Notes to the consolidated financial statements

Loans and liquid assets (continued)

Accounting policies effective for the year ended December 2020 (continued)

(c) Impairment of financial assets

The impairment requirements of IFRS 9 apply to financial assets measured at amortised cost and debt instruments measured at FVOCI. At initial recognition, an impairment allowance is required for expected credit losses (ECL) resulting from default events expected within the next 12 months (12 month ECL). In the event of a significant increase in credit risk, allowance is required for ECL resulting from default events expected over the estimated life of the financial instrument (lifetime ECL). IFRS 9 requires the financial asset to be allocated to one of the following three 'stages':

- Stage 1 - Financial assets which have not experienced a significant increase in credit risk since they were originated. Recognition of a 12 month ECL is required. Interest income on stage 1 financial assets is calculated on the gross carrying amount of the financial asset;
- Stage 2 – Financial assets which have experienced a significant increase in credit risk since initial recognition. For financial assets in stage 2, recognition of a lifetime ECL impairment allowance is required. Interest income on stage 2 financial assets is calculated on the gross carrying amount of the financial asset; and
- Stage 3 - Financial assets which have experienced one or more events that have had a detrimental impact on the estimated future cash flows and are considered to be credit impaired. Like stage 2, recognition of a lifetime expected ECL impairment allowance is required. However, interest income on stage 3 loans is calculated on the financial asset balance net of the impairment allowance.

Financial assets that are credit impaired at the date of their purchase or origination will be reported in a separate 'purchased or originated as credit impaired' (POCI) category until the loan is derecognised. The cumulative change in lifetime expected credit loss since the purchase or origination of the financial asset is recognised as a loss allowance.

Definition of default for IFRS 9

Loans and advances that are more than 90 days past due, or considered by management as unlikely to pay their obligations, are considered to be in default and credit impaired (stage 3) for IFRS 9. Examples of loans considered unlikely to pay include customers in bankruptcy or subject to an individual voluntary arrangement, customers undergoing repossession, and customers who have received a forbearance treatment, generally within the previous two years, and have either now returned to early arrears or have received an additional forbearance measure. Customers who have cured but who were 90 days past due, or considered unlikely to pay, in the previous six months are also considered to remain in default and classified as credit impaired. TSB policy is not to rebut the presumption in IFRS 9 that loans which are more than 90 days past due are in default.

Grouping of financial assets for credit impairment losses measured on a collective basis

Expected credit losses are assessed and measured on a collective basis for homogenous groups where the financial assets within that group share similar credit risk characteristics. Given the predominant retail nature of TSB's loans, groupings are determined using product type, such as secured (retail), unsecured, and business banking exposures. The appropriateness of the groupings is monitored and reviewed on a periodic basis. TSB does not currently assess any material exposures on an individual basis.

Significant increase in credit risk

Financial assets are considered to be in stage 2 when their credit risk has increased significantly since initial recognition. The main factor that is considered by TSB is an increase in the residual lifetime Probability of Default (PD) since initial recognition. A loan will be considered to have experienced a significant increase in credit risk, and be transferred from stage 1 to stage 2 if the residual lifetime PD has increased by a factor of 2 times the origination PD and the increase is between 10bps and 410bps (for different cohorts of secured retail), between 250bps and 770bps for unsecured products, and more than 50bps for business banking assets. As a secondary qualitative assessment criterion, financial assets that are in forbearance but not credit impaired are considered to have experienced significant increase in credit risk and will be in stage 2. As a backstop, TSB does not rebut the presumption in IFRS 9 that all financial assets that are more than 30 days past due have experienced a significant increase in credit risk. Consequently, in respect of loans and advances to customers, TSB does not use the practical expedient in IFRS 9 which permits low credit risk loans (i.e. those considered investment grade) to remain in stage 1 without an assessment of significant increase ('low credit risk exemption').

However, in respect of all other categories of financial assets at amortised cost and financial assets to fair value through other comprehensive income, TSB uses the low credit risk exemption and categorises these financial assets as stage 1.

Credit Impaired (stage 3)

Financial assets are considered to be credit impaired and included in stage 3 when there is objective evidence of credit impairment which is consistent with the definition of default for IFRS 9 as described above.

