Tax Research UK

Tax Briefing

Is VAT regressive and if so why do the IFS deny it?

1. Introduction

The UK government has proposed increasing the standard rate of Value Added Tax (VAT) from 17.5% to 20% from 4 January 2011.

They are not alone in proposing increases in VAT or equivalent taxes to address deficits in government budgets. The States of Jersey currently has a proposal to do much the same thing – increasing their rate of Goods and Services Tax (which is a VAT in all but name) from 3% to 5%. These rises will be contagious.

In this case though there is a curious link between the two proposals. A paper issued by the House of Commons library[i] on this issue and commentary in Jersey on the same issue[ii] both rely on work by the Institute for Fiscal Studies to support their claim that any increase in VAT is only mildly regressive at most, or might actually be progressive – as the IFS have claimed[iii].

This paper examines that Institute for Fiscal Studies claim and finds it is a statement of political dogma, but not of fact.

2. What VAT is and how it works

VAT is a tax on the consumption of goods and services by individuals and non-VAT registered businesses. As such it is not a tax on income; it is a tax on spending. That is why it is called an indirect tax. Taxes on income are direct taxes.

The way VAT works has been adequately, if simplistically, summarised in the House of Commons Library paper, and to avoid unnecessary confusion arising between explanations that summary is also used here:

> *VAT is charged on the supply of all goods and services made in the course of a business by a taxable person, unless they are specifically exempt.*
>
> *All businesses must register for VAT if their turnover of taxable goods and/or services is above a given threshold, which is currently £70,000. VAT is charged on the additional value*

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of each transaction, and is collected at each stage of production and distribution. A business pays VAT on its purchases - known as input tax, and charges VAT on its sales - known as output tax. It will settle up with HM Revenue & Customs for the difference between the two. In the end the cost of the tax is borne by the final consumer. An example of how this works in practice is given below:

Event	Manufacturer's Input Tax	Manufacturer's Output Tax	Manufacturer's Net VAT Payable
Manufacturer sells widget to Wholesaler for £20 + £3.00 VAT.	£0	£3.00	**£3.00**
Event	Wholesaler's Input Tax	Wholesaler's Output Tax	Wholesaler's Net VAT Payable
Wholesaler sells widget to Retailer for £30 + £4.50 VAT.	£3.00	£4.50	**£1.50**
Event	Retailer's Input Tax	Retailer's Output Tax	Retailer's Net VAT Payable
Retailer sells widget to UK customer for £60 + £9.00 VAT.	£4.50	£9.00	**£4.50**
* VAT rate at 15% in this example.			
			Net Amount of VAT Received By HMRC
			£9.00

VAT is charged either at the basic rate – currently 17.5% – or the zero rate, though there is limited use of a reduced rate of 5%.

Zero-rated supplies include: food; construction of new dwellings; domestic and international passenger transport; books, newspapers and magazines; children's clothing and footwear; water and sewerage services; drugs and medicines on prescription; and certain supplies to charities.

Supplies liable to VAT at the 5% reduced rate include: the supply of domestic fuel and power, the installation of energy saving materials, women's sanitary products, children's car seats and certain types of construction work.

The exemption of goods and services from VAT should be distinguished from their being charged a zero rate. In the latter case these supplies are technically taxable, and though no actual tax is paid on them, they still count as part of a business' taxable turnover. VAT charged on inputs relating to zero-rated activities can be reclaimed, unlike the VAT incurred *by a business in the course of an exempt activity; in effect, a business making exempt supplies has to absorb the VAT charged to it by its suppliers. Categories of exempt supplies include land, insurance, finance, education, health and welfare.*

