Notes to the consolidated financial statements 31 December 2018

1. GENERAL INFORMATION

Temenos AG formerly named as 'Temenos Group AG' ('the Company') was incorporated in Glarus, Switzerland on 7 June 2001 as a stock corporation (Aktiengesellschaft). Since 26 June 2001 the shares of Temenos AG have been publicly traded on the SIX Swiss Exchange. The registered office is located at 2 Rue de L'Ecole-de-Chimie, 1205 Geneva, Switzerland.

Further to approval by the shareholders at the Annual General Meeting held on 15 May 2018, the Company's name was changed from 'Temenos Group AG' to 'Temenos AG'.

The Company and its subsidiaries (the 'Temenos Group' or the 'Group') are engaged in the development, marketing and sale of integrated banking software systems. The Group is also involved in supporting the implementation of the systems at various client locations around the world as well as in offering help desk support services to existing users of Temenos software systems. The client base consists of mostly banking and other financial services institutions.

These consolidated financial statements have been approved for issue by the Board of Directors on 12 February 2019.

2. ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ('IFRS'). The consolidated financial statements have been prepared under the historical cost convention, except where IFRS explicitly requires use of other values.

The preparation of financial statements in conformity with the IRFS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estates are significant to the consolidated financial statements, are disclosed in note 4.

Standards, amendments and interpretations relevant to the Group's operation and adopted by the Group as at 1 January 2018

IFRS 9 ' Financial instruments '

As of 1 January 2018, the Group has adopted IFRS 9 'Financial Instruments'. This new standard replaces the existing guidance in IAS 39 'Financial Instruments: Recognition and Measurement' and introduces revised guidance on the classification, recognition, derecognition and measurement of financial assets and financial liabilities as well as a new expected credit losses model for calculating impairment on financial assets measured at amortized cost. It also introduces new rules for hedge accounting. The Group has applied the modified retrospective approach so that prior periods need not to be restated and the effect of the initial application was recognized as an adjustment to the opening retained earnings. For hedge accounting, the Group applied this standard prospectively.

Other then the new disclosure requirements and the rename of the classification categories, the adoption of the new standard had no effect on the Group's policies related to the measurement of the Group's financial instruments.

The following table presents the reclassification of financial instruments on adoption of IFRS 9 at 1 January 2018.

Reclassifications of financial instruments on adoption of IFRS 9 at 1 January 2018

	Measurement category	
	Original (IAS 39)	**New IFRS 9**
FINANCIAL ASSETS		
Cash and cash equivalents	Loans and receivables/Amortized cost	Amortized cost
Trade and other receivables	Loans and receivables/Amortized cost	Amortized cost
Derivatives instruments held for trading	Fair value through profit or loss (FVTPL)	Fair value through profit or loss (FVTPL)
Derivatives instruments used for hedging	Fair value through profit or loss (FVTPL)	Fair value through profit or loss (FVTPL)
FINANCIAL LIABILITIES		
Trade and other payables	Amortized cost	Amortized cost
Borrowings	Amortized cost	Amortized cost
Derivatives instruments held for trading	Fair value through profit or loss (FVTPL)	Fair value through profit or loss (FVTPL)
Derivatives instruments used for hedging	Fair value through profit or loss (FVTPL)	Fair value through profit or loss (FVTPL)

The Group has elected to adopt the new standard for hedge accounting. As the hedging relationships that were existing at the initial application met the requirements according to IFRS 9, the adoption of the standard had no effect in the Group's financial statements and policies.

The effect of introduction of the expected credit loss impairment model on opening retained earnings was not significant, since the Group's historical default rate due to credit risk was rather limited in light of its customer profile.

Notes to the consolidated financial statements 31 December 2018 continued

2. ACCOUNTING POLICIES CONTINUED

2.1 Basis of preparation continued

IFRS 15 'Revenue from contracts with Customers'

As of 1 January 2018, IFRS 15 'Revenue from contracts with Customers' has come in to effect. The new standard replaces IAS 18 'Revenue', IAS 11 'Construction Contracts' and IFRIC 13 'Customer Loyalty Programmes'. It establishes principles for recognizing, measuring and reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. Under IFRS 15, revenue from contracts with customers is recognized based on a five-step model and the transaction price is allocated to each distinct performance obligation on the basis of the relative stand-alone selling prices. Revenue is no longer recognized upon the transfer of risks and rewards but when or as performance obligations are satisfied by transferring control of a promised good or service to a customer. The standard also provides guidance on the treatment of any costs to obtain and/or fulfill a contract that may be recognized as assets.

The Group has adopted IFRS 15 effective 1 January 2018 applying the modified retrospective application, and chose to apply IFRS 15 on all contracts that are not completed at date of initial application. The Group also elected the practical expedient to apply the contract modifications guidance to contract modification that occur before the date of initial application. Following the adoption of the new standard, the Group has updated its accounting policies for revenue recognition detailed on note 2.17.

The transition effect into the new revenue recognition standard is accounted by recognizing the cumulative effect of initially applying the standard as an opening balance sheet adjustment to equity at 1 January 2018 without any adjustment to prior year comparative information and it's continued to be reported under IAS 18. The cumulative effect of policy change was a reduction of equity of USD 3.8 million (net of tax).

The following are the main areas which has an impact on application of IFRS 15:

> Subscription software contracts are currently recognized rateably over the life of the contract. Following adoption of IFRS 15, the Group will separate out the revenue due under licensing performance obligations and the revenue due under maintenance service obligations. The revenue due under licensing performance obligations will be recognized at the point control of the software is transferred to the client. The revenue due under maintenance service obligations will be recognized rateably over the life of the contract. In effect, the total amount of revenue from subscription contracts has not changed, only the pattern of recognition of revenue over the term of contract has been modified.

> With the change in subscription software contracts, financing has become a factor in a small number of contracts where the financing component is considered significant to the value of that contract. Under IFRS 15 if some of the consideration for a performance obligation is due greater than 1 year from the point the performance obligation was satisfied, then financing is to be assessed. If the financing is a significant component then the total transaction price is discounted and the difference is recorded as an interest income.

> Non-generic development fees were previously recognized on a percentage of completion basis. Under IFRS 15, licensed development revenue is recognized upon delivery of the software, with any costs incurred to fulfill the contract to be deferred until the relevant revenue is recognized. This results in some deferral of development revenue recognition and associated cost.

> Under IFRS 15 standard optional additional copies of the software, renewals and additional modules or products might give rise to a material right. In these cases a performance obligation for the material right is identified and consideration allocated, based on standalone selling price, is assigned to the performance obligation. The transaction price allocation to the material right is then recognized as revenue once the option is exercised or lapsed. Under our current accounting policies, such options do not have an impact on the amount or pattern of revenue recognized.

> Under IAS 18, the Group would consider all amounts in a contract that are contractually fixed when making the initial revenue recognition assessment. IFRS 15 requires the assessment of potential variable consideration from the outset, which could include such items as right of refund, credits, price concessions, performance bonuses and penalties. This results in deferral of revenue previously recognized.

The following tables summarizes the impact of adopting IFRS 15 on the Group's consolidated statement of profit and loss for year ended 31 December 2018 and statement of financial position as at 31 December 2018 for each of the lines affected.

Impact on the Group's consolidated statement of profit or loss for year ended 31 December 2018

	As reported USD 000	Impact of IFRS 15 USD 000	Amounts without adoption of IFRS 15 USD 000
Software licensing	341,555	(34,130)	307,425
SaaS & subscription	31,265	44,235	75,500
Total software licensing	**372,820**	**10,105**	**382,925**
Maintenance	314,353	(6,832)	307,521
Services	153,688	2,472	156,160
Total revenues	**840,861**	**5,745**	**846,606**
Operating expenses	(622,091)	(4,733)	(626,824)
Operating profit	**218,770**	**1,012**	**219,782**
Finance cost – net	(23,369)	–	(23,369)
Profit before taxation	**195,401**	**1,012**	**196,413**
Taxation	(27,173)	(88)	(27,261)
Profit for the period	**168,228**	**924**	**169,152**

Impact on Group's consolidation statement of financial position as at 31 December 2018

	As reported USD 000	Impact of IFRS 15 USD 000	Amounts without adoption of IFRS 15 USD 000
Current Asset			
Trade and other receivables	283,395	5,515	288,910
Deferred tax assets	17,663	(525)	17,138
Current liabilities			
Deferred revenues	262,861	908	263,769
Deferred tax liabilities	37,594	(596)	36,998
Equity			
Retained earnings	740,748	4,678	745,426

IFRS 2 (standard) 'Share-based Payment', effective for annual periods beginning on or after 1 January 2018. This amendment provides additional guidance on the accounting for cash-settled share-based payments and add an exception that provides equity-settled accounting where the settlement of share-based payment awards is split between equity instruments issued to the employee and a cash payment to the tax authorities. This amendment did not have any impact on the Group's financial statements since the Group's share-base payment transactions are all qualified as equity settled share-based payments. The Group has applied the amendment for the financial reporting period commencing on 1 January 2018.

IFRIC 22 (new interpretation) 'Foreign Currency Transactions and Advance Consideration', effective for annual periods beginning on or after 1 January 2018. This Interpretation clarifies how to determine the date of the transaction for the purpose of determining the exchange rate to use on initial recognition of the related asset, expense or income (or part of it) on the derecognition of a non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration in a foreign currency. This interpretation did not have any impact on the Group's financial statements since the Group already measure the derecognition of its related non-monetary asset or non-monetary liability in accordance with rules of this new interpretation. The Group has applied this amendment for the financial reporting period commencing on 1 January 2018.

Standards, amendments and interpretations relevant to the Group's operation that are not yet effective and have not been early adopted by the Group

The following standards and amendments have been published and are mandatory for the Group's accounting periods beginning on or after 1 January 2019 or later periods, but the Group has not early adopted them. Unless otherwise indicated, these publications are not expected to have any significant impact on the Group's financial statements:

IFRS 16 (standard) 'Leases', effective for annual periods beginning on or after 1 January 2019 and replaces IAS 17 'Leases'.

The Group adopted the standard per its effective date of 1 January 2019, using modified retrospective approach.

IFRS 16 primarily changes lease accounting for leases. Lease agreements will give rise to recognition of an asset representing the right to use the leased asset and an obligation for future lease payables. The Group has identified all the leases that are currently in use and majority of these leases are for office rentals.

Application of IFRS 16, will result in an increase in non-current assets of USD 47-50 million and borrowings of USD 52-55 million with a reduction in equity of less than USD 3 million. It would be accounted as an adjustment to the opening balance of retained earnings. The Group does not expect a significant impact on net profit in 2019 however, there will be a reallocation of its current operating lease expense between operating profit and financing expenses.

The Group will take exemptions to elect not to apply IFRS 16 requirements to short term leases and low value leases.

In applying IFRS 16 for the first time, the Group has used the following practical expedients permitted by the standard:

> accounting for operating leases with remaining lease term of less than 12 months as at 1 January 2018 as short term leases
> the exclusion of initial direct cost for the measurement of the right-of-use-asset at the date of initial application

IFRIC 23 (interpretation) 'Uncertainty over Income tax Treatments', effective for annual periods beginning on or after 1 January 2019. The interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of IAS 12. The interpretation does not apply to taxes or levies outside the scope of IAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The Group does not expect this amendment to have an significant impact on the Group financial statements. The Group will apply this amendment for the financial reporting period commencing on 1 January 2019.

IAS 19 (amendment) 'Employee benefit' effective for annual periods beginning on or after 1 January 2019. The amendment provides guidance in connection with accounting for plan amendment, curtailments and settlements. The amendment requires use of current assumptions to determine service cost and to remeasure its net defined benefit liability or asset when a plan event such as amendment, curtailments or settlement occurs. The Group will apply this amendment for the financial reporting period commencing on 1 January 2019.

IFRS 9 (amendment) 'Financial instruments', effective for annual periods beginning on or after 1 January 2019, with earlier application permitted. This amendment enables entities to measure at amortized cost some prepayable financial assets with negative compensation. The Group will apply this amendment for the financial reporting period commencing on 1 January 2019.

Notes to the consolidated financial statements 31 December 2018 continued

2. ACCOUNTING POLICIES CONTINUED

2.1 Basis of preparation continued

Standards, amendments and interpretations relevant to the Group's operation that are not yet effective and have not been early adopted by the Group continued

2015-2017 cycle annual improvements (amendments), effective for annual periods beginning on or after 1 January 2019. The Group will apply these amendments for the financial reporting period commencing on 1 January 2019.

IFRS 3 (amendment) 'Business combination', effective for annual periods beginning on or after 1 January 2020. The amendment clarifies the definition of a business and also permit a simplified assessment of whether an acquired set of activities and assets is merely a group of assets rather than a business. The Group will apply the new definition of business to assess any future acquisitions by the Group. The Group will apply this amendment for the financial reporting period commencing on 1 January 2020.

IAS 1 'Presentation of financial statements' and IAS 8 'Accounting policies, changes in accounting estimates and errors' (amendment), effective for annual period beginning on or after 1 January 2020. This amendment clarifies the definition of material and its application by aligning the wording of definition of material across all IFRS standards. This amendment would assist the Group to make materiality judgments going forward. The Group will apply this amendment for the financial reporting period commencing on 1 January 2020.

2.2 Basis of consolidation

The consolidated financial statements include the financial statements of Temenos AG ('the Company') as well as its subsidiaries.

Subsidiaries

Subsidiaries are all entities (including structured entities) over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date when control ceases.

The acquisition method of accounting is used to account for the acquisition of subsidiaries by the Group. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interest issued by the Group. The consideration transferred also includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. On an acquisition-by-acquisition basis, the Group recognizes any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

Goodwill is measured as the excess of the aggregate of the consideration transferred and the fair value of non-controlling interest over the fair value of the identifiable assets acquired and liabilities and contingent liabilities assumed. If the consideration is lower than the fair value of the net assets acquired, the difference is recognized in profit or loss.

Any contingent consideration is recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration is recognized in profit or loss in accordance with IAS 39 'Financial Instruments: Recognition and Measurement'. Contingent consideration that is classified as equity is not remeasured, and its subsequent settlement is accounted for within equity.

Changes in ownership interests in subsidiaries without loss of control

Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions. The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets is recorded in equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

Disposal of subsidiaries

When the Group ceases to have control, any retained interest in the entity is remeasured to its fair value, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income are reclassified to profit or loss.

2.3 Foreign currency

Items included in the financial statements of each of the Group's subsidiaries are measured using the currency of the primary economic environment in which the entity operates (the 'functional currency'). The consolidated financial statements are presented in US dollars, which is the Group's presentation currency and the currency in which the majority of the Group's transactions are denominated. The Company's functional currency is Swiss francs.

Transactions in foreign currencies are translated into the respective functional currencies using the exchange rates prevailing at the dates of the transactions. When the Group pays or receives consideration in advance in foreign currency the date of transactions is the date when the consideration is realized. Foreign exchange differences arising from the settlement of such transactions and from the translation at the reporting date of monetary assets and liabilities denominated in foreign currencies are recognized in profit or loss, except when deferred in equity as qualifying cash flow hedges and qualifying net investment hedges.

The financial statements of the Group's subsidiaries (none of which has the currency of a hyperinflationary economy) with a different functional currency than the presentation currency are translated as follows:

- Assets and liabilities are translated at the closing rate at the date of the reporting period;
- Income and expenses for each statement presenting profit or loss and other comprehensive income are translated on a monthly basis at the average exchange rates of the month (unless the average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of the transactions);
- Equity items are translated at the historical rates; and
- All resulting exchange differences are recognized in other comprehensive income.

When a foreign operation is partially disposed of or sold, exchange differences that were recorded in equity are recognized in profit or loss as part of the gain or loss on sale.

Gains or losses resulting from long term intragroup balances for which settlement is neither planned nor likely to occur in the foreseeable future are treated as a net investment in foreign operations (i.e. quasi-equity loans). The gains or losses recognized in the separate financial statements of the subsidiary are reclassified as cumulative translation adjustment to other comprehensive income in the Group's consolidated financial statements.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the acquired entity. They are recognized in the functional currency of the acquired entity and translated to the presentation currency using the closing rate.

2.4 Cash and cash equivalents

Cash and cash equivalents includes cash on hand, bank current accounts, time deposits and short term highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and subject to negligible risks of change in value.

As the Group's objective and business model are to hold this asset to collect the contractual cash flows, cash and cash equivalents are initially measured at fair value and subsequently measured at amortized costs.

