Notes to the consolidated financial statements 31 December 2019

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.

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 2020.

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 measurement principles.

The preparation of financial statements in conformity with the IFRS 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 2019

IFRS 16 'Leases'

IFRS 16 primarily changes lease accounting for lessees. Lease agreements will give rise to recognition of an asset representing the right to use the leased asset and lease liability representing its obligation for future lease payments. The nature of expense related to the lease has now changed as straight-line operating lease expense is replaced by depreciation expense associated with right-of-use asset and interest expense on lease liabilities. The Group has identified all the leases that are currently in use and majority of these leases are for office-related rentals.

As of 1 January 2019, the Group adopted IFRS 16 'Leases', using modified retrospective approach. This new standard replaces the IAS 17 'Leases'. The transition effect into the new lease standard is accounted by recognizing the cumulative effect of initially applying the standard as an opening balance sheet adjustment to retained earnings at 1 January 2019 without any adjustment to prior year comparative information and it's continued to be reported under IAS 17 and related interpretations.

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 2019 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
- relying on previous assessments on whether leases are onerous as an alternative to performing an impairment review – there was no onerous contract as at 1 January 2019

The only exceptions are short term and low-value lease (accounting policy choices elected by the Group as permitted by IFRS 16) which are recorded as part of operating expenses over the term of the lease.

Initial application of IFRS 16 as at 1 January 2019 has resulted in the following opening balance adjustments on the Group's consolidated statement of financial position. The net impact was a reduction in retained earnings of USD 1.8 million.

	IFRS 16 adoption USD 000
Assets	
Property, plant and equipment	45,085
Other assets (current/non-current)	3,327
Total assets	48,412
Liabilities	
Borrowings (current/non-current)	53,175
Other liabilities (current/non-current)	(2,937)
Total liabilities	50,238
Equity	
Retained earnings	(1,826)

2. Accounting policies continued

2.1 Basis of preparation continued

The following is a reconciliation of total operating lease commitments at 31 December 2018 (as disclosed in the financial statements to 31 December 2018) to the lease liabilities recognized at 1 January 2019:

	USD 000
Total operating lease commitments net of sub-lease at 31 December 2018 as disclosed under IAS 17 (note 29)	56,953
Sub-lease add back	2,878
Operating lease commitments at 31 December 2018	59,831
Impact of discounting*	(4,432)
Recognition exemptions:	
Leases of low value assets	(1,029)
Leases with remaining lease term of less than 12 months	(917)
Other reconciling items	(278)
Total lease liabilities recognized under IFRS 16 at 1 January 2019	**53,175**

* On initial application of IFRS 16, the lease liabilities on pre-existing leases classified as operating leases under IAS17 were measured at the present value of the remaining lease payments and were discounted at the incremental borrowing rates as at 1 January 2019. The weighted average discount rate applied to the lease liabilities on 1 January 2019 was 2.7%.

There is no significant impact on net profit in 2019, and on the cash flow statement, cash flow from operating activities is offset by a corresponding decline in cash flow from financing activities.

Following the adoption of the new standard, the Group has updated its accounting policies for leases (refer 2.12).

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. This interpretation did not have a significant impact on the Group financial statements. The Group has applied this interpretation 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 has applied the 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 has applied the amendment for the financial reporting period commencing on 1 January 2019.

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

Standards, amendments and interpretations relevant to the Group's operation that are not yet effective

The following amendments have been published and are mandatory for the Group's accounting periods beginning on or after 1 January 2020. Unless otherwise indicated, these publications are not expected to have any significant impact on the Group's financial statements:

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.

IFRS 9 'Financial instruments', IAS 39 'Financial instruments Recognition and measurement' and IFRS 7 'Financial instruments: Disclosures' (amendment), effective for annual periods beginning on or after 1 January 2020. The amendment provides guidance to assist in a smoother transition away from Interbank Offered Rate (IBOR). The amendment is split into a two-phase process, and phase one has been issued which is effective 1 January 2020. Phase one focuses on hedge accounting issues related to uncertainties arising in the period leading up to the replacement of IBOR. The amendment apply to all hedge relationship that are directly affected by interest rate benchmark reform. Since the Group does not currently hold any hedge relationship that refers to IBOR, this amendment is not expected to have a material effect on the Group's financial statements. 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, the date of transaction is the date when the consideration is realized.

Foreign exchange differences arising from the settlement or 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 or 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 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, any impairment loss would be immaterial. The Group applies the low credit risk option and 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. Accounting policies continued

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.

