

APPENDIX: CALCULATING AN EQUIVALENT LVT RATE TO REPLACE SDLT

CALCULATING A RATE OF CONTINUING LVT TO REPLACE SDLT

Firstly, just how much is SDLT for different sale prices of houses?

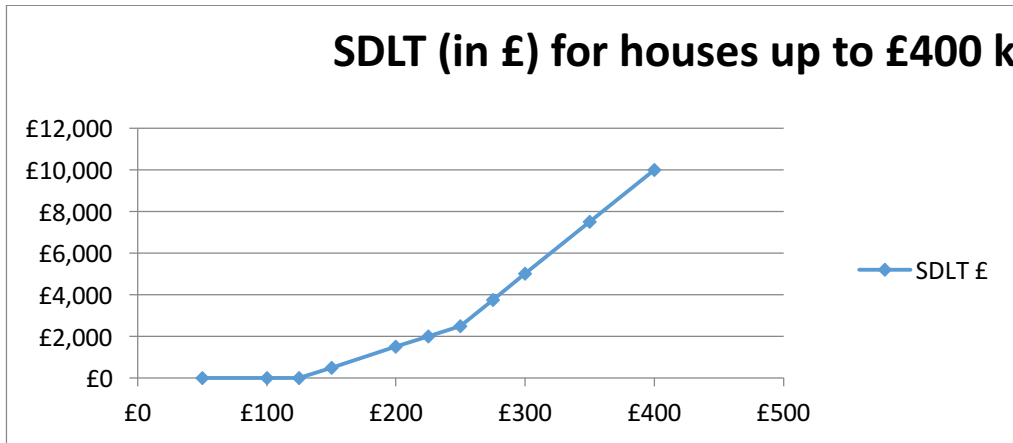
Here it is in numbers: effective from December 2015 when the rates for £one million plus houses was substantially increased (Osborne's gesture towards a 'Mansion Tax')

£price K	SDLT £	% of purch £
£50	£0	0.00
£100	£0	0.00
£125	£0	0.00
£150	£500	0.33
£200	£1,500	0.75
£225	£2,000	0.89
£250	£2,500	1.00
£275	£3,750	1.36
£300	£5,000	1.67
£350	£7,500	2.14
£400	£10,000	2.50
£500	£15,000	3.00
£600	£20,000	3.33
£700	£25,000	3.57
£800	£30,000	3.75
£900	£35,000	3.89
£925	£36,250	3.92
£1,000	£43,750	4.38
£1,500	£93,750	6.25

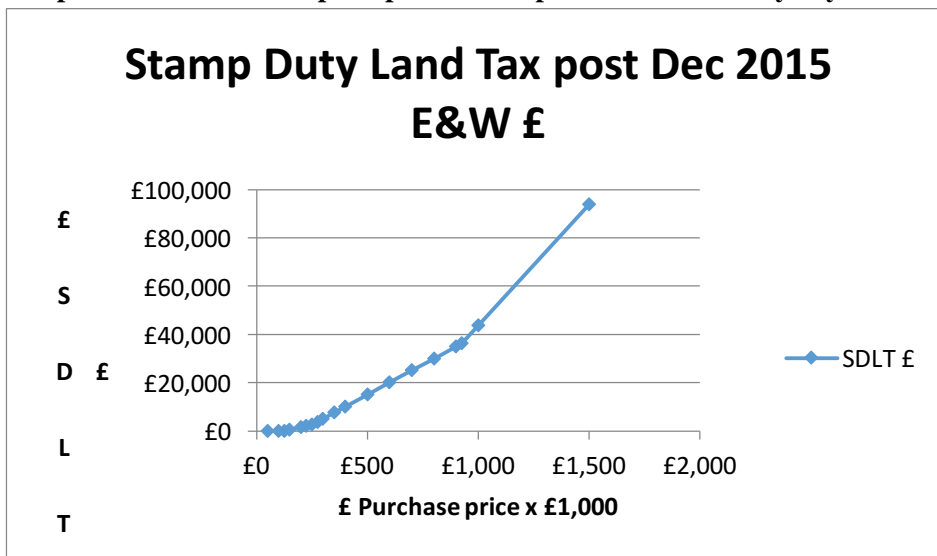
and this is what it looks like in £££

These graphs are in two parts — 'cheap' houses only up to £400,000 price, and then the whole picture up to a million and a half.

