



The Danish Experience With A Financial Activities Tax

Presentation to the
Brussels Tax Forum
28-29 March 2011

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Thank you, Mr. Chairman, and thank you to the conference organizers for inviting me to describe the Danish experience with a Financial Activities Tax.

I should mention from the outset that this evaluation of the Danish experience is based on my own personal views which do not necessarily reflect the official views of the Danish central bank or the views of other Danish authorities.

I will start by briefly discussing the objectives and design of a Financial Activities Tax in general terms.

I will then evaluate the Danish Financial Activities Tax against these general principles, and finally I will present some data indicating how the tax has affected the development of the Danish financial sector.



Alternative objectives of a Financial Activities Tax (FAT)

- ◆ **Substituting for the missing VAT on financial services**
- ◆ **Taxing rents**
- ◆ **Discouraging excessive risk-taking**

The Danish FAT belongs in the first category (FAT1 in IMF terminology)

As Professor Fuest has just explained, the recent IMF report on Financial Sector Taxation has pointed to three possible objectives of a Financial Activities Tax:

First, an FAT could be introduced as a substitute for the missing VAT on most financial services.

Second, an FAT could be an instrument for taxing financial sector rents. By "rents" we mean profits and labour income which exceed the earnings that capital owners and employees in the financial sector could have obtained in other sectors.

Third, in so far as financial sector firms tend to take on too much risk, say, because of deposit insurance schemes or implicit government bail-out guarantees, an FAT could be introduced as a means of discouraging excessive risk taking.

The Danish FAT was not designed as a tax on rents or as a tax on particularly risky assets or liabilities, so it is best seen as a substitute for the missing VAT on financial services. In the terminology of the IMF report, the Danish FAT is a variant of the so-called FAT1.



The FAT as a substitute for the missing VAT

- ◆ **Most financial services exempt from VAT. Result:**
- ◆ **Financial services to businesses overtaxed**
- ◆ **Financial services to households undertaxed**
- ◆ **A priori unclear whether financial services are on average undertaxed, but the evidence suggests so. This provides a rationale for a FAT1**

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As we have already heard, the charge for a lot of financial services takes the form of a margin between lending rates and deposit rates. This makes it difficult to identify the value of the financial services delivered to individual households and firms, so the standard invoice-credit form of VAT cannot be applied to so-called margin-based transactions. As a consequence, VAT is usually only levied on financial services provided on a fee-paying basis, whereas margin-based financial transactions are exempt from VAT.

This means that neither financial sector firms themselves nor their business customers can claim a credit for the VAT on the inputs purchased by the financial sector, so financial services delivered to businesses get taxed too much.

On the other hand, financial services delivered to households are undertaxed because the value added by the financial sector does not carry VAT.

With some transactions getting overtaxed and others being undertaxed, it is not immediately clear whether financial services are on average taxed too much or too little. However, the research done by Professor Huizinga and others clearly shows that, at least in the EU, total VAT revenue would increase if all financial services could be subject to ordinary VAT. As I shall show in a minute, this would also be the case in Denmark.

This undertaxation of the financial sector under the current VAT regime provides one rationale for a Financial Activities Tax as an imperfect substitute for the missing VAT.

How should a FAT1 be designed?

- ◆ **Addition method: Tax base = wages + profits**
- ◆ **Profits = taxable profits – imputed return to equity**
- ◆ **No credit for FAT should be granted to business customers of financial sector**
- ◆ **No credit for input VAT should be granted to financial sector**
- ◆ **No border adjustments (origin basis)**

Total value added can be split into wages and profits, so if the aim is to tax value added, an FAT1 could be levied on the sum of wages and profits in the financial sector.

However, under the ordinary VAT firms can immediately deduct all expenditure on new investment. The present value of this deduction is equal to the present value of a permanent deduction for a normal return on all new investment. Under the corporate income tax firms already get a deduction for the interest paid on their debt-financed investment. If this were supplemented by a deduction for an imputed normal return to equity, financial sector firms would get a deduction for a normal return on all new investment, and this deduction would be equivalent to the deduction for investment spending granted under the VAT.

In other words, the measure of profit to be included in the base for an FAT1 should be the so-called pure profit after deduction for a normal return to all capital.

In principle it would be desirable to grant business firms a credit for the FAT on their purchases of financial services to avoid the overtaxation of business-to-business transactions mentioned earlier. However, since it is so difficult to identify the value of margin-based financial services delivered to the individual customers of the financial sector, it seems just as difficult to design such a crediting mechanism as it would be to subject financial services to ordinary VAT. Given that a credit for FAT cannot be implemented, financial services delivered to businesses would continue to be overtaxed. This is clearly a drawback of the FAT.