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 (excludes software technologies acquired through business combination) 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.

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. Currently reported technologies acquired through business combination have useful life between five and eight years.

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 five and 16 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. Accounting policies continued

2.9 Taxation

The tax expense for the period comprises current and deferred tax. Current income tax and deferred income tax is recognized under IAS 12 'Income Tax' and IFRIC 23 'Uncertainty over income tax treatments'.

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 tax is recognized 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. They 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 and they are subsequently amortized within 'Finance costs' over the life of the instrument.

Interests accrued on drawn portion of the banking facilities are reported as other payable within trade and other payables.

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.

Roll-over of loans drawn under a facility agreement is reported net in the statement of cash flows.

2.12 Leases

Identification of a lease

The Group now assesses whether a contract is or contains a lease based on the new definition of a lease under IFRS 16. Under IFRS 16, a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

To apply this definition the Group assesses whether the contract meets these evaluations:

- the contract contains an identified asset that is either explicitly specified or implicitly specified at the time that the asset is made available for use by the Group;
- the Group has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use;
- the Group has the right to direct the use of the identified asset throughout the period of use or the Group has the right to operate the asset throughout the period of use, without the supplier having the right to change those operating instructions.

The policy is applied only to contracts entered into or changed on or after 1 January 2019. Contracts that were not identified as leases under IAS 17 and IFRIC 4 were not reassessed.

The Group has elected to separate non-lease component and they are accounted as an expense in profit or loss.

In few cases, where the Group acts as an intermediate lessor, it classifies the sub-lease either as operating or a finance lease based on the lease term and the right-of-use-asset being sub-leased. If sub-lease is classified as a finance lease the future discounted cash flow is recognized as a receivable with a corresponding decrease of the right-to-use asset.

Recognition and measurement of a lease

At lease commencement date, the Group recognizes a right-of-use asset and a lease liability on the balance sheet. Assets and liabilities arising from a lease are initially measured on a present value basis.

Lease liabilities are measured at the present value of the contractual payments due to the lessor over the lease term, with the discount rate determined by reference to the rate inherent in the lease unless (as is typically the case) this is not readily determinable, in which case the Group use the incremental borrowing rate which consist of risk free rate of currency of the lease plus the premium arising from the Group's credit risk. Lease payments included in the measurement comprise of fixed payments, variable lease payments that depend on an index or a rate, amounts to be paid under a residual value guarantee (if any).

The right-of-use asset is initially measured at cost, which is made up of the initial measurement of the lease liability, any initial direct costs incurred by the Group, an estimate of any costs to dismantle and remove the asset at the end of the lease, and any lease payments made in advance of the lease commencement date (net of any incentives received).

The Group depreciates the right-of-use assets on a straight-line basis over the lease term.

The lease term determined at the commencement of lease represents the non-cancelable period of a lease and includes period covered by an option to extend or option to terminate. An option to extend or terminate the lease is included to the lease period either at the commencement of lease or during the lease period when exercising such option is reasonably certain.

Leases of low-value and short term

Short-term leases are leases with a lease term of 12 months or less. The Group defines assets with estimated market value of USD 5 thousand when new as low value assets. The payments in relation to these leases are recognized as an expense in profit or loss on a straight-line basis over the lease term and treated as an outflow from operating activities on the statement of cash flows.

Re-measurement of a lease

The lease liability and right of use assets initially recognized are re-measured on occurrence of below events:

- Change in lease term (renewal or termination options taken into consideration) – Re-measured using discount rate at the time of re-measurement;
- Change in index rate affecting future lease payments – Discount rate is unchanged (initial recognition)

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 25), 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 25).

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'.

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, either licensed or owned by the customer once complete, 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.

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 through out their term. At each point a contract is modified, Temenos asses 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 is 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. Customer 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 mandays input method for the fixed price service offering. The input method assures we are aligned to milestone 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.

2. Accounting policies continued

2.17 Revenue recognition continued

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.

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 classified 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 IFRS15 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, convertible notes 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.

Convertible notes

Convertible notes are subsequently measured at fair value through profit or loss. They are reported as non-current asset when the final redemption date is more than 12 month after the reporting period and the Group intends to hold the asset until maturity.

