



Study on State asset management in the EU

*Pillar 4 (Case studies) - The privatisation of
Copenhagen Airports A/S*

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The privatisation of Copenhagen Airports A/S

This note discusses the privatisation of *Copenhagen Airports A/S (Københavns Lufthavne A/S - CPH)*¹, a private limited company listed on the *Copenhagen Stock Exchange*. In particular, the airport of Kastrup (the *Copenhagen Airport*), the biggest airport in Denmark, is located at the bridge/tunnel connecting the cities of Copenhagen and Malmö in Denmark and Sweden, respectively. The airport was inaugurated back in 1925 as one of the first civil airports in the world. In 1990, the company was transformed into a Public Sector Holding (PSH). Subsequently, following different rounds of privatisation (1994, 1996 and 2000), the ownership of the government decreased. In 2005, the Australian private equity fund *Macquarie*² became the majority shareholder with a 52.4% ownership, and then the *Ontario Teachers' Pension Plan (OTPP)*³ joined *Macquarie* as owner of the Special Purpose Vehicle (SPV) "*Copenhagen Airports Denmark ApS*" (CAD)⁴ with an ownership of 57.7%. This ownership structure remained unchanged until September 2017, when *Macquarie* started the procedure for selling its shares to *ATP* (Danish state-owned pension fund)⁵.

1. INTRODUCTION

The case of the *CPH* privatisation has been chosen in order to provide an example of a PSH operating within a historically monopolistic sector (i.e. the airport sector) privatised through an Initial Public Offering (IPO)⁶. The framework for *CPH*'s business model is regulated on the basis of EU legislation and in particular by *Directive 2009/12/EC* of the European Parliament and of the Council⁷. In details, the airlines pay to use facilities and processes through a system of negotiated charges that, in accordance with the regulation, must be cost-based and uniform for all airlines: from check-in and security, through boarding and baggage handling, to runway maintenance. The charges agreement must be approved by the *Civil Aviation Authority (CAA)* under the *Danish Transport, Construction and Housing Authority*.

The following business areas are currently regulated on the basis of EU legislation⁸: i) check-in; ii) baggage; iii) security; iv) cargo; v) transfer and vi) boarding and take-off. On the other hand, some non-core business areas are not regulated by law (i.e. parking, hotel, real estate, shopping, restaurants and cafes).

¹Copenhagen Airports A/S is the Public Sector Holding which manages the two airports sitet nearby Copenhagen: the Copenhagen Airport, Kastrup (*Københavns Lufthavn, Kastrup*) and the Copenhagen Airport, Roskilde (*Københavns Lufthavn, Roskilde*).

² Macquarie is a financial group providing client with asset management and finance, banking, advisory and risk and capital solutions across debt, equity and commodities. For more information, please see: <https://www.macquarie.com/uk/about/company> [Accessed 8th February 2018].

³ OTPP is the *Ontario Teachers' Pension Plan* and Canada's largest single-profession pension plan. For more information, please see: <https://www.otpp.com/corporate/overview> [Accessed 8th February 2018].

⁴ CAD is debt issuing SPV, jointly controlled by OTPP and Macquarie, soon to be controlled by OTPP and ATP. It is a subsidiary of Copenhagen Airports Denmark Holdings ApS. For more information, please see: <https://www.cph.dk/en/about-cph/investor/Share-information/> [Accessed 8th February 2018].

⁵ ATP is the Danish labour market obligatory supplementary pension fund, which is under supervision of the Danish state. For more information, please see: <https://www.atp.dk/en/about-atp/atp-in-brief> [Accessed 8th February 2018].

⁶ The Initial Public Offering (IPO) is a process implying that an unlisted (private) company sells new or existing securities offering them to the public for the first time. After an IPO, the issuing company can be identified as a publically listed company on a given stock exchange.

⁷ For more information, please see: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009L0012> [Accessed 8th February 2018].

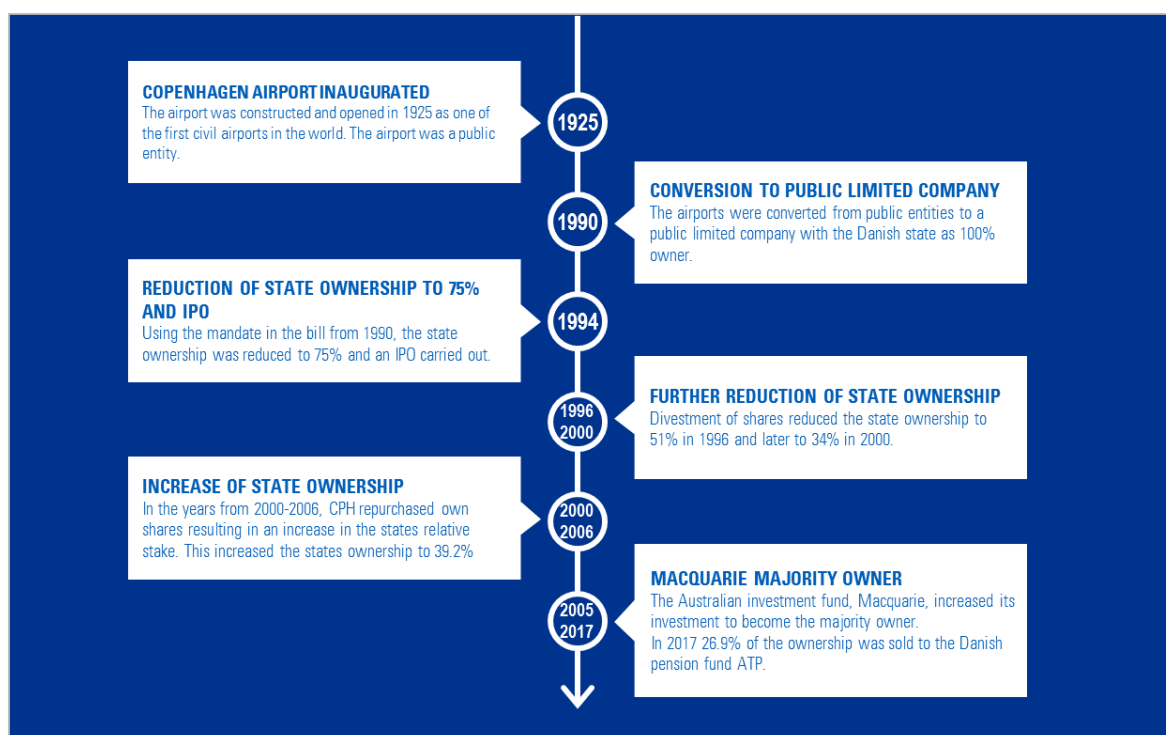
⁸ For more information, please see: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32008R0300> [Accessed 8th February 2018].