Loans and liquid assets (continued)

Accounting policies effective for the year ended December 2020 (continued)

(c) Impairment of financial assets (continued)

Purchased or originated credit impaired (POCI)
Financial assets that are credit impaired at the date of their purchase or origination will be reported in a separate POCI category. For such assets, lifetime ECL are incorporated into the calculation of the effective interest rate on initial recognition. Consequently, POCI assets do not carry an impairment allowance on initial recognition. The amount recognised as a loss subsequent to initial recognition is equal to the change in lifetime ECL since initial recognition of the asset. Subsequent to origination, POCI financial assets that no longer meet the stage 3 criteria will no longer be considered to be credit impaired but will continue to be reported as POCI.

Write offs
A loan or advance is normally written off, either partially or in full, against the related allowance when the proceeds from realising any available security have been received or there is no realistic prospect of recovery (as a result of the customer's insolvency, ceasing to trade or other reason) and the amount of the loss has been determined. Subsequent recoveries of amounts previously written off decrease the amount of impairment losses recorded in the statement of comprehensive income. Financial assets that are written off could still be subject to enforcement activities in order to comply with TSB's procedures for recovery of amounts due. In the event of significant improvements in expected recoveries on stage 3 assets, impairment reversals are recognised as a credit to impairment losses in the income statement.

Modified financial assets and derecognition
A financial asset that is renegotiated is derecognised if the existing agreement is cancelled and a new agreement made on substantially different terms. Where the contractual cash flows of a financial asset have been modified and the financial asset was not derecognised, its gross carrying amount is recalculated as the present value of the modified contractual cash flows, discounted at the original effective interest rate with a gain or loss recognised in the income statement. The contractual terms of a loan may be modified for a number of reasons, primarily due to customers being granted a concession due to their financial difficulty and the loan being considered in forbearance.

Methodology for measuring expected credit losses
The allowance for ECLs is calculated using three main components: a probability of default (PD), a loss given default (LGD); and the exposure at default (EAD). For accounting purposes, the 12 month and lifetime PDs represent the probability of a default occurring over the next 12 months or the lifetime of the financial instruments, respectively, based on conditions existing at the balance sheet date and expected future economic conditions that affect credit risk.

The LGD represents losses expected on default, taking into account the mitigating effect of collateral, its expected value when realised and the time value of money and is discounted using the effective interest rate. The EAD represents the expected balance at default, taking into account the repayment of principal and interest from the balance sheet date to the default event together with any expected drawdown of a committed facility.

ECL is calculated by multiplying the PD (12 month or lifetime depending on the staging of the loan), LGD and EAD. In respect of TSB's mortgages and unsecured personal loans, ECL is calculated from the initial recognition of the loan for the maximum period that TSB is exposed to credit risk which takes into account expected customer repayment behaviour. In respect of revolving loans, such as overdrafts and credit cards, TSB's exposure to credit risk is not limited to the contractual period and the expected life is calculated based on the estimated behavioural life of the loan and associated undrawn facility which is currently ten years. The measurement of ECL also takes into account all reasonable and supportable information, including forward looking economic scenarios to calculate a probability weighted forward looking estimate.

(d) Derecognition of financial assets
Financial assets are derecognised when the contractual right to receive cash flows from those assets has expired or when TSB has transferred its contractual right to receive the cash flows from the assets and either (i) substantially all of the risks and rewards of ownership have been transferred; or (ii) TSB has neither retained nor transferred substantially all of the risks and rewards but has transferred control.

Where TSB enters into securitisation transactions to finance certain loans and advances to customers using a structured entity funded by the issue of debt, these loans and advances continue to be recognised, as TSB has not transferred substantially all the risks and rewards. A corresponding liability for the funding is also recognised.

Financial instruments sold under a repurchase agreement, under which substantially all the risks and rewards of ownership are retained by TSB, continue to be recognised on the balance sheet and the sale proceeds are recognised as a financial liability. The difference between the sale and repurchase price is recognised over the life of the agreement as interest expense using the effective interest method.

Notes to the consolidated financial statements

Loans and liquid assets (continued)

9. Allowance for credit impairment losses on financial assets at amortised cost

The following tables detail changes in the gross carrying value of loans and advances to customers and the allowance for credit impairment losses. In addition, the movement in expected credit loss provisions in respect of off balance sheet exposures is shown in note 30. For all other classes of financial assets to which TSB is exposed to credit risk (as listed in note 19(i) on page 87), expected credit losses have been assessed as immaterial.