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 recognised 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 to the extent that the forecast transaction do not result in the recognition of a non-financial asset or a non-financial liability (e.g. fixed assets, deferred revenue) in which case the gains and losses 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. They are subsequently recognized in profit or loss or included in the initial the cost or carry amount of a non-financial asset or liability either over the period of the hedging relationship for a 'time-period related' hedge or when the hedge item occurs for a 'transaction related' hedge. The fair value change of any unaligned portion of the time value of an option is recognized in profit or loss.

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.

2. Accounting policies continued

2.23 Fair value measurement continued

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.

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.

2.26 Comparative information

The Group has re-presented comparative information to reflect the finalization of the initial accounting of Avoka Technologies Pty Limited (note 6). Given the effect of the re-presentation is not material, the Group has decided not to present a third statement of financial position as at 1 January 2018.

3. Financial instruments

3.1 Accounting classifications

The Group holds the following financial instruments to which the accounting policies according to IFRS7 'Financial Instruments: Disclosures' applies:

	2019 USD 000	2018 USD 000
Financial assets		
Financial asset measured at fair value through profit or loss (FVTPL)	**8,331**	4,215
Financial asset measured at fair value through other comprehensive income (FVOCI)	**16,079**	15,000
Derivatives instruments used for hedging	**2,382**	2,787
Financial asset measured at amortized cost	**511,746**	562,339
Total	**538,538**	584,341

	2019 USD 000	2018 USD 000
Financial liabilities		
Financial liabilities measured at fair value through profit or loss (FVTPL)	**1,868**	1,087
Derivatives instruments used for hedging	**12,627**	20,532
Contingent consideration	**20,930**	–
Financial liabilities measured at amortized cost	**1,385,402**	974,597
Total	**1,420,827**	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 and cash flow interest rate 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 them 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. 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 maintained 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 could have a significant adverse effect in the financial statements. The Group uses forward exchange contracts and options as heading derivatives.

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 and applies cash flow hedge accounting.

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 does not perfectly match the terms of the hedged item. Possible source of ineffectiveness may arise from 1) increase in credit risk for 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 instruments 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 its subsidiaries.

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

	Net exposure	
	2019 FCY* 000	2018 FCY* 000
Euro	**(9,161)**	3,891
UK pounds	**(5,892)**	(6,606)
Swiss francs	**9,381**	(8,788)
India rupee	**(119,925)**	(187,215)

* 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.

However these do not include derivatives and recognized assets and liabilities that are part of an existing cash flow hedge relationship.

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.

2019	Euro USD 000	UK pounds USD 000	Swiss francs USD 000	India rupee USD 000
Sensitivity assumption	+10%	+10%	+10%	+10%
Profit or (loss)	(1,027)	(777)	969	(168)
Other comprehensive income:				
Cash flow hedging related to forecast transaction	(4,387)	1,078	2,202	3,926
Cash flow hedging related to long-dated liability	(1,747)	–	1,223	–
	(6,134)	1,078	3,425	3,926
Equity	(7,161)	301	4,394	3,758
Sensitivity assumption	-10%	-10%	-10%	-10%
Profit or (loss)	1,027	777	(969)	168
Other comprehensive income:				
Cash flow hedging related to forecast transaction	4,387	(1,078)	(2,202)	(3,926)
Cash flow hedging related to long-dated liability	1,747	–	(1,223)	–
	6,134	(1,078)	(3,425)	(3,926)
Equity	7,161	(301)	(4,394)	(3,758)

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)

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

(ii) 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 customer 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, Group's 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 assess 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 2019 and 2018, 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 analyzing 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 2019, the credit risk exposure on the Group's trade receivables and contract assets is as follows:

	2019 USD 000
Expected credit loss rate	0.75%
Gross carrying amount for trade receivables and contract assets	325,761
Provision for credit losses	2,439

The Group's exposure to credit risk from balances due from its customer 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 receivable 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 present and future financial outcome expected to be settled in the short or near term, under both normal and stressed conditions. The net debt and liquidity position are monitored on the basis of actual liabilities to be settled as well as rolling forecasts for future transactions. Excess of cash is primarily used to repay any drawn borrowing facilities (note 18) and then invested in highly liquid instruments with maturities of three months or less.

Investment rules, cash concentration exposure and liquidity risk monitoring are managed by the Group's treasury department.