Given the public interests related to both the Copenhagen Airports (Kastrup and Roskilde), CPH is required, under the *Danish Air Navigations Act*⁹ (*Den danske Luftfartslov*), to be able to offer the necessary flight capacity to meet Denmark's need for national and international transport links.

2. CONTEXT AND IMPLEMENTATION

Historically, the primary objective of the Danish government was to guarantee the efficiency of the CPH through 100% ownership. Until 1990, the airports of Kastrup and Roskilde were operated by the *Copenhagen Airports Authority* (*Københavns Lufthavnsvæsen*), a PSH under the Danish *Ministry of Transport* (*Transport- Bygning- og Boligministeriet*).

Figure 1 Selected events in the history of CPH



Source: KPMG elaboration on CPH's site and annual reports from 1992 to 2016

In June 1990, the Danish Parliament passed the *Act on Copenhagen Airports A/S*¹⁰ based on a government bill¹¹, and in September 1990, the *Copenhagen Airports Authority* was converted into the public limited company, *Copenhagen Airports A/S*, with the Danish government as sole shareholder. The intention behind the conversion into a limited company was to operate the company on a more commercial basis. In 1994, it was decided to reduce the Danish government's ownership stake to 75% and to have the company's shares listed on the *Copenhagen Stock Exchange*. The company made an IPO in March 1994, and the shares were listed on the *Copenhagen Stock Exchange* on 11st April 1994.

⁹For more information, please see: <https://www.trafikstyrelsen.dk/EN/Civil-aviation/Air-law-and-Regulation.aspx> [Accessed 8th February 2018].

¹⁰For more information, please see: <https://www.cph.dk/en/about-cph/investor/Share-information/From-Public-to-Private/> [Accessed 8th February 2018].

¹¹For more information (Only in Danish), please see: <https://www.retsinformation.dk/forms/r0710.aspx?id=21951> [Accessed 8th February 2018].

In 1996, the Danish government reduced its ownership stake by a further 24% (to 51%) as part of a settlement between parties regarding *The Finance Act*¹² of 1996. The latest reduction in the government's ownership stake took place in 2000, when another 17% of the shares were sold by the government.

In the period 2000-2006, the Danish government increased its ownership of the company's share capital to 39.2% as a consequence of *CPH's* acquisition of own shares.

Over the 2005-2017 period, the Australian private investment fund *Macquarie* increased its investments to become the majority shareholder (together with *OTTP*) through the SPV "*Copenhagen Airports Denmark ApS*" with an ownership of 57.7%.

Table 1 Evolution of ownership in Copenhagen Airports A/S

Ownership in Copenhagen Airports A/S						
Shareholders		Prior IPO	Post IPO	Post 1996	Post 2000	2005 - 2017
A)	Copenhagen Airports Denmark ApS	0%	0%	0%	0%	58%
B)	The Danish government	100%	75%	51%	34%	39%
C)	Private and institutional investors	0%	25%	49%	66%	3%
Total		100%	100%	100%	100%	100%

Source: KPMG elaboration on *CPH's* site and annual reports, 1994-2001

In September 2017, the majority stake of the company started to be transferred from *Macquarie- OTTP* to *ATP-OTTP*. In details, the shares covered by the agreement will be sold by the *Macquarie European Infrastructure Fund III* ("MEIF3")¹³. The agreement is conditional upon merger control clearance and completion, and it is supposed to be finalised by the last quarter of 2018¹⁴.

3. ANALYSIS OF THE DEALS

As mentioned earlier, the Danish government sold out its stake in *CPH* at three different points in time. When they launched the IPO in 1994, the initial stock value started at a value of around 290 DKK (39 EUR¹⁵) the government sold 25% of its shares. The IPO raised around 660 Mn DKK¹⁶. The stock price saw an increase of 8.6% in the six months following the first stage of the privatisation.

After the Danish government reduced its stake by another 24%, at the stock price of approximately 505 DKK (58.5 EUR), they raised an additional 1,040 Mn DKK¹³. The stock saw an increase of approximately 28% over the rest of the fiscal year following the second part of the privatisation.

¹² For more information, please see: *CPH's* annual report 1995 [Accessed 8th February 2018].

¹³ MEIF3 is a Macquarie fond that tries to take advantage of the growing number of infrastructure investment opportunities within the expanding European Union. For more information, please see: <https://www.macquarie.co.uk/mql/uk/meif/meif-3> [Accessed 8th February 2018].

