforce in the private sector, but produce 21.5 percent of the value added. It follows that the labor productivity (measured as value added per employee) in foreign-owned companies is 23 percent higher than in domestic-owned companies. There are many possible explanations for this– one is that multinationals typically use better educated labor than local firms. In an study by Junge and Skaksen (2010), it was found that the use of educated labor increases the productivity of individuals, as well as the productivity of the companies in which the educated workers are hired. Moreover, in 2006, 23.2 percent of the workers in foreign-owned companies had further education, while this is true for only 19.2 percent of the workforce in Danish-owned companies. Based on Junge & Skaksen's[9] findings, it follows that: When adjusting for the educational composition of foreign-owned companies, their labor productivity is still 19 percent higher than Danish companies.

Other explanations for superior productivity levels include the fact that multinational companies are generally larger than non-multinationals (see Figure 2 above) and that MNEs generally utilize better management practices. Finally, multinationals may simply represent a selection of the most productive companies, which have managed to become multinationals because of their superior productivity. It may, of course, be interesting to know why multinationals are more productive than non-multinationals. But it does not necessarily matter to what extent multinationals perform better than non-multinationals. If a country has success in attracting multinationals, it is the 'full package' they attract (for example their size and management practices).

Malchow-Møller et al. (2007) studied Danish data to analyze whether multinationals perform better than non-multinationals. With respect to ownership, they only have information on whether or not a company is foreign-owned. As there are also Danish multinationals, the study focuses on both the importance of foreign ownership and the size of the company. Moreover, the study looks at wages and not at the productivity of the company. In many studies it is quite common to use a company's wage level as an indirect measure of productivity. The hypothesis is that if a company is more productive than other companies, their employees benefit from this superior productivity in the form of higher wages.[10] The advantage of using wages is that they are measured with much higher precision than for instance TFP. The disadvantage is that it is only an indirect measure of productivity.

The main results of this study were:

- Wages in foreign-owned companies are on average 13 percent higher than in Danish companies. Taking into account the different types of workers in foreign-owned companies compared to the average Danish company, the wages in foreign-owned firms are 2 percent higher than in Danish companies.
- Higher wages in foreign-owned companies compared to Danish companies are partly explained by foreign-owned companies being larger. However, even when comparing companies of the same size, it is still apparent that the wages in foreign-owned companies are 11 percent higher than wages in Danish companies. Taking into account that there are different types of workers in foreign-owned companies, their wages are 1.5 percent higher than in Danish companies.

In a similar study, Balsvik (2011) analyzed Norwegian data. The study found that wages in foreign multinationals are 5.7 percent higher than in non-multinationals, and wages in Norwegian multinationals are 3.2 percent higher than in non-multinationals. When considering the possible explanations of wage differences besides ownership, it was found that foreign multinationals pay 3.5 percent higher wages than Norwegian firms – regardless of whether these Norwegian firms are multinationals or non-multinationals.

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> Only 1.2 percent of companies in Denmark are foreign-owned. But these companies employ more than 18 percent of the total number of employees in the private sector. And they create 21.5 percent of the value added and 27 percent of the Danish export.

[9] The productivity of workers with a long further education is around double that of workers without further education.

[10] Compare, for instance, Blanchflower et al. (1996) or Arai (2003).

4 PRODUCTIVITY SPILLOVERS FROM MULTINATIONAL ENTERPRISES TO DOMESTIC FIRMS

MNEs tend to be more productive than non-MNEs. This benefits the workers in MNEs as well as the owners, but the question is whether it also benefits non-MNEs and those working in non-MNEs.[11] For this to be the case, there must be productivity spillovers to non-MNEs or workers in non-MNEs. There are many studies elaborating on the possible spillovers between multinationals and local firms. Lipsey (2002) surveys these studies and concludes: "No universal relationships are evident, but there is evidence that inward FDI has been most beneficial to local firms where they are not extremely far behind the multinationals' affiliates". This is clearly the case for a country like Denmark. The problem in measuring spillovers is that the channels for these are neither entirely obvious nor easy to measure. One possibility is learning from differences in technology. One way to measure that is by patent citations. For instance, a paper by Branstetter (2000) shows that the presence of Japanese multinationals in the U.S. gave rise to more citations of Japanese patents in U.S. firms' patent applications.

Another very direct link between local firms and multinationals, is that local workers shift between MNEs and non-MNEs. In some periods, a worker may be employed by an MNE, and in other periods, he or she may work for a local firm. Productivity spillovers may then arise if these workers bring experiences and know-how to the non-MNEs. Balsvik (2011) analyzed the movements of Norwegian workers who moved from MNEs to local firms and whether they brought higher productivity to the local firms. Balsvik used Norwegian data for the period 1990 to 2000, where 14,400 workers moved from MNEs to non-MNEs. In 2000, 28 percent of all non-MNEs in Norway employed workers with previous experience from MNEs.