	Stage 1		Stage 2		Stage 3		POCI [1]		Total	
TSB	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million
At 1 January 2019	26,678.8	(50.8)	2,877.9	(69.7)	398.3	(71.0)	190.0	(7.2)	30,145.0	(198.7)
Changes reflected in impairment losses:										
Increases due to originations	6,206.7	(23.3)	34.8	–	11.2	–	5.7	–	6,258.4	(23.3)
Decreases due to repayments	(4,400.8)	10.5	(612.7)	3.4	(72.4)	2.2	(34.4)	0.1	(5,120.3)	16.2
Changes in credit risk [2]	–	75.1	–	(82.5)	–	(23.7)	–	4.9	–	(26.2)
Amounts written off	(0.1)	–	(0.8)	0.7	(106.8)	68.3	–	–	(107.7)	69.0
Transfers between stages	(302.9)	(63.8)	150.7	87.3	152.2	(23.5)	–	–	–	–
To stage 1	3,433.0	(80.6)	(3,413.5)	77.4	(19.5)	3.2	–	–	–	–
To stage 2	(3,710.8)	16.2	3,784.3	(22.2)	(73.5)	6.0	–	–	–	–
To stage 3	(25.1)	0.6	(220.1)	32.1	245.2	(32.7)	–	–	–	–
At 31 December 2019	28,181.7	(52.3)	2,449.9	(60.8)	382.5	(47.7)	161.3	(2.2)	31,175.4	(163.0)
Transfers to credit impairment provisions (note 30)	**–**	**8.6**	**–**	**6.5**	**–**	**0.2**	**–**	**–**	**–**	**15.3**
Changes reflected in impairment losses:										
Increases due to originations	**7,594.3**	**(48.1)**	**80.0**	**(0.3)**	**15.5**	**–**	**6.3**	**–**	**7,696.1**	**(48.4)**
Decreases due to repayments	**(4,725.5)**	**16.9**	**(480.2)**	**4.0**	**(76.8)**	**2.5**	**(23.6)**	**–**	**(5,306.1)**	**23.4**
Changes in credit risk [2]	**–**	**30.1**	**–**	**(116.6)**	**–**	**(22.6)**	**–**	**(0.6)**	**-**	**(109.7)**
Amounts written off	**–**	**–**	**–**	**–**	**(67.0)**	**43.4**	**–**	**–**	**(67.0)**	**43.4**
Transfers between stages:	**(1,297.0)**	**(22.1)**	**1,151.7**	**48.0**	**145.3**	**(25.9)**	**–**	**–**	**–**	**–**
To stage 1	**3,469.8**	**(107.9)**	**(3,454.0)**	**104.9**	**(15.8)**	**3.0**	**–**	**–**	**–**	**–**
To stage 2	**(4,746.3)**	**85.2**	**4,824.3**	**(90.7)**	**(78.0)**	**5.5**	**–**	**–**	**–**	**–**
To stage 3	**(20.5)**	**0.6**	**(218.6)**	**33.8**	**239.1**	**(34.4)**	**–**	**–**	**–**	**–**
At 31 December 2020	**29,753.5**	**(66.9)**	**3,201.4**	**(119.2)**	**399.5**	**(50.1)**	**144.0**	**(2.8)**	**33,498.4**	**(239.0)**

(1) Purchased or originated as credit impaired.
(2) Includes changes to the allowance for credit impairment losses arising from stage transfers and other changes to risk parameters.

Impairment losses recognised in the income statement of £162.7 million comprise of changes in the impairment allowance reflected in the lines under the heading 'changes reflected in impairment losses' together with the net amounts written off as reflected in the table above. In addition, impairment losses includes the subsequent recovery of amounts previously written off and other amounts charged directly to the income statement.

Gross loans balances increased by £2,323.0 million to £33,498.4 million. This was driven by secured (retail) lending which increased by £1,601.2 million reflecting strong trading performance, particularly in the second half of 2020 following lower levels of activity in the first half due to the initial COVID-19 lockdown restrictions. In addition, business banking increased by £584.1 million, primarily due to lending through the Bounce Back Loan Scheme. Growth in unsecured balances was more muted, increasing £137.7 million, reflecting lower demand as consumers reduced spending during 2020.

Stage 1 gross loans increased by £1,571.8 million reflecting the increase described above partially offset by a net transfer of £1,297.0 million to stages 2 and 3. This reflected the deterioration in the economic outlook from COVID-19. Gross transfers from stage 1 to stage 2 of £4,746.3 million reflect the initial impact of COVID-19. This was partially offset by balances transferring back from stage 2 to stage 1 in the second half of the year as customer behaviour and economic forecasts settled and the effect of the change to the thresholds for assessing significant increase in credit risk, as described on page 77. Determining the threshold between stage 1 and 2 requires judgment in assessing significant increase in credit risk as also described on page 77.

