

Stamp Duty on Share Trading The Economic Impact

A report for M&G Limited

**Volterra Consulting Limited
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Stamp Duty on Share Trading

The Economic Impact

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Stamp Duty on Share Trading

The Economic Impact

Executive Summary

The events of September 11th have illustrated the importance of financial markets not just in funding investment and investors but in creating confidence. This is a crucial time to investigate ways in which they can be supported.

Prior to these actions, there was already increasing concern about the impact of stamp duty and stamp duty reserve tax on investor activity in the UK. This report examines the incidence of this tax and on whom it falls.

We review the empirical evidence and the size of the effect on investors, corporate bodies and financial intermediaries.

We conclude that:

- Investors and savers are worse off and pension funds are at least 2-3% lower than they would otherwise be. At a time when the government is trying to encourage saving, this is inappropriate.
- Listed companies are less valuable than they would otherwise be by 3-4%. This means that they are more vulnerable to takeover and find acquisitions more difficult.
- Where stock prices are lower, raising new funds will be more difficult and expensive than would otherwise be the case, deterring investment.
- Financial intermediaries do not have the scope to absorb these charges and do indeed pass them on.
- The duty damages savers and investors and increases risk to business. In particular, it puts at risk some £32bn of corporation tax revenues.
- The evidence suggests that the tax does not reduce volatility in markets, rather it depresses the average level.

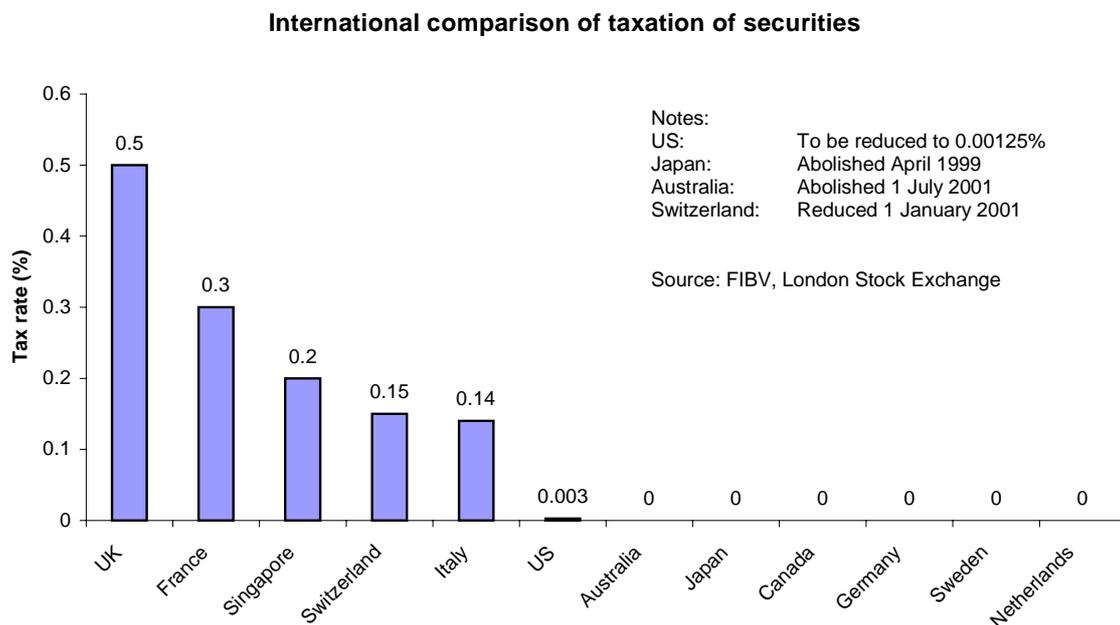
1 Introduction

The aim of this study is to examine the economic impact of the current duty on share trading in the UK. It aims to review the routes by which such impact could take place and to estimate the size of these effects on performance and behaviour.

The first section outlines the ways in which the duty might affect economic performance and behaviour. Subsequent sections review the evidence for these impacts and the final section concludes.

Stamp Duty is a tax applied to the purchase of an asset. This study looks at the stamp duty which is applied to the purchase of equity shares issued by UK based entities. This duty is currently set at 0.5% of any transaction on UK exchanges and a higher, once off rate (currently 1.5%) is applied when UK entities register securities on other exchanges. This occurs, for example, when depositary receipts are issued (ADRs or EDRs).

Most developed countries have abolished such duties completely. In the US, a similar tax, intended to finance the operations of the SEC is only 1/300th of 1%, and even this is due to be reduced. France, the only other sizeable country to have such a duty, has a notionally higher rate, but the exemptions are so extensive that the effective rate of the tax in France is much lower than in the UK. The chart illustrates the stark difference between the situation in the UK and elsewhere.



The tax affects the choices made by those involved in share trading in three distinct ways and the study reviews each of these. Finally, we bring the threads together to estimate the effect of the impact of this duty, which raised £4.7 billion in calendar year 2000.

2 Economic Performance and Behaviour

There are a variety of routes by which the economy may be affected by this tax. Which is the most important depends on how the incidence of the tax is felt in practice. This section reviews the various groups which may be affected and how this would work. Most of the routes have been addressed in previous work by various parties but this report takes a balance between all of them and in this way extends and compares previous studies.

There are essentially three groups of economic agents whose behaviour could be changed by the impact of Stamp Duty.