Cash and cash equivalents are subject to the impairment requirements of IFRS 9. Since this asset is substantially held with reputable major institutions with an 'investment grade' or similar rating and the period over which the Group is exposed is very short, the Group applies the low credit risk option and, therefore, the Group allocates this asset to the stage 1 of the credit loss model. Loss allowance is then measured at an amount equal to 12-month expected credit losses.

2.5 Trade and other receivables

Trade receivables and contract assets

Trade receivables are recognized initially at the transaction price or at fair value if they contain a significant financing components. They are subsequently measured at amortized cost using the effective interest method as the Group's objective and business model are to hold this asset to collect the contractual cash flows.

Contract assets represents consideration which is conditional upon factors other then passage of time. They are initially recognized and subsequently measured as per the provisions of IFRS 15.

The Group applies the IFRS 9 simplified approach to measure expected credit losses which uses lifetime expected credit loss allowance for all trade receivable including trade receivable with significant financing components, and contract assets. The Group exercises judgment in determining expected credit loss allowance. In this judgment, the Group identifies default rate by analyzing the historical experience with credit losses, considering it to represent a reasonable approximation for future expected defaults and apply to the current receivables. The Group also takes into consideration forward looking factors, including changes in the overall economic environment or changes in regulation and if material reflects these in the expected credit loss allowance.

A credit impairment is recognized when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of the receivable. Evidence of impairment includes significant financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganization.

The carrying amount of the asset is either reduced through the use of an allowance account or directly written off when there is no expectation of future recovery. The expense from expected credit loss allowance as well as from credit impaired debtors is recognized in profit or loss within 'Sales and marketing'. Subsequent recoveries are credited in the same account previously used to recognize the impairment charge.

Non-current trade receivables represent balances expected to be recovered after 12 months.

Other receivables

Other receivables include other receivables (financial assets) and other assets (non-financial assets).

Other receivables (financial assets) represent receivables raised from transactions outside the ordinary activities of the Group.

As the Group's objective and business model are to hold this type of asset to collect the contractual cash flows, they are initially measured at fair value and subsequently measured at amortized costs. Interest income, foreign exchange gain or loss and impairment are recognized in profit or loss within 'Finance costs-net'.

When the impact of applying the effective interest method is not significant, the gross carrying amount equals to the contractual amount or the fair value at initial recognition.

Balances to be collected after 12 months from the reporting period are presented as non-current.

The Group applies the same impairment policy that are used to measure the expected credit loss for its trade receivables.

Other assets (non-financial assets) primarily represent prepayments, contract costs according to IFRS 15 and statutory accruals. They are reported as current assets.

2.6 Property, plant and equipment

Property, plant and equipment is stated at historical cost less accumulated depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the item. Depreciation on assets is calculated using the straight-line method to allocate their cost over their estimated useful lives, as follows (in years):

Buildings	50
Furniture and fixtures	10
Office equipment	5
IT equipment*	4
Vehicles	4

* Computer software separately acquired is depreciated over the shorter of the license term and four years.

Leasehold improvements are depreciated over the shorter of the remaining lease term and useful life (ten years).

The assets' residual values and useful lives are reviewed and adjusted if necessary at each reporting date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Repairs and maintenance are charged to profit or loss as incurred.

Gains or losses on disposals are determined by comparing the consideration received or receivable with the carrying amount and are recognized within 'General and administrative' in profit or loss unless otherwise specified.

Notes to the consolidated financial statements 31 December 2018 continued

2. ACCOUNTING POLICIES CONTINUED

2.7 Intangible assets

Goodwill

Goodwill arises on the acquisition of subsidiaries and represents the excess of the consideration transferred and the amount of any non-controlling interest in the acquiree over the fair value of the identifiable assets acquired and liabilities and contingent liabilities assumed. Goodwill on acquisitions of subsidiaries is included in intangible assets.

Goodwill is tested annually for impairment. The carrying amount is allocated to the cash-generating unit (CGU) that is expected to benefit from the synergies of the business combination. CGU to which the Goodwill is allocated represents the lowest level at which the goodwill is monitored for internal management purposes. The carrying value of the CGU is then compared to the higher of its fair value less costs of disposal and its value in use. Any impairment attributed to the goodwill is recognized immediately as an expense and is not subsequently reversed.

Computer software

Software licenses separately acquired are capitalized when the Group can demonstrate that:

- It controls the asset;
- It is probable that the expected future economic benefits that are attributable to the asset will flow to the Group; and
- The cost of the asset can be reliably measured.

The cost of the asset comprises its purchase price (including non-refundable purchase taxes) and any directly attributable cost of preparing the asset for its intended use. The cost of the asset is amortized using the straight-line method over its estimated useful life.

Software technologies acquired through business combinations are initially measured at fair value and then amortized using the straight-line method over their estimated useful lives.

Customer-related intangible asset

Customer-related intangible assets are assets acquired through business combinations. They are initially measured at fair value and then amortized using the straight-line method over their estimated useful lives. The assessment of useful life is set out at the time of acquisition, specific for each acquisition. Currently reported customer-related intangible asset have useful life between 6 and 13 years.

Internally generated software development

The Group follows a strategy of investing a substantial part of its revenues in research and development work which is directed towards the enhancement of its product platforms.

The costs associated with the development of new or substantially improved products or modules are capitalized when the following criteria are met:

- Technical feasibility to complete the development;
- Management intent and ability to complete the product and use or sell it;
- The likelihood of success is probable;
- Availability of technical and financial resources to complete the development phase;
- Costs can be reliably measured; and
- Probable future economic benefits can be demonstrated.

Directly attributable development costs that are capitalized include the employee costs and an appropriate portion of relevant overheads. Directly attributable development costs previously recognized as an expense are not recognized as an asset in a subsequent period.

Development expenditures that are not directly attributable are recognized as an expense when incurred.

Internally generated software development costs are amortized using the straight-line method after the product is available for distribution. Development costs related to architecture developments are amortized over a five-year period and development costs related to functional developments are amortized over a three year period.

2.8 Impairment of non-financial assets

Assets that have an indefinite useful life are not subject to amortization and are tested annually for impairment. Assets that are subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount, which is the higher of an asset's fair value less costs to sell and value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows. Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.

2.9 Taxation

The tax expense for the period comprises current and deferred tax. Tax is recognized in profit or loss, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case the tax is also recognized in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the reporting date in the countries where the Group's subsidiaries and associates operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognized, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the Group's financial statements. However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the reporting date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

Deferred income tax is provided on temporary differences arising on investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes assets and liabilities relate to income taxes levied by the same taxation authority on either the taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

The Group incurs withholding tax in various jurisdictions. An assessment is made to assess the ability to recover these withholding taxes against the normal tax liabilities occurring within the Group, and a provision is made to the extent that withholding tax is not recoverable.

2.10 Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount can be made. Where the Group expects a provision to be reimbursed, for example under an insurance contract, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain.

When the effect of the time value is material, provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognized as an interest expense within ‘Finance costs’.

A provision for restructuring is recognized when the Group has approved a detailed and formal restructuring plan, and the restructuring has either commenced or has been announced to those affected by it.

A provision for onerous lease is recognized when the expected benefits to be derived from a lease are lower than the unavoidable costs of meeting the obligations under the contract.

2.11 Borrowings

Borrowings are initially recognized at fair value, net of transaction costs incurred. Borrowings are subsequently measured at amortized cost. Effective interest costs are recognized within ‘Finance costs’ in profit or loss over the period of the relevant instrument.

Fees directly attributable to the establishment of a financing facility are recognized as a prepayment for liquidity services that is subsequently amortized within ‘Finance costs’ over the life of the instrument.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

2.12 Leases

Leases of property, plant and equipment where the Group has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalized at the lease’s commencement at the lower of the fair value of the leased equipment or the present value of the minimum lease payments. The corresponding rental obligations, net of finance charges, are included as liabilities in the statement of financial position. The interest elements of the lease obligations are charged to profit or loss over the period of the lease so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant and equipment acquired under finance leases are depreciated over the shorter of the useful life of the asset (note 2.6) and the remaining lease term.

All other leases are classified as operating leases. Payments made under operating leases are charged to profit or loss on a straight-line basis over the lease term.

2.13 Share capital

Ordinary shares are classified as equity.

Incremental costs directly attributable to the issue of new shares or other instruments are reported within share premium (note 24), net of tax, from the proceeds.

Where any subsidiary of the Group purchases the Company’s shares (treasury shares), the consideration paid (including any directly attributable incremental costs) is presented as a deduction from equity. Where such shares are subsequently sold or reissued, any consideration received (net of any directly attributable incremental transaction costs and the related income tax effects) is recognized as an increase in equity and the resulting gains or losses are presented within share premium (note 24).

2.14 Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities.

Trade payables are recognized initially at fair value and subsequently measured at amortized costs using the effective interest method. The related interest expense is recognized in profit or loss within ‘Finance costs’.

Notes to the consolidated financial statements 31 December 2018 continued

2. ACCOUNTING POLICIES CONTINUED

2.15 Employee share-based payments

The Group operates a number of equity-settled, share-based compensation plans, under which the entity receives services from employees as consideration for equity instruments of the Group. The fair value of the employee services received in exchange for the grant of the instruments is recognized as an expense. The total amount to be expensed is determined by reference to the fair value of the instrument granted:

> Including any market performance conditions;
> Excluding the impact of any service and non-market performance vesting conditions (for example, profitability, sales growth targets and remaining an employee of the entity over a specified time period).

Non-market vesting conditions are included in assumptions about the number of instruments that are expected to vest. The total expense is recognized over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied. At the end of each reporting period, the Group revises its estimates of the number of instruments that are expected to vest based on the non-market vesting conditions. It recognizes the impact of the revision to original estimates, if any, in profit or loss, with a corresponding adjustment to equity.

When the instruments are exercised, the Group issues new shares or re-issues treasury shares. The consideration received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium and capital reserves.

2.16 Employee benefits

Pension obligations

The Group operates various pension schemes including both defined benefit and defined contribution plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to the employee's service in the current and prior periods. A defined benefit plan is a pension plan that is not a defined contribution plan. Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognized in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligations at the end of the reporting period less the fair value of plan assets. The defined benefit obligations are calculated annually by actuaries using the projected unit credit method. The present value of the defined benefit obligations is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating to the terms of the related pension liability. For currencies where there is no deep market in such high quality corporate bonds, the market yields on government bonds that are consistent with the currency and the estimated terms of the post-employment benefit obligations shall be used.

When a surplus in a plan exists, the Group measures the net benefit asset at the lower of the surplus and the present value of the future economic benefits available to the Group in the form of a reduction in future contributions or a cash refund.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. Past-service costs are recognized immediately in profit or loss.

For defined contribution plans, the relevant contributions are recognized as personnel costs when they are due. Once the contributions have been paid, the Group has no further payment obligations. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

Other post-employment obligations

Some subsidiaries provide other post-retirement benefits to their retirees (e.g. gratuities). The entitlement of those benefits is usually conditional on the employee completing a specific length of service. The expected costs of these benefits are accrued over the period of employment using actuarial assumptions. Actuarial gains or losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognizes termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the entity recognizes costs for a restructuring that is within IAS 37 'Provisions, Contingent Liabilities and Contingent Assets' and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to their present value.

2.17 Revenue recognition

The Group derives revenue from following four main sources:

Software License

Software license revenues represent all fees earned from granting customers licenses to use the Group's software, either through an initial license or through the purchase of additional modules or user rights, but excludes any amounts that are related to maintenance. For software license arrangements that do not require significant modification or customization of the underlying software, revenue is recognized at the point the software is delivered, functional and control has been passed to the customer. Temenos includes software that is either sold on a term basis or perpetual basis and includes software licenses that are sold on a subscription payment basis. Software developments and customizations are included within this revenue line and are recognized when they meet the same criteria as the licensed software.

SaaS

Software as a Service (SaaS) revenue is earned through the use of Temenos software to provide a service to the customer, whereby the customer does not have the ability to take infrastructure of the software under a licensed arrangement. This includes the support and development of the software as well as the hosting infrastructure. The hosting infrastructure in the arrangement may be Temenos' own infrastructure or that of a third party hosting infrastructure that Temenos has engaged with.

Maintenance
Software maintenance is included in most software license arrangements and is generally priced as a percentage of the initial software license fees. Maintenance provides customers with rights to unspecified software product upgrades, maintenance enhancements and access to the help desk during the term of the support period and is recognized rateably on a straight-line basis over the term of the arrangement.

Services
Software implementation and support services represents income from consulting, training and implementation services sold separately under services contracts. Fixed-price arrangements are accounted for over time on a percentage-of-completion basis using the inputs method. Time and Material contracts are recognized as utilized by the client.

The IFRS 15 requires estimates and judgments to be made and consistently applied by the Group in accounting for the revenue from contracts with customers. The areas that require estimates and judgments by the Group are detailed below:

Identification of Contract
Temenos often enters in to multiple contracts with a customer and will assess these for the need to combine if the contracts are negotiated in and around the same time, are for the same economic purpose or are dependent upon one another.

Initial/master agreements often have additional purchases, addendum or terms modified throughout their term. At each point a contract is modified, Temenos assesses the contract under the standard to determine if modifications are treated as a modification or a separate contract.

Temenos makes an assessment initially to determine if the customer has the ability and intent to pay the consideration in the contract. Should Temenos determine the customer doesn't meet either of these criteria then Temenos does not believe it is in a position to recognize revenue from this contract until such a time as the customer has both the ability and intent or Temenos has been paid in full and has meet all of the performance obligations.

Identifying Performance Obligations
Temenos commonly sells clearly defined separate performance obligations as identified by the disclosed revenue streams. The significant judgment arises when developments and customizations are included and Temenos must determine if these significantly alter the functionality of the software licensed initially. If Temenos concludes the developments or customizations significantly modify the software licensed the performance obligations will be bundled as one performance obligation and recognized when the combined performance obligation complete, functional and complete.

Temenos often grants options to purchase additional products or services in its contracts with customers. These can be additional usage rights, renewals, products, modules or premium maintenance. Temenos assess each option to see if it provides that customer a material right. If a material right has been granted Temenos will identify this as a separate performance obligation and later in the revenue accounting process, allocate the appropriate consideration to the performance obligation.

Determining the Transaction Price
Judgment is required in assessing the total consideration that will be paid in exchange for the satisfied performance obligations. This includes not only assessing the variable amounts which may be included in the consideration but also assessing if any concessions, discounts or other variable factors may reduce the fixed fees in the contract. Temenos uses internal historical experiences as well as external factors in making the necessary estimates.

Allocating the Consideration to the Performance Obligation
Temenos applies the consideration based on a standalone alone selling price hierarchy. This hierarchy is based on priority being given to performance obligations that have a high level of externally observable inputs and not highly variable in price, such as implementation services. Low priority in the hierarchy is given to items that have little to no external comparability and have a highly variable selling price. Finally once all other performance obligations have been valued the residual is allocated to the licenses.

In addition, management exercises judgments with respect to the determination of the appropriate method to estimate the standalone selling price for the various performance obligations in a contract which eventually impacts the amount of revenue recognized in the consolidated financial statements for each performance obligation.

Temenos also use renewal rates, historical data and cost inputs to determine the standalone selling price and its position in the allocation hierarchy.

Standalone selling price of a material rights factor in the judgments about the likelihood of the customer taking up the option using historical data and the nature of the material right.

Timing of revenue recognition
Temenos recognizes all licensed software (available products, development or customizations) at a point in time when the software is delivered, functional and the customer has control. Control is primarily seen as the customer can take possession of the functional software and use it within the licensed usage rights.

SaaS is recognized over time starting from the point the service is made available to the customer to access the service.

Maintenance services are recognized over the period the service is provided on a straight-line basis. The standard maintenance offering is a stand ready obligation to provide technical support and unspecified updates, upgrades and enhancements on a when and if available basis. Customers simultaneously receive and consume the benefits of these support services as performed.

Professional services are recognized over time using a percentage of completion based on input method for the fixed price service offering. Temenos uses an inputs method aligned to milestones and the consideration recoverable.

Payment terms
In the majority of contracts with customers Temenos will look for payment upfront for the licensed software, payment annually in advance for the maintenance and SaaS contracts and Professional Services paid on set project milestones with a portion paid on contract signature.