Another issue is whether financial sector firms should be given a credit against their FAT bill for the VAT paid on their inputs? The answer here is "No", since such a credit would eliminate the tax on all of the value added in the earlier stages of production. This would give financial sector firms an artificial incentive to outsource as many of their activities as possible to VAT-paying service firms in order to minimize their effective tax burden. It would also mean that financial services provided to household customers would continue to be undertaxed. By contrast, an FAT with no credit for input VAT will ensure that all of the value added included in financial services to households gets taxed, as is intended.

A final major issue in designing an FAT1 is whether one should try to operate the tax on a destination basis by exempting exports of financial services from the tax base and by trying to include imported financial services in the base. However, the difficulty of identifying the margin-based financial services provided to individual customers makes it equally difficult to identify exactly how many of these services have been exported or imported. Hence it seems advisable to stick to an origin basis for the FAT rather than trying to undertake the border-adjustments that would be required for a destination-based tax.



The Danish FAT

- ◆ **The Danish FAT is in line with the principles above, except that profits are not included in the tax base**
- ◆ **Activities subject to tax: Banking, insurance, mortgage credit, pension funds**
- ◆ **Tax base = wages (including contributions to pension schemes) + fringe benefits + bonuses (if paid out as normal income)**
- ◆ **Current tax rate: 10.5%**
- ◆ **Revenue: 0.25-0.3% of GDP**

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Against this background, let us now consider the Danish Financial Activities Tax. The Danish FAT is in fact in line with all the general principles mentioned above, except that profits are not included in the tax base.

The activities subject to tax are banking, insurance, mortgage credit and the services provided by pension funds and investment management funds.

The tax base consists of wages and salaries, including contributions to pension schemes, plus the value of fringe benefits plus any bonuses paid out as normal income. On the other hand, special compensation schemes such as stock options are not included in the tax base; a problem to which I shall return.

After having been set at 9.13% for several years, the tax rate was raised to 10.5% from the beginning of 2011.

The revenue raised by the Danish FAT has fluctuated between 0.25 and 0.3% of GDP for many years.



Historical motivation for the Danish FAT

- ◆ **In 1988 Denmark carried out an "internal devaluation" to restore international competitiveness: a number of payroll taxes were replaced by a "labour market contribution" levied on the VAT base**
- ◆ **For firms exempt from VAT (including firms in the financial sector) the labour market contribution was levied on total labour costs**
- ◆ **In 1990 the payroll tax rate on the financial sector was increased to offset a reduction in the corporate income tax rate**
- ◆ **From 1992 the labour market contribution was replaced by a rise in the ordinary VAT rate, but a payroll tax on VAT-exempt firms was maintained**

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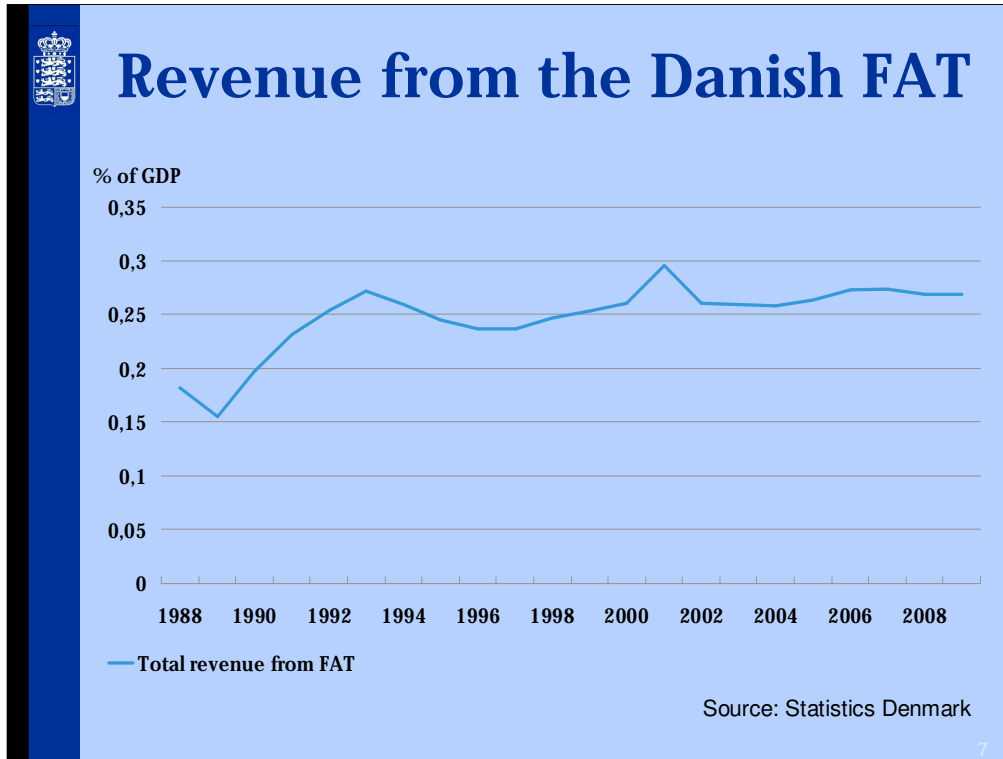
The historical background for the introduction of the Danish FAT was rather special and did not have much to do with the motivations for an FAT given in today's international debate.