These are:

- Investors and savers
- Corporate and other bodies raising money
- Intermediaries – fund managers, exchanges

The duty opens a gap between the price that a purchaser pays and that which the seller receives. In other words, it increases the spread between the buy and sell prices by an amount equal to the tax.

A simple way to think about the impact of a duty is in the context of the market for a product. Suppose the seller of the product is able to receive the same amount that he/she would require without the tax. The purchaser must then pay the tax. In this case, it is the purchaser who bears the burden of the tax and therefore pays more for the product than he or she would if the tax did not exist. If on the other hand the purchaser does not pay more then the seller must absorb the tax in her margin and will be less well off. In practice, of course, the burden is likely to be shared, so long as both the seller and the purchaser are price sensitive. In either case the volume bought and sold is likely to be lower.

Translating this simple analysis into the context of share transactions requires some further consideration of the groups involved and what it is that is being bought and sold. The market for shares is not a simple product market and it is misleading to view it in this light. The 'product' in this case is essentially the return that will be made by purchasing the shares – the extent to which value will accrue to the purchaser over their holding period. The higher are the expected returns for any individual share, the fewer sellers will be and the more buyers. Prices will be higher for such shares. When a tax is imposed, net return falls and demand also drops. The price net of tax will be lower than in the absence of the tax, and how much lower will depend on what influences the responsiveness of the sellers and buyers.

We can start by considering the market in which there are no new firms or new issues of shares – existing shares are being bought and sold and a duty is then imposed on these transfers. In this case, the purchasers and sellers of the shares are essentially the same group of people – namely investors and savers – whether acting as individuals or through fund managers and intermediaries. The stamp duty comes out of the return on their investments and net prices are lower to the extent that alternative investments are available to the market participants.

In this case, whether it is the seller who receives less or the purchaser who pays more is not the issue. Individuals or funds will be both buying and selling at different times and perform both roles. It is the total return over the holding period for the asset which is affected.

If there are intermediaries, it is possible that the stamp duty acts to reduce their margin. If the duty is passed through the market, then the net price of shares will be lower and sellers will get less value than otherwise would be the case. The mitigation is the possibility that fund managers reduce their charges in order to reduce the impact on savers. This is unlikely to be the case. If fund managers and other intermediaries dominated the market, they would over time have an incentive collectively to pass the tax on to their investors. If there are considerable numbers of private investors who are in any case having to absorb the tax in their own costs of trading, there is nothing lost to the fund managers in passing it on.

If there are no new issues, the price of the shares does not directly affect the amount of capital available to the company, since this has been raised before the imposition of the duty. However, as the returns fall, there is less willingness to hold these assets and the net price falls, which will reduce the market capitalisation of the companies with shares on the market.

There will also be an impact on the pricing of new issues, which will raise less money for the issuer than would be the case in the absence of the duty.

2.1 The individual investor and saver

The reduction in return ultimately affects the owner of the assets. This may be the individual directly trading, or the individual as a member of a pension scheme, holder of an insurance policy or holding a savings policy of whatever kind.

Section 3 looks at the amount of stamp duty and the extent to which it reduces the return to a typical portfolio in practice. This will depend upon a number of factors. Investing in alternative assets, for example, can protect returns. The impact of the duty will also depend on the turnover of shares within the portfolio.

By reducing returns, the tax is in general a disincentive to saving and distorts the saving decisions made by individuals. Since the government wishes to encourage saving, particularly among the less well off, the incidence of this tax is particularly inappropriate. Although the impact of the tax in any one year may be small, it will have a compound effect on a long term saver. The loss will build up even if no further trades are done and will increase to the extent the portfolio is changed. Section 3 estimates this effect.

2.2 Corporate bodies

The reduction of returns has consequences for both market volume and market capitalisation. Only if there are no alternative investments will the price net of tax remain the same and net returns be maintained. The post tax price will increase by the amount of the duty. In practice, this is unlikely and there will be some impact on the value of the company. This impact will be larger than the actual amount of the duty, since the price reflects the expected return on the asset over time. If there is continued trading in the stock then the return will be adjusted in all the years for which the stock is held and will

be cumulated over time, though adjusted by a discount rate. We review the literature on this effect in Section 4. The impact on market capitalisation will be especially important in the context of overseas activities. The value of a UK quoted business will be lower than a similar business quoted on an exchange where there is no such duty. This will make overseas acquisitions more difficult and render UK companies more vulnerable to takeover.

This is a distinct issue from the more specific one of financing acquisitions with partial listings on other exchanges. These attract an initial tax of 1.5% and have an effect on cash flow at a time when most companies are already stretched in making the acquisition in the first place. This is an anomaly – at the very least such payments should be spread.

This is not to suggest that there the movement of a listing is particularly likely. However, the increased internationalisation of business and the rise of exchanges such as the NASDAQ, which is looking to create worldwide exchanges make such forces more likely to emerge.

Section 4 reviews the issues for corporates and estimates the potential for an impact on mergers and acquisitions activity.

2.3 Financial services companies

London is a major financial services centre, with a wide range of businesses deriving activity from share trading, fund management and advice. There are several routes by which these activities are affected. First, margins on business are eroded to the extent to which the duty is absorbed in the buy/sell spread. Second, diversion of business to other centres affects the competitiveness and revenues of UK based business. Third, to the extent that UK listed companies move or are taken over, there is a diminution of the trading base.