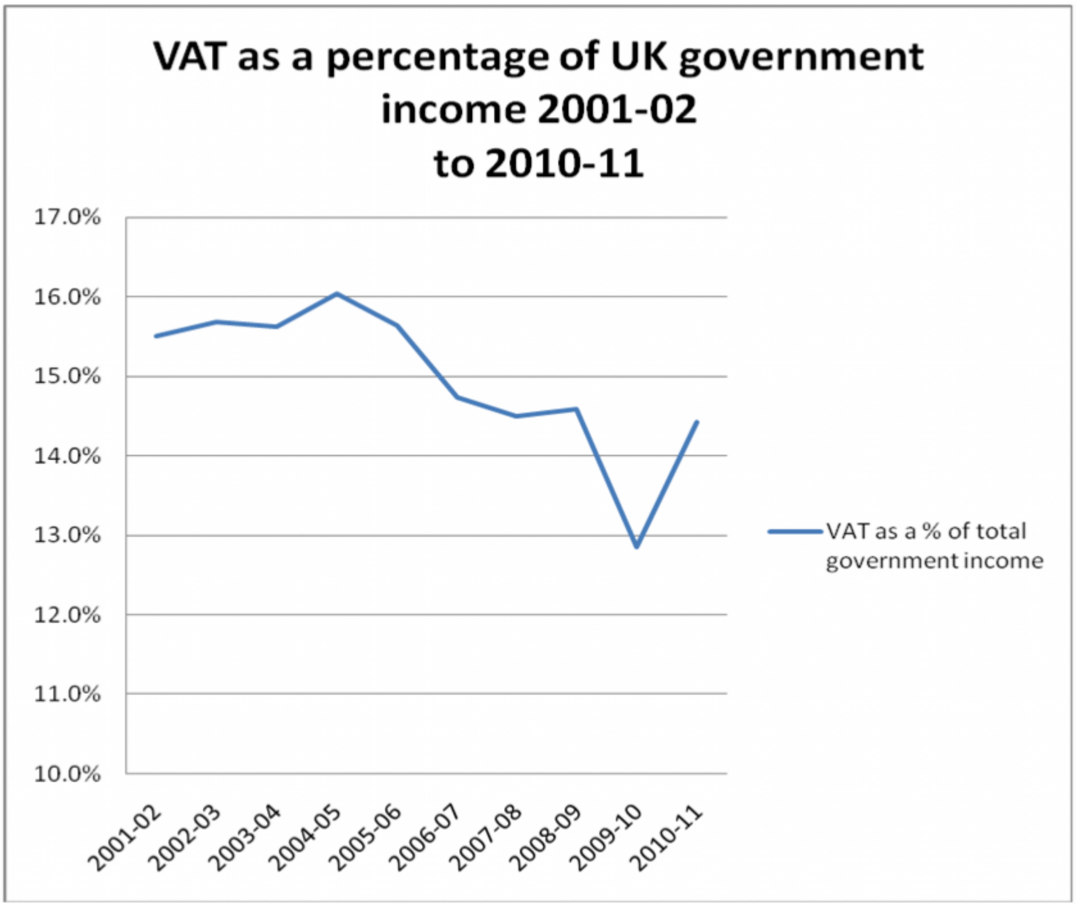
3. How much does VAT raise in revenue?

VAT revenue has been as follows over the last 10 years according to HM Treasury budget statements:

Projected UK government income
2001-02 to 2010-11
£bn

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Total	400	408	429	455	486	516	552	576	498	541
VAT	62	64	67	73	76	76	80	84	64	78
VAT as a % of total government income	15.5 %	15.7 %	15.6 %	16.0 %	15.6 %	14.7 %	14.5 %	14.6 %	12.9 %	14.4 %

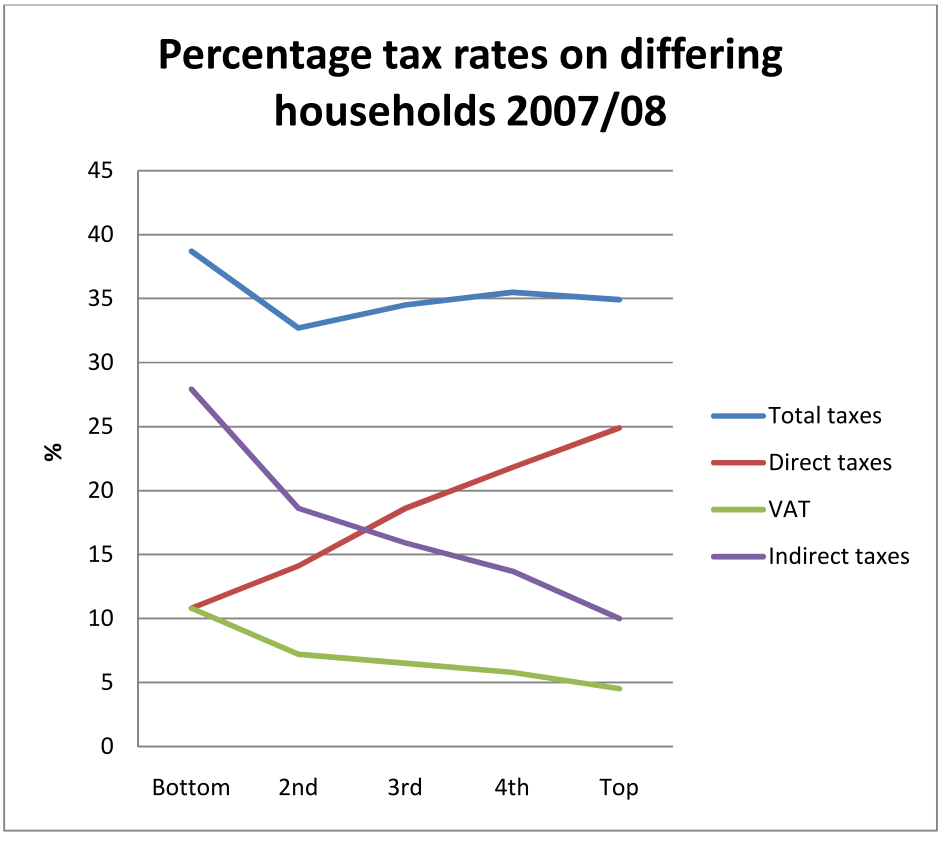
The proportion of VAT as a part of total government income has fallen significantly over this decade:



The decrease in 2009-10 was largely explained by the decline in the VAT rate to 15% during this period, undertaken as a short tem fiscal stimulus by Alistair Darling (which worked). But the notable fact is that there was a noticeable trend for VAT revenues to fall as both the economy and government income grew. This has to be explained, and will be later in this briefing.

4. Is VAT regressive?

A regressive tax is almost universally agreed to be one where the proportion of an individual's income expended on that tax falls as they progress up the income scale[iv]. VAT is a regressive tax. This is shown, quite dramatically, in the graph below which is based on UK official data[v] :



By chance the VAT and total direct tax burdens on the bottom 20% of households ranked by their income is the same. Direct taxes then rise steadily as a proportion of income as incomes rise and both VAT and all indirect taxes combined do the exact opposite, falling as a proportion of income as income rises. So marked is the trend that the overall progressive effect of income tax is not enough to counter the fact that the poorest households suffer such a high rate of overall indirect tax that they end up with the highest average tax rates in the economy as a whole.

The message from this data is unambiguous: the poorest 20% of households in the UK have both the highest overall tax burden of any quintile and the highest VAT burden. That VAT burden at 12.1% of their income is more than double that paid by the top quintile, where the VAT burden is 5.9% of income.

On this basis an unambiguous conclusion can be drawn: VAT is regressive.

5. So how do the Institute for Fiscal Studies say VAT is progressive?

The Institute for Fiscal Studies do not agree with this apparently obvious conclusion. They say[vi]:

> *When people discuss the merits of using VAT as a way of raising revenue, the consequences for efficiency and fairness are naturally central to the discussion. Some enthusiasts argue that VAT is a good instrument because it does not harm work incentives. Some opponents argue that VAT is a bad instrument because the burden falls more heavily on poor households than rich ones. Neither proposition is in fact true, as we now discuss.*

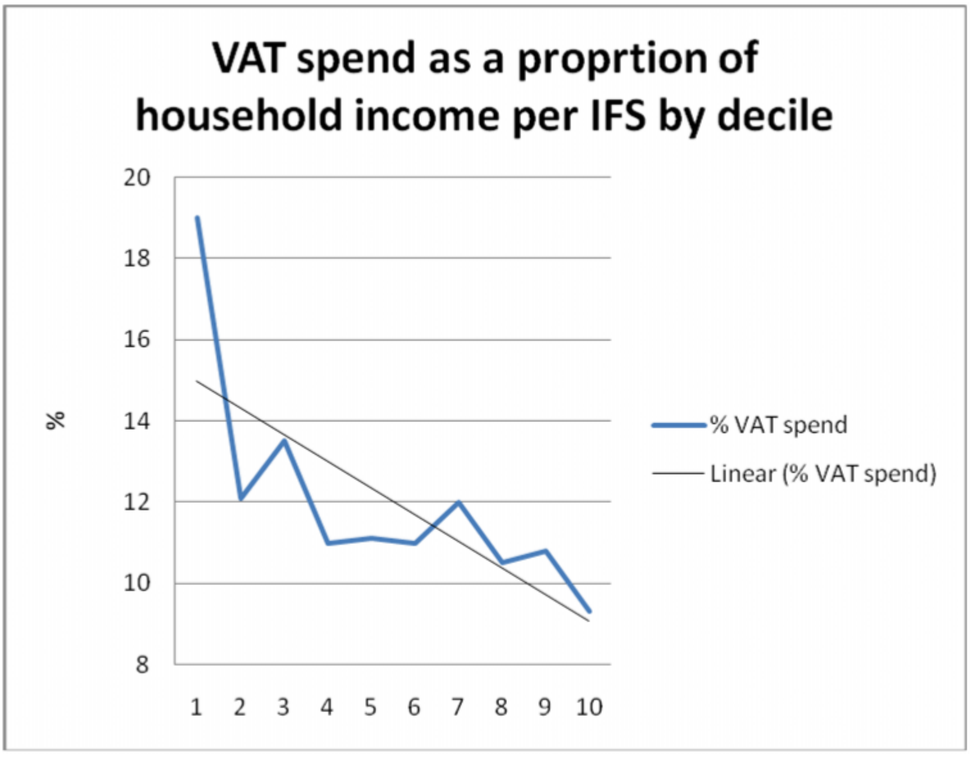
In support they produce the following graph, which might be seen as a variation on that produced above except it is based on decile data and uses a different source: in this case the UK Family Expenditure Survey which appears less appropriate than data focussed on taxation used by Tax Research UK to produce its version of the graph:

Figure 10.1. VAT paid as a percentage of net household income

Having noted this evidence they then say:

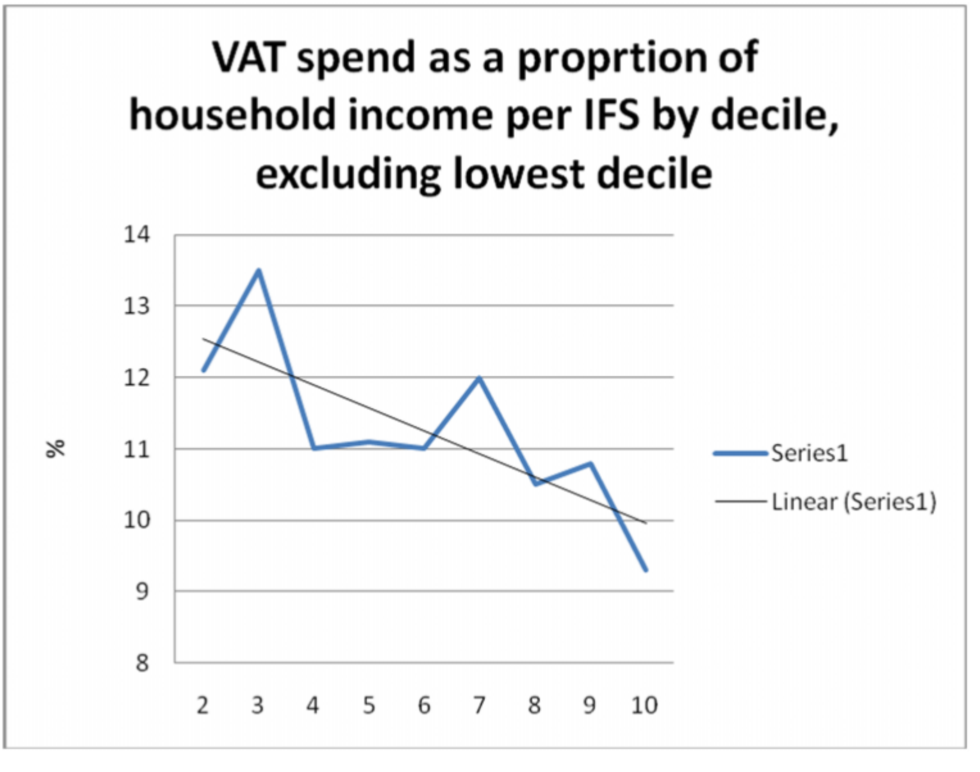
> *It shows that the percentage of net income paid as VAT varies relatively little across most of the income distribution, with the biggest exception being that the bottom decile group does pay a higher fraction of its net income on VAT than do other income groups.*

This is very obviously wrong: as the Tax Research UK analysis shows, based on quintiles and data based on the impact of taxation on household income, the propionate effect of VAT on households falls persistently as income rises. This is also very obviously true in the Institute for Fiscal Studies graph. Replotting their data as a line graph and then adding a linear regression line of best fit shows this very clearly indeed:



The IFS, sophisticated as it is in statistical and taxation analysis choose to ignore this: it might even be said they deliberately misrepresent this fact, for a fact it is.

In case of doubt, the bottom decile which might appear to distort the result can be removed from the data and the trend is still very clear and obvious, as this graph shows:

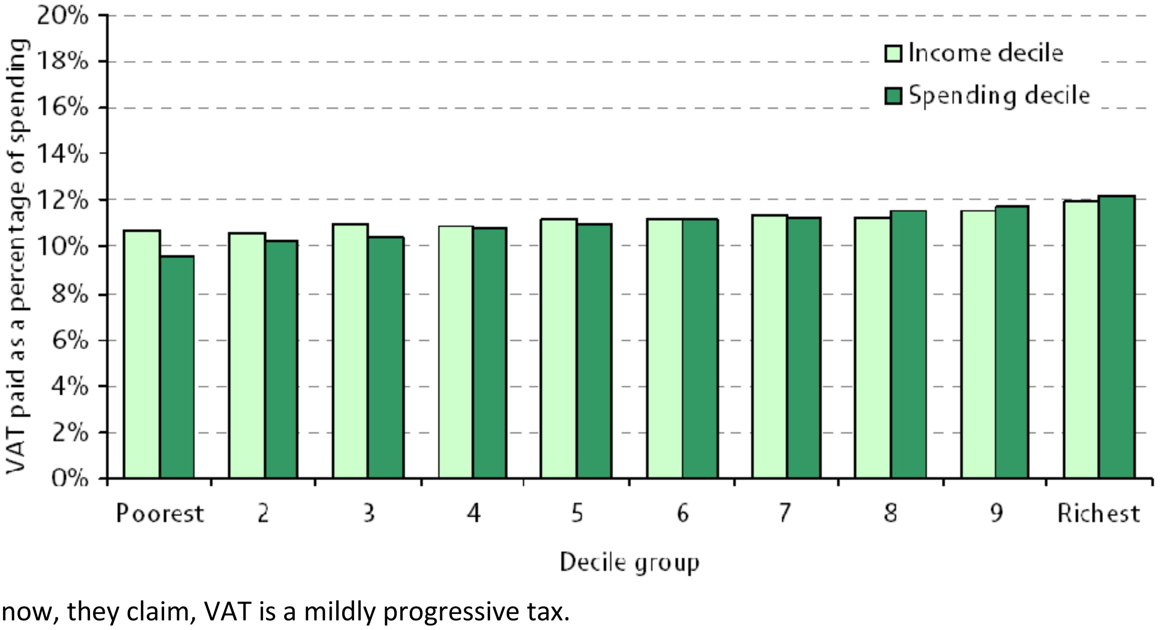


The trend is still persistent, clear and downward. The IFS say otherwise and having made such misrepresentation of fact they then say:

> *However, looking at a snapshot of the patterns of spending, VAT paid and income in the population at any given moment is misleading, because incomes are volatile and spending can be smoothed through borrowing and saving. Consider a student or a retiree: their current income is likely to be quite low but their lifetime earnings could be relatively high. The student may borrow to fund spending, whilst the retiree may be running down savings. Similarly, many people in the lowest income decile will be temporarily not in paid work and able to maintain relatively high spending in the short period they are out of the labour market. Because their spending is higher than their current income, these people will be paying a high fraction of their current income in VAT. Similarly, those with high current incomes tend to have high saving, and so appear to escape the tax, but they will face it when they come to spend the accumulated savings. Because of this 'consumption smoothing', expenditure is probably a better measure of living standards (and households' perceptions of the level of spending they can sustain).*

This is a terribly convenient argument to offer. The result of doing so is that IFS claim that the proper way to assess the progressiveness of VAT is in proportion to expenditure, which by decile, rather conveniently for them, looks like this:

Figure 10.2. VAT paid as a percentage of household expenditure



So now, they claim, VAT is a mildly progressive tax.

And it is on this basis that the IFS say VAT is not regressive.

6. So who is right?

The IFS claim is surprising: it claims VAT is progressive by changing the rules for calculating what is a progressive and regressive tax. This is disingenuous. The terms progressive and regressive are consistently used when comparing taxes: to ensure that they have meaning in this context a consistent use has to be made of the terms or the claims made with regard to different taxes are meaningless. The IFS have chosen to ignore this obvious and necessary convention. They have instead decided to reinvent the terms progressive and regressive, rendering them meaningless as a consequence. It is only by doing so that the IFS can claim VAT is progressive. They have, however, abandoned their credibility in the process because, as all the evidence shows, VAT is a regressive tax.

There are, in fact, additional reasons for thinking so – which the IFS ignored in undertaking their work, two of which reasons are the subject to the next two sections of this report.

7. Do the poorest really have savings?

First, it will be noted that the IFS come to the conclusion that the progressiveness of VAT should be assessed on the basis of expenditure because the capacity to borrow and spend, which the IFS says smoothes consumption, should be taken into account when assessing the capacity to pay this tax. This is, however, after they note:

> *Some opponents argue that VAT is a bad instrument because the burden falls more heavily on poor households than rich ones.*

In that case it would seem very obvious that their focus when assessing regressiveness should have been on the poorest and that in coming to any conclusion the appropriateness of their assertion should have been tested for applicability to that population, in particular. The Institute for Fiscal Studies did not do this. To have done so they would have need to check that those on the lowest levels of income had savings and enjoyed reasonable access to borrowing facilities. If neither condition held true then clearly they could not make their claim that expenditure can be smoothed irrespective of income. If the poorest cannot smooth their spending then the impact of a VAT change on those with lowest income – where regressiveness is naturally of greatest concern - would have to be tested with regard to income.