¹⁴ For for information, please see (Only in Danish): <https://www.cph.dk/om-cph/investorer/Selskabsmeddelelser/2017/9/atp-og-ottp-indgar-aftale-om-erhvervelse-af-bestemmende-indflydelse-i-kobenhavns-lufthavne-as/>

¹⁵ IPO stock value taken at 1st April. 1996 stock value taken at 7th March. 2000 stock value taken at 6th April. Stock values gathered from: <https://www.nordnet.dk/mux/web/marknaden/aktiehemsidan/kursdata.html?identifier=3195&marketplace=14&inhibitTrade=1> (Only in Danish). Time of transaction taken from: <https://www.retsinformation.dk/Forms/R0710.aspx?id=90560> (Only in Danish) and *CPH's* annual report 1994-2000.

¹⁶ For more information, please see (Only in Danish): <https://www.retsinformation.dk/Forms/R0710.aspx?id=90560> [Accessed 8th February 2018].

After reducing the stake by 17% in 2000, selling approximately 1.5 million shares at the value of 550 DKK (72.2 EUR) raising around 840 Mn DKK the stock increased about 23.8% over the rest of the fiscal year following this third part of the privatisation.

The Danish government's proceeds following the privatisation were globally equivalent to 2,540 DKK Mn (around 341 EUR Mn), the majority of which were raised during the second-sale period. Details are reported in Table 2.

Table 2 Government proceeds following the privatisation

Sale period	% of shares sold to investors	Amount raised (DKK Mn)
First sale	25.0%	660.0
Second sale	24.0%	1,040.0
Third sale	17.0%	843.0
Total	66.0%	2,540.0

Source: KPMG elaboration on CPH's annual report 1994-2001 and <https://www.retsinformation.dk/Forms/R0710.aspx?id=90560> (Only in Danish)

From 2000 to 2007, CPH bought back shares resulting in a fall in total shares from 9,150,000 to 7,484,000. This effectively, raised the Danish government's stake from 34% to 39.2%. At the current stock price, and with the stake of 39.2% in CPH, the value of the Danish government's stake is shown in table 3.

Table 3 Value of remaining stake, at stock value of 5,700 DKK (31/01/2018)

% of stake	Number of shares	Remaining stake (DKK Mn)
39.2%	3,076,443	17,536.0

Source: KPMG elaboration on CPH's annual report 2007, Stock value of DKK 5,700, taken from <https://www.nordnet.dk/mux/web/marknaden/aktiehemsidan/kursdata.html?identifier=3195&marketplace=14&inhibitTrade=1> (31/08/2018)

4. IMPACT ASSESSMENT

In the following section, the impacts of the privatisation of CPH on the target company performance, on public finance and other impacts are analysed, using publicly available data.

Please note that the impact assessment is mainly based on the comparison between trends and performances registered by the company before and after different privatisation episodes took place (1994, 1996 and 2000). Therefore, no counterfactual assessment has been carried out, being beyond the scope of this case study, as well as very challenging with respect to the "do-nothing" scenario.

4.1. Impacts on the target company

Except from some predictable downturns, such as the Gulf war of 1991, the 9/11 terroristic attacks in 2001, and the financial crisis of 2008, CPH has seen a large overall growth in the number of passengers travelling to, from and through the

airport, making it the business airport in the Nordic countries¹⁷. The airport has several times been nominated as one of the best and most successful airports in the world, showing more and more positive financial numbers.

As for the impact of privatisation on *CPH*, it can be observed that the privatisation seemed to have had a positive effect on both the financial and the operating performance of the company and the group. The sales process as a whole has significantly improved its profitability and solvency profile, as will be explored in the following subsections.

- *Market positioning*

Copenhagen Airport has a monopoly in the Copenhagen area, and has only a few smaller airports locally in Denmark and the Oresund region and larger airports in the Northern Europe as competitors. The local airports mainly compete with *CPH* on charter and feeder traffic to hubs.

CPH's competitors in Northern Europe are Schiphol, Oslo, Stockholm, Helsinki and Hamburg that compete on establishing long haul routes (Asia, US) and European routes.

In the case of *CPH*, the IPO appears to have had a positive impact on the airport's competitive position in the market due to the amount of investments the entrance of private investors in the ownership made possible. In fact, to make sure *CPH* was able to accommodate the growing trend in the use of planes for travel, heavy investment was needed to ensure proficient capacity as well as attractiveness of the airport for both consumers and airlines alike, making *CPH* the hub in the Nordics. This was done by airport expansion and development of the shopping areas of the airport.

In the period from the first IPO until 2016, Copenhagen Airport investment level (CAPEX) increased. The main reason behind the increasing investment level is *CPH*'s ambition to increase the passenger number per year, and increase the sales on duty free and other products when passengers are at the airport. In the period of the analysis, *CPH* has made significant investments in the following assets:

- Pier A in 1995
- Automatic baggage handling system in 1998
- New cargo terminal in 1998
- Pier D in 1999
- Terminal 3 in 1999 – long-term rent contract with SAS and Star Alliance partners
- *CPH* Airport hotel in 2000 – long-term rent contract with Hilton
- Air traffic control tower in 2007
- *CPH* Go in 2010 – low-cost segment pier.

In the first years after 1994, *CPH* invested massively in new assets to generate larger revenues from direct passenger, airline fees and indirect fees from shopping, etc. After the last equity transaction in 2000, the growth in the non-financial assets has been stable, but at a lower level than in the years of the IPO and equity transactions. *CPH* has in the same period made a repurchase equity programme instead of investing in assets to increase the growth of the airport. This could indicate that the investors of

¹⁷ For more information, please see: <https://standbynordic.com/nordics-busiest-airports-ranked/>

the airport have had a focus on the Return on Investment, by lowering the CAPEX of the airport and maximising the return of the shareholders by keeping the revenue generated for the assets stable.