Improved communications and computer systems, alongside deregulation of rules on asset holdings make trading on other exchanges a more practical possibility compared even with 5 years ago.

An analogy is with the betting industry where the availability of internet betting and the possibility of offshore systems made it relatively easy for companies to locate offshore and avoid the UK Betting Duties. This problem has been addressed by the government and the taxation regime was revised in the Budget of 2001.

3 The Individual Investor and Saver

This section looks at the extent to which Stamp Duty affects investors' returns in practice. We start with a simple example.

3.1 Individual UK pension fund example – 2000

We must first estimate the average size of a UK pension fund. To do this, we take the value of all UK pension schemes and the number of people holding pensions.

Calculation box 1

T	=	Value of all UK pension schemes	=	£755.3 bn ¹
N	=	Number of schemes		
	=	Number of occupational schemes	+	Number of personal schemes
	=	10.6 m ²	+	10.0 m ³
	=	20.6 m		
V	=	Average pension value	=	$\frac{T}{N}$ = £36,500

¹ Philips & Drew estimate - 2000
² NAPF - number of people paying into occupational schemes - 2001
³ NAPF - number of people holding personal pension schemes - 2001

This estimate may appear to be rather small, but it is important to remember that there will be as many, if not more, relatively new pension schemes as there are mature pension schemes.

Next, we must estimate the proportion of this value that would be lost to stamp duty in the period of a year. This depends on:

- The proportion of the fund invested in UK equities – the higher this is the bigger the impact
- The proportion of the UK fund that is traded during the period – the higher this is the bigger the impact
- The stamp duty rate itself

We can then investigate the value lost on the fund to stamp duty and compare this with the returns of the same year.

The box below shows the result of this calculation for the average of the last five years.

Calculation box 2

$$P_1 = \text{Proportion in UK equity} = 0.49^1$$

$$P_2 = \text{Proportion traded} = 0.51^2$$

$$S = \text{Stamp duty rate} = 0.005^3$$

$$P = \text{Proportion of fund to stamp duty} \\ = P_1 \times P_2 \times S = 0.00125$$

$$R = \text{Return on fund} = 11.96\%^4$$

$$V_R = \text{Value of returns on average pension fund} = \text{£ 4365}$$

$$V_S = \text{Value of stamp duty} = \text{£ 45.61}$$

¹ National Statistics, WM - 2000

² National Statistics, WM - 2000 (Turnover of 102%)

³ Inland Revenue - 2000

⁴ Philips & Drew - 1996-2000 average yearly return on Average Pension Fund Index

Taking the average yearly return on pension funds (from 1996 to 2000) the average fund individual would have had a return on his fund of £4365, but around £45 would have been lost in the year to stamp duty. A stamp duty rate of half a percent represents one percent of the yearly returns. In the most recent year, returns were negative, and the effect is much higher at 4.6%.

Thus the impact of the duty depends heavily on the rate of return on the funds. The lower the return the greater the relative impact. In recent years, returns have been good, as the Appendix Tables show. It is widely expected that over coming years, returns will be significantly lower. This will raise the impact of the tax and the implicit tax rate on savers returns.

The calculation above treats the income from the fund as if it were not reinvested. In practice, the holders of such funds would be reinvesting their returns and we should look compare the increase in value with the stamp duty effect. Since this too would be cumulating, the percentage impact is the same. The pension fund will be 1 percent smaller as the result of stamp duty over the five year period.

Investment in assets other than UK equities has mitigated the impact of the duty on fund

returns and values. The effect of the stamp duty tax in the UK is being masked by the 51% of the pension fund that is not in UK equity. If we remove this (calculation box 3), then the influence becomes even more obvious.

Calculation box 3

V_E	=	Value of UK equity		
	=	$P_1 \times V$	=	£17,885
P_E	=	Proportion of UK equity to stamp duty		
	=	$P_2 \times S$	=	0.00255
R_E	=	Return on UK equity	=	14.48 % ¹
V_{RE}	=	Value of returns from UK equity	=	£ 2590
V_S	=	Value of stamp duty	=	£ 45.61

¹ FTSE All Share 1996-2000 average yearly return

We are now focusing in on the UK equity part of the fund. The return for one year from UK equity for the average pension fund (using the 1996-2000 FTSE All Share average return) would have been £2590. The half a percent stamp duty now represents 1.76% of this return.

The value of the cumulated fund is nearly 2 per cent smaller over the whole period as a result.