Incremental Costs of Obtaining Customer Contracts
The assets recognized for the incremental costs to obtain a contract are predominantly made up of sales commissions earned by Temenos sales force in obtaining SaaS contracts. The asset is amortized over the life of the contract committed for by the customer as the commissions are driven by the commitment period.

Notes to the consolidated financial statements 31 December 2018 continued

2. ACCOUNTING POLICIES CONTINUED

2.17 Revenue recognition continued

Cost to fulfill a contract

The cost to fulfill a contract with a customer that are associated with customization developments are deferred on the balance sheet as work in progress until the development performance obligation is met, at which point the cost will recognized in line with the revenue.

Contract balances – Assets and Receivable

The Group classifies the right to consideration in exchange for products or services transferred to a client as either a receivable or a contract asset. A receivable is a right to consideration that is unconditional on factors other than passage of time whereas a contract asset is a right to consideration that is conditional upon other factors.

Contract assets represents revenue where the right to consideration is subject to future performance being satisfied such as the completion of milestones on service fixed price contracts or satisfaction of maintenance for future periods.

Deferred revenues

Deferred revenues (referred as 'Contract liabilities' as per IFRS 15 terminology) represents prepayment from clients for wholly unsatisfied or partially satisfied performance obligations mainly in relation to maintenance and SaaS contracts.

2.18 Earnings per share

Basic earnings per share is calculated by dividing the profit or loss attributable to equity holders of the Company by the weighted average number of ordinary shares outstanding during the year.

Diluted earnings per share are determined by dividing the profit or loss attributable to equity holders of the Company, adjusted for the effect that would result from the conversion of dilutive ordinary shares, by the weighted average number of ordinary shares plus the weighted average of number of ordinary shares that would be issued on the conversion of all the dilutive potential ordinary shares.

2.19 Segment reporting

Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Operating Decision Maker (CODM). The Chief Operating Decision Maker, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Group's Chief Executive Officer (CEO).

2.20 Other financial assets

Other financial assets include derivatives held with positive value and equity investments.

Other financial assets are initially recorded at fair value. Any transaction costs are expensed in profit or loss.

Regular way purchases and sales of financial assets are recognized on the trade-date, being the date on which the Group commits to purchase or sell the asset. Financial assets are derecognized when the rights to receive cash flows from the financial instruments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership.

Derivative assets held for trading

A derivative is held for trading if it is:

- Acquired or incurred principally for the purpose of selling or repurchasing it in the near-term;
- Not designated and effective hedging instrument.

While the objective of holding these assets was to provide effective economic hedges under the Group's risk management strategy, these derivatives are not designated as hedging instruments according to IFRS 9 since all relevant conditions are not met. Therefore, subsequent changes in the fair value are immediately recognized within 'Finance costs – net'. Related cash-flows are reported as cash flows from investing activities.

Derivatives held for trading are reported as a current assets.

Derivative assets used for hedging

Derivatives used for hedging are subsequently measured at fair value. Subsequent changes in fair value are accounted according to the provisions for hedge accounting in IFRS 9. They are reported as non-current assets when they are expected to be settled more than 12 months after the reporting period.

Equity investments

Equity instruments are subsequently measured at fair value with movements recorded either in profit or loss or in other comprehensive income for securities held as strategic investment that the Group irrevocably elects to classify as fair value through other comprehensive income (FVOCI) on the acquisition date.

For securities measured at FVOCI, there is no reclassification of the accumulated changes in fair value to profit or loss when the instrument is sold. Any distribution of dividend is recognized in profit or loss.

2.21 Other financial liabilities

Other financial liabilities include derivatives held with negative value.

At initial recognition, other financial liabilities are measured at fair value. Any transaction costs are expensed in profit or loss.

Derivative liabilities held for trading

A derivative is held for trading if it is:

- Acquired or incurred principally for the purpose of selling or repurchasing it in the near-term;
- Not designated and effective hedging instrument.

While the objective of holding these liabilities was to provide effective economic hedges under the Group's risk management strategy, these derivatives are not designated as hedging instruments according to IFRS 9 since all relevant conditions are not met. Therefore, subsequent changes in the fair value are immediately recognized within 'Finance costs – net'. Related cash-flows are reported as cash flows from investing activities.

Derivatives held for trading are reported as a current liabilities.

Derivative liabilities used for hedging

Derivatives used for hedging are subsequently measured at fair value. Subsequent changes in fair value are accounted according to the provisions for hedge accounting in IFRS 9. They are reported as non-current liabilities when they are expected to be settled more than 12 months after the reporting period.

2.22 Hedging activities

At inception of the hedge relationship, the Group documents the economic relationship between the hedging instrument and the hedged item, the risk management objective and strategy as well as the methodology to assess the hedge effectiveness requirements.

The Group does not currently apply fair value hedge or hedge of a net investment.

Cash flow hedge

In a cash flow hedge designation, the effective portion of change in fair value of the hedging instrument is recognized in other comprehensive income. The ineffective portion is immediately recognized in profit or loss.

Accumulated amounts deferred in other comprehensive income are reclassified to profit or loss in the periods when the hedged item affects profit or loss. However, when the forecast transaction results in the recognition of a non-financial asset or a non-financial liability (e.g. fixed assets, deferred revenue), the gains and losses previously deferred in other comprehensive income are removed to the initial cost of the asset or the carry amount of the liability.

When the Group separates the time value of an option, the forward element of a forward contract or the currency basis spread of a swap instrument from the designation of the hedging instrument, the movement in fair value of these elements are recognized in other comprehensive income as 'cost of hedging' to the extent they relate to the hedge item. The value that is priced into the instrument on the designation date is recognized in profit or loss or included in the initial cost or carry amount of a non-financial asset or liability either over the period of the hedging relationship if it is a 'time-period related' hedge or when the hedge item occurs for 'transaction related' hedge.

Hedge accounting is discontinued when the hedging instrument expires, or is sold or terminated, or when the risk management objective is no longer met. The amount accumulated in other comprehensive income remains in equity until the hedge item occurs. If there is no longer expectation that the forecast transaction will realize, the amount is immediately reclassified to profit or loss.

2.23 Fair value measurement

The Group measures certain financial instruments at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability; or
- In the absence of a principal market, in the most advantageous market for the asset or liability.

The principal market or the most advantageous market must be accessible to or by the Group.

The fair value of an asset or a liability is measured using similar inputs that the market participants would use when pricing the asset or liability and assuming that market participants act in their economic best interest.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the Group's consolidated financial statements are categorized within the fair value hierarchy, as follows:

- Level 1 inputs: Quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 inputs: Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly;
- Level 3 inputs: Inputs for the asset or liability that are not based on observable market data.

The Group's policy is to recognize transfers into and out of fair value hierarchy levels as at the end of the reporting period when the event or change in circumstances occurred.

For items categorized within level 3, the Group's finance team reviews the estimates and assumptions on a regular basis but, in all cases, at each interim period. Any changes that may have a significant effect on the reported fair value are reported to the management.

The Group has elected to use the exception provided by paragraph 48 of IFRS 13 'Fair Value Measurement' to measure the credit risk element attributable to the Group's own credit risk (net short position) or the counterparty's credit risk (net long position) on a net basis for the financial assets and financial liabilities governed by a master netting agreement.

Notes to the consolidated financial statements 31 December 2018 continued

2. ACCOUNTING POLICIES CONTINUED

2.24 Offsetting financial instruments

Financial assets and financial liabilities are offset and the net amount reported in the statement of financial position when, and only when, the Group:

> Currently has a legally enforceable right to set-off the financial assets and financial liabilities; and
> Intends either to settle on a net basis, or to realize the financial assets and settle the financial liabilities simultaneously.

A enforceable right to offset financial assets and financial liabilities must not be contingent on future event and must be currently legally enforceable in the normal course of business, in the event of default and in the event of insolvency or bankruptcy.

2.25 Dividend distribution

Dividend distribution to the Group's shareholders is recognized as a liability in the Group's financial statements in the period in which the dividends are approved by the Company's shareholders.

3. FINANCIAL INSTRUMENTS

3.1 Accounting classifications

The Group holds the following financial instruments to which the accounting policies according to IFRS 7 'Financial Instruments: Disclosures' apply:

As per IAS 39

	2017 USD 000
FINANCIAL ASSETS	
Fair value through profit or loss (FVTPL)	
Held for trading	2,464
Derivatives instruments used for hedging	1,664
Financial asset measured at amortized cost	418,877
Total	423,005
FINANCIAL LIABILITIES	
Fair value through profit or loss (FVTPL)	
Held for trading	1,298
Contingent consideration	–
Derivatives instruments used for hedging	29,638
Financial liabilities measured at amortized cost	561,713
Total	592,649

As per IFRS 9

	2018 USD 000
FINANCIAL ASSETS	
Financial asset measured at fair value through profit or loss (FVTPL)	**4,215**
Financial asset measured at fair value through other comprehensive income (FVOCI)	**15,000**
Derivatives instruments used for hedging	**2,787**
Financial asset measured at amortized cost	**562,339**
Total	**584,341**
FINANCIAL LIABILITIES	
Financial liabilities measured at fair value through profit or loss (FVTPL)	**1,087**
Derivatives instruments used for hedging	**20,532**
Financial liabilities measured at amortized cost	**974,597**
Total	**996,216**

3.2 Financial risk factors

The Group is exposed to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management policy focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial statements. The Group uses derivatives to hedge certain risk exposures.

Market risk

Market risk management is carried out by a central treasury team under policies and procedures approved by the management. The Group's risk policies are primarily set out to identify the source of the risks, to monitor the risks with clear sets of rules and controls and to establish strategies in order to protect the Group's financial statements against any adverse financial effect arising from these risks. The Group's policies and the related procedures are regularly updated to reflect changes in market conditions, Group activities and emergence of new risks. They are also regularly overseen by the Group's internal audit team for compliance as well as detection of control deficiency.

(i) Foreign exchange risk

The Group operates internationally and, therefore, is exposed to transactional foreign exchange risk in various currencies, primarily with respect to those described hereunder. Foreign exchange risk arises from:

> Forecast transactions denominated in a currency other than the entity's functional currency;
> Monetary assets and liabilities denominated in a currency other than the entity's functional currency.

The Group's policy is to protect its profit or loss from the variability in cash flows that is attributable to the movement in currencies associated with its forecast transactions and monetary assets and liabilities recognized in the statement of financial position. This is implemented by 1) aligning the revenue streams to currencies that match the cost base and 2) using derivatives to offset the change in value of the exposure.

The Group risk strategy is to continuously maintain its 12-18 month projection of future transactions within predetermined coverage parameters with a higher hedging ratio for front-loaded quarters. The hedging strategy is executed in layers and only for currencies for which the combination of exposure and volatility may have an adverse effect in the financial statements. The Group uses forward exchange contracts with maturities that are closely aligned to the dates when the forecast cash flows are expected to realize.

Except for maintenance revenue for which the effective portion of the hedge become part of the carrying amount reported in 'Deferred revenues' line, forecast transactions are expected to be recognized in profit or loss during the same period as the hedging instrument.

The Group hedges the EUR/CHF currency risk arising from a bond issued in 2015 with a cross currency swap. It applies cash flow hedge accounting for this hedging relationship.

Unless already designated in a hedging relationship, the Group risk strategy is to hedge material currency exposure arising from monetary assets and liabilities using forward exchange contracts with maturities not exceeding three months. The Group does not apply hedge accounting for this economic hedging relationship.

For all the hedging relationships where hedge accounting is applied, the hedge effectiveness is tested every quarter or upon a significant change in the assumptions. The existence of an economic relationship between the hedge item and the hedging instrument is assessed using either the 'critical term match' method or the 'dollar offset' method when the terms of the hedging instrument do not perfectly match the terms of the hedged item. Possible source of ineffectiveness may arise from 1) increase in credit risk from the derivative counterparty or 2) change in the timing of the cash flow realization of the forecast transaction.

Since the critical terms of the hedging instrument closely match those of the hedge items, the Group applies a hedge ratio of 1:1.

The Group is also exposed to foreign currency risk arising from the translation of its foreign operations in USD dollars, but it does not hold any derivatives to manage the exposure as there is no intention to divest any of it subsidiaries.

The table below illustrates the Group's most sensitive currency exposures:

	Net exposure	
	2018 FCY* 000	2017 FCY* 000
Euro	**3,891**	284
UK pounds	**(6,606)**	3,716
Swiss francs	**(8,788)**	(390)
India rupee	**(187,215)**	(116,866)

* Foreign currency.

A negative value represents a liability exposure.

These exposures represent monetary assets and liabilities, including derivatives held for trading, that are either:

> Denominated in one of the currencies above and measured in an entity with a different functional currency; or
> Denominated in another currency but measured in an entity whose functional currency is one of the above,

and that are not part of an existing cash flow hedge relationship.

Notes to the consolidated financial statements 31 December 2018 continued

3. FINANCIAL INSTRUMENTS CONTINUED

3.2 Financial risk factors continued

Sensitivity analysis

The following table represents the effect of a reasonable shift in the currencies above against the US dollars.

2018	Euro USD 000	UK pounds USD 000	Swiss francs USD 000	India rupee USD 000
Sensitivity assumption	+10%	+10%	+10%	+10%
Profit or (loss)	455	(827)	(884)	(268)
Other comprehensive income:				
Cash flow hedging related to forecast transaction	(4,574)	867	1,492	2,748
Cash flow hedging related to long-dated liability	(2,228)	–	1,568	–
	(6,802)	867	3,060	2,748
Equity	**(6,347)**	**40**	**2,176**	**2,480**
Sensitivity assumption	-10%	-10%	-10%	-10%
Profit or (loss)	(455)	827	884	268
Other comprehensive income:				
Cash flow hedging related to forecast transaction	4,574	(867)	(1,492)	(2,748)
Cash flow hedging related to long-dated liability	2,228	–	(1,568)	–
	6,802	(867)	(3,060)	(2,748)
Equity	**6,347**	**(40)**	**(2,176)**	**(2,480)**

2017	Euro USD 000	UK pounds USD 000	Swiss francs USD 000	India rupee USD 000
Sensitivity assumption	+10%	+10%	+10%	+10%
Profit or (loss)	34	501	(40)	(183)
Other comprehensive income:				
Cash flow hedging related to forecast transaction	(4,001)	1,471	1,352	1,793
Cash flow hedging related to long-dated liability	1,278	–	1,551	–
	(2,723)	1,471	2,903	1,793
Equity	(2,689)	1,972	2,863	1,610
Sensitivity assumption	-10%	-10%	-10%	-10%
Profit or (loss):	(34)	(501)	40	183
Other comprehensive income:				
Cash flow hedging related to forecast transaction	4,001	(1,471)	(1,352)	(1,793)
Cash flow hedging related to long-dated liability	(1,278)	–	(1,551)	–
	2,723	(1,471)	(2,903)	(1,793)
Equity	2,689	(1,972)	(2,863)	(1,610)

Given the volatility of these currencies, the current economic environment and the foreign exchange market conditions, these sensitivity assumptions represent management's assessment of reasonably possible changes in spot rates.

(iii) Cash flow and fair value interest risk

The Group is exposed to cash flow interest rate risks arising from cash and cash equivalents and borrowings at variable rates.

The Group is not exposed to fair value risk arising from its fixed rate borrowings since they are measured at amortized cost.

The Group's policy is to protect its profit or loss from the variability in cash flows that is attributable to the movement in interest rates from its financial instrument at floating rates. When the risk is deemed to be substantial, the Group enters into derivatives to hedge the exposure and hedge accounting is applied when all relevant conditions are met. At the reporting periods, no hedges were in place as the Group's exposure was not material.

Credit risk

Credit risk is the risk of financial loss to the Group if a customer to a financial instrument fails to meet its contractual obligations, and arises principally from the Group's trade receivables.

The carrying amount of the financial assets, as reported in section 3.1 above, represents the maximum credit exposure.

Trade receivables and contract assets

The Group determines the creditworthiness of any prospective or existing customers at the initial phase of each bid process. Assessment of credit risk is mainly based on assessing the creditworthiness of customers through external ratings, and in the case of existing customers, our past experience.

If a company is unrated, then historical payment experience, if available, together with country stability is taken into consideration to assess the credit risk.

Every credit check performed on prospective or existing customers at the initial phase of the negotiation goes through an approval process. The credit rating is taken into account during the revenue recognition process once contracts are signed.