With the increased level of investment in physical assets, the airport has been able to increase the number of intercontinental routes as well as the number of European and charter departures from *CPH*. Without the intense investment programme, it is likely that intercontinental routes would have been awarded to Stockholm or Oslo from *CPH*'s main client *SAS*. The investment in terminal 3 improvement - being used by *Star Alliance*¹⁸ - has also had a positive effect since both *Singapore Airlines*, *Canada Air* and *Thai Air* have weekly departures out of Copenhagen.

A number of competitors to *Star Alliance* have afterwards used the infrastructure in the airport to develop long haul and European routes. The main new client for *CPH* is *Norwegian Airlines*, which is a direct competitor to *Star Alliance* and *SAS*. It has also opened for international players such as *Qatar Airways*, *Emirates* and *Air India*. *CPH* has a clear, strategic plan to provide for a great experience for passengers. This should include fast check-in & security and good shopping and dining possibilities. In relation to shopping possibilities for the passengers, the airport has been able to attract leading luxury brands such as *Royal Copenhagen*, *Georg Jensen*, *Mulberry*, *Gucci*, *Burberry*, *Marc Jacobs* and *Bottega Veneta*.

The airport has had a clear differentiation strategy that has given the airport high rankings in *Skytrax* world Airport awards. In 2017, the airport was awarded the best airport in Northern Europe¹⁹. In summary, a link might be made between the investments made in the asset portfolio after the IPO and the increase in customer base in *CPH*, generating a higher free cash flow from the assets of *CPH* and generating increased free cash flows from the shopping areas via the differentiating strategy.

- *Profitability*

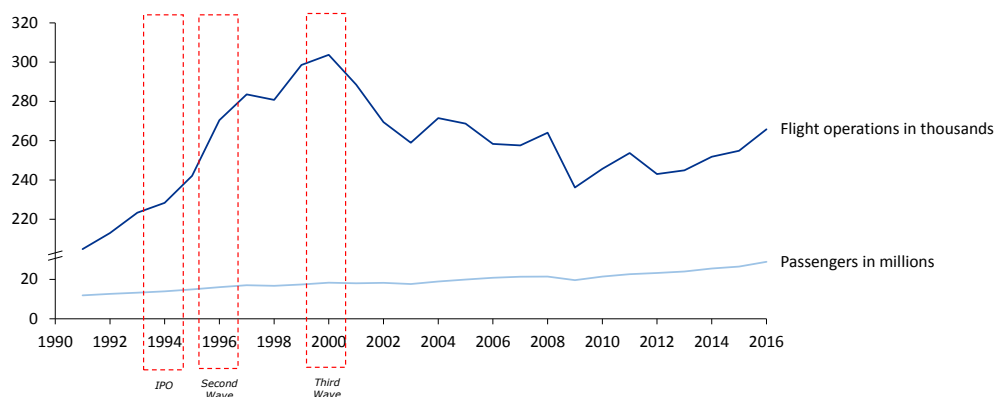
In our further analysis of the privatisation, we look at the effects investments have had on the traffic in the airport. By investing before other airports did the same, *CPH* could accommodate the increasing number of passengers, and thereby directly increase earnings on tariffs and shopping.

First, we look at tariffs, which is the amount charged to passengers and planes to use the airport. Following the privatisation, we can assume that tariff earnings should rise, since investments increased the capacity to accommodate the increasing public demand for transportation by plane. At the same time, we can assume that higher capacity in the form of airport expansions has led to an increase in flight operations (take-offs and landings).

¹⁸ *Star Alliance* is a global airline alliance founded in 1997 and currently having 27 full members and covering 192 destination countries. For more information please also see: <http://www.staralliance.com/en/home> [Accessed 21st February 2018].

¹⁹ For more information, please also see: <https://www.cph.dk/en/about-cph/press/news/2017/3/international-awards-for-cph-best-airport-in-northern-europe-and-best-airport-security-screening/> [Accessed 7th February 2018].

Figure 2 Development in passengers and flight operations (1991 – 2016)



Source: KPMG elaboration on CPH's annual report, 1991-2016.

CPH has seen an increase in passengers from 11.9 million in 1991 to 29 million in 2016. We see a clear positive trend in the number of passengers as this mode of transport became more common and the airport has been able to accommodate this demand. Trend reversals occurred during 2001- 2003, due to the 9/11 terroristic attacks, and during 2009 to 2010, due to the financial crisis.

In the same period, CPH saw an increase in flight operations from 205 thousand to 266 thousand. Also, in Figure 2 we see a clear positive trend at the beginning of the period, while a decline is seen in the period between 2000 and 2009. The reasons for this are the same as for the number of passengers, but also the fact that the capacity of planes has increased resulting in a lower number of flight operations required.

The increasing amount of traffic in the airport led to an increase in earnings from tariff, from both planes and passengers, as well as an increase in earnings from the shopping centre. CPH saw an overall increase in passenger tariff earnings from 319 DKK Mn in 1991 to 1,199 DKK Mn in 2016²⁰, despite tariffs remained quite stable. In fact, this rise was mainly a result of the increasing investments leading to higher capacity for passengers and planes (e.g the improvement in Terminal 3), as well as increasing tariffs on a few occasions like an increase of 10 Danish Kroner in 1998.