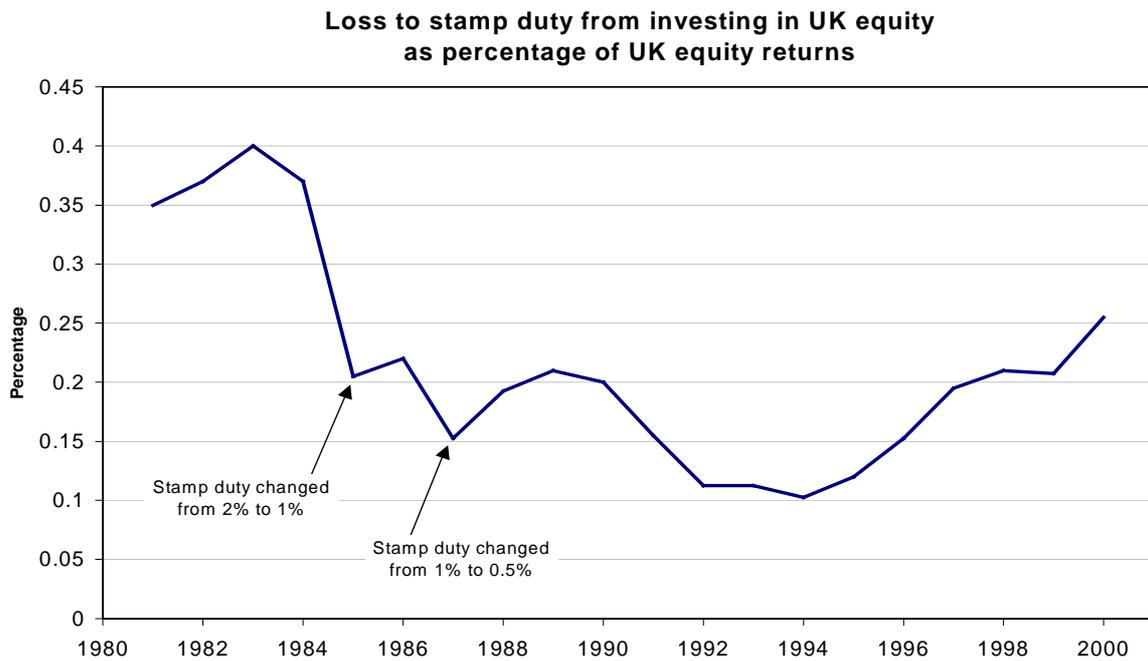
3.2 Impact for the investment funds

The calculations above illustrate the impact of stamp duty on a typical pension fund. It shows how this depends on:

- Holdings of UK equities
- Turnover of the fund
- Stamp duty rates

It might be argued that the impact of the duty is so small that it will have very little impact on behaviour and that both holdings and turnover are largely the result of other pressures. Of course there are a variety of reasons why changes take place which derive from judgements about the prospects for the underlying value of the assets. Nonetheless, stamp duty will have an impact – and certainly affects the value of assets. The chart below shows how the cost of the duty has changed with respect to UK equity holdings. The changes in duty rates can clearly be seen in the series. Since then, the cost of the duty has increased again as turnover has risen. It is now back at the level that was the case before the reduction in rates in 1984.

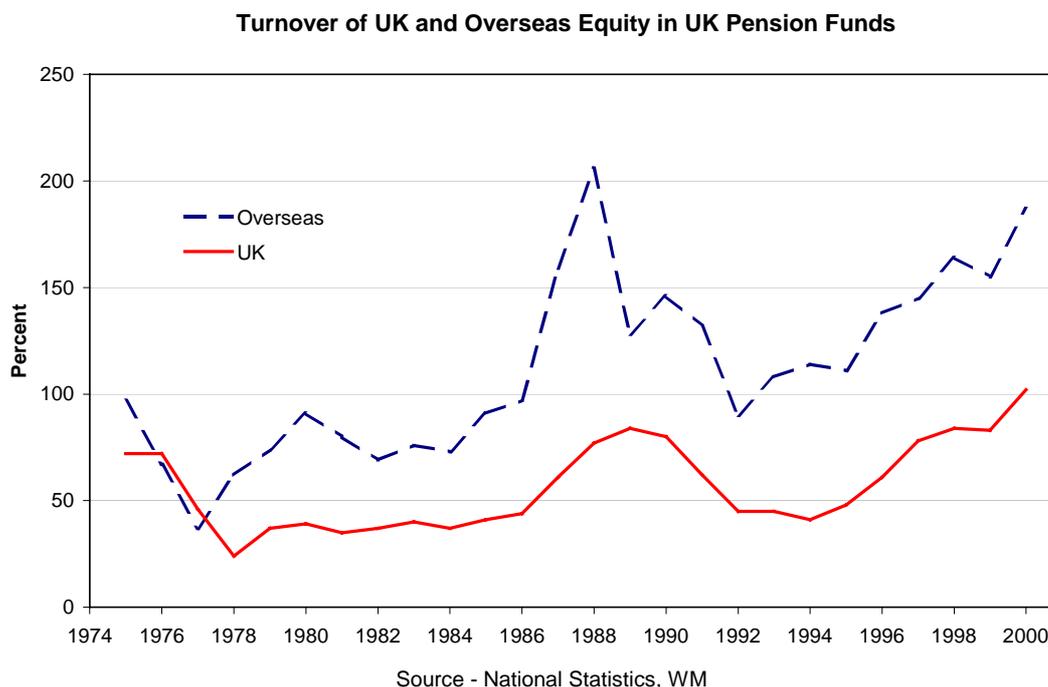
Figure 1



Source: Volterra estimates, see Appendix Tables for data

Comparing the turnover of UK and other equities provides another illustration of the effect that the duty has. Managers of pensions, insurance and investment funds all have to make decisions about which sectors to invest their money in, and how much of it should be turned over within these sectors. There is no obvious reason why the turnover should be different in the UK and overseas sectors. If there is a difference, we might expect that the UK turnover would be higher, as the extent of knowledge in this market would be greater. The graph below, showing turnover (both purchases and sales) in these sectors for the pension industry, suggests otherwise.