Stage 2 balances increased by £751.5 million reflecting the net transfers in from stage 1, partially offset by ongoing customer repayments of balances. Stage 3 balances increased by £17.0 million reflecting the deteriorating economic environment in 2020 but this was largely offset by loan balances written off and customer repayments.

Gross loans written off during 2020 of £67.0 million (2019: £107.7 million) continue to be subject to the right to undertake enforcement activities, despite there being no realistic prospect of recovery.

Notes to the consolidated financial statements

Loans and liquid assets (continued)

9. Allowance for credit impairment losses on financial assets at amortised cost (continued)

The tables below set out movements analysed between TSB's mortgage portfolios and other lending classes.

	Stage 1		Stage 2		Stage 3		POCI		Total	
Secured (retail)	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million	Gross Loans £ million	Allow. for credit impair-ment losses £ million
At 1 January 2019	25,202.3	(17.6)	2,250.9	(4.4)	287.3	(7.5)	189.8	(7.0)	27,930.3	(36.5)
Changes reflected in impairment losses:										
Increases due to originations	5,823.1	(18.3)	6.3	–	3.0	–	3.4	–	5,835.8	(18.3)
Decreases due to repayments	(4,054.6)	9.7	(425.6)	0.8	(62.8)	1.0	(32.0)	–	(4,575.0)	11.5
Changes in credit risk	–	12.8	–	(7.7)	–	(1.4)	–	4.9	–	8.6
Amounts written off	–	–	–	–	(1.9)	–	–	–	(1.9)	–
Transfers between stages	(223.4)	(2.9)	145.3	3.8	78.1	(0.9)	–	–	–	–
To stage 1	2,776.5	(5.6)	(2,762.9)	5.5	(13.6)	0.1	–	–	–	–
To stage 2	(2,990.1)	2.7	3,055.7	(3.9)	(65.6)	1.2	–	–	–	–
To stage 3	(9.8)		(147.5)	2.2	157.3	(2.2)	–	–	–	–
At 31 December 2019	26,747.4	(16.3)	1,976.9	(7.5)	303.7	(8.8)	161.2	(2.1)	29,189.2	(34.7)
Transfers to credit impairment provisions (note 30)	**–**	**–**	**–**	**–**	**–**	**0.1**	**–**	**–**	**–**	**0.1**
Changes reflected in impairment losses:										
Increases due to originations	**6,164.0**	**(32.4)**	**13.1**	**(0.3)**	**6.0**	**–**	**4.5**	**–**	**6,187.6**	**(32.7)**
Decreases due to repayments	**(4,193.9)**	**15.9**	**(317.1)**	**1.3**	**(53.0)**	**2.3**	**(21.9)**	**–**	**(4,585.9)**	**19.5**
Changes in credit risk	**–**	**10.3**	**–**	**(5.3)**	**–**	**0.1**	**–**	**(0.7)**	**–**	**4.4**
Amounts written off	**–**	**–**	**–**	**–**	**(0.5)**	**–**	**–**	**–**	**(0.5)**	**–**
Transfers between stages:	**(943.7)**	**11.9**	**867.3**	**(8.0)**	**76.4**	**(3.9)**	**–**	**–**	**–**	**–**
To stage 1	**2,667.8**	**(7.8)**	**(2,656.9)**	**7.5**	**(10.9)**	**0.3**	**–**	**–**	**–**	**–**
To stage 2	**(3,607.4)**	**19.6**	**3,679.7**	**(21.3)**	**(72.3)**	**1.7**	**–**	**–**	**–**	**–**
To stage 3	**(4.1)**	**0.1**	**(155.5)**	**5.8**	**159.6**	**(5.9)**	**–**	**–**	**–**	**–**
At 31 December 2020	**27,773.8**	**(10.6)**	**2,540.2**	**(19.8)**	**332.6**	**(10.2)**	**143.8**	**(2.8)**	**30,790.4**	**(43.4)**