Graph 1: 'Cheap' Houses where SDLT maxes at £10,000 for a house sold for £400,000



Graph 2: Here's the complete picture — up to £1.5 million anyway

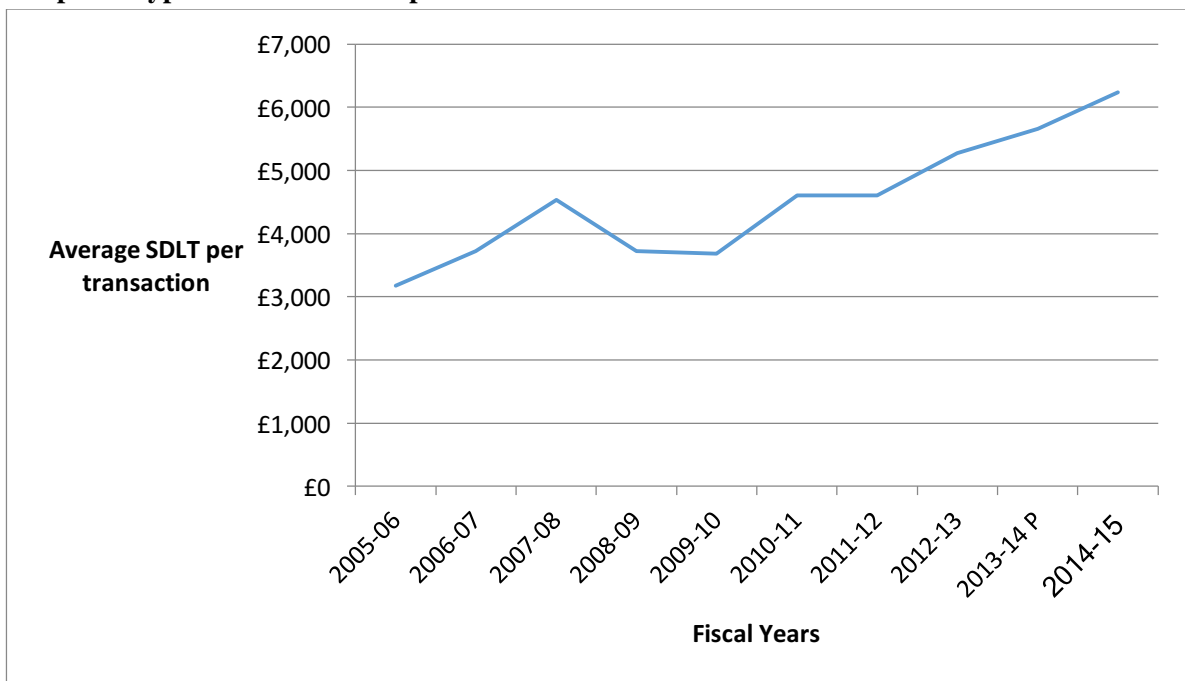


Graph 3: to show SDLT as a percentage % of the Sale Price



Some more statistics! The total revenue from SDLT depends on the rate charged of course, but also on the number of transactions per year. Before the 2008 crash there were about 1.6 million sales per year from a total 'estate' 15 million owner-occupied houses. The number of sales slumped to a low of 885,000 in 2010, and then perked up to 1.2 million in 2014. Meanwhile the number of owner-occupied houses had dropped from 15 to 14.7 million. Putting all this together shows a picture of a steadily increasing burden *per transaction* in the decade 2005-2015:

Graph 5: Typical SDLT tax bill per transaction



Next: Averages don't mean very much when you consider how the variation in prices paid for houses varies by region and by local area. Here's a little table to show this variation. Figures taken from Halifax Nov 2015 monthly House Price Bulletin. Note that the 'average' price paid calculated from all sales, both of existing and of new semi-detached properties sold in England and Wales was quoted as ~£222,000. I'll work with prices paid for newly built semi-detached houses in different regions of England and Wales, to try to work out a Land Value. This is the first of my broad-brush assumptions!

Area	£price of average semi	Implied LV land Value	
Cluster WM, NW, N, Y EM, W	150,000	30,000 (minimum datum)	
East Anglia	220,000	100,000	
South West	230,000	110,000	
South East	350,000	230,000	
London	500,000	380,000	

The first two columns are factual and can be verified by checking one of the House Price Bulletins from Nationwide or Halifax. The third column is speculative. If the build-only cost of a semi is about £120,000 then the LV in the cheapest area is about £30,000. Subtracting the same build-cost (£120,000) from the more expensive areas gives the rest of the 'typical' LVs for those areas. (The houses built throughout E&W and very similar. The plot-sizes may differ, but the overall price difference can only be Land Value. This is a crude generalisation, and I would expect that if (or when) SDLT morphs into LVT, accurate, realistic individual LVs would be calculated. Technology can help, with a formulaic ready-reckoner using some kind of Expert System¹. This would calculate electronically the most likely LV. Appeals, for a fee, could be entertained for aggrieved buyers.