The necessary hypotheses can be tested. Savings distributions are the better recorded and are indicated by this table[vii]:

Percentage of individuals

	Net equivalised disposable household income					All
	Bottom quintile	Second quintile	Middle quintile	Fourth quintile	Top quintile	individuals (millions)
Savings and investments						
No savings	33	26	20	14	8	19.8
Less than £1,500	18	22	24	22	14	11.4
£1,500 but less than £3,000	15	20	20	23	23	4.2
£3,000 but less than £8,000	13	18	21	25	23	8.0
£8,000 but less than £10,000	13	14	21	26	27	1.9
£10,000 but less than £16,000	13	15	20	22	29	3.9
£16,000 but less than £20,000	14	15	17	25	30	1.6
£20,000 or more	9	11	15	23	42	9.5

Unsurprisingly the lowest earning households have the lowest savings ratios and absolute cash savings. It is, of course, almost tautological to say so. But it therefore follows that they have by far the lowest capacity to dis-save to fund expenditure when income falls. In fact, as is very obvious, in one third of cases there is no capacity at all to dis-save in this group and in two thirds the capacity to do so is exceptionally limited. In contract, the highest quintile does, again unsurprisingly, have by far the highest savings and therefore the greatest capacity to smooth expenditure, but even then in over one third of those households that capacity is exceptionally limited – suggesting that even at this high end of the income scale the hypothesis on which the Institute for Fiscal Studies build their claim has limited credibility.

Data on the capacity to borrow, other than from “door step lenders” is a little harder to secure with regard to those on low income but amply clear indicators are available. HM Treasury data[viii] suggests that 900,000 households had no access to a bank account in 2007/08. This represented a fall from 2 million in 2002/03 but the difference can be explained by the creation of “basic functionality” bank accounts, which by definition have no access to borrowing facilities. There are approximately 8 million such accounts at present according to the British Bankers Association[ix], and assuming (perhaps generously) two per household that, together with the data on unbanked households, suggest almost 5 million households in the UK have access to only rudimentary financial services, and certainly not to regular borrowing facilities.

In other words, when combining these two reviews, on dis-saving and borrowing capacity it becomes clear that a population approximating very closely to the poorest quintile of households have access to very low or no savings on average and limited or no access to borrowing facilities, bar those available at abusive interest rates[x].

In this case it is very clear that it cannot be assumed when considering the impact of VAT on the poorest households that variations in income can be smoothed by those households borrowing or dis-saving over time. As readily available data shows, and as anecdotal evidence clearly confirms, contrary to what the IFS believes, those households can only spend what they have in terms of current income.

The consequence of that intuitively obvious finding is clear: the impact of a VAT increase on the poorest, who are those of greatest concern when assessing this issue, is immediate and absolute: their well being is reduced directly and immediately by such an increase, and the impact for them is greater than for any other quintile, whether or not those other quintiles spread the impact over their lifetimes or not.

This last point is anyway open to challenge: to suggest that the impact of a consumption tax should be considered over a person's lifetime is surprising. Apart from noting the obvious fact that, as Lord Keynes once adroitly observed, "in the long run we're all dead", and after adding the cautionary note that none of us know have long our long run might be, this claim assumes there are no lasting consequences of current decisions.

To put it another way, the child who cannot be clothed or fed adequately does not, according to the IFS, suffer real loss at the time they cannot have their needs met, and nor does their parent as a result of the stress and anxiety suffered.

Likewise, the pensioner who cannot heat their home adequately and who suffers real risk of death from hypothermia at that time does not suffer as a result if the IFS is to be believed.

The IFS instead implies that the child, their parent and the pensioner can each place their suffering in the context of their lifetime, whatever the current deprivation may be.

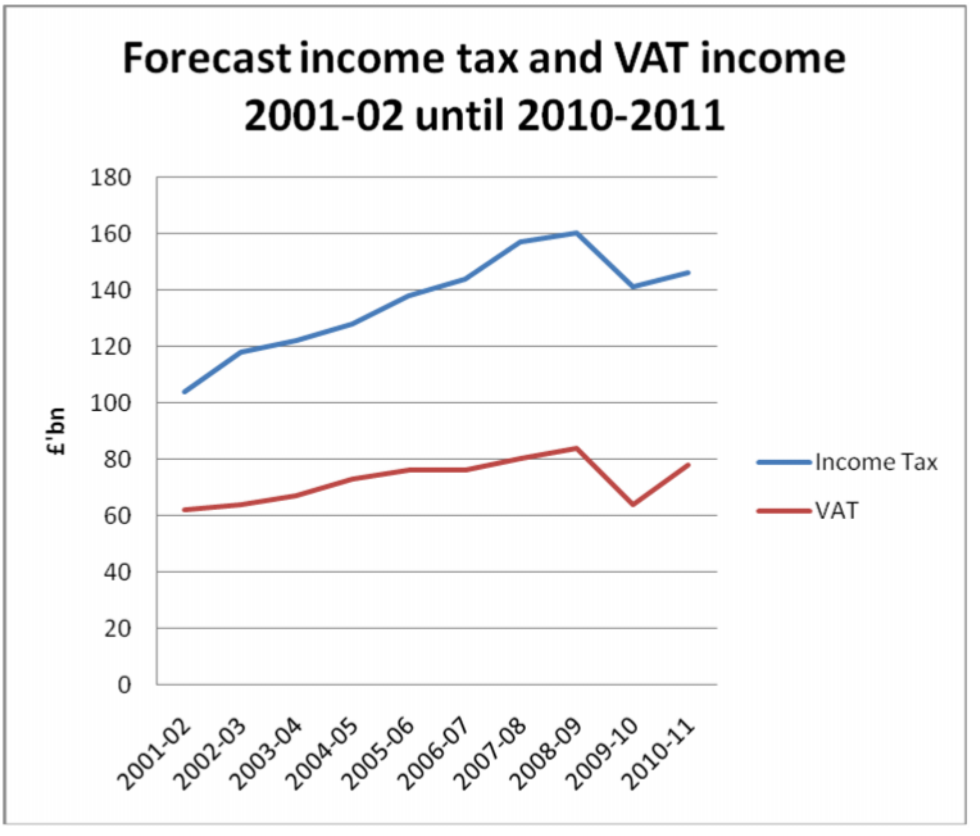
In so doing the IFS ignores the fact that the impact of the tax change causing this immediate hardship may have irreparable consequence, whether material or on emotional well being that cannot be rectified, even in the long term.