Payment terms and requirement of financial security are adapted according to the degree of the credit quality and the past experience. At present, the Group does not hold any collateral security.

The Group assesses the credit risk for customers with significant balances on a regular basis.

In cases when delinquency in payments occurs, the Group may withhold services delivery under current implementation or limit the right to use its software.

As at 31 December 2018 and 2017, there is no geographical concentration of credit risk as the Group's customer base is internationally dispersed and no individual customer represents more than 10% of the Group's outstanding 'Trade receivables and contract assets' balances.

The Group performs impairment analysis using default rate to measure expected credit loss for all trade receivable including with significant financing components, and contract assets. The Group identifies the default rate by analysing the historical and current experience with credit losses, considering it to represent a reasonable approximation for future expected defaults and apply to the current receivables. The Group also takes into consideration forward looking factors, including changes in the economic environment or changes in regulation and if material reflects these in the expected credit loss allowance.

A credit impairment is recognized when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of the receivable. Evidence of impairment includes severe financial difficulties of the debtor, probability that the debtor will enter bankruptcy or financial reorganization.

At 31 December 2018, the credit risk exposure on the Group's trade receivables and contract assets is as follows:

	2018 **USD 000**
Expected credit loss rate	2.13%
Gross carrying amount for trade receivables and contract assets	268,179
Provision for credit losses	**5,710**

As disclosed in note 2.1, the Group's exposure to credit risk from balances due from its customers is limited. Therefore, the Group has applied the expected credit loss rate calculated above to the overall receivable and contract asset balances without using a grouping criteria and hence a provision matrix is not presented for disclosure purposes.

Refer to note 14 for the movement in the loss allowance in respect of trade receivables and contract assets.

Financial instruments and cash deposits

The Group mitigates the counterparty risk related to cash and cash equivalents and derivative financial instruments by holding balances with major reputable financial institutions.

Credit risk related to derivative financial instruments is also mitigated by legally enforceable master netting agreements such as ISDAs or equivalent.

Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due.

The Group's policy is to maintain a level of liquidity that meets its future financial outcome expected to be settled in the short or near term, under both normal and stressed conditions. Excess of liquidity is primarily used to repay any drawn borrowing facilities (note 19) and then invested in highly liquid instruments with maturities of three months or less.

The Group's treasury team manages the liquidity and funding risk by seeking to align the maturity profile of its financial assets with its financial liabilities. The Group's net debt and liquidity position are monitored through rolling forecasts on the basis of future cash flows.

Notes to the consolidated financial statements 31 December 2018 continued

3. FINANCIAL INSTRUMENTS CONTINUED

3.2 Financial risk factors continued

Liquidity risk continued

The following table details the remaining contractual maturity of the Groups' non-derivative financial liabilities. The amounts disclosed in the table are the contractual undiscounted cash flows.

	Less than 6 months USD 000	Between 6 and 12 months USD 000	Between 1 and 2 years USD 000	Between 2 and 5 years USD 000	More than 5 years USD 000
At 31 December 2018					
Trade and other payables	146,838	13,042	–	–	–
Property provision	58	323	261	–	–
Borrowings	310,648	3,380	9,655	380,953	155,104
Total non-derivatives financial liabilities	**457,544**	**16,745**	**9,916**	**380,953**	**155,104**

	Less than 6 months USD 000	Between 6 and 12 months USD 000	Between 1 and 2 years USD 000	Between 2 and 5 years USD 000	More than 5 years USD 000
At 31 December 2017					
Trade and other payables	110,102	11,138	–	–	–
Property provision	51	–	238	–	–
Borrowings	2,089	6,335	110,916	198,208	159,058
Total non-derivatives financial liabilities	**112,242**	**17,473**	**111,154**	**198,208**	**159,058**

The following table details the Groups' liquidity analysis for its derivative financial liabilities. These amounts represent the contractual undiscounted net cash inflows and outflows on derivative instruments that settle on a net basis, and the undiscounted gross inflows and outflows on those derivatives that require gross settlement. When the amount payable or receivable is not fixed, the amount disclosed has been determined by reference to quoted prices in active markets for identical instruments.

	Less than 3 months USD 000	Between 3 and 6 months USD 000	Between 6 and 12 months USD 000	Between 1 and 2 years USD 000	Between 2 and 5 years USD 000	More than 5 years USD 000
At 31 December 2018						
Cross currency swaps	–	2,215	–	2,215	18,278	–
Outflow foreign exchange derivatives	80,584	4,686	5,708	–	–	–
Inflow foreign exchange derivatives	(79,566)	(4,524)	(5,292)	–	–	–
Net settled foreign exchange derivatives	493	62	115	221	–	–
Total derivatives	**1,511**	**2,439**	**531**	**2,436**	**18,278**	**–**

	Less than 3 months USD 000	Between 3 and 6 months USD 000	Between 6 and 12 months USD 000	Between 1 and 2 years USD 000	Between 2 and 5 years USD 000	More than 5 years USD 000
At 31 December 2017						
Cross currency swaps	–	2,436	–	2,436	27,698	–
Outflow foreign exchange derivatives	70,935	17,514	16,122	4,228	–	–
Inflow foreign exchange derivatives	(69,307)	(16,860)	(15,300)	(4,095)	–	–
Net settled foreign exchange derivatives	110	–	–	–	–	–
Total derivatives	**1,738**	**3,090**	**822**	**2,569**	**27,698**	**–**

3.3 Capital risk management

The Group's principal objective when managing capital is to safeguard the Group's ability to continue as a going concern, so that it can continue to provide returns for shareholders and benefits for other stakeholders. The Group is also subject to financial covenants under its financing agreements. These covenants require the Group to remain within certain thresholds used for calculating financial ratios that are primarily based on financial indebtedness, EBITDA and interest expenses.

The capital structure of the Group consists of the net debt (note 13) and the capital and reserves attributable to equity holders of the parent.

The capital risk management policy remains unchanged from the previous period.

3.4 Fair value measurement

The following table provides the level of the fair value hierarchy within which the carrying amounts of the financial assets and liabilities measured at fair value are categorized.

Year ended 31 December 2018	Level 1 USD 000	Level 2 USD 000	Level 3 USD 000	Total USD 000
Financial assets at FVTPL				
Forward foreign exchange contracts (note 15)	–	4,215	–	4,215
Derivatives used for hedging				
Forward foreign exchange contracts (note 15)	–	2,787	–	2,787
Financial assets at FVOCI				
Equity securities	–	–	15,000	15,000
Total	**–**	**7,002**	**15,000**	**22,002**

	Level 1 USD 000	Level 2 USD 000	Level 3 USD 000	Total USD 000
Financial liabilities at FVTPL				
Forward foreign exchange contracts (note 15)	–	1,087	–	1,087
Derivatives used for hedging				
Forward foreign exchange contracts (note 15)	–	1,360	–	1,360
Cross currency swaps (note 15)	–	19,172	–	19,172
Total	**–**	**21,619**	**–**	**21,619**

Year ended 31 December 2017	Level 1 USD 000	Level 2 USD 000	Level 3 USD 000	Total USD 000
Financial assets at FVTPL				
Forward foreign exchange contracts (note 15)	–	2,464	–	2,464
Derivatives used for hedging				
Forward foreign exchange contracts (note 15)	–	1,664	–	1,664
Total	**–**	**4,128**	**–**	**4,128**

	Level 1 USD 000	Level 2 USD 000	Level 3 USD 000	Total USD 000
Financial liabilities at FVTPL				
Forward foreign exchange contracts (note 15)	–	1,298	–	1,298
Derivatives used for hedging				
Forward foreign exchange contracts (note 15)	–	2,017	–	2,017
Cross currency swap (note 15)	–	27,621	–	27,621
Total	**–**	**30,936**	**–**	**30,936**

There were no transfers between Level 1 and 2 in the current and prior periods.

Assets and liabilities in level 2

Forward foreign exchange contracts:

Discounted cash flow method: The fair value represents the future cash flows that are discounted using a risk-free yield curve adjusted for credit risk. The future cash flows is determined using forward exchange rates at the balance sheet date.

Cross currency swaps:

Discounted cash flow method: The future cash flows are discounted using the interest yield-curve attributable to each currency (including the currency basis spreads). The fair value of the leg measured in foreign currency is translated using the spot exchange rate.

There were no changes in valuation techniques during the period.

Notes to the consolidated financial statements 31 December 2018 continued

3. FINANCIAL INSTRUMENTS CONTINUED

3.4 Fair value measurement continued

Assets and liabilities in level 3

Equity investments:

Discounted cash flow model: The fair value represents the financial projection provided by the company discounted at a risk adjusted rate of 11%. Since the acquisition of the equity securities occurred towards the end of the period, the change in fair value was deemed to be zero.

Material change in the parameters and assumptions used in the financial projection would not significantly change the fair value of the investment.

Reconciliation from the opening balances to the closing balances

	Equity Securities USD 000	Contingent Consideration USD 000
At 1 January 2017	–	1,542
Amount reversed within 'Cost of Sales'	–	(1,598)
Earn out true-up to 'Cost of Sales'	–	31
Unwinding of discount to 'Finance costs' (note 11)	–	25
At 31 December 2017	–	–
Purchase (note 15)	15,000	–
At 31 December 2018	**15,000**	**–**

3.5 Hedging

At the reporting dates, the Group did not apply any fair value hedge or hedge of a net investment.

At 31 December 2018 the Group held the following derivatives as hedging instruments.

	Time band		
	1-6 months USD 000	6-12 months USD 000	More than one year USD 000
Foreign currency risk			
Financial assets			
Forward exchange contracts:			
Nominal amount expressed in USD equivalent	28,474	19,881	6,055
USD/CHF VWAP*	0.97	0.93	0.96
GBP/USD VWAP*	1.35	1.41	–
USD/INR VWAP*	70.23	72.45	77.06
USD/RON VWAP*	3.99	3.98	4.17
Financial liabilities			
Forward exchange contracts:			
Nominal amount in USD equivalent	24,279	19,899	3,604
EUR/USD VWAP*	1.23	1.22	1.20
Cross currency swaps			
Nominal amount in USD equivalent			13,848
EUR/CHF VWAP*			1.03

* Volume weighted average price.

Since the critical terms of the hedging instruments closely match those of the hedge items, the Group applies a hedge ratio of 1:1.

The effect of hedge accounting on the financial position and performance

The table below shows the effect on the financial statements from the items designated as hedged items and hedging instruments.

Items designated as hedging instrument

	Carrying amount			
Year ended 31 December 2018	Assets USD 000	Liabilities USD 000	Line item in the statement of financial position	Change in value used to determine hedge ineffectiveness USD 000
Foreign exchange risk				
Cash flow hedges				
Forward exchange contracts	2,787	1,360	Other financial assets and liabilities (note 15)	4,740
Cross currency swaps	–	19,172	Other financial assets and liabilities (note 15)	8,449

Items designated as hedge item

Year ended 31 December 2018	Change in value used to determine hedge ineffectiveness USD 000	Cash flow hedge reserve USD 000
Cash flow hedges		
Foreign exchange risk		
Forecast transactions	4,740	1,427
Borrowings	8,449	19,172

Note 25 provides details on change in fair value and amount reclassified to profit or loss by risk category.

There was no ineffectiveness recognized during the period (2017: USD nil).

The Group does not have any forecast transaction for which cash flow hedge accounting had been used in previous period, but which is no longer expected to occur.

3.6 Offsetting financial assets and financial liabilities

Derivatives transactions entered into by the Group are governed by ISDAs or equivalent. Such agreements permit the Group for net settlement with the same counterparty in the normal course of business and, also, give the right to set-off exposure with the same counterparty in the event of default, insolvency or bankruptcy of either the entity or the counterparty.

The Group has a set-off agreement with one of its Partners. Under the terms of this agreement, all amounts payable are offset against receivables and the net amount are settled between the parties.

Year ended 31 December 2018	Gross amount USD 000	Amount set-off USD 000	Amount reported USD 000	Amount not set off USD 000	Net amount USD 000
Financial assets					
Trade receivables and contract assets (note 14)	265,627	(3,158)	262,469	–	262,469
Derivatives financial assets (note 15)	7,002	–	7,002	(2,342)	4,660
Total	**272,629**	**(3,158)**	**269,471**	**(2,342)**	**267,129**
Financial liabilities					
Trade payables (note 18)	34,041	(3,158)	30,883	–	30,883
Derivatives financial liabilities (note 15)	21,619	–	21,619	(2,342)	19,277
Total	**55,660**	**(3,158)**	**52,502**	**(2,342)**	**50,160**

Notes to the consolidated financial statements 31 December 2018 continued

3. FINANCIAL INSTRUMENTS CONTINUED

3.6 Offsetting financial assets and financial liabilities continued

Year ended 31 December 2017

	Gross amount USD 000	Amount set-off USD 000	Amount reported USD 000	Amount not set off USD 000	Net amount USD 000
Financial assets					
Trade receivables (note 14)	85,929	(1,450)	84,479	–	84,479
Derivatives financial assets (note 15)	4,128	–	4,128	(2,146)	1,982
Total	**90,057**	**(1,450)**	**88,607**	**(2,146)**	**86,461**
Financial liabilities					
Trade payables (note 18)	26,362	(1,450)	24,912	–	24,912
Derivatives financial liabilities (note 15)	30,936	–	30,936	(2,146)	28,790
Total	**57,298**	**(1,450)**	**55,848**	**(2,146)**	**53,702**

4. CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates may differ from the actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

Critical accounting estimates and assumptions

Impairment of goodwill

The Group tests annually whether goodwill has suffered any impairment in accordance with the accounting policy stated in note 2.8. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of estimates (note 17).

If the future sales and the size of the market opportunities are significantly lower than management's estimates the carrying value of goodwill may need to be reduced accordingly. However, unless any downturn is particularly severe and pervasive, it is unlikely to have a material impact on the carrying value of goodwill.

At 31 December 2018 the carrying amount of the goodwill amounts to USD 628.6 million (2017: USD 521.7 million).

Deferred income taxes

The Group recognizes deferred tax assets on carried forward losses and other temporary differences. The amount recognized is based on management's estimates and assumptions with regards to the availability of future taxable profits at the subsidiaries where the carried forward losses or temporary differences exist.

At 31 December 2018 the carrying amount of the deferred tax asset amounts to USD 17.7 million (2017: USD 21.9 million).

Critical judgments in applying the Group's accounting policies

Revenue recognition

As detailed in note 2.17, the Group is required to make an assessment for each new software license contract as to whether the underlying software requires significant modification or customization by the Group in order to meet the customer's requirements. If significant modification or customization is required, then the license fee is recognized at the point in time when all developments and customizations are complete, functional and delivered to the customer. However, the majority of such modifications or customizations have not been deemed significant in current or prior periods.

Under IFRS 15, the collection of cash is addressed from the outset, if Temenos doesn't believe the customer has the ability or intent to pay the consideration promised for the performance obligations then Temenos is not in possession of a contract and revenue recognition can not commence. If there is doubt about the sum of consideration to be paid then this is addressed under variable consideration. This is addressed under step three of the revenue recognition model 'understanding the consideration in the contract'. Both of these require judgment to be applied by Temenos.

In addition, management exercises judgments with respect to the determination of the appropriate method to estimate the standalone selling price for the various performance obligations in a contract which eventually impacts the amount of revenue recognized in the consolidated financial statements for each performance obligation.

In respect of services revenue, management exercises judgment in determining the percentage of completion, specifically with regards to the total mandays remaining to complete the implementation.

Internally generated software development

As detailed in note 2.7, the Group is required to make an assessment for each ongoing project in order to determine at what stage a project meets the criteria outlined in the Group's accounting policies. Such assessment may, in certain circumstances, require significant judgment. In making this judgment, the Group evaluates, amongst other factors, the stage at which technical feasibility has been achieved, management's intention to complete and use or sell the product, likelihood of success, availability of technical and financial resources to complete the development phase and management's ability to reliably measure the expenditure attributable to the project.
The total development expenses for the period was USD 229.5 million (2017: USD 203.2 million) and the total capitalized development costs was USD 52.6 million (2017: USD 50.5 million).