Balsvik's main results are:

- Workers with experience from MNEs within the past 3 years contribute 20 percent more to the productivity of non-MNEs than workers without this experience.[12]
- Workers who moved from MNEs to non-MNEs within the past 3 years earn 7 percent more than comparable workers who have stayed in the non-MNE. And they earn nearly 4 percent more than workers coming from other non-MNEs.

In other words, this study shows that workers achieve valuable insights from working in MNEs, which they, in turn, transfer to local firms. Moreover, because the productivity of these workers is 20 percent higher than the productivity of other workers in non-MNEs, and their wages are only 7 percent higher, both the local firms and the workers gain by spillovers from MNEs.

The study by Malchow-Møller et al. (2007) confirms that similar effects are likely to be found in Denmark. They do not explicitly consider the productivity of companies (TFP), but wages. Moreover, their ownership data is only for a two-year period, which is too short to estimate the more dynamic implications of working in MNEs, but it may serve as a basis for inquiry in this context. Besides considering the effect on wages in new jobs, the study also looks at how the income of self-employed people may be affected by previous experience working in MNEs.

The main results were:

- Workers with past experience from large companies (measured as plants with more than 50 employees) earn 1.4 percent more than comparable workers.
- Self-employed individuals, with past experience from foreign-owned companies, earn 14 percent more than comparable self-employed without that experience. Additionally, if the size of companies from previous experience is taken into account, self-employed individuals with experience from foreign-owned companies still earn 7 percent more than comparable self-employed individuals.

5 INTERNATIONAL OUTSOURCING AND PRODUCTIVITY

Closely related to multinational enterprises is international outsourcing. Both multinational enterprises and international outsourcing reflect that there may be gains from moving business activities from one country to another. There are many reasons why companies find it attractive to move some activities to other countries. One may be the easy access to foreign markets. Another may be lower production costs, and related to that, specialization gains. If there are specialization gains, the movement of activities to other countries may lead to a productivity increase in the company.

A study by Girma & Görg (2004) states that international outsourcing does, in fact improve the productivity of the company—at least in some industries. The study finds that within the engineering industry, for example, international and domestic outsourcing explain close to 15 percent of the increase in labor productivity from 1980 to 1992. A study by Munch & Skaksen (2009) examines Danish data, where wages are used as a measure of productivity. The study found that outsourcing improves productivity, and that highly skilled labor in particular, benefits from higher wages, whereas low skilled labor may face lower wages.

There is no clear definition on how to measure international outsourcing, but Statistics Denmark defines it as: "business activities which used to be done internally in the company.

[11] *It may also affect the state through tax payment, but it is outside the scope of this paper to evaluate the tax implications of MNEs.*

[12] *This is when controlling for observed and unobserved differences in worker characteristics.*

Outsourcing may be to other plants within the company or it may be to external companies." Recently Junge & Sørensen (2010) considered the extent of outsourcing by using data from Statistics Denmark.[13] Table 3 summarizes their findings with respect to the number of jobs outsourced.

Firstly, when firms outsource jobs, new jobs are created in Denmark. But the number of jobs created is less than one third of the number of outsourced jobs. Secondly, it is not only unskilled jobs which are outsourced, as one third of the jobs outsourced used to employ highly qualified workers.

The paper by Junge & Sørensen also considers why companies outsource jobs: 58 percent of the companies said that wage costs have been one of the most important determining factors behind a decision to outsource; 13 percent said that access to new markets has been one of the most important factors for the decision to outsource. With this in mind, it is interesting that the old/rich/EU countries are still (at least in the period from 2001 to 2006) the biggest destination for international outsourcing. This is seen in Table 4. Almost 40 percent of the international outsourcing is directed to the old EU countries, the USA, or Canada, which are countries where the wages are not considerably lower than Denmark. Only 33 percent goes to countries in Asia, Central America and Africa—countries that may be considered low-cost countries.

Table 4
Destination of International Outsourcing from Denmark, 2001-2006

	Share of total outsourcing
Old EU countries	0,32
New EU countries	0,22
Other European countries	0,07
China	0,13
India	0,08
Other Asian countries	0,10
USA and Canada	0,06
Central America	0,01
Africa	0,01

Source: Junge & Sørensen (2010)

Table 3
Job Destruction and Creation as a Result of International Outsourcing 2001-2006

	All	Highly qualified	Unskilled
Job moved abroad	24,559	8,476	12,714
Job created in Denmark	7,014	2,734	2,853

Source: Junge & Sørensen, (2010)

[13] *"Sammenhænge mellem innovation og forskning og outsourcing" from Junge, M. & A. Sørensen, (2010) is a CEBR analysis conducted for The Strategic Research Council and The Council for Technology and Innovation.*

> "
> If foreign-owned companies employed the same percentage of workers in the private sector as in Sweden, then the Danish GDP would be around DKK 16 billion higher than it is at present.

6 CONCLUSION AND PERSPECTIVE

The purpose of this paper is to clarify the economic importance of multinationals in Denmark. Only 1.2 percent of companies in Denmark are foreign-owned. But these companies employ 19 percent of the total number of employees in the private sector. And they create 21.5 percent of the value added and 27 percent of the export. The paper also makes several important observations.