3. Financial instruments continued

3.2 Financial risk factors continued

Liquidity risk continued

The following table details the remaining contractual maturity of the Group's 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 2019					
Trade and other payables	172,438	15,712	1,540	–	–
Property provision	163	–	699	–	–
Borrowings					
Lease liabilities	10,075	9,939	29,670	11,166	8,563
Other borrowings	6,395	86,869	310,342	545,793	230,811
Total non-derivatives financial liabilities	189,071	112,520	342,251	556,959	239,374

	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 (re-presented)	148,022	13,042	–	–	–
Property provision	58	323	261	–	–
Borrowings	310,648	3,380	9,655	380,953	155,104
Total non-derivatives financial liabilities	458,728	16,745	9,916	380,953	155,104

The following table details the Group's 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	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 2019						
Cross currency swaps	–	2,057	–	2,057	9,970	–
Outflow foreign exchange derivatives	105,112	8,963	22,810	2,307	–	–
Inflow foreign exchange derivatives	(103,282)	(8,894)	(22,612)	(2,287)	–	–
Net settled foreign exchange derivatives	120	320	–	–	–	–
Total derivatives	1,950	2,446	198	2,077	9,970	–

	Less than 3 months USD 000	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						
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	–

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 facility agreement. 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 2019	Level 1 USD 000	Level 2 USD 000	Level 3 USD 000	Total USD 000
Financial assets at FVTPL				
Foreign currency forwards (note 15)	–	2,184	–	2,184
Foreign currency options (note 15)	–	147	–	147
Convertible notes (note 15)	–	–	6,000	6,000
Derivatives used for hedging				
Foreign currency forwards (note 15)	–	2,314	–	2,314
Foreign currency options (note 15)	–	68	–	68
Financial assets at FVOCI				
Equity securities (note 15)	–	–	16,079	16,079
Total	–	4,713	22,079	26,792

	Level 1 USD 000	Level 2 USD 000	Level 3 USD 000	Total USD 000
Financial liabilities at FVTPL				
Foreign currency forwards (note 15)	–	1,868	–	1,868
Contingent consideration (note 6)	–	–	20,930	20,930
Derivatives used for hedging				
Foreign currency forwards (note 15)	–	670	–	670
Cross currency swaps (note 15)	–	11,957	–	11,957
Total	–	14,495	20,930	35,425

Year ended 31 December 2018	Level 1 USD 000	Level 2 USD 000	Level 3 USD 000	Total USD 000
Financial assets at FVTPL				
Foreign currency forwards (note 15)	–	4,215	–	4,215
Derivatives used for hedging				
Foreign currency forwards (note 15)	–	2,787	–	2,787
Financial assets at FVOCI				
Equity securities (note 15)	–	–	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				
Foreign currency forwards (note 15)	–	1,087	–	1,087
Derivatives used for hedging				
Foreign currency forwards (note 15)	–	1,360	–	1,360
Cross currency swaps (note 15)	–	19,172	–	19,172
Total	–	21,619	–	21,619

3. Financial instruments continued

3.4 Fair value measurement continued

Valuation techniques and key inputs

Foreign currency forwards

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.

Foreign currency option:
Black-Scholdes model

Cross currency swaps:
Discounted cash flow method: The future cash flows are discounted using the interest zero 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.

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 which represents an estimated weighted average cost of capital of the underlying company.

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

Convertible notes

The fair value represents the lesser of the conversion value and the future cash flows (principal + interests) which is discounted at the incremental rate of the notes. At the reporting date both values were equal.

Reasonable change in the discounted rate or the price of the underlined equity securities would not materially affect the fair value at the reporting date.

Contingent consideration

The fair value represents the present value of the expected payments discounted at a risk-adjusted rate. The earn out consideration is determined by the expected future cash flow arisen from the targeted revenue and annual contract value based on most recent financial budget of the acquiree. The probability risk attributable to the financial budget is embedded into the discount rate (note 6).

Reasonable change in the forecasted revenue and annual contract value, as well as the discount rate will not materially affect the fair value at the reporting date.

Reconciliation from the opening balances to the closing balances:

	Equity Securities USD 000	Convertible note USD 000	Contingent Consideration USD 000
At 1 January 2018	–	–	–
Purchases (note 15)	15,000	–	–
Earn out true-up to 'Cost of Sales'	–	–	–
Unwinding of discount to 'Finance costs'	–	–	–
At 31 December 2018	15,000	–	–
Purchases (note 15)	–	6,000	–
Fair value change through OCI	1,079	–	–
Acquisition of business (note 6)	–	–	20,930
Unwinding of discount to 'Finance costs'	–	–	–
At 31 December 2019	**16,079**	**6,000**	**20,930**

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, the Group held the following derivatives as hedging instruments.