5. GROUP COMPANIES

The consolidated financial statements include the accounts of Temenos AG and the following entities as of 31 December 2018:

Company name	Country of incorporation	**2018 Ownership interest**	2017 Ownership interest
Amee Easy Software Solutions Pty Limited***	Australia	**0%**	100%
Amee Ip Holdings Pty Limited***	Australia	**0%**	100%
Avoka Technologies Pty Ltd*	Australia	**100%**	0%
Infinitive Pty Limited	Australia	**100%**	100%
Provisio Technologies Pty Limited***	Australia	**0%**	100%
Rubik Esop Trusco Pty Limited	Australia	**100%**	100%
Rubik Financial Technology Pty Limited***	Australia	**0%**	100%
Rubik Ip Holdings Pty Limited	Australia	**100%**	100%
Rubik Mortgages Pty Limited	Australia	**100%**	100%
Stargate Information Systems Pty Limited	Australia	**100%**	100%
Swift El-Ten Services Pty Limited***	Australia	**0%**	100%
Temenos Australia Pty Limited	Australia	**100%**	100%
Temenos Australia Financial Pty Limited	Australia	**100%**	100%
Temenos Australia Messaging Pty Limited	Australia	**100%**	100%
Temenos Australia Operations Pty Limited	Australia	**100%**	100%
Temenos Australia Services Pty Limited	Australia	**100%**	100%
Temenos Australia Technology Solutions Pty Limited	Australia	**100%**	100%
Temenos Solutions Australia Pty Limited	Australia	**100%**	100%
Temenos Belgium Sa	Belgium	**100%**	100%
Odyssey Financial Technologies S.a.	Belgium	**100%**	100%
Temenos Software Brasil Ltda	Brazil	**100%**	100%
Temenos Holdings Limited	British Virgin Islands	**100%**	100%
Temenos Bulgaria Eood	Bulgaria	**100%**	100%
Avoka Technologies Canada Inc.*	Canada	**100%**	0%
Temenos Canada Inc.	Canada	**100%**	100%
Igefi Canada Inc.**	Canada	**0%**	100%
Temenos Software Shanghai Co. Limited	China	**100%**	100%
Temenos Colombia Sas	Colombia	**100%**	100%
Temenos Costa Rica Sa	Costa Rica	**100%**	100%
Temenos (Russia) Limited	Cyprus	**100%**	100%
Temenos Middle East Limited	Cyprus	**100%**	100%
Temenos Denmark Aps	Denmark	**100%**	100%
Temenos Ecuador Sa	Ecuador	**100%**	100%
Temenos Egypt Llc	Egypt	**100%**	100%
Temenos France Sas	France	**100%**	100%
Temenos Holdings France Sas	France	**100%**	100%
Viveo Group Sas	France	**100%**	100%
Viveo France Sas	France	**100%**	100%
Igefi France Sarl	France	**100%**	100%
Avoka (Germany) Gmbh*	Germany	**100%**	0%
Odyssey Financial Technologies Gmbh	Germany	**100%**	100%
Temenos Deutschland Gmbh	Germany	**100%**	100%
Igefi Deutschland Gmbh	Germany	**100%**	100%
Temenos Hellas Sa	Greece	**100%**	100%
Avoka Hong Kong Ltd*	Hong Kong	**100%**	0%
Temenos Hong Kong Limited	Hong Kong	**100%**	100%
Igefi Hong Kong Limited	Hong Kong	**100%**	100%
Temenos India Private Limited	India	**100%**	100%
Financial Objects Software (India) Private Limited**	India	**0%**	100%
Igefi Software India Private Limited**	India	**0%**	100%
Temenos Systems Ireland Limited	Ireland	**100%**	100%
Igefi Ireland Limited	Ireland	**100%**	100%
Temenos Israel Limited	Israel	**100%**	100%
Temenos Japan Kk	Japan	**100%**	100%
Temenos Kazakhstan Llp	Kazakhstan	**100%**	100%
Temenos East Africa Limited	Kenya	**100%**	100%
Temenos Korea Limited	Korea	**100%**	100%
Temenos Finance Luxembourg Sarl	Luxembourg	**100%**	100%
Temenos Luxembourg Sa	Luxembourg	**100%**	100%

Notes to the consolidated financial statements 31 December 2018 continued

5. GROUP COMPANIES CONTINUED

Company name	Country of incorporation	**2018 Ownership interest**	2017 Ownership interest
Temenos Software Luxembourg Sa	Luxembourg	**100%**	100%
Odyssey Group S.a.	Luxembourg	**100%**	100%
Igefi Group Sarl	Luxembourg	**100%**	100%
Temenos (Malaysia) Sdn Bhd	Malaysia	**100%**	100%
Temenos Mexico Sa De Cv	Mexico	**100%**	100%
Temenos North Africa Llc	Morocco	**100%**	100%
Temenos (Nl) Bv	Netherlands	**100%**	100%
Temenos Holland Bv	Netherlands	**100%**	100%
Temenos Investments Bv	Netherlands	**100%**	100%
Temenos Panama S.a.	Panama	**100%**	100%
Temenos Philippines Inc.	Philippines	**100%**	100%
Temenos Polska Sp.z.o.o	Poland	**100%**	100%
Finch Software Limited	Republic of Mauritius	**100%**	100%
Temenos Romania Srl	Romania	**100%**	100%
Temenos Singapore Pte Limited	Singapore	**100%**	100%
Igefi Singapore Pte Limited	Singapore	**100%**	100%
Temenos Singapore Ft Pte Limited	Singapore	**100%**	100%
Temenos Africa (Pty) Limited	South Africa	**100%**	100%
Dbs Global Solutions (Pty) Limited	South Africa	**100%**	100%
Temenos Hispania Sl	Spain	**100%**	100%
Temenos Headquarters Sa	Switzerland	**100%**	100%
Temenos Cloud Switzerland Sa****	Switzerland	**100%**	0%
Temenos (Thailand) Co. Limited	Thailand	**100%**	100%
Temenos Eurasia Banka Yazilimlari Ltd Sirketi	Turkey	**100%**	100%
Temenos USA, Inc.	USA	**100%**	100%
Trinovus Systems Llc	USA	**100%**	100%
Igefi Us Llc	USA	**100%**	100%
Temenos Cloud Americas Llc****	USA	**100%**	0%
Avoka (USA), Inc *	USA	**100%**	0%
Temenos Ukraine Llc	Ukraine	**100%**	100%
Temenos UK Limited	United Kingdom	**100%**	100%
Avoka Europe Ltd*	United Kingdom	**100%**	0%
Fe Mobile Limited	United Kingdom	**100%**	100%
Financial Objects Limited	United Kingdom	**100%**	100%
Financial Objects (UK) Limited	United Kingdom	**100%**	100%
Financial Objects International Limited	United Kingdom	**100%**	100%
Wealth Management Systems Limited	United Kingdom	**100%**	100%
Fairs Limited	United Kingdom	**100%**	100%
Genisys Technology Limited	United Kingdom	**100%**	100%
Igefi UK Limited	United Kingdom	**100%**	100%
Lydian Associates Limited	United Kingdom	**100%**	100%
Fino Software Services Limited	United Kingdom	**100%**	100%
Wealth Management Software Limited	United Kingdom	**100%**	100%
Odyssey Financial Technologies Plc	United Kingdom	**100%**	100%
Edge Ipk Ltd	United Kingdom	**100%**	100%
Temenos Holdings UK Limited****	United Kingdom	**100%**	0%
Temenos Vietnam Company Limited	Vietnam	**100%**	100%

In addition to the Group companies listed above, some Group subsidiaries maintain branches or representative offices at the following locations: Beirut (Lebanon); Dubai (United Arab Emirates); Riyadh (Saudi Arabia); Moscow (Russia); Prague (Czech Republic); Taipei (Taiwan); Islamabad (Pakistan); Jakarta (Indonesia); New York (USA); Tunis (Tunisia); Nantes (France); Hong Kong (Hong Kong); Helsinki (Finland); Colombo (Sri Lanka) and Renens (Switzerland).

* Companies acquired as part of acquisition of business in 2018.

** Merger of companies Financial Objects Software (India) Pvt Limited and Igefi Software India Pvt Limited with Temenos India Pvt Limited / Merger of Igefi Canada Inc with Temenos Canada Inc in 2018.

*** Companies struck-off in 2018.

**** Companies set up in 2018.

Significant restrictions

Other than those described in note 13, there is no significant restriction on the Group's ability to access or use assets, and settle liabilities, of the above entities.

6. BUSINESS COMBINATIONS

Prior year acquisitions

There were no subsequent adjustments relating to the finalization of the initial accounting for prior year acquisition 'Rubik Financial Limited'.

Current year acquisitions

Avoka Technologies Pty Limited

On 20 December 2018, the Group acquired 100% of the share capital of Avoka Technologies Pty Limited a global leader in digital customer acquisition and onboarding software.

Avoka has more than 85 customers that are largely served through a SaaS model hosted on the cloud, and serves all key banking segments including retail, corporate and wealth. It's customer base has grown more rapidly with both top tier and mid-market banks with clients in Europe, Australia and US. With over 270 employees in offices across the US, UK and Australia, Avoka is purpose built for creating omni-channel customer acquisition and onboarding solutions that enable banks to create simple customer-friendly experiences that improve conversion rates.

The combination of Avoka and Temenos will further strengthen the Temenos Infinity product, which has over 300 banking clients and has been recognized as a leader by top analyst houses such as Forrester and Ovum. The Avoka platform will be integrated with the Temenos Infinity product, providing banks with a comprehensive single solution for their omni-channel digital banking needs.

The goodwill arising from the acquisition is mainly attributable to the cross-selling opportunities and to strengthen the Group's presence in digital front office.

The goodwill recognized is not tax deductible for income tax purposes.

Fair value of the consideration transferred at acquisition date	USD 000
Cash consideration	253,997

Fair value of the identifiable assets acquired and liabilities assumed	Total USD 000
Cash & cash equivalents	11,535
Trade and other receivables	9,271
Property, plant and equipment (note 16)	825
Intangible assets (note 17)	141,548
Trade and other payables	(5,919)
Provision for other liabilities (note 21)	(430)
Deferred tax liabilities (note 20)	(27,550)
Deferred revenues	(9,349)
Total	119,932
Goodwill (note 17)	134,066

Acquisition-related costs included in 'General and administrative' line in the statement of profit or loss	670
Net consideration paid in cash	253,997
Cash and cash equivalents acquired	(11,535)
Cash outflow on acquisition	242,462

The fair value of the trade and other receivables approximates its carrying value and it is expected to be fully recoverable.

The revenue and profit or loss contributed by the acquire in the period between the date of acquisition and the reporting date are not material as the acquisition date occurred towards the end of the period.

Had the acquisition occurred on 1 January 2018, the Group's consolidated statement of profit or loss would have reported a pro-forma revenue of USD 880.8 million and a pro-forma profit of USD 156 million.

The initial accounting has been provisionally completed at 31 December 2018. The Group is still evaluating the fair value of the net assets which includes acquired intangible assets.

Notes to the consolidated financial statements 31 December 2018 continued

7. SEGMENT INFORMATION

The Chief Operating Decision Maker (CODM) has been identified as the Group's Chief Executive Officer (CEO). He regularly reviews the Group's operating segments in order to assess performance and to allocate resources.

The CODM considers the business from a product perspective and, therefore, recognizes the reporting segments as: 'Product' and 'Services'. Other representation of the Group's activity such as regional information is also presented to the CODM but it is not primarily used to review the Group's performance and to make decisions as to how to allocate resources. These two reporting segments are the Group's only operating segments, hence there is no segmental aggregation.

The 'Product' segment is primarily engaged in marketing, licensing and maintaining the Group's software solutions, including software development fees for requested functionality, as well as providing hosting and subscription arrangements. The 'Services' segment represents various implementation tasks such as consulting and training.

The CODM assesses the performance of the operating segments based on the operating contribution. This measure includes the operating expenses that are directly or reasonably attributable to the reporting segments. Unallocated expenses mainly comprise of restructuring costs, termination benefits, acquisition related costs, share-based payment expenses, offices-related expenses and any other administrative or corporate overheads that cannot be directly attributable to the operating segments. Segment revenues provided to the CODM exclude the fair value adjustment recognized on deferred income liability acquired in business combination and hence total revenues allocated to the two segments exceed the IFRS reported figures.

Assets attributed to the reporting segments represent the net trade receivables and the contract assets (note 14).

The table below summarizes the primary information provided to the CODM:

	Product		Services		Total	
	2018 USD 000	2017 USD 000	**2018 USD 000**	2017 USD 000	**2018 USD 000**	2017 USD 000
Revenues	**687,279**	590,882	**153,688**	145,784	**840,967**	736,666
Operating contribution	**352,941**	293,328	**30,571**	28,419	**383,512**	321,747
Total assets	**198,170**	151,562	**64,299**	89,013	**262,469**	240,575

All revenues are derived from external customers. The Group has a large number of customers and no individual customer contributed more than 10% of the total Group's revenue in the current and prior year.

The accounting policies applied to the reportable segments are the same as the Group's accounting policies described in note 2 with the exception of the fair value adjustment on deferred income liability acquired in business combination.

Intersegment transactions are recognized as part of the allocated expenses. They are based on internal cost rates that excludes any profit margin.

For goodwill impairment testing purposes, goodwill of USD 628.6 million (2017: USD 521.7 million) was allocated to the segment 'Products.'

Reconciliation to Group's consolidated financial statements	**2018 USD 000**	2017 USD 000
Total operating contribution from the reportable segments	383,512	321,747
Fair value adjustment on acquired deferred income liability	(106)	(1,303)
Depreciation and amortization (note 9)	(92,746)	(85,007)
Unallocated expenses	(71,890)	(57,132)
Finance costs – net (note 11)	(23,369)	(17,357)
Profit before taxation	**195,401**	160,948

Total assets	**2018 USD 000**	2017 USD 000
Total assets allocated to the reportable segments	262,469	240,575
UNALLOCATED ITEMS:		
Other receivables	31,913	28,436
Cash and cash equivalents	287,439	167,855
Other financial assets	22,002	4,128
Property, plant and equipment	18,021	16,385
Intangible assets	1,008,873	795,961
Deferred tax assets	17,663	21,943
Total assets per the statement of financial position	**1,648,380**	1,275,283

Geographical information

Revenues from external customers	**2018 USD 000**
Switzerland (country of the Group's domiciliation)	29,859
United Kingdom	52,840
Luxembourg	61,711
United States of America	94,115
Australia*	51,814
Ireland	43,722
TOTAL – MATERIAL COUNTRIES	**334,061**
Rest of Europe	184,096
Middle-East & Africa	148,350
Rest of Asia	108,774
Rest of Americas	65,580
TOTAL REVENUES	**840,861**

Revenues from external customers	2017 USD 000
Switzerland (country of the Group's domiciliation)	30,883
United Kingdom	50,833
Luxembourg	51,908
United States of America	56,195
Denmark*	37,474
Ireland	36,660
TOTAL – MATERIAL COUNTRIES	263,953
Rest of Europe	144,597
Middle-East & Africa	107,907
Rest of Asia	139,907
Rest of Americas	78,999
TOTAL REVENUES	735,363

* Denmark is not separately reported in the 2018 geographical information as the revenues from external customers attributed to it was not material. Australia has been added to 2018 geographical information as the revenue from external customers is deemed material.

Revenues are based on the location where the license and maintenance is sold or the service is provided.

Non-current assets other than financial instruments and deferred tax assets **USD 000**	**2018**
Switzerland (country of the Group's domiciliation)	133,236
Luxembourg	315,907
Australia	326,654
United Kingdom	53,165
France	61,365
United States of America	62,563
Other countries	74,004
Total	**1,026,894**

	2017 USD 000
Switzerland (country of the Group's domiciliation)	123,618
Luxembourg	358,389
United Kingdom	56,502
France	64,307
United States of America	69,635
Australia	65,236
Other countries	74,659
Total	812,346

Notes to the consolidated financial statements 31 December 2018 continued

8. REVENUE FROM CONTRACTS WITH CUSTOMERS

Future performance obligation

The following amounts of transaction prices allocated to the performance obligations that are partially unsatisfied or wholly unsatisfied as at 31 December 2018:

	Within one year USD 000	More than one year USD 000	**Total USD 000**
Revenue expected to be recognized	432,450	996,840	**1,429,290**

The remaining performance obligations expected to be recognized within one year and more than one year mainly relates ongoing maintenance support contracts.

Contract balances

	31 December 2018 USD 000	1 January 2018 USD 000
Contract assets	37,488	36,387
Deferred revenues	262,861	234,616

As a result of acquisition during the current reporting period, deferred revenues has increased by USD 9.3 million and movement on contract assets was immaterial (note 6).