Figure 2



It is especially interesting that the rate of turnover in UK funds should not be increasing in the long run as much as the rate turnover in overseas funds. Investment in overseas equity has been increasing over the period, from 5% in 1975 to 22% in 2000, while investment in UK equity has remained steady, rising only from 45% in 1975 to 49% in 2000.

3.3 Other investor classes

The previous section has been based on estimates of assets held for pension purposes. Although we can use these to produce an estimate of the payment of stamp duty in respect of these funds, it will only cover part of the revenues associated with the duty. To check whether the estimates are valid, we need to look at all investor classes.

The estimates above have been based on a bottom-up approach, taking the raw economic data and calculating the stamp duty burden for pension funds in the UK. We can take the same method to the next level, and estimate the total revenue from stamp duty for the government from all sources. This can then be cross checked with the actual known figures from the Inland Revenue, giving greater confidence in the methods used.

The calculations below have been done for 1999, since this is the most recent year for which the ownership of UK equities by investor is currently available. The revenue statistics are available for financial rather than calendar years, so a complete match is not possible. Moreover, there will be revenue from ADRs and EDRs as well which are not separately shown. The sharp rise in revenues over the past three years must in part be attributed to this source. An estimate for 2000 is £4.7 bn, rising from £3.7bn in 1999/00 and £2.5bn in 1998/99.

Revenue from UK equity stamp duty can be broken down into five main sources: pension funds, insurance funds, investment funds, individuals¹ and overseas. These account for around 95% of UK equity. The following five calculation boxes show the revenue estimates for each of these sectors, with a total estimate in calculation box 9.

Calculation box 4 - Stamp duty revenue from pension funds - 1999

T_P	=	Value of all UK pension schemes	=	£776.6 bn ¹
P_{P1}	=	Proportion in UK equity	=	0.51 ²
P_{P2}	=	Proportion traded	=	0.41 ³
S	=	Stamp Duty rate	=	0.005 ⁴
V_{PR}	=	Value of revenue from pensions		
	=	$T_P \times P_{P1} \times P_{P2} \times S$	=	£812 m

¹ National Statistics, WM - 1999
² National Statistics, WM - 1999
³ National Statistics, WM - 1999 (Turnover of 83%)
⁴ Inland Revenue - 1999

¹ Taken to include: Individual Investment - 15.3% of FTSE All Share, Other Personal Sector Investment - 1.3%, Public Sector - 0.1% and Industrial & Commercial Companies - 2.2%

Calculation box 5 - Stamp duty revenue from insurance funds - 1999

$$T_{IE} = \text{Value of equity in all UK insurance funds} = \text{£374.1 bn}^1$$

$$P_{I2} = \text{Proportion traded} = 0.30^2$$

$$S = \text{Stamp Duty rate} = 0.005^3$$

$$\begin{aligned} V_{IR} &= \text{Value of revenue from insurance} \\ &= T_{IE} \times P_{I2} \times S = \text{£561 m} \end{aligned}$$

¹ National Statistics, WM - 1999 and FTSE (=Val. of FTSE All-Share Index x % owned by insurance)

² Volterra estimate (taken to be rather lower than pension funds)- 1999

³ Inland Revenue - 1999

Calculation box 6 - Stamp duty revenue from investment funds - 1999

$$T_V = \text{Value of all UK investment funds} = \text{£267.4 bn}^1$$

$$P_{V1} = \text{Proportion in UK equity} = 0.51^2$$

$$P_{V2} = \text{Proportion traded} = 0.40^3$$

$$S = \text{Stamp Duty rate} = 0.005^4$$

$$\begin{aligned} V_{VR} &= \text{Value of revenue from investment} \\ &= T_V \times P_{V1} \times P_{V2} \times S = \text{£273 m} \end{aligned}$$

¹ AUTIF - 1999

² National Statistics, WM - 1999

³ Volterra estimate (taken to be as pension funds)- 1999

⁴ Inland Revenue - 1999

Calculation box 7 - Stamp duty revenue from individual investments² - 1999

$$T_{DE} = \text{Value of equity in UK individual investments} = \text{£327.3 bn}^1$$

$$P_{D2} = \text{Proportion traded} = 0.05^2$$

$$S = \text{Stamp Duty rate} = 0.005^3$$

$$\begin{aligned} V_{DR} &= \text{Value of revenue from individuals} \\ &= T_{DE} \times P_{D2} \times S = \text{£82 m} \end{aligned}$$

¹ National Statistics, WM - 1999 and FTSE (=Val. of FTSE All-Share Index x % owned by individuals)

² Volterra estimate – (taken to be very low) 1999

³ Inland Revenue - 1999

Calculation box 8 - Stamp duty revenue from overseas investments - 1999

$$T_{OE} = \text{Value of equity in UK overseas investments} = \text{£507.5 bn}^1$$

$$P_{O2} = \text{Proportion traded} = 0.25^2$$

$$S = \text{Stamp Duty rate} = 0.005^3$$

$$\begin{aligned} V_{OR} &= \text{Value of revenue from overseas} \\ &= T_{OE} \times P_{O2} \times S = \text{£634 m} \end{aligned}$$

¹ National Statistics, WM - 1999 and FTSE (=Val. of FTSE All-Share Index x % owned by overseas)

² Volterra estimate – (taken to be lower than insurance) 1999

³ Inland Revenue - 1999

² Taken to include: Individual Investment - 15.3% of FTSE All Share, Other Personal Sector Investment - 1.3%, Public Sector - 0.1% and Industrial & Commercial Companies - 2.2%