In the middle of the 1980s the Danish economy became overheated. This caused a rapid increase in wage rates which undermined the international competitiveness of Danish business firms and led to a large deficit on the current account of the Danish balance of payments. To avoid an imminent devaluation of the Danish krone, the Danish government decided to restore international competitiveness through a so-called "internal devaluation". The internal devaluation involved a cut in labour costs via an abolition of a number of payroll taxes and employers' social security taxes. To compensate for the drop in public revenue, these payroll taxes were replaced by a so-called "labour market contribution" which was levied on the VAT base.

However, for firms exempt from VAT, including firms in the financial sector, the new labour market contribution was levied on total labour costs.

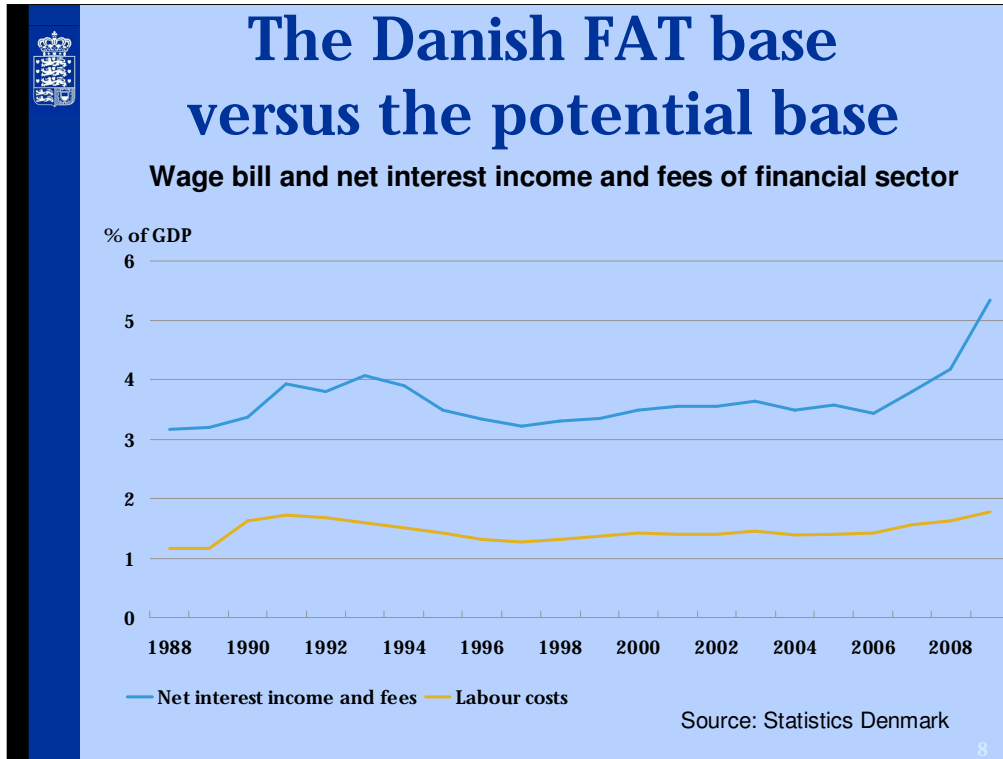
From 1992 the labour market contribution was replaced by a rise in the standard VAT rate, but a payroll tax on VAT-exempt firms was maintained.