The amount of revenue recognized for the period ended 31 December 2018 from the deferred revenues balance at the beginning of the period is USD 180.2 million.

The amount of revenue recognized for the period ended 31 December 2018 from performance obligations satisfied (or partially satisfied) in previous periods is USD 6.5 million. This is mainly due to movement in variable consideration where any variability related to transaction pricing and allocation of consideration has been removed.

Contract Costs

The Group has recognized an asset in relation to cost to obtain and fulfill the contract. This is presented within other receivables in the balance sheet.

	USD 000
Asset recognized from cost incurred to fulfill a contract at 31 December 2018	
– Customization developments capitalized as work in progress	2,319

Cost associated with customization developments is recognized to statement of profit or loss when delivery is performed. In 2018, the amount recognized to profit or loss was USD 3.8 million.

	USD 000
Asset recognized from cost to obtain the contract at 31 December 2018	
– Sales commission on SaaS contracts	988

Capitalized commission is amortized over the life of contract committed for by the customer as commission are driven by commitment period. In 2018, the amount amortized to profit or loss during the reporting period was USD 0.1 million.

The Group applies the practical expedient in paragraph 94 of IFRS 15, which allows to expense the cost to obtain the contract if the amortization period of the assets that the Group would have recognized is one year or less.

The impact on revenue on adoption of IFRS 15 has been separately disclosed in note 2.1.

9. EXPENSES BY NATURE

	2018 USD 000	2017 USD 000
Third party licences and commissions	23,257	18,503
Personnel costs and external consultants	450,845	409,540
Depreciation and amortization (notes 16 and 17)	92,746	85,007
Travel expenses	31,940	27,368
Rent and other occupancy costs	21,877	19,871
Marketing and other professional costs	24,150	17,992
Other costs	29,901	29,245
Capitalized development costs (note 17)	(52,625)	(50,468)
	622,091	557,058

10. EMPLOYEE BENEFIT EXPENSES

	2018 USD 000	2017 USD 000
Wages and salaries	278,028	253,068
Termination benefits	2,283	5,741
Social charges	56,200	50,901
Defined contribution pension costs	8,672	6,256
Defined benefit pension costs (note 22)	3,014	1,626
Cost of employee share option scheme (note 26)	38,018	32,661
	386,215	350,253

Included in the employee benefit expenses, is the remuneration of the key management personnel as illustrated below:

	2018 USD 000	2017 USD 000
Key management personnel of Temenos AG		
– Short term cash compensation and benefits	6,897	6,426
– Post-employment benefits	236	138
– Share-based payment	19,126	15,623
	26,259	22,187
Non-executive directors		
– Short term benefits	**824**	788

Remuneration of the Board of Directors and the Executive Committee in accordance with the Swiss Code of Obligations and the Swiss Ordinance against Excessive Compensation in Stock Exchange Listed Companies can be found in the Compensation report of the Annual Report.

11. FINANCE COSTS – NET

	2018 USD 000	2017 USD 000
Finance income:		
– Interest income on short term bank deposits and investments	1,766	1,738
– Interest income on non-current trade and other receivables measured at amortized cost	204	121
– Foreign exchange gain, net	1,147	–
Total finance income	**3,117**	1,859
Finance costs:		
– Interest expense on financial instruments measured at amortized cost	(13,817)	(12,887)
– Change in fair value of contingent consideration	–	(25)
– Other financing costs*	(10,605)	(3,811)
– Net loss on derivatives not designated as hedging instruments	(2,064)	(1,254)
– Foreign exchange loss, net	–	(1,239)
Total finance costs	**(26,486)**	(19,216)
Finance costs – net	**(23,369)**	(17,357)

* Other financing costs include commitment fees attributable to the undrawn portion of banking facilities, fees related to guarantees in issue and fees relating to the issuance of financing arrangements that is not recorded as an interest expense (calculated using the effective interest method) (note 2.11).

Notes to the consolidated financial statements 31 December 2018 continued

12. EARNINGS PER SHARE

Basic

Basic earnings per share is calculated by dividing the profit or loss attributable to equity holders of the Company by the weighted average number of ordinary shares outstanding during the year.

	2018	2017
Profit attributable to equity holders of the Company (USD 000)	**168,228**	138,406
Weighted average of ordinary shares outstanding during the year (in thousands)	**69,361**	69,927
Basic earnings per share (USD per share)	**2.43**	1.98

Diluted

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. For the periods presented in these consolidated financial statements, the Group has only one category with a potential dilutive effect: 'Instrument granted to employees under share based payment'.

For the period ended 31 December 2017 and 31 December 2018, this category was fully dilutive.

	2018	2017
Profit used to determine diluted earnings per share (USD 000)	**168,228**	138,406
Weighted average of ordinary shares outstanding during the year (in thousands)	**69,361**	69,927
Adjustments for:		
– Share options and restricted shares (in thousands)	**3,596**	3,012
Weighted average number of ordinary shares for diluted earnings per share (in thousands)	**72,957**	72,939
Diluted earnings per share (USD per share)	**2.31**	1.90

13. NET DEBT ANALYSIS

	2018 USD 000	2017 USD 000
Cash at bank and in hand	189,915	103,452
Short term deposits	89,896	46,455
Other short term liquid investments	7,628	17,948
Cash and cash equivalents*	**287,439**	167,855
Borrowings – repayable within one year (note 19)	(107,797)	(5,885)
Borrowings – repayable after one year (note 19)	(706,278)	(434,299)
Cross currency swaps – cash flow hedges (note 15)	(19,172)	(27,621)
Net Debt	**(545,808)**	(299,950)

* Included in cash and cash equivalents, is USD 6.8 million (2017: USD 6.3 million) that are held in jurisdictions where regulatory exchange controls exist and, therefore, are not available for general use by the Group outside of such jurisdiction at the reporting date.

	Changes in liabilities from financing activities				
	Cross currency swaps – Principal USD 000	Other liabilities USD 000	Borrowings short term USD 000	Borrowings long term USD 000	Total USD 000
At 31 December 2016	(18,319)	(1,759)	(102,780)	(269,182)	(392,040)
Cash flows	(82)	3,561	125,719	(148,781)	(19,583)
Acquisition of business	–	–	(11,551)	–	(11,551)
Fair value and foreign exchange movement	(9,220)	–	(7,923)	(15,902)	(33,045)
Other non-cash movements	–	(3,036)	(9,350)	(434)	(12,820)
At 31 December 2017	**(27,621)**	**(1,234)**	**(5,885)**	**(434,299)**	**(469,039)**
Cash flows	–	13,245	8,463	(374,418)	(352,710)
Fair value and foreign exchange movement	8,449	–	5,228	(4,202)	9,475
Other non-cash movements	–	(13,826)	(115,603)	106,641	(22,788)
At 31 December 2018	**(19,172)**	**(1,815)**	**(107,797)**	**(706,278)**	**(835,062)**

14. TRADE AND OTHER RECEIVABLES

	2018 USD 000	2017 USD 000
Trade receivables	230,691	93,498
Contract assets (note 8)	37,488	–
Loss allowance	(5,710)	(9,019)
Trade receivables and contract assets – net	**262,469**	84,479
Accrued income*	–	156,096
VAT and other taxation recoverable	9,296	8,649
Other receivables	6,961	4,610
Prepayments	15,656	15,177
Total trade and other receivables	**294,382**	269,011
Less non-current portion	(10,987)	(10,379)
Total current trade and other receivables	**283,395**	258,632

* Accrued income is now classified as trade receivables or contract assets in accordance with the new definition under IFRS 15 adopted effective 1 January 2018.

Trade and other receivables are recognized initially at the transaction price or at fair value if they contain a significant financing component. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortized cost using the effective interest method. As the total carrying amount of the current portion of the trade and other receivables is due within the next 12 months after the reporting date, the impact of applying the effective interest method is not significant and, therefore, the carrying amount equals to the contractual amount or the fair value initially recognized.

The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets mentioned above. The Group's exposure to credit and market risk is disclosed in note 3.2.

Fair values of the trade and other receivables qualified as financial assets and measured at amortized cost.

	Carrying amount		Fair value	
	2018 USD 000	2017 USD 000	**2018 USD 000**	2017 USD 000
Current trade and other receivables	263,913	240,643	263,913	240,643
Non-current trade and other receivables.	10,987	10,379	10,692	10,057
	274,900	251,022	**274,605**	250,700

The carrying amounts of the current trade and other receivables approximate their fair value. The fair value measurement of the non-current trade and other receivables is based on a discounted cash flow approach using a free-risk yield curve adjusted for credit risk and is within level 2 of the fair value hierarchy.

Notes to the consolidated financial statements 31 December 2018 continued

14. TRADE AND OTHER RECEIVABLES CONTINUED

Movements in the provision for impairment

The allowance account is used for impairment of trade receivables and contract assets. The Group has not recognized any impairment on any other classes of assets. Comparatives for 2017 represents the provision for impairment losses on trade receivables under IAS 39.

	Loss allowance	
	2018 USD 000	2017 USD 000
Balance at 1 January under IAS 39	**9,019**	10,230
Reclassification**	(5,809)	–
Balance at 1 January under IFRS 9	**3,210**	10,230
Increase in loss allowance	2,926	3,064
Used amounts	(356)	(3,505)
Recoveries	–	(251)
Unused amounts	(52)	(529)
Exchange (loss) or gain	(18)	10
Balance at 31 December	**5,710**	9,019

** Reclassification out of the bad debt provision on 1 January 2018 is related to amounts provided for in last year's provision that are not credit risk related. As they relate to open customer contracts as of 1 January 2018, these amounts were reclassified from the provision balance and netted against the related receivable and contract assets as per the variable consideration guidance under IFRS 15.

Included in 'Sales and marketing', is USD 2.9 million (2017: USD 11.1 million) of impairment loss related to trade receivables and contract assets.

15. OTHER FINANCIAL ASSETS AND LIABILITIES

	2018		2017	
	Assets USD 000	**Liabilities USD 000**	Assets USD 000	Liabilities USD 000
Forward foreign exchange contracts – cash flow hedges	2,787	1,360	1,664	2,017
Forward foreign exchange contracts – held for trading	4,215	1,087	2,464	1,298
Cross currency swaps – cash flow hedges	–	19,172	–	27,621
Equity securities at FVOCI	15,000	–	–	–
At 31 December	**22,002**	**21,619**	4,128	30,936
Reported as follows:				
Current	6,579	2,234	3,967	3,184
Non-current	15,423	19,385	161	27,752
At 31 December	**22,002**	**21,619**	4,128	30,936

The maximum exposure to credit risk at the reporting date is the fair value of the derivative assets as reported in the statement of financial position.

Equity securities represent investment in NuoDB, a distributed SQL database provider headquartered in the US, that were acquired in December 2018. They are designated and measured at FVOCI as the Group intends to hold them for strategic purposes.

16. PROPERTY, PLANT AND EQUIPMENT

Year ended 31 December 2018	Leasehold improvements USD 000	Vehicles USD 000	Fixtures fittings & equipment USD 000	Land and buildings USD 000	Total USD 000
COST					
At 1 January 2018	15,085	515	48,039	2,657	66,296
Foreign currency exchange differences	(515)	(24)	(2,361)	(177)	(3,077)
Additions	984	137	7,111	–	8,232
Acquisition of business (note 6)	–	–	825	–	825
Retirements/Disposals	(204)	(19)	(810)	–	(1,033)
31 December 2018	**15,350**	**609**	**52,804**	**2,480**	**71,243**
DEPRECIATION AND IMPAIRMENT					
At 1 January 2018	12,493	374	36,602	442	49,911
Foreign currency exchange differences	(451)	(15)	(1,795)	(33)	(2,294)
Charge for the year	1,013	60	5,505	46	6,624
Retirements/Disposals	(204)	(19)	(796)	–	(1,019)
31 December 2018	**12,851**	**400**	**39,516**	**455**	**53,223**
NET BOOK VALUE					
31 December 2018	**2,499**	**209**	**13,288**	**2,025**	**18,021**

Year ended 31 December 2017	Leasehold improvements USD 000	Vehicles USD 000	Fixtures fittings & equipment USD 000	Land and buildings USD 000	Total USD 000
COST					
At 1 January 2017	14,266	471	45,337	2,524	62,598
Foreign currency exchange differences	497	20	2,199	133	2,849
Additions	1,035	42	4,706	–	5,783
Acquisition of business	180	–	300	–	480
Retirements/Disposals	(893)	(18)	(4,503)	–	(5,414)
31 December 2017	15,085	515	48,039	2,657	66,296
DEPRECIATION AND IMPAIRMENT					
At 1 January 2017	11,857	320	34,260	373	46,810
Foreign currency exchange differences	339	10	1,627	22	1,998
Charge for the year	1,100	55	5,149	47	6,351
Retirements/Disposals	(803)	(11)	(4,434)	–	(5,248)
31 December 2017	12,493	374	36,602	442	49,911
NET BOOK VALUE					
31 December 2017	2,592	141	11,437	2,215	16,385

Notes to the consolidated financial statements 31 December 2018 continued

17. INTANGIBLE ASSETS

Year ended 31 December 2018	Internally generated software development costs USD 000	Goodwill USD 000	Computer software USD 000	Customer related USD 000	Total USD 000
COST					
At 1 January 2018	435,373	521,671	185,555	157,899	1,300,498
Foreign currency exchange differences	(4,255)	(27,156)	(7,176)	(6,863)	(45,450)
Additions	52,625	–	4,115	–	56,740
Acquisition of business (note 6)	–	134,066	54,148	87,400	275,614
Retirements/Disposals	–	–	(4,996)	–	(4,996)
31 December 2018	**483,743**	**628,581**	**231,646**	**238,436**	**1,582,406**
AMORTIZATION					
At 1 January 2018	291,605	–	124,899	88,033	504,537
Foreign currency exchange differences	(3,197)	–	(4,871)	(4,062)	(12,130)
Charge for the year	44,875	–	25,443	15,804	86,122
Retirements/Disposals	–	–	(4,996)	–	(4,996)
31 December 2018	**333,283**	**–**	**140,475**	**99,775**	**573,533**
NET BOOK VALUE					
31 December 2018	**150,460**	**628,581**	**91,171**	**138,661**	**1,008,873**
Year ended 31 December 2017					
COST					
At 1 January 2017	375,059	440,066	150,906	127,900	1,093,931
Foreign currency exchange differences	9,846	52,654	13,349	14,318	90,167
Additions	50,468	–	3,018	–	53,486
Acquisition of business	–	28,951	18,850	15,681	63,482
Retirements/Disposals	–	–	(568)	–	(568)
31 December 2017	435,373	521,671	185,555	157,899	1,300,498
AMORTIZATION					
At 1 January 2017	244,934	–	93,669	65,231	403,834
Foreign currency exchange differences	6,750	–	7,805	8,005	22,560
Charge for the year	39,921	–	23,938	14,797	78,656
Retirements/Disposals	–	–	(513)	–	(513)
31 December 2017	291,605	–	124,899	88,033	504,537
NET BOOK VALUE					
31 December 2017	143,768	521,671	60,656	69,866	795,961

Amortization charge of USD 82.1 million (2017: USD 74.9 million) is included in the 'Cost of sales' line; USD 0.3 million (2017: USD 0.3 million) in 'Sales and marketing' line; USD 1 million (2017: USD 1.3 million) in 'Other operating expenses' line and USD 2.7 million (2017: USD 2.2 million) in 'General and administrative' line.

Impairment tests for goodwill

Goodwill is allocated to the 'Product' reportable segment.

	2018			2017		
	Carrying amount USD 000	**Growth rate %**	**Discount rate %**	Carrying amount USD 000	Growth rate %	Discount rate %
'Product' segment	**628,581**	**1**	**10.75**	521,671	1	10.17
	628,581			521,671		

The recoverable amount of the cash-generating unit (CGU) is determined based on value-in-use calculations. These calculations use pre-tax cash flow projections based on the most recent financial budget approved by the management covering a four-year period (2017: a four-year period) and then inflated over a perpetual period using the estimated growth rate assigned to the countries where the cash-generating unit operates. The growth rate does not exceed the long term average growth rate for the software industry in which the CGU performs its operations. The growth rate and the pre-tax discount rate used in the calculation are presented above.

Budgeted cash flow projections are determined based on the expectation of the future client signings of the Group's current pipeline. Budgeted gross margin is based on expectations of market development and efficiency leverage. Management believes that any reasonable change in any of the key assumptions on which the recoverable amount is based would not cause the reported carrying amount to exceed the recoverable amount of the cash-generating unit.