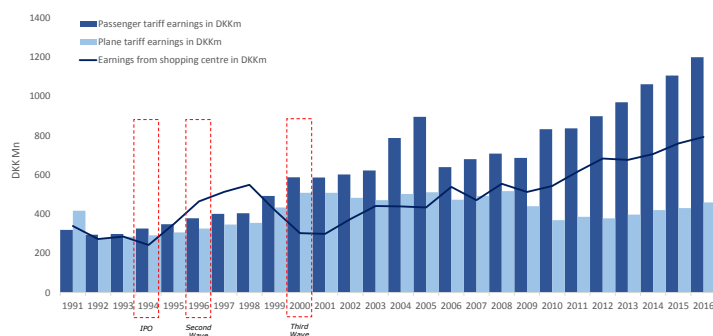
CPH also saw an overall increase in plane operating tariff earnings from 417 DKK Mn in 1991 to 459 DKK Mn in 2004, which is an increase of around 10%. Besides the increased capacity, this was a result of increased tariffs on several occasions over the period. These tariffs are directly tied to the number of flight operations, and as these declined after 2000, the earnings fell as well.

Furthermore, the airport saw an overall increase in earnings from the shopping centre from 339 DKK Mn in 1991 to 793 DKK Mn in 2016²¹.

²⁰ Please note the amounts of passenger tariff earnings are not corrected for inflation.

²¹ Please note the amounts of earnings from the shopping center are not corrected for inflation.

Figure 3 Development in tariffs and shopping centre earnings (1991–2016)

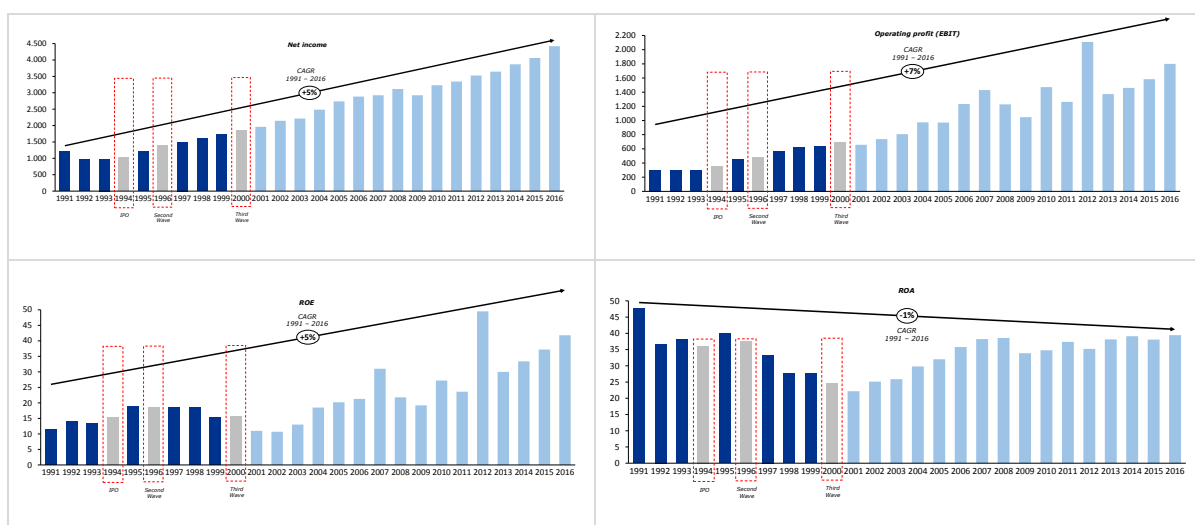


Source: KPMG elaboration on CPH's annual report, 1991-2016.

The figure shows a small negative trend in the earnings from passenger tariffs before the IPO in 1994, and a clear positive trend emerging in the period after, again with the exception of the period 2001 to 2003 and 2009. Furthermore, the development saw a big decline in 2006, this was a result of the split between security and passenger tariffs, which was one and the same before 2006. In fact, only the passenger tariffs can be included in passenger earnings registered by CPH, being the security charges collected by the state. The income from traffic amounted to 59% of CPH net income in 2016.

As with the tariffs, earnings from the shopping centre also show a negative trend before the IPO, and a large increase over the following period from 1994 to 1998. In 1999, the EU Commission prohibited the sale of duty free goods to travellers travelling within the EU²², resulting in the large decline in earnings in 1999. The income from the shopping centre amounted to 18% of CPH net income in 2016. As with the tariffs, a clear positive trend can be seen in net income over the period after the IPO, which again is a result of overall development in traffic and airport infrastructure. We see that the only year with a slight set back in net income was 2009, the year after the financial crisis. Over the whole period, CPH has seen an increase in operating revenue of approximately 269%.

Figure 4 Profitability profile (1991–2016), DKK Mn



Source: KPMG elaboration on CPH's annual report, 1991-2016.

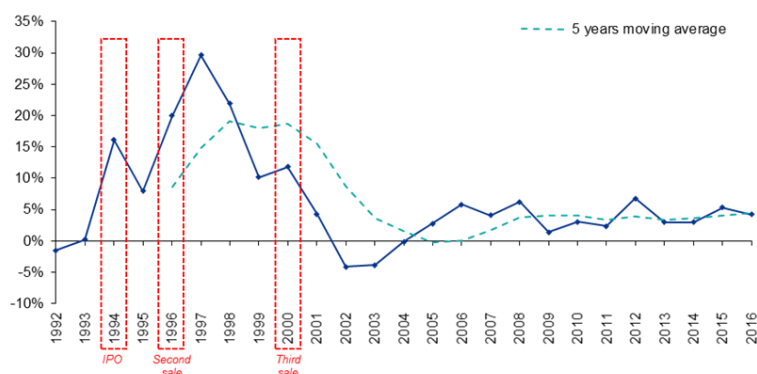
²² For more information, please see: CPH's annual report 1999.

As with the general trend found for net income, the operating profits have also seen a positive development over the period. We see that the trend is quite consistent over the period, except for a big jump in 2012, which was mainly caused by the sale of CPH's stake in NIAL (*Newcastle International Airport*)²³.

- Efficiency

As it has already be mentioned, in the period from the first IPO until 2016, CPH investment level (CAPEX) increased.