In 1990 the base for the corporate income tax was broadened and the corporate income tax rate was cut by 10 percentage points. Since the base-broadening measures had little impact on the financial sector, it was decided to neutralize part of that sector's gain from the lower corporate tax rate by increasing the financial sector payroll tax. The recent increase in the tax rate was also targeted at the financial sector, so this sector pays a significantly higher payroll tax than other VAT-exempt sectors.



As illustrated in this slide, the increase in the tax rate on financial sector payroll from mid-1990 led to a significant increase in the revenue from the Danish FAT.

During the last ten years the payroll tax on VAT exempt sectors has typically generated a revenue between 0.25 and 0.3% of GDP. Between two thirds and three fourths of this revenue comes from the financial sector, so the Danish FAT defined in a narrow sense generates revenue of about 0.2 percent of GDP.



However, the base for the Danish FAT is clearly more narrow than the ideal base for such a tax.

Ideally, one would like to tax the sum of financial sector fees and the margin between interest charged and interest paid by the sector, since this sum is a rough measure of the sector's value added.

As shown on this slide, the total labour costs which make up the base for the Danish FAT are typically less than one half the size of this ideal tax base. Moreover, the current 10.5% payroll tax rate on the financial sector is far below the standard 25% VAT rate in Denmark.

On the other hand, we must keep in mind that financial sector fees are typically subject to VAT and that the sector also pays VAT on its inputs.

So let us take a closer look at the tax rate that would be needed if the Danish FAT were required to generate the same revenue as the revenue that would accrue if the financial sector could be subjected to an ordinary VAT.

Potential versus actual revenue figures for the Danish financial sector (billion DKK, 2011)	
1. Sales of services exempt from VAT	137.9
2. Of which: sales to VAT-exempt customers	66.3
3. Inputs subject to VAT	17.8
4. Potential addition to VAT base (2-3)	48.5
5. Potential addition to VAT revenue (25% of 4)	12.1
6. Payroll tax rate generating identical revenue	25.7%
7. Current payroll tax rate	10.5%

Source: Danish Ministry of Taxation

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This slide presents such a calculation, based on information kindly provided by the Danish Ministry of Taxation. The estimates in the slide are based on data from the Danish national income accounts, including the input-output tables produced by Statistics Denmark.

The data show that Danish financial sector firms sell financial services worth about 66 billion kroner to VAT-exempt customers, that is, mainly households. At the same time, Danish financial sector firms buy inputs worth about 18 billion kroner which are subject to VAT for which they get no credit. If the financial sector could be subjected to ordinary VAT, the addition to the VAT base would be the difference between these two numbers, that is, about 48 billion Danish kroner. Given the Danish 25% VAT rate, this would generate an additional 12 billion kroner of revenue.

To secure an equivalent amount of revenue, the payroll tax rate for the financial sector would have to be 25.7%, given the current size of the sector's total payroll. This may be compared to the current payroll tax rate which is only 10.5%.

These are static calculations, assuming a fixed tax base. In practice we would expect some shifting of the burden of a tax increase, either through a higher interest rate margin charged by the financial sector or through a fall in the wages offered to employees in the financial sector. However, even if one assumes that all of the tax is shifted forward to financial sector customers or that it is fully shifted backwards onto financial sector employees, the estimated payroll tax rate that would be needed to generate the same revenue as an ordinary VAT on financial services only changes by 1-2 percentage points.

In other words, from a pure revenue perspective there is no doubt that the tax rate on the Danish financial sector is far too low if the tax is supposed to substitute for the missing VAT on financial services.

But of course, there may be other relevant perspectives, so let us take a look at some pragmatic arguments for a relatively low rate of FAT.



Pragmatic arguments for a relatively low rate of FAT

- ◆ **Limiting the overtaxation of business purchases of financial services**
- ◆ **In the absence of international coordination: Limiting the loss of international competitiveness and the risk of avoidance**

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First of all, we know that under the current VAT system financial services delivered to businesses get overtaxed even in the absence of an FAT. Adding an FAT which cannot be credited against the VAT bill will clearly exacerbate this excess taxation of business-to-business transactions.