Calculation box 9 - Stamp duty total revenue from all UK equity investment - 1999

V_{PR}	=	Value of revenue from pensions	=	£812 m
V_{IR}	=	Value of revenue from insurance	=	£561 m
V_{VR}	=	Value of revenue from investment funds	=	£273 m
V_{DR}	=	Value of revenue from individuals	=	£82 m
V_{OR}	=	Value of revenue from overseas	=	£634 m
V_T	=	Total revenue		
	=	$V_{PR} + V_{IR} + V_{VR} + V_{DR} + V_{OR}$	=	£2,362 m

The figure given by the Inland Revenue for Stamp Duty Revenue for “Stocks, shares, debentures, etc” which includes “On sale” and “Stamp duty reserve tax” in the year 1999-2000 is £3,719.0m. This is the total revenue for the government from UK equity purchases. With our realistic estimates of the repurchase rates for different sectors we gain a total figure of £2,362m, £1,357m lower. This shows that the estimates presented here for the burden of stamp duty are if anything an underestimate.

The value of a UK equity fund started in 1980 will be 2 per cent lower than it would otherwise be as the result of the stamp duty which has been imposed on share transactions in the UK. In a period where individuals need to save more for retirement and to cover other risks, this is an inappropriate burden.

4 Corporate Bodies

The effect on corporate entities arises through the impact on share values and market capitalisation. There are several routes through which this may take place, ranging from the impact on mergers and acquisitions to the cost of raising new capital.

4.1 Evidence on the impact on share prices

We have already seen how the imposition of the duty reduces the return to the investor. As a result, the underlying asset becomes less valuable – the level of the price as well as its rate of change will be affected. For the investor and saver there is a reduction in the net return. This translates into a lower value for the corporates whose shares are traded. In the more formal theoretical models, a number of assumptions have to be made. For example, a view has to be taken on how frequently the share is traded and on the expected dividend in perpetuity, before the effect of the tax on a share price can be calculated.

Depending upon the assumptions which are made, a variety of answers can be obtained. A plausible set of assumptions was made by in a Bank of England Working Paper by Saporta and Kan published in 1997. They calculated that, theoretically, a reduction in stamp duty of 1 percentage point would lead to a once-for-all increase in share prices of 6.24 per cent. The abolition of the current tax of 0.5 percentage points would lead to an increase of exactly half of this, namely 3.12 per cent. The sensitivity of the results to the assumptions can be seen as follows.

A much earlier Bank of England paper by Jackson and O'Donnell in 1985 made two sets of assumptions which led to a theoretical increase in equity prices following a 1 percentage point reduction in stamp duty of between 7 and 10 per cent, similar to that of Saporta and Kan. However, updating these assumptions to allow for the increased frequency with which shares have been traded recently, OXERA Consulting, in a report for the London Stock Exchange published in July 2001, put these increases at between 18 and 26 per cent. This would imply that the abolition of stamp duty would lead to a rise in share prices of between 9 and 13 per cent.

Several detailed empirical investigations have been carried out of the effect of change in transaction tax rates. These results also vary, if only for the simple but important reason that a very large number of factors determine share prices, and disentangling the impact of just a single one of them is difficult. However, it is important to note that *all* the studies give results which support the *qualitative* theoretical predictions. Namely, that an increase in tax will reduce share prices, and that a reduction will increase them. In other words, we can be confident that the abolition of stamp duty would lead to a once-for-all rise in UK equities above the levels which they would otherwise have been. But it would be unwise to be too dogmatic about the exact quantitative impact.

The Bank of England Study by Jackson and O'Donnell, based on evidence over the 1963-1984 period, concluded that a 1 percentage point reduction in stamp duty leads to a 10 per cent increase in equity prices. The abolition of the current 0.5 per cent rate would lead to a 5 per cent increase, using these results.

A paper by Umlauf in 1993 analysed the impact of stamp duty changes in Sweden, using

a different methodology from Jackson and O'Donnell. A tax of 1 per cent was introduced in 1984, which was increased to 2 per cent in 1986. Umlauf estimates that impact on the Swedish stockmarket of the 1984 tax was to reduce prices on the day of the announcement by 2.2 per cent. He argues, however, that because of prior leakage of information, the cumulative reduction was 5.3 per cent. The 1986 increase is estimated to have had a much smaller impact, reducing share prices by 0.8 per cent.

Saporta and Kan, using a similar approach to Umlauf, examine the experience of the UK. Three specific changes to stamp duty were made. First, an increase from 1 to 2 per cent in March 1974, a decrease to 1 per cent in March 1984, and a further decrease to the current rate of 0.5 per cent in March 1986. They stress that their calculations must be treated with caution, but suggest that some of the changes were substantial. The immediate impact on the day of the March 1974 increase, for example, is calculated to have reduced share prices by 3.3 per cent, and by no less than 15.4 per cent once its full impact over time is taken into account. The March 1984 change led to an immediate 0.55 per cent rise, and an eventual 3.1 per cent one, whilst the March 1986 reduction increased prices at once by 1.05 per cent, and over time by 16.1 per cent.

Table 1 summarises these studies, setting out the increase implied in UK equity prices of abolishing stamp duty now. Again, we must stress that although the estimates vary quantitatively, they are all in qualitative agreement: increasing duty leads to lower share prices, and reducing it leads to higher ones.