That, unfortunately, suggests both a serious lack of intellectual rigour on the part of the Institute for Fiscal Studies in making this claim and a serious lack of understanding on their part of income distributions and the impact of changes in spending patterns in society when some have little or no savings and almost no access to alternative financial resources.

8. Do the wealthiest really pay that much VAT?

The same problem of a lack of apparent rigour on the part of the IFS when coming to the conclusion that VAT is progressive is also revealed by their failure to place VAT in its context within the tax system and to consider the consequence of what is revealed when that is done.

As noted on page 3, VAT as a proportion of government income has fallen steadily over the past decade. In proportion to forecast income tax revenues the change is also marked, and significant:



From 2001-02 until 2008-09 forecast revenue from income tax rose by 53.8% and VAT by 35.5%. To 2010-11 the respective increases were 40.4% and 25.8%. It is very clear that although, 2009 apart, the VAT rate has been consistent and income tax rates over the same period have generally fallen (the new 50% tax rates hardly impact this data) the proportion of VAT collected has fallen as income has risen, and income tax with it. During a period of sustained growth from 2001-02 to 2007-08 the contrast is dramatic.

There is good reason for this divergence between the tax revenues of these two taxes. As the Joseph Rowntree Foundation have shown[xi], between 2001/02 and 2007/08 the income of the richest ten percent in the UK rose from 28% of total income to 31% of total income. The proportionate share of the poorest decile fell over that period and by 2007/08 they had just over 1% of total income between them. In this context it is not the VAT exemptions that the poorest in the UK enjoy that matter in terms of the progressivity (or otherwise) of VAT but the VAT exemptions that the richest enjoy that matter.

All income groups enjoy the zero rating of most foods, children's clothes, and other such basic necessities. In contrast almost all the discretionary spending of the poorest is charged to VAT. This is not true of the highest income earning decile in society. This group disproportionately to all others enjoys a substantial range of VAT free discretionary spending including:

1. Private healthcare;
2. Private education;
3. Leisure travel;
4. Second homes;

5. Financial services products.

The reality, as the data clearly shows, is that whilst the highest income earning group did pay more income tax as the disparity between their income and the rest of society grew over this decade the impact of the exemptions from VAT that they enjoyed on their discretionary expenditure prevented VAT revenue rising in line with the capacity of society to spend in society as a whole, which was increasingly biased to the spending of the rich.

This has two obvious impacts. First, by demonstrating that expenditure as defined by the IFS is limited in scope and unlikely to accurately record the discretionary spending of those with significant income it suggests that both the methodology they have adopted to show that VAT is progressive is inherently flawed and that it is also likely to seriously overstate VAT as a proportion of the expenditure of the highest quintile income groups – so resulting in false conclusions being drawn from their work.

Secondly, far from VAT being progressive, as the IFS claim, this data suggests that VAT is likely to be seriously regressive because VAT expenditure in the highest quintile group is likely to be much lower than the IFS assume.

Indeed, if changes in the VAT base had been made to reflect the expanding purchasing power of the wealthiest groups in society compared to 2001/02 then by 2007/08 at least £11 billion of extra VAT would have been paid in that tax year. This shows the degree of subsidy that the highest income earners in society enjoyed by this time compared to those on low income as a result of their increasing disparity in wealth with regard to this one tax alone.

Both this review, and that in part seven of this paper, suggest that the Institute for Fiscal Studies work on the progressiveness of VAT is seriously flawed.