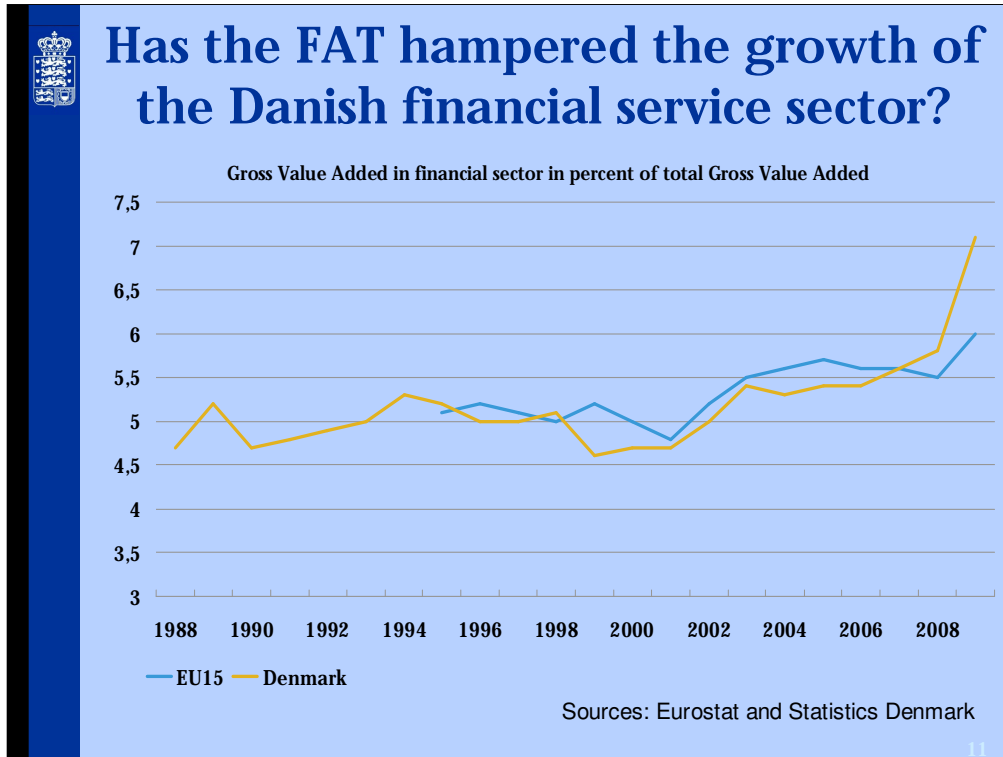
This overtaxation would create an undesirable tax distortion even if the economy were completely closed. But modern financial sector activity takes place on a global platform, and many activities in this sector are highly mobile across borders. Obviously this means that any individual country introducing or raising a tax on financial activities runs the risk of "shooting itself in the foot" by inducing some financial sector activity to move abroad to a milder tax climate.

On the other hand, because of the need to check the creditworthiness of individual customers, a substantial part of financial sector activity relies on close customer relationships. Such relationships are not easy to establish across long distances when it comes to the many small customers of financial sector firms. For this reason there is probably some scope for an individual country to tax financial activities without unduly hampering those activities.

In this context, Denmark may provide an interesting case study.

For example, we may ask whether the Danish FAT has hampered the growth of the Danish financial sector relative to financial sector growth abroad?

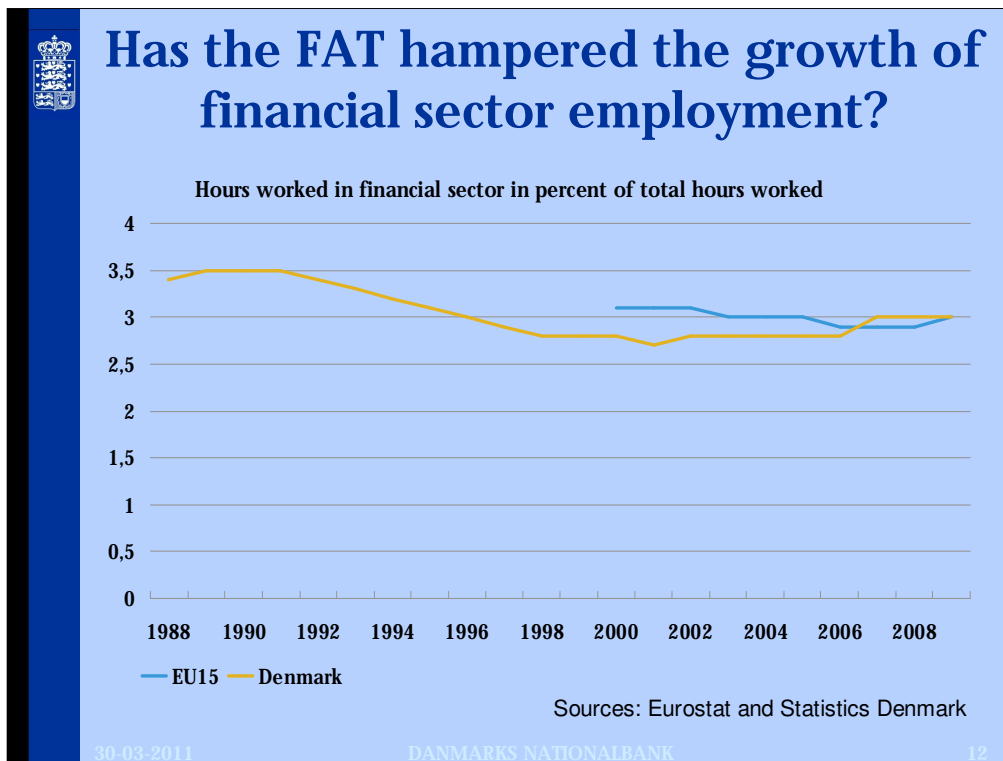
We may also ask: who bears the burden of the Danish FAT? Has the burden been shifted onto financial sector employees in the form of lower wages? Or has the burden been absorbed by the owners of financial sector firms through a fall in profits? If neither of these groups have incurred the burden, it must have been passed on to business and household consumers of financial services.