Table 1 Increase in UK equity prices implied by abolishing stamp duty

Study	Per cent
Jackson and O'Donnell	5
Umlauf (1)	2.7
Umlauf (2)	0.4
Saporta and Kan (1)	7.7
Saporta and Kan (2)	1.6
Saporta and Kan (3)	8.1

Note: the Umlauf and Saporta and Kan studies present separate estimates for each of the changes which took place in the periods they studied

The range is obviously wide, although it is interesting to note that the arithmetic average of the estimates is 4.2 per cent, which is very similar to the 3.1 per cent which Saporta and Kan calculated from their theoretical model.

Taken together, these studies suggest that the stamp duty lowers share prices by around 4 per cent, implying that all UK listed companies are 3-4% less valuable than would otherwise be the case.

4.2 Mergers and acquisitions

A differential of this size with companies in other countries may well be very significant when considering mergers and acquisition activity. For example, a recent battle took place between Blue Circle, based in the UK, and Lafarge. In 2000, Blue Circle held off Lafarge, the first FTSE 100 company to manage to reject a hostile bid in recent times. However, in 2001, the bid was repeated a year later at a higher level and Lafarge was successful. A further 4% in value would have made this repeat bid much more difficult – or maybe even turned the tables. The result of this deal removed a company from the FTSE100 index, weakening the role of London as a headquarters location and the strength of the market and its liquidity.

In many cases, a premium on the share price is offered to make a merger more attractive, so that the higher the share price, the larger this premium will need to be in cash terms. Although it is hard to know with precision the extent to which predators will be deterred by this increase, there can be no doubt that such deals would become more expensive to such buyers.

In addition the acquisition of foreign companies by UK ones is also made more difficult. Partly, this is the result of the share price differential. Foreign companies are more expensive. There is also a cash implication if part of the purchase is to be made in shares to be listed on the stock exchange of the company to be acquired. These will be subject to a 1.5% charge at the point when the listing is made. This increases substantially the cost of the acquisition and further tilts the balance towards the non UK entity.

4.3 Cost of capital

OXERA conclude (July 2001) that the share price changes if Stamp Duty were to be abolished would also reduce the cost of capital by 0.72-0.87%, thus increasing investment by reducing its cost. This analysis makes the assumption that equities are the marginal source of finance.

Even if this assumption is not made, there is still a relationship between the share price and the ease and cost of raising finance. Lenders often have a view of appropriate debt/equity ratios – the higher the share price, the easier and cheaper it will be to borrow. The indirect effect on the cost of capital, though not so easily subject to quantification may be even more important than the direct effect. It may well be true that high growth companies are more likely to rely on equity finance – but they will almost certainly need debt as well.

5 Financial Intermediaries and Markets

One possibility is that financial intermediaries and fund managers would absorb the duty in their margin and this would mitigate the impact of the duty on investors and savers. The level of commission rates charged in the market suggests that this is not likely to be possible. Table 2 below shows commission rates for the major market countries for 1996. It shows that on the sell side, commissions are among the most competitive, while the buy side rates are much higher, showing that these costs both are not absorbed and that it would be difficult to do so.

Table 2

Country	Average price of stock traded (dollars)	Average commission (basis points)	Average fees (basis points)	Market impact (basis points)	1996 Total (basis points)
France	80.89	21.6	1.5	6.8	29.9
Germany	83.92	21.4	2.8	15.1	39.3
Hong Kong	2.27	41.6	12.2	5.4	59.2
Japan - Buys	14.28	24.9	0.5	5.2	30.6
Japan - Sells	14.90	26.1	18.1	11.8	56.0
Singapore	5.18	57.4	3.4	11.1	71.9
UK - Buys	6.96	21.1	39.2	13.4	73.7
UK - Sells	5.95	15.9	0.6	16.3	32.8
US - NYSE	38.92	13.3	0.0	20.8	34.1
US - OTC	32.34	1.2	0.0	50.7	51.9

Source: Elkins/McSherry

The data shows commission rates and fees separately from the market impact calculation which Elkins/McSherry undertake based on volume weighted spreads. UK fees are much higher for the buy than the sell side.

There is as yet little evidence that the existence of the tax has encouraged widespread re-listing on other exchanges for corporate business or the removal of trading to other locations. The desire of UK savers and funds to invest in UK assets and the need for UK businesses to maintain their activities in the country, have all supported the UK markets.

However, technological change is making it easier and easier to trade in other securities and to globalise activities. The fact that so far these changes have not taken place does not mean that they will not become significant at a later stage.

6 Implications of Abolition

The preceding sections look at how the impact of this duty are felt by different parts of the sector. Were the tax to be abolished:

- consumers would receive a direct benefit as competition in the market would ensure that the duty reduction was passed on. Saving would be further incentivised and trading increase.
- Corporate bodies might be more likely to retain London listings and financial services companies to keep their operations in London.
- Investment might increase
- Competitiveness of companies would rise with respect to international competition.

The revenue from stamp duty was £4.686bn in the calendar year 2000. This revenue has risen substantially in the past few years as stock prices have risen and turnover of shares also rose. Recent falls in prices, uncertainty in markets and a slowdown in acquisitions is certain to have reduced this revenue, though we do not yet know by how much.

