

	2023		2022	
	+1 year	-1 year	+1 year	-1 year
Mortality rate				
UK (\$m)	(214) ²	212 ³	(191)	193
US (\$m)	(2)	2	(20)	20
Sweden (\$m)	(51)	51	(44)	44
Total (\$m)	(267)	265	(255)	257

¹ Rate of increase in pensions in payment follows inflation.

² Of the \$214m increase, \$108m is covered by the longevity swap.

³ Of the \$212m decrease, \$106m is covered by the longevity swap.

In consideration of current market conditions, additional sensitivities have been calculated for the UK and Sweden schemes for 2023. The effect on retirement benefit obligations of a 1.0% change in assumption is as follows: \$525m (UK) and \$210m (Sweden) if the discount rate is increased; \$(634)m (UK) and \$(254)m (Sweden) if the discount rate is decreased; \$(384)m (UK) and \$(240)m (Sweden) if the inflation rate is increased; and \$363m (UK) and \$201m (Sweden) if the inflation rate is decreased.

The sensitivity to the financial assumptions shown above has been estimated taking into account the approximate duration of the liabilities and the overall profile of the plan membership.

The inflation sensitivity allows for the impact of a change in inflation on salary increases and pension increases (where these assumptions are inflation-linked).

The salary increase sensitivity reflects the impact of an increase of only salary relative to inflation.

The sensitivity to the life expectancy assumption is estimated based on a revised mortality assumption that extends/reduces the current life expectancy by one year for a particular age.

23 Reserves

Retained earnings

The cumulative amount of goodwill written off directly to reserves resulting from acquisitions, net of disposals, amounted to \$595m (2022: \$591m; 2021: \$615m) using year end rates of exchange.

At 31 December 2023, 1,580,137 shares, at a cost of \$129m, have been deducted from Retained earnings (2022: 1,671,446 shares, at a cost of \$112m; 2021: 3,922,122 shares, at a cost of \$239m) to satisfy future vesting of employee share plans.

There are no significant statutory or contractual restrictions on the distribution of current profits of subsidiaries; undistributed profits of prior years are, in the main, permanently employed in the businesses of these companies. The undistributed income of AstraZeneca companies overseas might be liable to overseas taxes and/or UK taxation (after allowing for double taxation relief) if they were to be distributed as dividends (see Note 4).

	2023 \$m	2022 \$m	2021 \$m
Cumulative translation differences included within Retained earnings			
At 1 January	(3,694)	(1,934)	(1,143)
Foreign exchange arising on consolidation	608	(1,446)	(483)
Exchange adjustments on goodwill (recorded against other reserves)	4	(24)	(21)
Foreign exchange arising on designated liabilities in net investment hedges ¹	24	(282)	(321)
Fair value movements on derivatives designated in net investment hedges	44	(8)	34
Net exchange movement in Retained earnings	680	(1,760)	(791)
At 31 December	(3,014)	(3,694)	(1,934)

¹ Foreign exchange arising on designated liabilities in net investment hedges includes \$(57)m in respect of designated bonds and \$81m in respect of designated contingent consideration and other liabilities. The change in value of designated contingent consideration liabilities relates to \$82m in respect of BMS' share of Global Diabetes Alliance.

The cumulative loss with respect to costs of hedging is \$22m (2022: loss of \$3m; 2021: gain of \$4m) and the loss during the year was \$19m (2022: loss of \$7m; 2021: loss of \$6m).

The balance remaining in the foreign currency translation reserve from net investment hedging relationships for which hedge accounting no longer applied is a gain of \$527m. For further detail relating to hedging balances, please see the Hedge accounting section within Note 28, from page 200.

Other reserves

The other reserves arose from the cancellation of £1,255m of share premium account by the Company in 1993 and the redenomination of share capital of \$157m in 1999. The reserves are available for writing off goodwill arising on consolidation and, subject to guarantees given to preserve creditors at the date of the court order, are available for distribution.