Year ended 31 December 2019

	Time band		
	1-6 months	6-12 months	More than one year
Foreign currency risk			
Purchase of foreign currency forwards:			
Nominal amount expressed in USD equivalent (in thousands)	**36,585**	**25,191**	**13,037**
USD/CHF VWAP	**0.972**	**0.960**	**0.955**
GBP/USD VWAP	**1.327**	**1.307**	**1.277**
USD/INR VWAP	**74.085**	**75.641**	**76.126**
USD/RON VWAP	**4.254**	**4.294**	**4.382**
Sale of foreign currency forwards:			
Nominal amount in USD equivalent (in thousands)	**18,409**	**23,402**	**2,287**
EUR/USD VWAP	**1.151**	**1.142**	**1.143**
Foreign currency options:			
Nominal amount expressed in USD equivalent (in thousands)	**1,920**	**–**	**–**
GBP/USD strike	**1.28-1.209**	**–**	**–**
Cross currency swaps			
Nominal amount in CHF	**–**	**–**	**150,000**
EUR/CHF VWAP	**–**	**–**	**1.033**

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

Year ended 31 December 2018

	Time band		
	1-6 months	6-12 months	More than one year
Foreign currency risk			
Purchase of foreign currency forwards:			
Nominal amount expressed in USD equivalent (in thousands)	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
Sale of foreign currency forwards:			
Nominal amount in USD equivalent (in thousands)	24,279	19,899	3,604
EUR/USD VWAP	1.23	1.22	1.20
Cross currency swaps			
Nominal amount in CHF	–	–	150,000
EUR/CHF VWAP	–	–	1.03

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

3. Financial instruments continued

3.5 Hedging continued

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

Year ended 31 December 2019	Carrying amount Assets USD 000	Carrying amount Liabilities USD 000	Line item in the statement of financial position	Period change in value used to determine hedge ineffectiveness USD 000
Foreign exchange risk				
Cash flow hedges				
Foreign currency forwards	2,314	670	Other financial assets and liabilities (note 15)	1,447
Foreign currency options	68	–	Other financial assets and liabilities (note 15)	58
Cross currency swaps	–	11,957	Other financial assets and liabilities (note 15)	7,215

Items designated as hedge item

Year ended 31 December 2019	Period change in value used to determine hedge ineffectiveness USD 000	Cash flow hedge reserve USD 000	Costs of hedging reserve USD 000
Cash flow hedges			
Foreign exchange risk			
Forecast transactions	1,505	1,721	9
Borrowings	7,215	(3,878)	–

Year ended 31 December 2018	Carrying amount Assets USD 000	Carrying amount Liabilities USD 000	Line item in the statement of financial position	Period change in value used to determine hedge ineffectiveness USD 000
Foreign exchange risk				
Cash flow hedges				
Foreign currency forwards	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

Year ended 31 December 2018	Period 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	(5,428)

Note 26 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 (2018: 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 2019

	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)	**327,794**	**(4,472)**	**323,322**	**–**	**323,322**
Derivatives financial assets (note 15)	**4,713**	**–**	**4,713**	**(1,085)**	**3,628**
Total	**332,507**	**(4,472)**	**328,035**	**(1,085)**	**326,950**
Financial liabilities					
Trade payables (note 18)	**47,015**	**(4,472)**	**42,543**	**–**	**42,543**
Derivatives financial liabilities (note 15)	**14,495**	**–**	**14,495**	**1,085**	**13,410**
Total	**61,510**	**(4,472)**	**57,038**	**1,085**	**55,953**

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 (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

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.

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 2019 the carrying amount of the goodwill amounts to USD 1,079.4 million (2018: USD 635 million (re-presented)).

Purchase Price Allocation (PPA)

The Group recognized acquired intangible assets applying acquisition method of accounting, of USD 247 million (excluding goodwill) resulting from acquisitions, principally Kony Inc. Purchase Price Allocation (PPA) was performed by independent valuers in order to determine the fair value of the intangible assets such as intellectual property (IP) and customer relationship where certain assumptions and estimates were taken into consideration based on information available. The PPA further determined the useful lives of the intangible assets acquired. These acquisitions and the fair values recognized for the acquired intangible assets are set out in note 6.