Unsecured and business banking	**£ million**	**£ million**	**£ million**	**£ million**	**£ million**	**£ million**	**£ million**	**£ million**	**£ million**	**£ million**
At 1 January 2019	1476.5	(33.2)	627.0	(65.3)	111.0	(63.5)	0.2	(0.2)	2,214.7	(162.2)
Changes reflected in impairment losses:										
Increases due to originations	383.6	(5.0)	28.5	–	8.2	–	2.3	–	422.6	(5.0)
Decreases due to repayments	(346.2)	0.8	(187.1)	2.6	(9.6)	1.2	(2.4)	0.1	(545.3)	4.7
Changes in credit risk	–	62.3	–	(74.8)	–	(22.3)	–	–	–	(34.8)
Amounts written off	(0.1)	–	(0.8)	0.7	(104.9)	68.3	–	–	(105.8)	69.0
Transfers between stages:	(79.5)	(60.9)	5.4	83.5	74.1	(22.6)	–	–	–	–
To stage 1	656.5	(75.0)	(650.6)	71.9	(5.9)	3.1	–	–	–	–
To stage 2	(720.7)	13.5	728.6	(18.3)	(7.9)	4.8	–	–	–	–
To stage 3	(15.3)	0.6	(72.6)	29.9	87.9	(30.5)	–	–	–	–
At 31 December 2019	1,434.3	(36.0)	473.0	(53.3)	78.8	(38.9)	0.1	(0.1)	1,986.2	(128.3)
Business banking portfolio(1)	**(118.1)**	**1.7**	**(9.6)**	**0.7**	**(3.5)**	**0.8**	**-**	**-**	**(131.2)**	**3.2**
Unsecured - at 1 January 2020	**1,316.2**	**(34.3)**	**463.4**	**(52.6)**	**75.3**	**(38.1)**	**0.1**	**(0.1)**	**1,855.0**	**(125.1)**
Transfers to credit impairment provisions	**–**	**8.3**	**–**	**6.4**	**–**	**0.1**	**–**	**–**	**–**	**14.8**
Changes reflected in impairment losses:										
Increases due to originations	**708.0**	**(13.1)**	**10.8**	**–**	**7.0**	**–**	**1.8**	**–**	**727.6**	**(13.1)**
Decreases due to repayments	**(357.3)**	**1.0**	**(143.8)**	**2.6**	**(20.9)**	**0.1**	**(1.7)**	**–**	**(523.7)**	**3.7**
Changes in credit risk	**–**	**8.2**	**–**	**(96.9)**	**-**	**(22.7)**	**–**	**0.1**	**–**	**(111.3)**
Amounts written off	**–**	**–**	**–**	**–**	**(66.2)**	**43.4**	**–**	**–**	**(66.2)**	**43.4**
Transfers between stages:	**(271.2)**	**(21.2)**	**204.4**	**42.7**	**66.8**	**(21.5)**	**–**	**–**	**–**	**–**
To stage 1	**676.5**	**(81.8)**	**(672.1)**	**79.5**	**(4.4)**	**2.3**	**–**	**–**	**–**	**–**
To stage 2	**(931.5)**	**60.1**	**936.6**	**(63.7)**	**(5.1)**	**3.6**	**–**	**–**	**–**	**–**
To stage 3	**(16.2)**	**0.5**	**(60.1)**	**26.9**	**76.3**	**(27.4)**	**–**	**–**	**–**	**–**
Unsecured - At 31 December 2020	**1,395.7**	**(51.1)**	**534.8**	**(97.8)**	**62.0**	**(38.7)**	**0.2**	**–**	**1,992.7**	**(187.6)**

(1) Business banking is presented as a separate class of financial instrument in 2020.

Notes to the consolidated financial statements

Loans and liquid assets (continued)

9. Allowance for credit impairment losses on financial assets at amortised cost (continued)

During 2020, the business banking portfolio increased significantly as a result of lending under the Bounce Back Loan Scheme. Given the different risk characteristics in this portfolio relative to the unsecured portfolios, business banking is considered to be a separate asset class of financial instrument and movements during 2020 in gross loans and allowances have been presented separately.