Repeated sales

Another factor not yet included is that SDLT is imposed every time the house is sold. Going back to the transaction data, we saw there are about 1.2 million sales per year from a total owner-occupied housing stock of 14.7 million. This suggests that houses are sold on average once every 12 years or so. Actually it has been found that 50% of houses are sold within 7 years (??? check). So SDLT per house is a tax which is imposed once every seven years. What is this future stream of revenue worth? Or to put it another way How much can a house buyer who moves in a typical way expect to spend on SDLT ?

Here's a calculation for the cognoscenti! Calculate a Present Value PV for equal payments of £1 made today, in 7, 14, 21, 28..... year's time? Using a discount rate of 3% gives a value of ~£5 (FIVE POUNDS!) that is five times the value of this one payment . So re-working the previous table, and adding another calculation:

Area	£price	Implied LV	£SDLT x 5	Percentage of LV	Proposed annual LVT	£SDLT
Cluster	150,000	30,000	2,500	8.3	£150	500
East Anglia	220,000	100,000	9,500	9.5	£500	1,900
South West	230,000	110,000	11,500	10.5	£575	2,300
South East	350,000	230,000	37,000	16.1	£1,150	7,500
London	500,000	380,000	75,000	19.7	£1,900	15,000

¹ I explained the mechanism for this in my 1984 *An expert system for house valuation* J of Valuation

				Md ~ 15%		
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Proposed annual LVT is calculated as earning 15% (0.10) in perpetuity, discounted at 3% (long-term non-inflationary environment interest rate), gives a result of 0.5 % annually.

SDLT converted to Annual LVT == 0.5 % of LV annually

**(LV to be re-rated by Land Price Index for the area
or re-valuation of the plot
or by CPI)**

some extra revenue for CHA citizen's housing allowances.

So let's go back to the drawing board and cut the LVT rate to 0.3 of a percent. OK this doesn't quite make up the shortfall, but this is a dynamic tax geared to rising prices but which could rise or fall more depending on the economic factors at work locally.

Area	£price	Implied LV	Proposed annual LVT at 0.3%	£SDLT (1-off)
Cluster	150,000	30,000	£90	500
East Anglia	220,000	100,000	£300	1,900
South West	230,000	110,000	£330	2,300
South East	350,000	230,000	£690	7,500
London	500,000	380,000	£1,140	15,000

That's the choice: 0.3% with no CHAs, or 0.5% with some form of CHA.

And hypothetically we could go on to Total LVT which reclaims all of the economic rent from Land Value: (This will not happen. All I am proposing is that one after another existing taxes on housing be switched to LVT. That may eventually lead to Total LVT. It may exceed it. I will deal with 'finishing the job' in a later chapter')

Next, from these LVs we can establish an LVT. A figure of 3% seems the usual level. It is used in Hong Kong² and I suppose can be taken as the normal long term real rate of interest payable on loans during times of very low or nil Consumer Price Index inflation. This can then be compared to the current SDLT charge. So can I make an estimate of the actual charge which would render Land Value close to zero? I am in very murky theoretical territory here, and only time will reveal the true ‘total’ rate of LVT.

Area	£price	Implied LV	£LVT at 3%	£SDLT	Win +/ Lose -
Cluster	150,000	30,000	900	500	-400
East Anglia	220,000	100,000	3,000	1,900	-1,100
South West	230,000	110,000	3,300	2,300	-700
South East	350,000	230,000	6,900	7,500	+600
London	500,000	380,000	11,400	15,000	+3,600

The first thing to notice is that the one-off LVT and the one-off SDLT charges are of the same order. But clearly this LVT scheme would be more regressive (hit poorer people harder) compared to LVT. One reason for this is the low-level exemptions built into SDLT — anyone who buys a house priced under £125,000 pays no SDLT. So should similar low-level exemptions apply here? I am loathe to do this because the intention is to convert the one-off LVT into a recurring annual charge. I will return to this later.

² Purves (2015)