The discount rate represents the Group's Weighted Average Cost of Capital adjusted for tax effect to determinate the pre-tax rate as required by IFRS.

18. TRADE AND OTHER PAYABLES

	2018 USD 000	2017 USD 000
Trade payables	30,883	24,912
Accrued expenses	116,176	86,228
Other payables	15,993	13,512
Total trade and other payables	**163,052**	124,652
Less non-current portion	**–**	–
Total current trade and other payables	**163,052**	124,652

Except for contingent consideration, trade and other payables are initially recorded at fair value and subsequently measured at amortized cost. As the total carrying amount is due within the next 12 months from the balance sheet date, the impact of applying the effective interest method is not significant and, therefore, the carrying amount equals to the contractual amount or the fair value initially recognized.

Fair values of the trade and other payables qualified as financial liabilities and measured at amortized cost.

	Carrying amount		Fair value	
	2018 USD 000	2017 USD 000	**2018 USD 000**	2017 USD 000
Current trade and other payables	**159,880**	121,240	**159,880**	121,240
Non-current trade and other payables	**–**	–	**–**	–
	159,880	121,240	**159,880**	121,240

The carrying amounts of the current trade and other payables is considered to be at their fair value, due to their short term nature.

The carrying amounts of the current trade and other payables measured at fair value as well as their level in the fair value hierarchy are disclosed in note 3.4.

Notes to the consolidated financial statements 31 December 2018 continued

19. BORROWINGS

	2018 USD 000	2017 USD 000
CURRENT		
Other loans	75	58
Unsecured bonds	107,722	5,827
	107,797	5,885
NON-CURRENT		
Other loans	86	145
Bank borrowings	200,000	–
Unsecured bonds	506,192	434,154
	706,278	434,299
Total borrowings	**814,075**	440,184

Fair values of the borrowings

	Carrying amount		Fair value	
	2018 USD 000	2017 USD 000	2018 USD 000	2017 USD 000
Other loans	161	203	172	197
Bank Borrowings	200,000	–	200,014	–
Unsecured bonds	613,914	439,981	608,435	449,149
	814,075	440,184	**808,621**	449,346

The fair value measurement of other loans and bank borrowings is based on a discounted cash flow method using the LIBOR interest curve adjusted for credit risk and is within level 2 of the fair value hierarchy. The fair value measurement of the bonds is derived from their quotation on the SIX Swiss Exchange and is within level 1 of the fair value hierarchy.

The carrying amounts of the borrowings are denominated in the following currencies:

	2018 USD 000	2017 USD 000
Swiss francs	613,914	439,981
US dollars	200,000	–
Other currencies	161	203
	814,075	440,184

Unsecured bonds

The Group holds the following unsecured bonds:

> CHF 100 million with a coupon of 2% paid annually on 31 January. The bond will mature on 31 January 2019 at par and was issued in 2014;
> CHF 175 million with a coupon of 2% paid annually on 17 June. The bond will mature on 17 June 2022 at par and was issued in 2015; and
> CHF 175 million with a coupon of 1.875% paid annually on 30 November. The bond will mature on 30 November 2023 at par and was issued in 2018; and
> CHF 150 million with a coupon of 1.75% paid annually on 5 April. The bond will mature on 5 April 2024 at par and was issued in 2017.

Bank facilities

The Group holds a multicurrency revolving facility of USD 500 million. The pertinent details are as follows:

> Interest at LIBOR plus margin adjustment, which is calculated by reference to financial covenants;
> The facility terminates on 19 February 2021; and
> Commitment fees are due on the undrawn portion.

As at 31 December 2018, a total of USD 200 million (2017: nil) was drawn under this new agreement.

The facility is subject to financial covenants which have been adhered to during the reported periods.

20. TAXATION

Tax expense

	2018 USD 000	2017 USD 000
Current tax on profits for the year	**29,591**	24,469
Adjustments in respect of prior years	**(1,150)**	1,063
Total current tax	**28,441**	25,533
Deferred tax – origination and reversal of temporary differences	**(1,268)**	(2,990)
Total tax expense	**27,173**	22,542

Temenos AG is incorporated in Switzerland but the Group operates in various countries with various tax laws and rates. Consequently, the effective tax rate may vary from period to period to reflect the generation of taxable income in tax jurisdictions. A reconciliation between the reported income tax expense and the amount computed using a basic Swiss statutory corporate tax rate of 24.1% (2017: 24.1%), is as follows:

	2018 USD 000	2017 USD 000
Profit before tax	**195,401**	160,948
Tax at the domestic rate of 24.1%	47,092	38,789
Non-taxable income and expenses	(14,601)	(39,915)
Net deferred tax impact on utilisation and recognition on losses	1,944	2,786
Tax adjustments related to prior periods	(1,150)	1,063
Reversal of deferred tax assets on intellectual property	42	56
Non-taxable consolidation adjustment on intellectual property amortization	(3,775)	(5,374)
Other movement on deferred tax assets and liabilities, including rate changes	522	(458)
Effects of different tax rates	(6,262)	17,926
Overseas withholding tax	4,454	4,249
Other tax and credits	(1,093)	3,420
Total tax expense	**27,173**	22,542

There is no income tax expense or tax credit arising relating to components of other comprehensive income (2017: USD nil). Due to the adoption of the IFRS 15 standard, a net tax charge of USD 159 thousand is directly posted to equity (2017: USD nil).

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes relate to the same fiscal authority. Deferred tax assets and liabilities shown in the consolidated balance sheet are as follows:

	2018 USD 000	2017 USD 000
Deferred tax assets – to be recovered after more than 12 months	17,562	10,144
Deferred tax assets – to be recovered within 12 months	101	11,799
Deferred tax assets	**17,663**	21,943
Deferred tax liabilities – to be recovered after more than 12 months	(35,633)	(14,107)
Deferred tax liabilities – to be recovered within 12 months	(1,961)	(1,301)
Deferred tax liabilities	**(37,594)**	(15,408)
Net deferred tax (liabilities)/assets	**(19,931)**	6,535

An assessment of the realizability of deferred tax assets is made on a country by country basis, based on the weight of available evidence including factors such as recent earnings history and expected future taxable income. Deferred tax assets are recognized to the extent that realization of the related tax benefit through the future taxable profits is probable.

Notes to the consolidated financial statements 31 December 2018 continued

20. TAXATION CONTINUED

Tax expense continued

The Group has not recognized deferred tax assets of USD 34,445 thousand (2017: USD 55,866 thousand) in respect of losses amounting to USD 189,780 thousand (2017: USD 457,686 thousand) that can be carried forward against future taxable income. Losses amounting to USD 90,877 thousand (2017: USD 209,631 thousand) will expire within the next 5 years, USD 22,836 thousand (2017: USD 54,417 thousand) will expire within 5 to 10 years and USD 9,922 thousand (2017: USD 10,254 thousand) will expire within 10 to 20 years. There are no unrecognized deferred tax liabilities.

The Group has recognized deferred tax assets of USD 162 thousand (2017: USD 204 thousand) in respect of temporary differences arising on an intra-group transfer of intellectual property.

The gross movement on the deferred income tax account is as follows:

	2018 USD 000	2017 USD 000
At 1 January	6,535	2,383
Income statement credit	1,267	2,990
Foreign currency exchange differences	(183)	(1,864)
Acquisition of business	(27,550)	3,025
At 31 December	**(19,931)**	6,535

The movement in deferred tax assets is as follows:

	Tax losses USD 000	Taxable intellectual property USD 000	Taxable goodwill USD 000	Other USD 000	Total USD 000
At 1 January 2017	18,332	260	409	–	19,001
Credited (charged) to the profit/(loss)	(1,295)	(56)	(121)	–	(1,472)
Acquisition of business	–	–	–	4,162	4,162
Foreign currency exchange differences	43	–	–	209	252
At 31 December 2017	17,080	204	288	4,371	21,943
Credited (charged) to the profit/(loss)	(2,237)	(42)	(475)	356	(2,397)
Acquisition of business	–	–	–	–	–
Transfer to deferred tax liability	–	–	187	(1,343)	(1,156)
Foreign currency exchange differences	(332)	–	(0)	(394)	(726)
At 31 December 2018	**14,511**	**162**	**0**	**2,990**	**17,663**

The movement in deferred tax liabilities is as follows:

	Intangible fair value adjustment USD 000	Other USD 000	Total USD 000
At 1 January 2017	(16,262)	(355)	(16,617)
Credited to the profit/(loss)	5,496	(1,034)	4,462
Acquisition of business	(1,137)	–	(1,137)
Foreign currency exchange differences	(2,064)	(52)	(2,116)
At 31 December 2017	(13,967)	(1,441)	(15,408)
Credited to the profit/(loss)	4,249	(584)	3,665
Acquisition of business	(25,800)	(1,750)	(27,550)
Transfer from deferred tax asset	–	1,156	1,156
Foreign currency exchange differences	512	31	543
At 31 December 2018	**(35,006)**	**(2,588)**	**(37,594)**

21. PROVISIONS FOR OTHER LIABILITIES AND CHARGES

	Legal provision USD 000	Property provision USD 000	Termination benefits USD 000	Total USD 000
At 1 January 2018	400	289	2,634	3,323
Foreign currency exchange differences	(15)	(18)	(23)	(56)
Increase in provisions recognized in profit or loss	–	524	–	524
Acquisition of business (note 6)	–	–	430	430
Used during the year	(82)	(149)	(2,281)	(2,512)
Unused amounts reversed during the year	(61)	(3)	(123)	(188)
31 December 2018	**242**	**642**	**636**	**1,520**

	Legal provision USD 000	Property provision USD 000	Termination benefits USD 000	Total USD 000
Reported as follows:				
2018				
Current	242	381	636	1,259
Non-current	–	261	–	261
31 December 2018	**242**	**642**	**636**	**1,520**
2017				
Current	400	51	2,634	3,085
Non-current	–	238	–	238
31 December 2017	400	289	2,634	3,323

Legal provision

The amounts represent provisions for certain legal claims brought against the Group. The balance at 31 December 2018 is expected to be utilized in 2019. Management believes that the outcome of these legal claims will not give rise to any significant loss beyond the amounts provided at 31 December 2018.

Property provision

The amounts represent the net present value of the estimated future costs associated with onerous leases and dilapidations. Provision for onerous lease represents the lowest cost to exit the lease contract. Provision for dilapidations represents the estimated costs to be incurred at the date of exit.

The non-current portion has not been discounted as the effect of the time value was not material.

The non-current portion of USD 261 thousand relates to dilapidation costs that will be settled when the related leases are terminated which is not expected to occur within the next 12 months.

Termination benefits

The amounts represent the benefits payable for the period with no future economic benefits to the Group. The carrying amount is expected to be fully utilized in 2019.

Notes to the consolidated financial statements 31 December 2018 continued

22. RETIREMENT BENEFIT OBLIGATIONS

The Group maintains defined contribution plans for its employees of which many are state-sponsored. The relevant contributions are charged to the statement of profit or loss when incurred. No assets or liabilities are recognized in the Group's statement of financial position in respect of such plans, apart from prepayments and accruals not settled at the reporting date.

In certain countries, the Group has a legal obligation to make one-time payments to employees reaching retirement age or departing. Such gratuities are based on the amount of the employees' final salary and their length of service. With the exception of India, these plans are unfunded. These plans are categorized as defined benefit plans.

The Swiss funded defined benefit pension plans represent the principal portion of the Group's defined benefit obligation at the reporting periods.

Pension plans in Switzerland

Swiss based plans entitle retired employees to receive either a capital or an annual pension payment. Final benefit is based on retirement savings accumulated over the working life period of the employees. The plans are administrated by separate funds that are legally separated from the entity. One plan is funded through institutional investments and one plan is funded by the conclusion of an insurance contract.

Swiss based pension plans are governed by the Swiss Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans (LPP), which stipulates that pension plans are to be managed by independent and legally autonomous units. Plan participants are insured against the financial consequences of old age, disability and death. The various insurance benefits are governed in regulations, with the LPP specifying the minimum benefits that are to be provided. The employer and employees pay contributions to the pension plan. In case the plan's statutory funding falls below a certain level, various measures can be taken such as the increase of the current contribution, lowering the interest rate on the retirement account balances or a reduction of the additional prospective benefits. The employer can also make additional restructuring contributions.

The Swiss based pension plans are administrated by a legal collective foundation under the supervision and management of one of the leading insurance company for pension plans based in Switzerland. The Board of Trustee is composed of equal numbers of employee and employer representatives. Its responsibilities are to set-out the strategy of the plans, approve the budget for the administrative expenses etc. Each individual plan is then governed by a sub-committee that is equally composed of representatives of employer and plan participants. The primary objective of this committee is to implement the investment strategy set out by the Board of Trustee. It mainly consists of determining the asset allocation, the investment structure and approving the delegation to an asset manager. The committee is also responsible for the appropriation of the prospective result within the framework set out by the LPP.

As all the plans within the Group are not exposed to materially different risks and as a significant portion of the Group's obligation is contributed by the Swiss plans, the management has decided not to present additional disaggregation of the disclosures presented below unless explicitly required by IAS 19 'Employee Benefits'.

The amounts recognized in the statement of financial position at 31 December are as follows:

	2018 USD 000	2017 USD 000
Present value of funded obligations	47,864	40,884
Fair value of plan assets	(41,612)	(36,942)
Deficit of funded plans	6,252	3,942
Present value of unfunded obligations	4,068	3,794
Net liability in the statement of financial position	**10,320**	7,736

The movement in the net defined benefit liability (asset) over the year is as follows:

	Present value of obligation USD 000	Fair value of plan assets USD 000	Total USD 000	Effect of asset ceiling USD 000	Total USD 000
BALANCE AT 1 JANUARY 2018	44,678	(36,942)	7,736	–	7,736
Current service costs	2,606	–	2,606	–	2,606
Past service costs	214	–	214	–	214
Other cost	–	38	38	–	38
Interest expense/(income)	608	(452)	156	–	156
	3,428	(414)	3,014	–	3,014
Remeasurements (included in OCI):					
– Return on plan assets, excluding interest income	–	1,126	1,126	–	1,126
– Actuarial loss (gain) from:					
– demographic assumptions	859	–	859	–	859
– financial assumptions	(863)	–	(863)	–	(863)
– experience adjustment	1,168	–	1,168	–	1,168
	1,164	1,126	2,290	–	2,290
– Exchange differences	(810)	672	(138)	–	(138)
Contributions:					
– Employers	–	(2,582)	(2,582)	–	(2,582)
– Plan participants	1,104	(1,104)	–	–	–
Payment from/to plans:					
– Benefit paid	2,368	(2,368)	–	–	–
	2,662	(5,382)	(2,720)	–	(2,720)
BALANCE AT 31 DECEMBER 2018	**51,932**	**(41,612)**	**10,320**	**–**	**10,320**
BALANCE AT 1 JANUARY 2017	39,141	(29,965)	9,176	–	9,176
Current service costs	2,467	–	2,467	–	2,467
Past service costs	(1,162)	–	(1,162)	–	(1,162)
Other cost	102	18	120	–	120
Interest expense/(income)	537	(336)	201	–	201
	1,944	(318)	1,626	–	1,626
Remeasurements (included in OCI):					
– Return on plan assets, excluding interest income	–	(1,846)	(1,846)	–	(1,846)
– Actuarial loss (gain) from:					
– demographic assumptions	202	–	202	–	202
– financial assumptions	(310)	–	(310)	–	(310)
– experience adjustment	1,140	–	1,140	–	1,140
	1,032	(1,846)	(814)	–	(814)
– Exchange differences	1,924	(1,470)	454	–	454
Contributions:					
– Employers	–	(2,706)	(2,706)	–	(2,706)
– Plan participants	862	(862)	–	–	–
Payment from/to plans:					
– Benefit paid	(225)	225	–	–	–
	2,561	(4,813)	(2,252)	–	(2,252)
BALANCE AT 31 DECEMBER 2017	**44,678**	**(36,942)**	**7,736**	**–**	**7,736**

The defined benefit obligation is calculated using the projected unit credit method. This reflects service rendered by employees to the date of valuation and incorporates actuarial assumptions primarily regarding discount rates used and projected rates of remuneration growth. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds or government bonds in countries where there is not a deep market in corporate bonds.