Revenue recognition

As detailed in note 2.17, the Group is required to make an assessment for each new software licence 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 licence 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 assessed under variable consideration guidance. 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 service revenue, the management exercises judgment in determining the percentage of completion, specifically with regards to the total man-days 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 269.7 million (2018: USD 229.5 million) and the total capitalized development costs was USD 64.6 million (2018: USD 52.6 million).

5. Group companies

The consolidated financial statements include the accounts of Temenos AG and the following entities as of 31 December 2019:

Company name	Country of incorporation	2019 Ownership interest	2018 Ownership interest
Avoka Technologies Pty Limited	Australia	100%	100%
Infinitive Pty Limited	Australia	100%	100%
Rubik Esop Trusco Pty Limited	Australia	100%	100%
Rubik Ip Holdings Pty Limited	Australia	100%	100%
Rubik Mortgages Pty Limited	Australia	100%	100%
Stargate Information Systems Pty Limited	Australia	100%	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%
Sky Technologies Pty Limited*	Australia	100%	0%
Sky Technologies Consulting Pty Limited*	Australia	100%	0%
Sky Technologies Holdings Pty Limited*	Australia	100%	0%
Temenos Belgium SA	Belgium	100%	100%
Odyssey Financial Technologies SA	Belgium	100%	100%
Temenos Software Brasil Limitada	Brazil	100%	100%
Temenos Holdings Limited	British Virgin Islands	100%	100%
Temenos Bulgaria Eood	Bulgaria	100%	100%
Avoka Technologies Canada Inc.	Canada	100%	100%
Temenos Canada Inc.	Canada	100%	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%	100%
Odyssey Financial Technologies GmbH**	Germany	0%	100%
Temenos Deutschland GmbH	Germany	100%	100%
Igefi Deutschland GmbH**	Germany	0%	100%
Temenos Hellas SA	Greece	100%	100%
Avoka Hong Kong Limited***	Hong Kong	0%	100%
Temenos Finance Hong Kong Limited****	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%
hTrunk Software Solutions Private Limited*	India	100%	0%
Kony India Private Limited*	India	100%	0%
Kony IT Services Private Limited*	India	100%	0%
Kony Marketing Services Private Limited*	India	100%	0%
Kony Services India LLP*	India	100%	0%
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%
Temenos Software Luxembourg SA	Luxembourg	100%	100%
Odyssey Group SA	Luxembourg	100%	100%
Igefi Group SARL	Luxembourg	100%	100%
Temenos (Malaysia) Sdn Bhd	Malaysia	100%	100%

5. Group companies continued

Company name	Country of incorporation	2019 Ownership interest	2018 Ownership interest
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%
Kony Solutions BV*	Netherlands	100%	0%
Temenos Panama SA	Panama	100%	100%
Temenos Philippines Inc.	Philippines	100%	100%
Temenos Polska Sp.z.o.o	Poland	100%	100%
Finch Software Limited***	Republic Of Mauritius	0%	100%
Kony Solutions Limited*	Republic Of Mauritius	100%	0%
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%
Kony Singapore Pte Limited*	Singapore	100%	0%
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%	100%
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	0%	100%
Temenos Cloud Americas LLC	USA	100%	100%
Avoka (USA), Inc.	USA	100%	100%
Temenos Holdings USA, Inc.****	USA	100%	0%
Kony, Inc.*	USA	100%	0%
Kony Services, Inc.*	USA	100%	0%
Temenos Ukraine LLC	Ukraine	100%	100%
Temenos UK Limited	United Kingdom	100%	100%
Avoka Europe Limited	United Kingdom	100%	100%
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%
Temenos FOFL Limited*****	United Kingdom	100%	100%
Temenos FOGT Limited*****	United Kingdom	100%	100%
Igefi UK Limited	United Kingdom	100%	100%
Lydian Associates Limited***	United Kingdom	0%	100%
Fino Software Services Limited***	United Kingdom	0%	100%
Wealth Management Software Limited***	United Kingdom	0%	100%
Odyssey Financial Technologies Plc	United Kingdom	100%	100%
Edge Ipk Limited	United Kingdom	100%	100%
Temenos Holdings UK Limited***	United Kingdom	0%	100%
Logical Glue 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); Taipei (Taiwan); Islamabad (Pakistan); Jakarta (Indonesia); New York (U.S.A); Tunis (Tunisia); Nantes (France); Helsinki (Finland); Colombo (Sri Lanka); Malmo (Sweden); London (UK) and Renens (Switzerland).