Firstly, the gap between inward and outward FDIs has increased. Until 2003, the two were basically identical, but by 2009, the stock of outward FDIs was nearly 50 percent higher than the stock of inward.

Secondly, the gap between inward and outward FDIs is particularly large within manufacturing, whereas in other industries there has been a surplus – for example within information and communication.

Thirdly, the destinations of most of the outward FDIs are other high wage countries, particularly the USA, Canada, Norway, and Switzerland. Fourthly, the same trend is seen in international outsourcing – at least 40 percent of the outsourced jobs have been directed to other high wage countries. In this sense, Denmark is in a position where it is still possible to compete on costs – but not for a substantial part of FDIs and international outsourcing.

It was also found that a lower level of inward FDIs has an immediate effect on investment levels, but more importantly on productivity levels. The long-term effects are lower technology, knowledge and new management practice inputs, as MNEs take these intangible assets across borders with them.

This raises an interesting question: How much higher is GDP as a result of Danish workers being employed in foreign-owned companies instead of Danish companies? In section 3 it was found that foreign-owned companies use more educated labor than Danish companies and their productivity is 19 percent higher. Because approximately 19 percent of the workers in the Danish private sector are employed in foreign-owned companies, the total value added in the private sector is close to 4 percent higher than if these workers were employed in Danish companies. In other words, GDP is around DKK 50 billion higher because of a higher productivity in foreign-owned companies in Denmark.

Likewise, Danish multinationals are also engines for the transfer of knowledge, technology, management practices and other intangible assets, which they tap into in their foreign locations. When they transfer and apply these intangible assets they will also become more productive than other Danish firms, however, as no available data exists for their extra productivity, it is not possible to assess their contribution to the increase of Danish GDP.

Another important question is whether Denmark could do better than it does today. An interesting country to benchmark against is Sweden. In Sweden foreign owned companies employ 26 percent of the labor force in the private sector.[14]

This implies that:

- **If foreign-owned companies employed the same percentage of workers in the private sector as in Sweden, then the Danish GDP would be around DKK 16 billion higher than it is at present.**

It should be emphasized that part of the value created in multinational enterprises goes to foreigners investing in Denmark. But in the same way, some of the value created in Danish multinationals abroad return to Denmark due to surpluses in these companies. The fact is, that multinational enterprises create more value than non-multinationals regardless of whether they invest in Denmark or in other countries.

Due to the activities of multinational enterprises in Denmark mentioned above, the increase in GDP is solely based on the difference in productivity between foreign-owned and Danish-owned companies. But there are also other benefits associated with attracting multinationals, such as:

- **The higher productivity of foreign-owned companies spreads to Danish workers and firms.**

One important link between foreign-owned firms and locally-owned firms, is that workers with previous experience from foreign-owned firms transfer their know-how to Danish firms. An analysis of Norwegian firms cited above finds that workers with experience from multinationals contribute 20 percent more productivity than other workers. An analysis of Danish firms cited above found that entrepreneurs (self-employed) also do considerably better if they have previous experience from working in foreign-owned firms.

As foreign owned firms seem to be important for productivity and growth, the gap that has arisen between outward and inward FDIs is worrying. This indicates that Denmark has to reinvent its attractiveness – either by becoming more attractive to manufacturing firms or by becoming more attractive to other industries.

OECD (2010) concludes: "MNEs are forceful actors in the current globalization process, and often limit the effectiveness and success of government policies. Countries need to take this changing reality into account and explore how policies can be designed that benefit both the country and the multinational."

In a small economy like the Danish one, it is even more difficult to attract multinationals because of fixed investment costs. Therefore, it is even more important to design new policies that make Denmark an attractive country for multinational companies to locate and expand in.

In order to create new policies which benefit both the Danish economy and the multinationals, it is necessary to understand why multinationals are more productive than non-multinationals. There are several possibilities.

Firstly, it may be the result of technology diffusion. The subsidiaries are owned by large international companies where new technology is continuously developed in different parts of the company. This suggests that multinational subsidiaries may have access to a wider variety and better technologies than non-multinationals.

Secondly, multinationals may be better organized than non-multinationals. The fact that multinationals operate in different countries implies that they have some operational flexibility and may be better able to exploit the comparative advantages of different countries. Some type of activities may be done more efficiently in some countries than in others—for example due to the presence of certain types of skills in the workforce.

Thirdly, multinationals may benefit from being closer to the customers in the countries in which they operate. Besides saving on trade costs, it may be easier to differentiate the production and services to better fit the wishes of the customers in each location.

Finally, the higher productivity of multinationals may be a result of superior management practices and management training. As may be the case with technology, multinational subsidiaries may have access to more efficient management knowledge, and furthermore they may have access to a bigger pool of well-trained managers.

[14] This number can be found in "Udenlandske firmaer i Danmark" by Bøegh Nielsen, Hansen & Nielsen (2009).

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