9. Is the Institute for Fiscal Studies what it claims to be?

The IFS claims[xii] to:

> *maintain a rigorous, scientific approach to research, while offering scope for timely, independent, well-informed contributions to public debate.*

The analysis in this paper suggests that the work they have offered with regard to the regressiveness of VAT is not rigorous, or scientific. That though leaves the question of whether this was just a mistake or is indicative of something systematic in the approach of IFS to this and other related issues.

Other evidence suggests that the IFS finding on the regressiveness of VAT is typical of its work. The IFS has long been an enthusiastic supporter of increases in VAT. For example, the IFS has, as part of its Mirrlees review of the future of taxation in the 21st Century, argued that corporation tax should be replaced with what it calls[xiii] a "destination-based VAT, but with labour costs deductible". Tax Research UK has suggested that this would have required an increase in the VAT rate to 28% at the time they made the recommendation: by now the effective VAT rate would probably need to exceed 30% to recover the tax loss to HM Treasury as a result of adopting this proposals, which would have all the same regressive effects as any other VAT increase.

This though is not the only case of the IFS recommending increases in VAT. The Mirrlees review also recommends [xiv] that VAT be charged at the standard rate on food, children's clothing, books and other currently zero-rated items. The IFS does, admittedly, suggest some compensation for this increase through increased benefits, but only for the lowest 30% of income earning households (those with incomes of about £16,000 or less a year). That would leave those on middle income decidedly worse off. The aim of this proposed VAT increase, the IFS said, was to provide £11bn for what it called "further desirable tax reductions". Since the rich almost invariably benefit most from tax reductions because they do pay most tax in absolute terms, the direction of redistribution in this IFS proposal is very obviously from the poorest to the richest in society.

That same pattern is also seen with regard to its recommendations in the Mirrlees report on Inheritance Tax, where the IFS says[xv] that given "inheritance tax currently raises less than £4bn a year, consideration could be given to abolishing it altogether".

The same bias is found in another recommendation by the Mirrlees review where it is said that[xvi]:

> *To discourage investors from hiding their wealth in foreign tax havens, the authors recommend exempting interest income from personal tax, and allowing shareholders to deduct an imputed normal return on the basis of their shares before imposing tax on dividends and capital gains.*

This change would result in at least £10 billion of lost tax revenue to HM Treasury with the benefit going to those who are best off in society since they hold the vast majority of wealth and so enjoy the vast majority of investment income.

It is clear that a pattern is emerging: the Institute for Fiscal Studies is a body that persistently recommends tax increases that benefit the wealthiest in society at cost to those who make their living from work and the poorest in society. In that case the IFS claim with regard to VAT being progressive, when this is clearly not true, can be seen not as an error but as part of a pattern of justification for this programme of recommending tax reform for a particular, and privileged segment of society.

But the fact remains, whatever the IFS says, that VAT is regressive and increasing it will do three things. First it will make the UK tax system more regressive. Second it will therefore hit the poorest in society hardest and third it will increase the income and wealth gaps between richest and poorest in the UK. All of which makes it odd that a rigorous and scientific approach to VAT from an independent and, well-informed body seeking to contribute to public debate did not spot these obvious facts.

[i] http://www.parliament.uk/briefingpapers/commons/lib/research/briefings/snbt-05620.pdf

[ii] http://www.gov.je/SiteCollectionDocuments/Tax%20and%20your%20money/ID%20FSR%20GREEN%20PAPER%2020100621%20MM.pdf

[iii] http://www.ifs.org.uk/budgets/gb2009/09chap10.pdf

[iv] It is, for example, defined as such in the Oxford Dictionary of Economics.

[v] [v] http://www.statistics.gov.uk/downloads/theme_social/Taxes-Benefits-2007-2008/Taxes_benefits_0708.pdf

[vi] http://www.ifs.org.uk/budgets/gb2009/09chap10.pdf

[vii] http://research.dwp.gov.uk/asd/hbai/hbai_2009/pdf_files/chapters/chapter_3_hbai10.pdf

[viii] http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/press_95_09.htm

[ix] http://www.bba.org.uk/bba/jsp/polopoly.jsp?d=475&a=16807

[x] A typical currtent loan from Provident Financial carries an APR of 189.2% http://www.providentfinancial.com/index.asp?pageid=72

[xi] http://www.poverty.org.uk/09/index.shtml

[xii] http://www.ifs.org.uk/centres/esrcIndex

[xiii] http://www.ifs.org.uk/mirrleesreview/dimensions/ch9.pdf

[xiv] http://www.ifs.org.uk/pr/mirrlees_indirect.pdf

[xv] http://www.ifs.org.uk/mirrleesreview/reports/wealth_transfers.pdf

[xvi] http://www.ifs.org.uk/mirrleesreview/press_docs/mirrlees_pr_corp.pdf