Revenue from stamp duty compares to estimated revenue from Corporation Tax of £32bn in the fiscal year to 2001. It is extremely difficult to quantify the extent to which corporate taxes might rise as a result of more successful businesses, better able to grow and to resist international takeover. Moreover, such an effect will take time to become evident. However, it is clear from this analysis that the long term protection of such revenues is best achieved by the abolition of stamp duty on shares, which amounts only to 10% of the corporation tax revenue – and is likely to be much less in the current fiscal year.

It has been argued that a tax on transactions can reduce speculative activity and volatile prices, by deterring transactions. This is the basis of the argument for a Tobin tax. The evidence in this report certainly shows that average share prices are reduced and the number of transactions is likely to fall. However, this does not prove that volatility is also reduced. In spite of stamp duty, volatility in share prices has been substantial. Moreover, although the FTSE All Share Index shows less volatility, month on month, than the NASDAQ, this is not true when making a comparison with the S&P 500 for example, where volatility is fairly similar.

The existence of stamp duty seems to have depressed average prices rather than reduced volatility, it appears. At the same time it has penalised both investors and corporates in the UK. At the present time, stock markets face a very uncertain world, as the result of the events of September 11th. Indeed, the targets of these attacks have been designed to destabilise markets. This does not only have an impact on the markets themselves and their ability to fund investment and provide returns to savers and investors. It also has an impact on general business confidence and consumer perceptions.

A decision to abolish this duty, which is already anomalous in world markets, would help support the markets in this uncertain time.

Appendix Tables

Estimates of stamp duty burden on investors of UK pension funds, 1981 - 2000																				
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Percentage of UK funds invested in UK equities (1)	45	44	45	49	51	53	54	52	52	52	55	56	57	54	55	53	53	51	51	49
UK equity purchase percentage est. (2)	18	19	20	19	21	22	31	39	42	40	31	23	23	21	24	31	39	42	42	51
Stamp duty as percentage (3)	2	2	2	2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Return on average UK pension fund index (4)	11.1	30	22.3	21.9	15.2	22.7	6.7	15.4	28	-11.4	17.7	17.5	25.5	-3	19.6	10.4	16.8	14.9	20.4	-2.7
Percentage of UK funds going to stamp duty	0.16	0.16	0.18	0.18	0.1	0.12	0.08	0.1	0.11	0.1	0.09	0.06	0.06	0.06	0.07	0.08	0.1	0.11	0.11	0.12
Stamp duty as a percentage of absolute returns	1.42	0.54	0.81	0.83	0.69	0.51	1.23	0.65	0.39	0.91	0.48	0.36	0.25	1.85	0.34	0.78	0.62	0.72	0.52	4.63
Sources: (1) National Statistics WM, (2) National Statistics WM, purchase est. = 0.5 x turnover, (3) Inland Revenue, (4) Philips & Drew																				

Estimates of stamp duty burden on investors of UK pension funds, 1981 - 2000																				
	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Percentage of UK funds invested in UK equities (1)	45	44	45	49	51	53	54	52	52	52	55	56	57	54	55	53	53	51	51	49
UK equity purchase percentage est. (2)	18	19	20	19	21	22	31	39	42	40	31	23	23	21	24	31	39	42	42	51
Stamp duty as percentage (3)	2	2	2	2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Return on average UK pension fund index (4)	11.1	30	22.3	21.9	15.2	22.7	6.7	15.4	28	-11.4	17.7	17.5	25.5	-3	19.6	10.4	16.8	14.9	20.4	-2.7
Percentage of UK funds going to stamp duty	0.16	0.16	0.18	0.18	0.1	0.12	0.08	0.1	0.11	0.104	0.09	0.06	0.06	0.06	0.07	0.08	0.1	0.11	0.11	0.12
Return achievable without stamp duty	11.3	30.2	22.5	22.1	15.3	22.8	6.8	15.5	28.1	-11.3	17.8	17.6	25.6	-2.9	19.7	10.5	16.9	15.0	20.5	-2.6
Percentage lost on indexed 1980 fund	0.14	0.27	0.41	0.56	0.65	0.75	0.82	0.91	0.99	1.11	1.18	1.23	1.28	1.34	1.39	1.47	1.55	1.65	1.73	1.86

Estimates of stamp duty burden on UK pension funds, 1981 - 2000

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
UK equity purchase percentage est. (1)	18	19	20	19	21	22	31	39	42	40	31	23	23	21	24	31	39	42	42	51
Stamp duty as percentage (2)	2	2	2	2	1	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Return on UK equity (3)	13.5	28.9	28.8	31.6	20.6	27.5	8	11.5	36.1	-9.7	20.8	20.5	28.4	-5.8	23.9	16.7	23.6	13.8	24.2	-5.9
Loss from investing in UK equity as percentage	0.35	0.37	0.4	0.37	0.21	0.22	0.15	0.19	0.21	0.2	0.16	0.11	0.11	0.1	0.12	0.15	0.2	0.21	0.21	0.26
Loss as a percentage of returns from UK equity	2.59	1.28	1.39	1.17	1	0.8	1.91	1.67	0.58	2.06	0.75	0.55	0.4	1.77	0.5	0.91	0.83	1.52	0.86	4.32

Sources: (1) National Statistics WM, purchase est. = 0.5 x turnover, (2) Inland Revenue, (3) FTSE All-Share Index