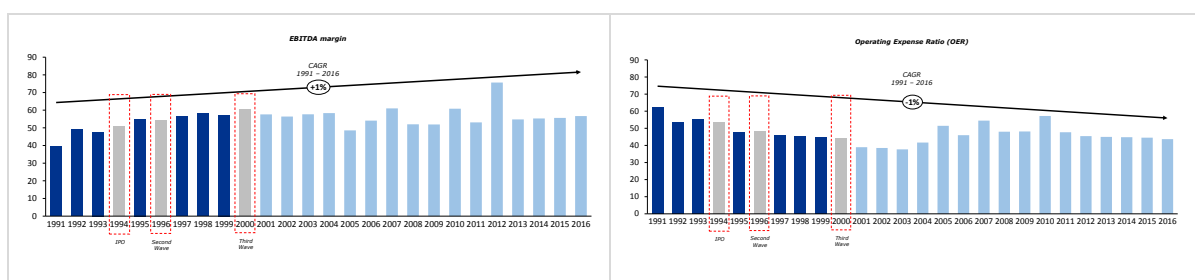
Figure 5 Growth in non-financial assets in percentage (1991–2016)



Source: KPMG elaboration on CPH's annual report, 1991-2016.

An overall negative trend line in relation to CAPEX emerges. This is mainly due to the early heavy investments, which means that the yearly CAPEX in CPH is declining and new investments in larger scale have ceased. From our understanding, this is very natural as the airport has invested heavily for some years (for example investment in terminal 3) and is now focusing on the return of the asset. The free cash flow from the asset investment has been used to pay return to the investors and to pay interest and repayments to the bank.

Figure 6 Efficiency profile of CPH (1991–2016), DKK Mn



Source: KPMG elaboration on CPH's annual report, 1991-2016.

A negative trend in the *Operating Expense Ratio (OER)*²⁴ is registered after the IPO until 2004, and a total reduction of around 21 percent points. After 2004, the

²³ For more information, please see: CPH's annual report 2012.

²⁴ Operating Expense Ratio: Operating costs / Net income.

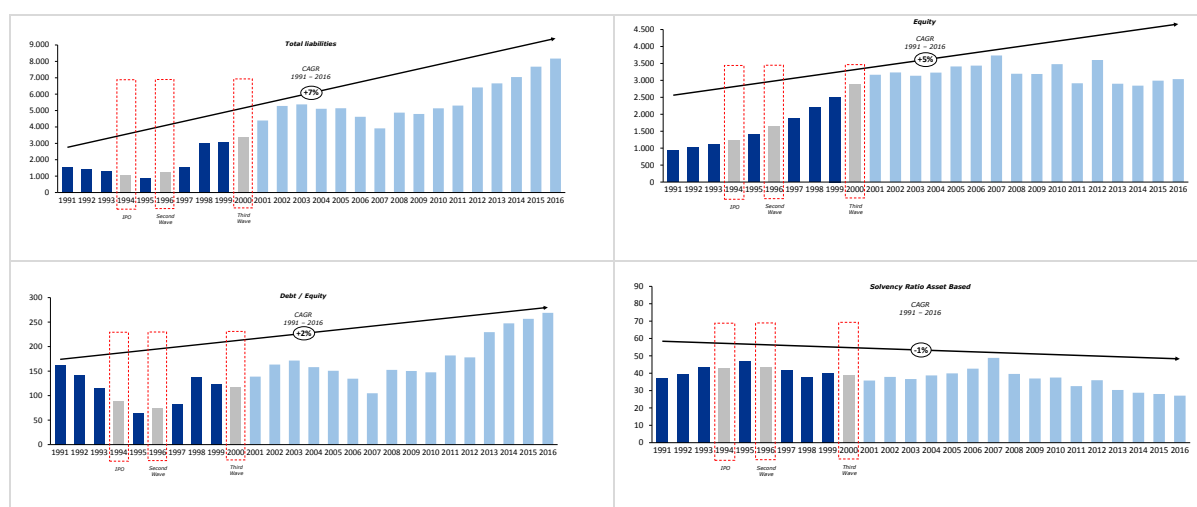
development is quite stable, except for a few outliers in 2005, 2007 and 2010. The OER averages around 47.5% over the period.

The EBITDA margin shows a positive trend and, overall, a high and stable level, averaging around 55.5% over the period. Once again, we see the outlier in 2012.

- *Solvency*

Over the period the debt increased at a higher rate than the operating revenue. The reasons for this could be the low interest in the market for capital since the financial crisis in 2008, and the opportunity for the investors to rather increase their return by using the free cash flow as dividend than investing the free cash flow in CAPEX. In the period between 2006 and 2008, the airport has used the free capital to invest in CAPEX or repay its loans. The main shareholders of *CPH* are both private equity funds that under normal conditions would increase the debt to maximise their return on investment. In the case of *CPH* airport, we can confirm that this is also the case. We also estimate that the increasing debt in *CPH* does not have any serious financial impact since the airport generates a return that is higher than the overall interest of the debt. We do estimate that any exogenous shock (e.g. war, long-term volcanic ash cloud, increasing in oil price, financial crisis, etc.) could have serious financial impact on the airports financial performance and ability to create value from the current asset/debt gearing and could have a negative impact on the passenger tariff in the long term.

Figure 7 Solvency profile of *CPH* (1991 – 2016)



Source: KPMG elaboration on *CPH*'s annual report, 1991-2016.

We see a positive trend in both total debt and equity as well as the *Debt to Equity Ratio*²⁵ (CAGR +2%), demonstrating that the increase in the total liabilities has overall higher than the total equity increase during the period. There has been a negative trend in the debt before the IPO in 1994, and after, as expected, the debt has been increasing heavily due to the heavy infrastructure and financial investments *CPH* did after its privatisation. *CPH* has seen an overall increase in total liabilities (CAGR 7%). Equity also increased in the period from 1991-2002, followed by a more stable level in the rest of the period (CAGR 5%).