This slide shows that the share of total value added accounted for by the financial sector is roughly the same in Denmark and in the EU-15 countries. Moreover, there is no sign that the financial sector has grown less rapidly in Denmark than in the rest of the EU in recent years.

The increase in the value-added share of the Danish financial sector in 2009 should not be given too much weight since it can be explained by the sharp drop in Danish GDP in that year.

But the bottom line is that these data do not indicate that the Danish FAT has seriously hampered financial sector activity in Denmark.



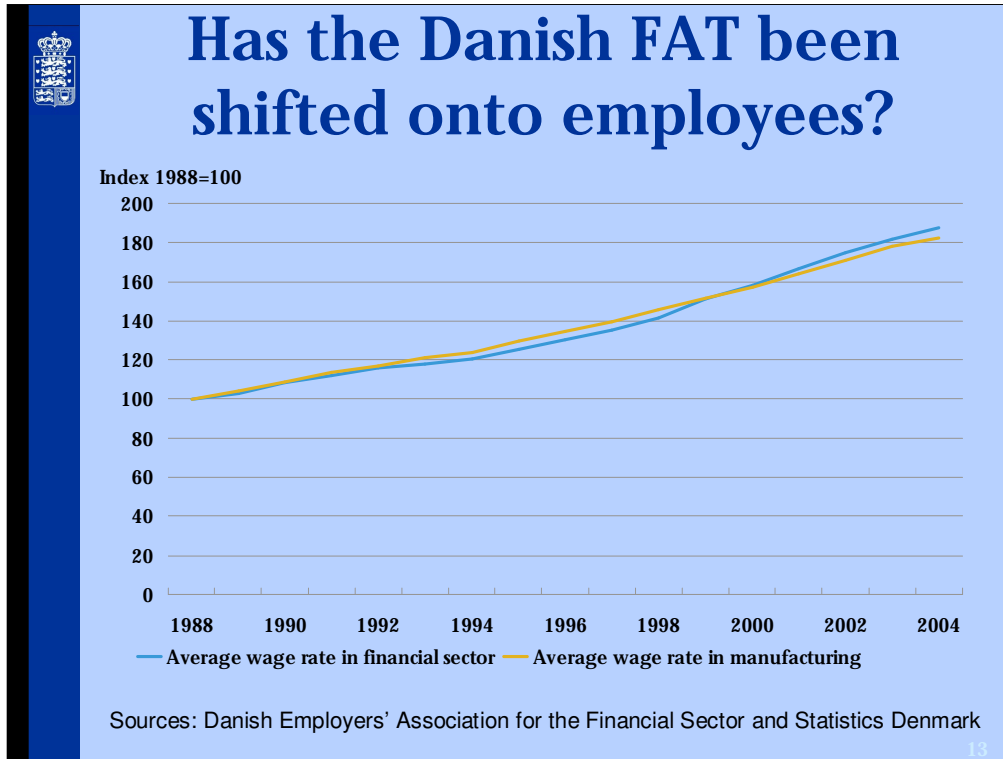
Since the Danish FAT is levied on the total financial sector payroll, one might fear that it discourages employment in the financial sector.

This slide shows the evolution of total hours worked in the financial sector relative to total hours worked in the economy as a whole.