	Stage 1		Stage 2		Stage 3		POCI		Total	
Business banking	**Gross Loans £ million**	**Allow. for credit impair-ment losses £ million**	**Gross Loans £ million**	**Allow. for credit impair-ment losses £ million**	**Gross Loans £ million**	**Allow. for credit impair-ment losses £ million**	**Gross Loans £ million**	**Allow. for credit impair-ment losses £ million**	**Gross Loans £ million**	**Allow. for credit impair-ment losses £ million**
At 31 December 2019	118.1	(1.7)	9.6	(0.7)	3.5	(0.8)	–	–	131.2	(3.2)
Transfers to credit impairment provisions	**–**	**0.3**	**–**	**0.1**	**–**		**–**	**–**	**–**	**0.4**
Changes reflected in impairment losses:										
Increases due to originations	**722.3**	**(2.6)**	**56.1**	**–**	**2.5**	**-**	**–**	**–**	**780.9**	**(2.6)**
Decreases due to repayments	**(174.3)**	**–**	**(19.3)**	**0.1**	**(2.9)**	**0.1**	**–**	**–**	**(196.5)**	**0.2**
Changes in credit risk	**–**	**11.6**	**-**	**(14.4)**	**–**	**–**	**–**	**–**	**–**	**(2.8)**
Amounts written off	**–**	**–**	**–**	**–**	**(0.3)**	**–**	**–**	**–**	**(0.3)**	**–**
Transfers between stages:	**(82.1)**	**(12.8)**	**80.0**	**13.3**	**2.1**	**(0.5)**	**–**	**–**	**–**	**–**
To stage 1	**125.5**	**(18.3)**	**(125.0)**	**17.9**	**(0.5)**	**0.4**	**–**	**–**	**–**	**–**
To stage 2	**(207.4)**	**5.5**	**208.0**	**(5.7)**	**(0.6)**	**0.2**	**–**	**–**	**–**	**–**
To stage 3	**(0.2)**	**–**	**(3.0)**	**1.1**	**3.2**	**(1.1)**	**–**	**–**	**–**	**–**
At 31 December 2020	**584.0**	**(5.2)**	**126.4**	**(1.6)**	**4.9**	**(1.2)**	**–**	**–**	**715.3**	**(8.0)**

As described on page 77, a post model adjustment (PMA) of £2.3 million was recognised in the impairment allowance in relation to Bounce Back Loan Scheme loans underwritten in the year where it has been assessed that there is a possibility TSB will not be able to call on the government guarantee. This reflects a risk that there may be additional Bounce Back Loan exposures where TSB might not be able to call on the government guarantee. TSB has sought to mitigate this risk through a number of internal actions which include scheme eligibility assessments for individual loans and proactive discussions with the British Business Bank.

Significant estimates - measurement uncertainty and sensitivity analysis of expected credit losses
The measurement of the allowance for credit impairment losses is complex and involves the use of significant judgement and estimation uncertainty as follows:

- Estimation uncertainty from the use of multiple forward-looking economic scenarios and associated weightings;
- Judgements required to adjust modelled outcomes to reflect where they are not considered to fully capture expected credit losses (referred to as PMAs); and
- Judgements required to assess when a financial asset has experienced a significant increase in credit risk.

Forecast economic scenarios
TSB currently uses four economic scenarios, representative of management's view of forecast economic conditions. Key scenario assumptions are set internally for GDP, house prices, unemployment and interest rates. The forecast for GDP is compared with data published by the Bank of England and other external sources to ensure the scenarios are free from bias and reflect independent external information.

Severe downside scenarios, when considered appropriate, are typically aligned with those used for ICAAP purposes and are considered to be tail risk scenarios, used to capture non-linearity in expected credit losses. This is where the relationship of credit losses to the relevant economic variables which influence credit losses (e.g. house prices or unemployment) is such that each unit of change in an economic variable does not lead to a uniform change in expected credit losses. For example, credit losses in secured portfolios may remain subdued in an environment where house prices exhibit only a small decrease. However, after a certain level of house price fall credit losses would be forecast to increase more meaningfully where collateral values fall below the level of the customer loan.

Scenarios and associated weightings are reviewed monthly by an internal forum and updated, as necessary, to enable significant developments to be taken into account in measuring credit impairment provisions. The scenarios and weightings are presented quarterly for review and approval for use by the Audit Committee.

Notes to the consolidated financial statements

Loans and liquid assets (continued)

9. Allowance for credit impairment losses on financial assets at amortised cost (continued)

Judgements required in assessing post model adjustments
At 31 December 2020, the allowance of £239.0 million (2019: £163.0 million) included PMAs of £41.2 million (2019: £57.6 million) as shown in the table below:

	2020 £ million	2019 £ million
COVID-19 related (consumer behaviour)	**38.0**	–
Impairment default triggers	**14.7**	17.4
Model performance	**19.9**	16.8
Operational matters	**13.0**	23.4
Economic scenarios	**(11.2)**	–
Bounce Back Loan Scheme	**(33.2)**	–
Total	**41.2**	57.6

The suite of methodologies used to calculate PMAs are grounded in similar principles to those adopted for the core impairment models, with the inputs and PMA methodologies subject to regular oversight and PMA outputs reviewed in a consistent manner to the output from the core impairment models. The key categories of PMAs are as follows:

- COVID-19 related PMAs capture the increased risk of credit losses in all portfolios arising from changes in consumer behaviour which have not been considered in conditioning the impairment models. For example, circumstances, such as customer repayment holidays, static bureau data reporting, and associated exclusion from forbearance classifications, together with changes in customer spending patterns are changing the indicators of underlying credit risk but are not being captured by the impairment models.

