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Elasticities used in the costing for the reform of stamp duty land tax

The OBR are releasing the information below following a request for further detail underlying the December 2014 *Economic and fiscal outlook* (EFO). The OBR will where possible meet requests to release supplementary forecast information, where this will improve the quality of public debate on the public finances. Our full release policy can be found on our website.

We have had a request for further details of the behavioural elasticities used in the costing of the reforms to stamp duty land tax (SDLT). We used the same elasticities when estimating the yield from the introduction of the land and buildings transactions tax (LBTT) in Scotland from April 2015. The reforms announced in Autumn Statement 2014 move SDLT from a 'slab' system (where a single tax rate is paid on the entire purchase price) to a 'slice' system (where successive bands of the purchase price are taxed at increasing rates). The Scottish Government had already announced that it would move to a 'slice' system for the new LBTT.

The elasticities discussed in this note are based on academic evidence, internal HMRC research and judgements applied by the Budget Responsibility Committee of the OBR. As with any policy costing, there is considerable uncertainty surrounding these estimates. In Annex A of the December *EFO*, we gave this costing a 'medium-high' uncertainty rating, which mainly reflected the uncertainty around these behavioural assumptions. These elasticities were certified as central estimates and therefore the associated uncertainties around the costing go in both directions.

The costing included a number of behavioural effects:

- the slice system removes the cliff edges between tax bands which created 'dead-zones' in the price distribution of transactions, where very few transactions took place immediately above the threshold at which the tax liability jumps;
- transactions costs related to the purchase of a house will be reflected in the price of the house, so changes in transactions costs due to the reform of the SDLT system will affect prices; and
- SDLT costs will affect the frequency of transactions, with lower costs meaning more transactions.

Price elasticities:

- the costing is based on a 1 percentage point change in the average SDLT rate leading to a 1.4 per cent change in the house price. The same elasticity is applied across the whole price distribution;
- this elasticity is time-varying. In the first year, the elasticity is assumed to be lower than the long-term elasticity, reflecting house price inertia, given that some sellers would have already negotiated a price for their property or already had their property valued under the old regime. In the second and third years, we would expect demand to have responded more quickly than supply to a change in the SDLT regime, with the price elasticity therefore assumed to be greater than the long-term elasticity; and
- an additional price elasticity for property transactions in the £60,000 to £250,000 range. Lower SDLT would allow a purchaser to put more of their financial assets towards a deposit, enabling more would-be purchasers to meet lenders' loan-to-value criteria.

Transactions elasticities:

- the transactions elasticity with respect to a change in the SDLT rate is expected to vary across the price distribution, because each percentage point change in SDLT reflects a different percentage of transactions costs at different prices. In the long run, we have assumed that these vary between -3.5 at the bottom of the price distribution to -1.5 at the top;
- these elasticities would be expected to be a little higher in the short term due to an assumed release in pent-up demand; and
- an additional transactions elasticity to allow for greater efforts by purchasers of properties over £1 million to avoid or evade the tax.

Table 1 sets out the various elasticities that result from the assumptions set out above and that were used in the certified costing.

Table 1: Elasticities used in the SDLT costing¹

	£60k-£250k	£250k-£500k	£500k-£1m	£1m-£2m	Above £2m
Year 1					
Transactions: main effect	-3.7	-2.5	-2.0	-1.8	-1.5
Transactions: additional avoidance				-1.0	-1.8
Total transactions elasticity	-3.7	-2.5	-2.0	-2.8	-3.2
Price: main capitalisation	-1.0	-1.0	-1.0	-1.0	-1.0
Price: Low end mortgage leverage	-0.5				
Total elasticity	-5.2	-3.5	-3.0	-3.8	-4.2
Year 2					
Transactions: main effect	-3.6	-2.4	-2.0	-1.8	-1.5
Transactions: additional avoidance				-1.0	-1.8
Total transactions elasticity	-3.6	-2.4	-2.0	-2.8	-3.2
Price: main capitalisation	-1.7	-1.7	-1.7	-1.7	-1.7
Price: low end mortgage leverage	-0.5				
Total elasticity	-5.8	-4.1	-3.7	-4.5	-4.9
Year 3					
Transactions: main effect	-3.5	-2.4	-2.0	-1.8	-1.5
Transactions: additional avoidance				-1.0	-1.8
Total transactions elasticity	-3.5	-2.4	-2.0	-2.8	-3.2
Price: main capitalisation	-1.6	-1.6	-1.6	-1.6	-1.6
Price: low end mortgage leverage	-0.5				
Total elasticity	-5.5	-3.9	-3.5	-4.4	-4.8
Years 4 and 5					
Transactions: main effect	-3.5	-2.4	-2.0	-1.8	-1.5
Transactions: additional avoidance				-1.0	-1.8
Total transactions elasticity	-3.5	-2.4	-2.0	-2.8	-3.2
Price: main capitalisation	-1.4	-1.4	-1.4	-1.4	-1.4
Price: low end mortgage leverage	-0.5				
Total elasticity	-5.4	-3.8	-3.4	-4.2	-4.7

¹These are semi-elasticities relating to a percentage point change in the average SDLT rate.