We see that during the 1990s there was some tendency for hourly employment in the Danish financial sector to fall relative to total hourly employment. This could perhaps reflect a gradual adjustment of financial sector employment to the payroll tax.

However, we also see that the employment share of the Danish financial sector has slightly risen in recent years and that it is closely in line with the corresponding employment share in the EU.

Overall, this suggests that the FAT has not been a serious impediment to financial sector employment in Denmark.

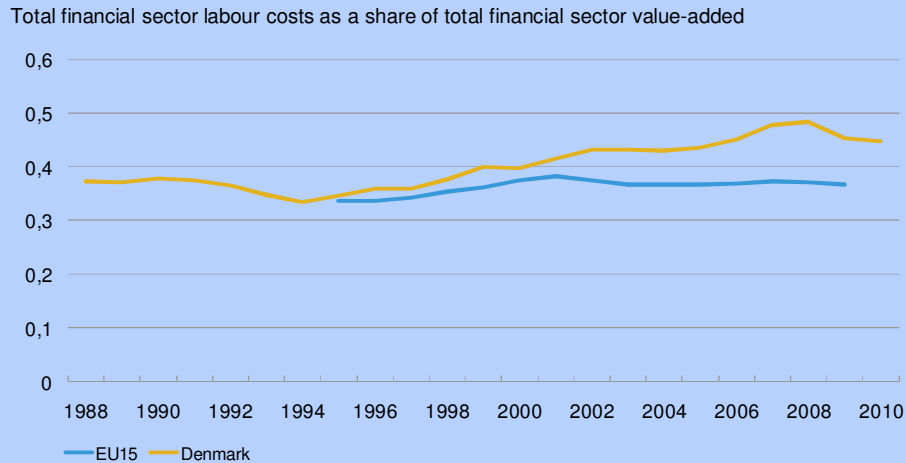


Another question is: who bears the burden of the Danish FAT?

If the tax burden has been shifted to financial sector employees through a fall in their relative wages, we would expect to observe a slower rate of wage growth in the financial sector than elsewhere in the economy in the years following the introduction of the FAT in 1988.

But this slide shows that the average wage in the Danish financial sector has grown almost exactly in line with the average wage rate in the manufacturing sector. This suggests that the burden of the FAT has not been shifted to financial sector employees.

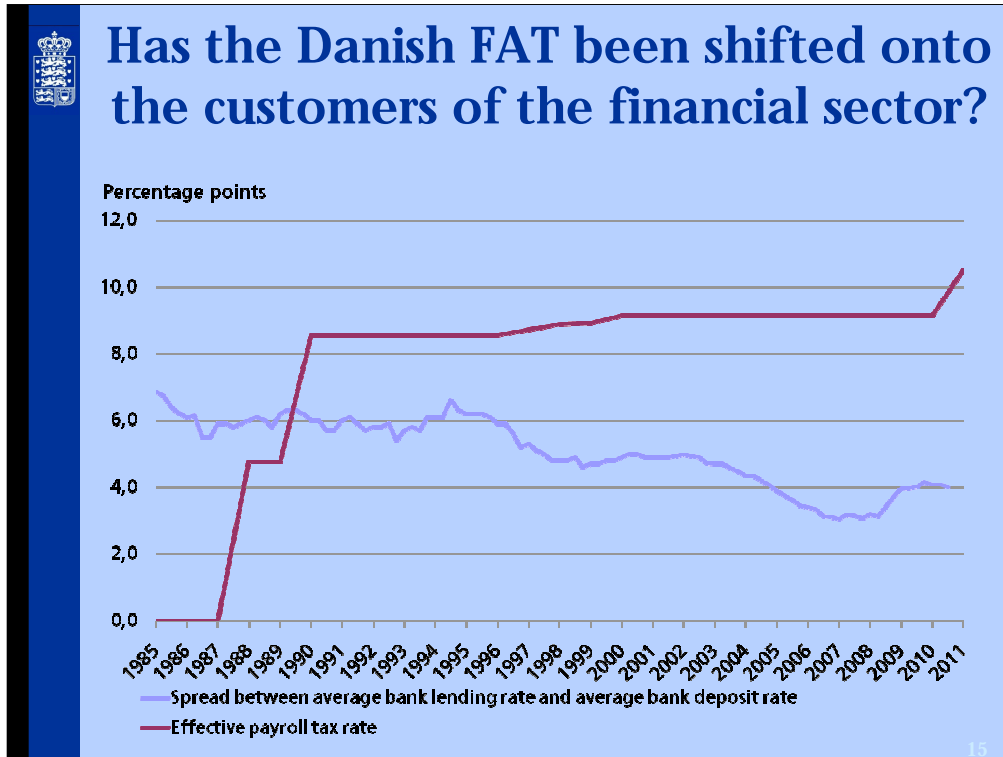
Has the Danish FAT been shifted onto capital owners?