- Impairment default trigger PMAs primarily reflect management's judgement that impairment models do not fully capture the risks of credit losses arising from interest only mortgage redemptions and certain mortgage customer's current affordability benefitting from low interest rates.

- Model performance PMAs capture adjustments for known weaknesses in the impairment models for secured (retail) and unsecured portfolios. These have been temporarily remediated through PMAs until a rebuild of the model or model component can be completed and implemented within the core ECL model framework.

- PMAs to address operational matters have reduced significantly in 2020 reflecting the clearance of historical, migration related delays to unsecured loan charge offs and the adoption, during 2020, of updated house price indexation data.

- The economic scenarios PMA was required to reflect late changes in economic scenarios that took account of Brexit negotiations and COVID-19 developments in the finalisation of the approved economic scenarios and associated weightings, as described starting on page 74.

- A PMA to reduce the modelled allowance for credit impairment losses by £35.5 million in respect of Bounce Back loans was required as the government guarantee is not a feature of the associated business banking loss given default model. This was partially offset by a £2.3 million PMA that increased the impairment allowance to reflect the risk of reduced recovery under the government guarantee arising from potential deficiencies in operational processes.

Judgements required in assessing significant increase in credit risk
TSB's policy for determining when a financial asset has experienced a significant increase in credit risk is explained on page 68. In applying this policy, the key judgement is the level of increase in the residual lifetime probability of default (PD) as compared to the equivalent position at the origination of the financial asset. At 31 December 2020, secured (retail) loans were considered to have experienced a significant increase in credit risk (and be in stage 2) when the residual lifetime PD had increased by a factor of 2 times the origination PD and the increase was between 10bps and 410bps (2019: 10bps). In addition, the threshold was 2 times the origination PD and the increase was between 250bps and 770bps (2019: 30bps-100bps) for unsecured and more than 50bps for business banking. In assessing the appropriateness of this judgement, management applied a framework that considers a number of quantitative factors, including the accuracy of the thresholds and their predictive ability. In the light of analysis undertaken during 2020, changes in thresholds resulted in £578.6 million of gross loans being transferred from stage 2 to stage 1, together with the associated impairment allowance of £0.1 million.

Consistent with the COVID-19 related PMA described above, a PMA was applied to the modelled stage allocation of gross loans to capture the increased risk of credit losses arising from changes in consumer behaviour which have not been considered in conditioning the impairment models. This resulted in the transfer of £1,193.1 million of gross balances from stage 1 to stage 2 and £24.3 million from stage 2 to stage 3.

Notes to the consolidated financial statements

Income

We earn income in the form of interest that we receive on the loans we make to customers and from our liquidity portfolio and we pay interest to savings and bank account customers on the money they deposit with us and to providers of other forms of funding. We also earn other income in the form of fees and charges from the provision of banking services and commissions from the sale of certain third party products such as general insurance.

Accounting policies relevant to recognising income

(e) Interest income and expense

Financial instruments classified as amortised cost and fair value through other comprehensive income
Interest income and expense are recognised in the income statement for all interest-bearing financial instruments using the EIR method. The EIR method is a method of calculating the amortised cost of a financial asset or liability and of allocating the interest income or interest expense. The EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the instrument or, when appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability.

The effective interest rate is calculated on initial recognition of the financial asset or liability, estimating the future cash flows after considering all the contractual terms of the instrument but not future credit losses. The calculation includes all amounts paid or received by TSB that are an integral part of the overall return, direct incremental transaction costs related to the acquisition, issue or disposal of a financial instrument and all other premiums or discounts. Reversionary interest is not included in the assessment of the effective interest rate on secured products. Once a financial asset or a group of similar financial assets has been written down as a result of an impairment loss, interest income is recognised using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss (see accounting policy (c) on impairment of financial assets).