²⁵ Debt to equity ratio: total liabilities to shareholders' equity.

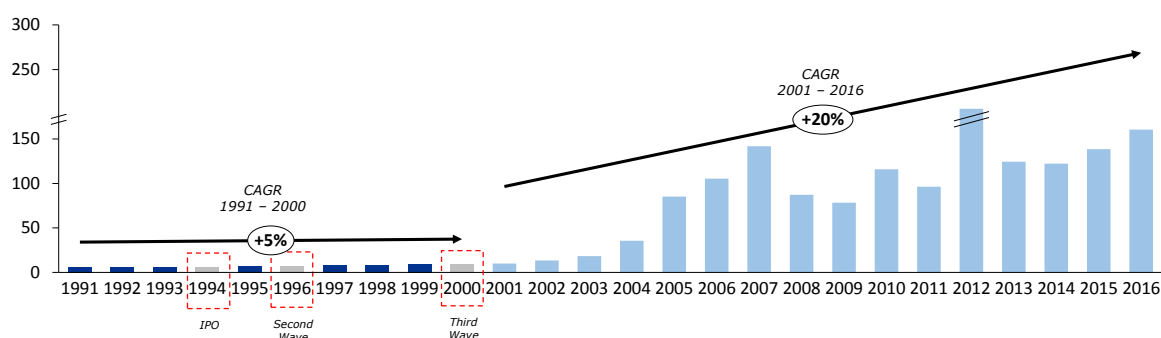
The *Debt to Equity Ratio* tells us a bit about the financial risk of *CPH*. As expected, it shows a decline prior to the IPO, followed by a quite positive trend. The ratio is relatively high, averaging around 152% over the period, but since *CPH* acts as a monopoly in the Copenhagen Area this has less of an effect.

Lastly, the *Solvency Ratio asset based*²⁶ has been relatively stable over the period, though with a noticeable decline in the later years from 2012-2016. Since this ratio indicates to which extent *CPH* assets can cover its own debt, the decline is an overall positive development.

4.2. Impacts on public finance

To analyse the impact on public finance, we compare earnings from the privatisation with possible earnings from dividends had the state chosen not to sell. Of course, this is scenario analysis, so any conclusions must be taken with caution.

Figure 8 Dividends of *CPH* (1991–2016), DKK



Source: KPMG elaboration on *CPH's* annual report, 1991-2016.

As mentioned in Section 3, the state's total earnings from the privatisation was around 2,540 DKK Mn. This, combined with the total dividends received after the IPO, makes the state earnings around 8,836 DKK Mn.

As a first scenario, we assume no sale at all, computing possible dividend earnings as the average dividends paid in the period prior to the IPO multiplied by the number of shares and periods. Please note that in this scenario, the state would own 100% of the *CPH* and its assets (today worthing around 51,300 DKK Mn)²⁷. The amount reached is 1,242 DKK Mn that, as expected, is lower than the result of the privatisation. In addition it is worth mentioning that it's unlikely to think that that *CPH* would have undergone the same results (i.e. investments, expansion and growth in income), if the privatisation would not had taken place. Using the same method, in a second scenario we analyse the case of no following rounds of privatisation (the state stopped selling after the IPO). In this case the state's total earnings would be equal to 1,581 DKK Mn, owning the 75% of *CPH*. Lastly, in a third scenario we analyse, the case of the happening of the IPO and of the second round only. In this case, the total earnings would then be 1,684 DKK Mn, owning the 51% of *CPH*.

It's difficult to come to any real conclusion as to how much the state has lost or gained as a result of the privatisation, but it would seem that the higher dividends paid after

²⁶ Solvency ratio: equity / total assets.

²⁷ Stock value taken from

<https://www.nordnet.dk/mux/web/marknaden/aktiehemsidan/kursdata.html?identifier=3195&marketplace=14&inhibitTrade=1> [Accessed 31st January 2018].

the third sale and the high stock value today have been positively affected by the high steady growth in CPH, also coming as a result of the early, significant investments. Nonetheless, we cannot tell if the growth of CPH would have occurred in case of no privatisation at all or in case of partial privatisation.

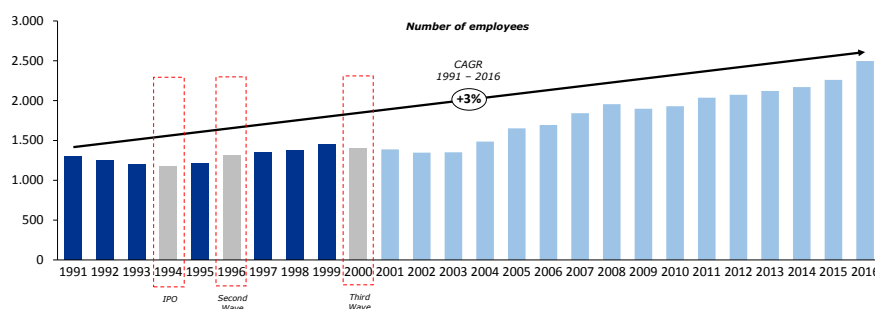
The state's proceeds from the privatisation have either been reinvested into other public assets or used to reduce public debt.

4.3. Other impacts

Even after the privatisation, *CPH* is still regulated as a monopoly by the Danish state, which means that tariffs are regulated and must be accepted by the state²⁸. This means that the privatisation process is not related to the regulation or the fixing of these tariffs. For this reason, we can assess that the privatisation has not had any relevant impact on the prices offered to users.