Sources: Eurostat and Statistics Denmark

If the relative wages in the financial sector have not adjusted downwards, we would expect that the payroll tax has increased the total labour costs of the Danish financial sector relative to the labour costs of financial sector firms in other countries.

The present slide shows that labour costs do indeed absorb a larger share of total value added in the Danish financial sector than in the financial sector in the EU-15 countries. This could indicate that the FAT has cut into the profit share of value added in the Danish financial sector, suggesting that the owners of financial sector firms bear at least some of the burden of the tax.



It is also conceivable that part of the tax burden has been shifted onto the customers of the financial sector through a rise in bank lending rates or a fall in bank deposit rates. In that case we would expect to observe a rise in the spread between lending and deposit rates following the introduction of the FAT and following the subsequent increases in the tax rate.

The light blue graph in this slide shows the evolution of the interest rate margin charged by Danish banks, and the red curve shows the evolution of the payroll tax rate levied on the financial sector. Perhaps surprisingly, we see that the interest rate margin does not seem to have been affected by the introduction and subsequent increase in the FAT.

Of course all of these data are only suggestive, since we do not know how financial sector activity would have evolved and how financial sector income would have been distributed in the absence of the FAT. With this important proviso, there is no indication that the Danish FAT has seriously hampered growth and employment in the financial sector. Furthermore, the burden of the FAT does not seem to have been shifted onto financial sector employees via a fall in their wages, and there is no clear indication that the tax burden has been passed on to financial sector customers through a higher interest rate margin. Rather, it would seem that the Danish FAT has cut into the profits of the financial sector.



Gaps in the Danish FAT base

A good case can be made for adding the following items to the FAT base:

- ◆ **Taxable profits (as defined under the corporate income tax) minus an imputed return to equity**
- ◆ **The value of stock options and similar forms of non-wage compensation of senior management**

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Even though the experience with the Danish FAT has been reasonably positive, the design of the tax can probably be improved.

First of all, as mentioned earlier the tax base should not only consist of the total payroll of the financial sector. To move the FAT closer to a genuine VAT, the tax base should also include the excess of financial sector profits over the normal return to capital. Of course this is just another way of saying that rents to capital owners should be included in the tax base.

Many observers have argued that some of the rents generated in the financial sector accrue to senior managers, for example in the form of stock options and similar non-wage forms of remuneration. Indeed, some critics have argued that these forms of compensation induce managers to allow financial sector firms to take on too much risk. Whatever the merit of this argument, it is clear that the Danish FAT creates a distortion by exempting certain forms of labour compensation. It seems worthwhile to incur some administrative cost in order to close this loophole in the Danish FAT base.



Conclusions

The Danish experience shows that:

- **An origin-based FAT can be implemented as (an imperfect) substitute for the missing VAT on financial services**
- **With a moderate tax rate, there is no reason to fear that a FAT will seriously discourage financial sector activity**

Further points:

- **An internationally coordinated FAT would increase the revenue potential**
- **There are no convincing technical arguments for excluding (pure) profits and stock options etc. from the FAT base**

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Let me sum up my main conclusions from the Danish experience:

First of all, a Financial Activities Tax based on an origin principle can indeed be implemented as an imperfect substitute for the missing VAT on financial services.

Second, so long as the tax rate is kept at a moderate level, there is no reason to fear that an FAT will seriously discourage financial sector activity even in a small open economy.

It is clear that a small country runs the risk of driving a lot of financial sector activity abroad if it levies an origin-based FAT at a rate similar to the standard VAT rate. We have also seen that the overtaxation of business purchases of financial services provide a case for a relatively low rate of FAT. However, it is equally clear that if a large group of countries such as the European Union were to introduce an FAT on a co-ordinated basis, the revenue potential would be bigger than the potential for an individual small country, since co-ordination would prevent beggar-thy-neighbour type tax competition.

Finally, I see no convincing technical arguments against including profits and special forms of management compensation such as stock options in the base for the FAT, since we already have to deal with these forms of income under the corporate and personal income tax.