Notes to the consolidated financial statements 31 December 2018 continued

22. RETIREMENT BENEFIT OBLIGATIONS CONTINUED

Plan assets comprise:

	2018	2017
Equity securities:		
– Quoted	19%	18%
– Unquoted	0%	0%
Fixed income securities:		
– Quoted	15%	15%
– Unquoted	0%	0%
Real estate	12%	11%
Insurance contracts	48%	54%
Other	6%	2%
	100%	100%

The committee of each plan annually performs an asset-liability assessment. The objective of such assessment is to select an appropriate asset allocation to match cash flows of the assets with the plan obligations while maximizing the return and minimizing the risk.

Actuarial assumptions:

These defined benefit plans expose the Group to actuarial risks, such as currency risk, interest rate risk and market risk (investment risk).

Actuarial assumptions are based on the requirement set out by IAS 19 'Employee Benefits'. They are unbiased and mutually compatible estimates of variables that determine the ultimate cost of providing post-employment benefits. They are based on market expectations at the reporting date for the period over which the obligations are to be settled. They are set on an annual basis by independent actuaries.

Actuarial assumptions consist of demographic assumptions such as employee turnover, disability, mortality and financial assumptions such as interest rates, salary growth and consumer price inflation. The actuarial assumptions vary based upon local economic and social conditions.

The following are the principal actuarial assumptions at the reporting date (expressed as weighted averages):

	2018	2017
Discount rate	**1.82%**	1.46%
Inflation	**0.78%**	0.66%
Future salary growth	**2.37%**	2.36%

Sensitivity analysis:

The sensitivity of the defined benefit obligation to changes in the principal assumption is:

			2018
	Change in assumption	**Increase USD 000**	**Decrease USD 000**
Discount rate	**50bps**	**(2,514)**	**2,794**
Future salary growth	**0.50%**	**588**	**(562)**

			2017
	Change in assumption	Increase USD 000	Decrease USD 000
Discount rate	50bps	(1,989)	2,136
Future salary growth	0.50%	558	(568)

The sensitivity analysis are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur since some of the assumptions are correlated. The sensitivity analysis have been calculated using the same methodology as applied when determining the pension liability in the statement of financial position.

Expected contributions to post-employment defined benefit plans for the year ending 31 December 2019 are USD 2.6 million.

At 31 December 2018, the weighted-average duration of the defined benefit obligation was 10 years (2017: 12 years).

23. SHARE CAPITAL

As at 31 December 2018, the issued shares of Temenos AG comprised 71,044,267 ordinary shares of a nominal value of CHF 5 each. All issued shares are fully paid.

The changes in the number of issued and outstanding shares in the year ended 31 December 2018 are summarized below:

	Number
Total number of shares issued, as at 31 December 2017	70,849,924
Treasury shares	(1,775,516)
Total number of shares outstanding, as at 31 December 2017	69,074,408
Creation of new ordinary shares out of conditional capital for share-based payment transactions	194,343
Disposal of treasury shares for share-based payment transactions	1,313,902
Acquisition of treasury shares (share buy-back)	(1,342,653)
Total number of shares outstanding, as at 31 December 2018	**69,240,000**

As at 31 December 2018, the number of treasury shares held by the Group amounted to 1,804,267 (2017: 1,775,516).

Temenos AG also has conditional and authorized capital, comprising:

Authorized shares available until 10 May 2019	13,900,000
Conditional shares that may be issued on the exercise of share-based payment transactions	6,805,657
Conditional shares that may be issued in conjunction with financial instruments	6,607,904

24. SHARE PREMIUM AND OTHER RESERVES

	Share premium USD 000	Employee share options reserve USD 000	Discount on shares issued to employees USD 000	Negative premium arising on creation of Temenos Group AG USD 000	Total USD 000
Balance at 1 January 2017	115,924	174,095	(375,812)	(68,456)	(154,249)
Cost of share options (note 26)	–	32,661	–	–	32,661
Exercise of share-based payment transactions	106,098	–	(170,593)	–	(64,495)
Costs associated with equity transactions	(204)	–	–	–	(204)
Balance at 31 December 2017	221,818	206,756	(546,405)	(68,456)	(186,287)
Cost of share options (note 26)	–	38,018	–	–	38,018
Exercise of share-based payment transactions	22,753	–	(162,498)	–	(139,745)
Costs associated with equity transactions	(1,081)	–	–	–	(1,081)
Balance at 31 December 2018	**243,490**	**244,774**	**(708,903)**	**(68,456)**	**(289,095)**

Share premium

The share premium primarily includes the following transactions:

- Premium on issuance of new shares at a price above the par value;
- The equity component determined at the issuance of the convertible bond in 2006 and the premium resulting from the early redemption occurred in 2010;
- Expenses associated with equity transactions; and
- Gains or losses on the sale, issuance or cancellation of treasury shares.

Notes to the consolidated financial statements 31 December 2018 continued

24. SHARE PREMIUM AND OTHER RESERVES CONTINUED

Share options reserve

As detailed in note 26, the Group has issued instruments to employees. The fair value of these instruments is charged to the statement of profit or loss over the period that the related service is received, with a corresponding credit made to the share options reserve.

Discount on shares issued to employees

As detailed in note 26, the Group has issued instruments to employees. When the instruments are exercised, the Group fulfills its obligations by issuing newly created shares out of conditional capital or by reissuing treasury shares purchased by the Group. To the extent that the consideration received by the Group in respect of these shares issued or reissued are less than their fair value at the time of exercise, this amount is allocated to discount on shares issued to employees.

Negative premium arising on creation of Temenos AG

Temenos AG was incorporated on 7 June 2001. The issued and outstanding shares of Temenos Holdings Limited (previously known as Temenos Holdings NV) were exchanged shortly before the initial public offering for Temenos AG shares, thus rendering Temenos Holdings Limited a wholly owned subsidiary of Temenos AG. The number of shares acquired was 40,104,336 which prior to the exchange had a nominal value of USD 0.001 per share, totaling USD 39 thousand. The new shares in Temenos AG were issued at nominal value of CHF 5 which resulted in a negative premium of USD 113,538 thousand. Expenses related to the initial public offering of Temenos AG, and share premium items arising prior to the creation of Temenos AG, were recorded against this account.

A deficit of USD 62,277 thousand was recorded to share premium on the cancellation of shares repurchased in 2000. This was transferred into 'negative premium arising on creation of Temenos AG' during the period ended 31 December 2001.

25. OTHER EQUITY

	Cumulative translation adjustment USD 000	Available-for-sale Investment USD 000	Financial asset at FVOCI USD 000	Fair value gains/ (losses) on qualifying cash flow hedges USD 000	Total USD 000
Balance at 1 January 2017	(125,803)	18	–	(5,383)	(131,168)
Currency translation differences	41,196	–	–	–	41,196
Transfer to profit or loss within 'Personnel costs'	–	–	–	(256)	(256)
Transfer to profit or loss within 'Software licensing revenue'	–	–	–	494	494
Transfer to deferred revenues	–	–	–	1,115	1,115
Transfer to finance costs	–	(18)	–	6,041	6,023
Net fair value loss	–	–	–	(10,745)	(10,745)
Balance at 31 December 2017	(84,607)	–	–	(8,734)	(93,341)
Change in fair value of equity investments at FVOCI	–	–	–	–	–
Currency translation differences	(32,883)	–	–	–	(32,883)
Foreign currency risk					
Transfer to profit or loss within 'Personnel costs'	–	–	–	429	429
Transfer to profit or loss within 'Software licensing revenue'	–	–	–	(1,309)	(1,309)
Transfer to 'Deferred revenues'	–	–	–	(2,049)	(2,049)
Transfer to profit or loss within 'finance costs'	–	–	–	(5,527)	(5,527)
Changes in fair value of hedging instruments	–	–	–	13,189	13,189
Balance at 31 December 2018	**(117,490)**	**–**	**–**	**(4,001)**	**(121,491)**

Cumulative translation reserve

It comprises all the foreign currency differences arising from the translation of the financial statements of the foreign operations into US dollars.

Financial assets measured at FVOCI

It comprises the cumulative net change in fair value of equity instruments measured at FVOCI (note 15) (2017: available-for-sale investment).

Fair value gains/(losses) on qualifying cash flow hedges

It comprises the effective portion of the cumulative net change in fair value of hedging instruments used in cash flow hedges that are not yet recognized in profit or loss or as part of the carry amount of a non-financial assets or a non-financial liabilities.

26. SHARE BASED PAYMENTS

Share options

Share options are granted to executive board members and selected employees. Share options are conditional on the employee completing a specified period of service (the vesting period). The vesting period for the unvested options is a minimum of three years and the options have a contractual term of ten years. The Group has no legal or constructive obligation to repurchase or settle the options in cash.

A summary of the movements in the number of share options outstanding and their related weighted average exercise prices are as follows:

	2018		2017	
	Number of options	**Weighted average exercise price**	Number of options	Weighted average exercise price
Outstanding at the beginning of the year	3,000	$31.94	3,000	$31.94
Forfeited during the year	–	$0.00	–	n/a
Exercised during the year	–	$0.00	–	n/a
Outstanding at the end of the year	**3,000**	**$30.74**	3,000	$31.94

All of the outstanding options (2017: 3,000) were exercisable at the balance sheet date with a weighted average exercise price of USD 30.74 (2017: USD 31.94). No options were exercised in 2018, nor in 2017.

Share appreciation rights

Share appreciation rights are granted to executive board members and selected employees. Share appreciation rights are conditional on the employee completing a specified period of service and are only exercisable if the Group achieves specified cumulative earnings per share targets. In case of over achievement of earnings per share targets, certain share appreciation right grants may be increased by a maximum of 40% of the original grant. The vesting period for the unvested share appreciation rights is a minimum of three years and the share appreciation rights have a maximum contractual term of ten years. The Group has no legal or constructive obligation to repurchase or settle the share appreciation rights in cash.

A summary of the movements in the number of share appreciation rights outstanding and their related weighted average exercise prices are as follows:

	2018		2017	
	Number of rights	**Weighted average exercise price**	Number of rights	Weighted average exercise price
Outstanding at the beginning of the year	7,006,275	$46.89	8,480,851	$32.84
Granted during the year	1,644,992	$99.67	1,977,621	$68.97
Forfeited during the year	(35,868)	$56.08	(154,000)	$42.31
Exercised during the year	(2,052,073)	$34.78	(3,298,197)	-$23.14
Outstanding at the end of the year	**6,563,326**	**$63.82**	7,006,275	$46.89

621,893 of the outstanding share appreciation rights (2017: 431,144) were exercisable at the balance sheet date with a weighted average exercise price of USD 25.68 (2017: USD 18.60). The share appreciation rights exercised during the year had a weighted average share price at the time of exercise of USD 131.96 (2017: USD 75.49).

As described above, in case of over achievement of earnings per share targets, certain share appreciation right grants may be increased by a maximum of 40% of the original grant. As at 31 December 2018 531,592 SARs have been added to the 2016-2018 plan as a result of overachievement. There are 5,409,841 remaining share appreciation rights (2017: 4,327,760) that may be subject to the over achievement provisions in the future with a weighted average exercise price of USD 70.15 (2017: USD 55.57).

Notes to the consolidated financial statements 31 December 2018 continued

26. SHARE BASED PAYMENTS CONTINUED

Share appreciation rights continued

Share options and share appreciation rights outstanding at the end of the year have exercise prices and weighted average remaining contractual lives as follows:

2018 Exercise price (USD)	Number	Remaining contractual life (years)
0-9.99	15,529	0.17
10-19.99	274,165	3.87
20-29.99	38,501	1.19
30-39.99	770,718	5.96
40-49.99	2,341,019	7.12
50-59.99	240,457	7.47
60-69.99	19,382	7.88
70-79.99	1,628,155	8.12
80-89.99	3,000	8.31
90-99.99	109,000	8.55
100-109.99	16,000	8.70
110-119.99	81,500	9.98
120-129.99	1,019,900	9.13
130-164.00	9,000	9.69
	6,566,326	**7.44**

2017 Exercise price (USD)	Number	Remaining contractual life (years)
6.75-13.91	38,112	1.56
14.2-18.1	164,442	4.54
20.28-26.26	202,590	4.27
31.94-36.85	2,647,828	6.64
43.69-49.12	1,973,043	8.10
53.38-65.92	212,660	8.58
70.87-103.74	1,770,600	9.16
	7,009,275	7.60

Fair value of stock options and share appreciation rights

The fair value of options and share appreciation rights granted during the period is determined using an 'Enhanced American Pricing Model'.

The weighted average fair value of share appreciation rights granted during the period was USD 23.53 (2017: USD 15.99). The significant inputs into the model were: weighted average share price at grant date of USD 99.96 (2017: USD 68.96), weighted average exercise price of USD 99.67 (2017: USD 68.97), standard deviation of expected share price returns of 30% (2017: 30%), weighted average option lives of 3.57 years (2017: 3.81 years), weighted average annual risk-free interest rate of 2.15% (2017: 2%) and weighted average expected dividend yield of 0.77% (2017: 1%). The volatility measured at the standard deviation of expected share price returns is based on statistical analysis of daily share prices over the relevant historical period.

Bonus plan shares

	2018 Number of shares	2017 Number of shares
Outstanding at the beginning of the year	14,521	–
Granted during the year	39,163	14,521
Forfeited during the year	(5,974)	–
Exercised during the year	–	–
Outstanding at the end of the year	**47,710**	14,521

Bonus plan

'For the year ended 31 December 2018 and 31 December 2017 the short term incentive plan in place for the senior management with specific bonus targets were offered a choice of receiving the final bonus in cash or 50% in cash and 50% in deferred shares with 20% uplift. In 2018 7,081 (2017: 14,521) deferred shares were committed under this scheme. The shares committed in 2017 vest on 1 March 2019 and the shares committed in 2018 vest on 1 March 2020.

Other Senior staff who fall under the Employee Short term variable plan are paid 50% of their bonus in cash and 50% in shares with 20% uplift. In 2018 31,637 deferred shares were committed under this scheme for the bonus relating to the financial year 2017. These shares will vest on 1 March 2019.'

Expense

The total expense recorded in the income statement in respect of employee share options, share appreciation rights, performance and loyalty shares and the profit share plan is USD 38.0 million (2017: USD 32.7 million).

27. DIVIDEND PER SHARE

Dividend is proposed by the Board of Directors and must be approved by the Annual General Meeting of the Shareholders. The dividend proposed for the 2018 financial year is amounting to CHF 52 million (CHF 0.75 per share) and it is not yet recorded as a liability. This amount may vary depending on the number of shares outstanding as of the ex-dividend date.

The dividend paid in 2018 related to 2017 financial year amounted to CHF 45.8 million (CHF 0.65 per share).

Notes to the consolidated financial statements 31 December 2018 continued

28. COMMITMENTS AND CONTINGENCIES

The Group has obligations under operating leases relating to office premises and leased equipment. The leases have varying terms, escalation clauses and renewal rights.

Payments recognized as an expense are as follows:

	2018 USD 000	2017 USD 000
Lease expense	17,713	16,697
Sub-lease income	(1,618)	(1,519)
	16,095	15,178

The future aggregate minimum lease and sub-lease payments under non-cancellable operating leases are as follows:

	2018 USD 000	2017 USD 000
No later than 1 year	15,695	15,299
Later than 1 year and no later than 5 years	37,299	33,568
Later than 5 years	3,960	6,791
Total	**56,953**	55,657

The Group's principal contingent liabilities arise from property rental guarantees, performance guarantees and bid bonds issued in the normal course of business. The Group is also involved in various lawsuits, claims, investigations and proceedings incidental to the normal conduct of its operations. These matters mainly include the risks associated with personnel litigation, tax claims and contractual disputes.

As at 31 December 2018, the guarantees in issue were USD 10.8 million (2017: USD 11.4 million).

Although an estimate of the future financial effects cannot be reliably and precisely estimated at the reporting date, it is not anticipated that any material liabilities will arise from these contingent liabilities other than those provided for in note 21.

29. RELATED PARTY TRANSACTIONS AND BALANCES

Remuneration of executive and non-executive directors is described in note 10. Equity compensation for executive and non-executive directors granted in the form of options, stock appreciation rights and shares is described in note 26.

There were no other significant transactions with related parties during the year ended 31 December 2018.

30. EVENTS AFTER THE REPORTING PERIOD

There are no reportable events that occurred after the reporting period.