Figure 9 would suggest that the privatisation has had a positive effect on the number of people working at *CPH*. We see a negative trend prior to the privatisation followed by a relatively high, positive trend and an overall increase of around 113% since the IPO.

Figure 8 *CPH's* workforce (1991 – 2016), units



Source: KPMG elaboration on *CPH's* annual report, 1991-2016.

Table 4 provides a synthesis of the major impacts identified above. The results are presented by means of a RAGS (i.e. Red; Amber; Green; Silver) classification. In detail: "Red" stands for a negative impact, "Amber" for no clear patterns for the impacts, "Green" stands for a positive impact/s and "Silver" stands for no data available for the analysis. As already mentioned, this analysis of the impacts is only based on the comparison between trends and performances registered by both the company and the country before the operation and after it. In fact, it is difficult (as well as beyond the scope of this case study) to track back impacts created by the counterfactual event.

²⁸ For more information, please see: <https://www.trafikstyrelsen.dk/EN/Civil-aviation/Air-law-and-Regulation.aspx> [Accessed 8th February 2018].

Table 4 Summary table of potential impacts

Summary of potential impacts	
Impacts on the target company	
Market positioning	Scoring
	<p>A</p> <ul style="list-style-type: none"> Due to massive CAPEX investments, the airport has been able to attract intercontinental routes as well as an enhanced European development in the route network. Furthermore, since it's quite clear that total debt was on the decline before the privatisation, <i>CPH's</i> market position today would probably not have been possible without the privatisation.
Profitability	Scoring
	<p>G</p> <ul style="list-style-type: none"> <i>CPH's</i> profitability has increased steadily since the privatisation. This would probably not have been possible without the investments and expansion which were a direct result of the privatisation.
Efficiency	Scoring
	<p>A</p> <ul style="list-style-type: none"> <i>CPH</i> has invested heavily in the years after the privatisation to increase capacity in order to accommodate the increasing number of passengers. At the same time, we see an overall negative trend in the operating expense ratio, which suggests that <i>CPH</i> also has improved on operating costs.
Solvency	Scoring
	<p>A</p> <ul style="list-style-type: none"> <i>CPH</i> has seen a decreasing asset-based solvency ratio, which again suggests that the privatisation might had increased solvency.
Impacts on public finance	
Fiscal impacts	Scoring
	<p>A</p> <ul style="list-style-type: none"> It is hard to conclude whether the state has lost or gained money as a result of the different sales. If we assumed that the overall growth is a result of the increased capital and privatisation that has led to <i>CPH's</i> current international standing, then the choice of privatisation seems prudent. However, due to the fact that we cannot assess if the steady growth of <i>CPH</i> would occurred in case of no privatisation, we cannot conclude the privatisation had direct impacts on public finance.

Summary of potential impacts							
Other impacts							
Impacts on users	<table border="1"> <thead> <tr> <th colspan="2">Scoring</th> </tr> </thead> <tbody> <tr> <td style="background-color: green; color: white; text-align: center;">G</td> <td> <ul style="list-style-type: none"> In terms of quality of services provided to users of the airports, following the privatisation, <i>CPH</i> has registered an increase in the number of passengers. This is also due to large investments in both shopping, security and check-in that permits the company to get some awards. These investments were made possible also thanks to the entrance of private investors in the ownership, so according to our findings, the privatisation seems to have had a positive impact on users. </td> </tr> <tr> <td style="background-color: yellow; text-align: center;">A</td> <td> <ul style="list-style-type: none"> Since the tariffs are regulated and have not changed much over time, we do not see evidence of any clear effect due to the privatisation. </td> </tr> </tbody> </table>	Scoring		G	<ul style="list-style-type: none"> In terms of quality of services provided to users of the airports, following the privatisation, <i>CPH</i> has registered an increase in the number of passengers. This is also due to large investments in both shopping, security and check-in that permits the company to get some awards. These investments were made possible also thanks to the entrance of private investors in the ownership, so according to our findings, the privatisation seems to have had a positive impact on users. 	A	<ul style="list-style-type: none"> Since the tariffs are regulated and have not changed much over time, we do not see evidence of any clear effect due to the privatisation.
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Impacts on CPH's workforce	<table border="1"> <thead> <tr> <th colspan="2">Scoring</th> </tr> </thead> <tbody> <tr> <td style="background-color: green; color: white; text-align: center;">G</td> <td> <ul style="list-style-type: none"> To accommodate the increasing passengers and planes, mainly due to investments made by private investors, <i>CPH</i> has steadily been increasing the workforce. </td> </tr> </tbody> </table>	Scoring		G	<ul style="list-style-type: none"> To accommodate the increasing passengers and planes, mainly due to investments made by private investors, <i>CPH</i> has steadily been increasing the workforce. 		
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Legend



= Negative impact



= No clear pattern



= Positive impact



= No data available

Source: KPMG elaborations

5. CONCLUSIONS AND LESSONS LEARNT

The case represents an example of a PSH operating within a historical monopoly privatised through an IPO. The main selected conclusions and lessons learnt could be summarised as follows:

- the early privatisation followed by early investments in both capacity upgrades, shopping centres and security meant that Copenhagen airport was in front of the competition of nearby country airports, making it the most used airport in the Nordics²⁹;
- the privatisation seems to have contributed to the sustainability of the target company (i.e. significant improvements in terms of profitability and solvency as well as operating costs). This has also led to a stable increase in employees over the period;
- following the privatisation, *CPH's* share price has increased.

²⁹ For more information, please also see: <https://www.cph.dk/en/about-cph/press/news/2017/3/international-awards-for-cph-best-airport-in-northern-europe-and-best-airport-security-screening/> [Accessed 7th February 2018].