For financial assets, interest income is calculated by applying the effective interest rate to the gross carrying amount of the financial asset. There are two exceptions to this as follows:

(i) Interest income in respect of financial assets that have become credit impaired (stage 3) subsequent to their initial recognition is calculated by applying the effective interest rate to their amortised cost, net of expected loss provision; and

(ii) Interest income in respect of financial assets classified as purchased or originated credit impaired (POCI) is calculated by applying the original credit adjusted effective interest rate to the amortised cost of the financial asset.

Derivative financial instruments
Interest income and expense on derivative financial instruments in qualifying hedge accounting relationships, where the hedged item is a financial asset, is recognised in interest income. Where the hedged item is a financial liability, the derivative interest income or expense is recognised in interest expense. Interest income and expense on derivatives classified as held for trading is recognised in interest income.

(f) Other operating income
Other operating income, including fees and commissions, which are not an integral part of the EIR are generally recognised over time as the service is provided and TSB satisfies its performance obligations.

Renewal commission income is recognised when TSB satisfies its performance obligations under the relevant contract and management concludes that there is a high probability that there will be no significant reversal of the estimated income.

Notes to the consolidated financial statements

Managing financial risk (continued)

19. Credit risk (continued)

(iii) Collateral held as security for financial assets (continued)
TSB does not take physical possession of properties or other assets held as collateral and uses external agents to realise the value as soon as practicable to settle indebtedness. Any surplus funds are returned to the borrower or are otherwise dealt with in accordance with appropriate insolvency regulations. No collateral is held in respect of retail credit cards, overdrafts, or unsecured personal loans.

For business banking lending, collateral primarily consists of second charges over commercial and residential property. Where collateral is held, lending decisions are predominantly based on an obligor's ability to repay from normal business operations rather than reliance on any collateral provided. Collateral values are assessed at the time of loan origination and reassessed if there is observable evidence of distress of the borrower. In respect of the £576.8 million of Bounce Back loans, TSB benefits from a 100% guarantee from the British Business Bank.

Financial assets at fair value through profit or loss (not subject to expected credit loss requirements)
Derivative financial assets of £338.2 million (2019: £205.4 million) are largely cash collateralised interest rate swaps transacted through central clearing houses. The effect of the collateralisation is shown in note 22 under the heading 'Offsetting financial assets and financial liabilities'.

(iv) Forbearance and loan modifications
TSB operates a number of schemes to assist borrowers who are experiencing financial difficulties. Forbearance solutions may offer relief in the form of reductions to contractual payments including freezes to interest payments, and for customers who have longer term financial difficulties, term extensions and capitalisation of arrears. TSB applies the European Banking Authority definition of forbearance and at 31 December 2020, forborne loans were £301.3 million (2019: £301.8 million), of which £170.6 million (2019: £163.4 million) were credit impaired. At 31 December 2020, the allowance for loan losses held in respect of forborne loans was £26.3 million (2019: £20.2 million).

During 2020 gross balances of £14.7 million (2019: £12.9 million) in respect of unsecured loans were subject to modification of the original terms through the temporary freezing of customer interest obligations. At the time, the loans were categorised as either stage 2 or 3 and the allowance for expected credit losses was measured at lifetime expected credit loss. These resulted in modification losses of £0.8 million (2019: £0.7 million).

(v) COVID-19
In response to the COVID-19 pandemic, TSB introduced repayment holidays to enable customers to take a temporary break from making loan repayments where they are experiencing, or are reasonably expected to experience, payment difficulties caused by COVID-19. During the period of the repayment holiday, no further arrears are reported on customers' records although interest on the deferred payments continues to accrue.

At 31 December 2020, loans and advances to customers include £5,140.4 million (secured retail: £4,922.7 million, unsecured: £204.4 million and business banking: £13.3 million) where a repayment holiday had been granted in 2020 in response to the COVID-19 pandemic. Of this total £3,015.4 million were stage 1, £1,898.2 million were stage 2, and £226.8 million were stage 3.

At 31 December 2020, £411.5 million (secured retail: £371.8 million, unsecured: £26.4 million, and business banking: £13.3 million) relates to loans where the payment holidays remained in effect at the year end.

As repayment holidays are available to all customers impacted by COVID-19, and are not tailored to individual borrower circumstances, they are not included in the forbearance totals above.

As described on page 77, PMAs were applied to both the gross loan stage and the allowance for loan losses to reflect the increased risk of credit losses due to payment holidays.