* Companies acquired as part of acquisition of business in 2019.
** Merger of companies: Merger of ODYSSEY FINANCIAL TECHNOLOGIES GMBH and IGEFI DEUTSCHLAND GMBH with TEMENOS DEUTSCHLAND GMBH/Merger of IGEFI US LLC with TEMENOS (USA), INC. in 2019.
*** Companies struck-off in 2019.
**** Companies set up in 2019.
***** Change of company name – FAIRS LIMITED changed to TEMENOS FOFL LIMITED/GENISYS TECHNOLOGY LIMITED change to TEMENOS FOGT LIMITED.

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 acquisition

Avoka Technologies Pty Limited

The following tables summarize the financial effect of the finalization of the initial accounting as at 31 December 2019.

	2018 Initial Accounting USD 000	Accounting adjustment USD 000	Total USD 000
Purchase consideration			
– Cash consideration	253,997	688	254,685
Fair value of net asset acquired	119,932	(5,731)	114,201
Goodwill	134,066	6,419	140,485

As required by IFRS 3 : 'Business combinations', comparative information has been re-presented to reflect the finalization of initial accounting.

Subsequent adjustment by category

	2018 Initial Accounting USD 000	Accounting adjustment USD 000	Total USD 000
Cash & cash equivalents	11,535	–	11,535
Trade and other receivables	9,271	(200)	9,071
Property, plant and equipment	825	–	825
Intangible assets (note 17)	141,548	(5,347)	136,201
Trade and other payables	(5,919)	(1,184)	(7,103)
Provision for other liabilities	(430)	–	(430)
Deferred tax liabilities	(27,550)	600	(26,950)
Deferred revenues	(9,349)	400	(8,949)
Total	119,932	(5,731)	114,201

Current year acquisitions

hTrunk Software Solutions Private Limited

On 5 March 2019, the Group acquired 100% of the share capital of hTrunk Software Solutions Private Ltd a fast growing company providing big data and analytics solutions to the banking industry.

The fair value of purchase consideration transferred at acquisition date comprises of:

	USD 000
Cash consideration	1,384
Deferred consideration	1,064
Contingent consideration	689
Total	3,137
Consideration paid in cash	1,384
Cash and cash equivalents acquired	(12)
Cash outflow on acquisition	1,372

The fair value of identifiable net asset which includes software technology is USD 0.8 million, resulting in goodwill of USD 2.3 million.

The goodwill arising from the acquisition is mainly attributed to cross selling opportunities and strengthening the Group's big data expertise and presence. The goodwill recognized is not tax deductible for income tax purposes.

The initial accounting has been provisionally completed at 31 December 2019.

6. Business combinations continued

Current year acquisitions continued

Logical Glue Limited

On 17 July 2019, the Group acquired 100% share capital of Logical Glue Limited ('Logical Glue'), a London based provider of a patented, award winning Explainable AI (XAI) platform with financial clients in the UK and Europe.

Logical Glue was co-founded in 2012 by Professor Hani Hagras, who is an award-winning, global expert in Fuzzy Logic and XAI systems and the most highly cited researcher in the area of XAI. Logical Glue's patented XAI platform, which is based on Fuzzy Logic, has won numerous awards, including the Lord Stafford Achievement in Innovation Award and the Most Innovative Cloud Product by the Computing Excellence Awards. It has built a team of highly skilled individuals with deep expertise in AI and Machine Learning.

The acquisition accelerates Temenos' AI roadmap by bringing together a patented, proven, industry-first XAI platform, AI credit scoring models as well as deep AI and Machine Learning expertise.

The goodwill arising from the acquisition is mainly attributed to opportunities to cross-sell the Logical Glue platform and strengthening the Group's AI capabilities.

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

Fair value of the consideration transferred at acquisition date	USD 000
Cash consideration	13,142
Deferred consideration	1,583
Total	14,725

Fair value of the identifiable assets acquired and liabilities assumed	Total USD 000
Cash & cash equivalents	432
Trade and other receivables	314
Property, plant and equipment (note 16)	18
Intangible assets (note 17)	5,090
Trade and other payables	(822)
Deferred revenues	(278)
Deferred tax liabilities (note 21)	(869)
Total	3,884
Goodwill	10,841
Acquisition-related costs included in 'General and administrative' line in the statement of profit or loss	365
Net consideration paid in cash	13,142
Cash and cash equivalents acquired	(432)
Cash outflow on acquisition	12,710

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 acquiree in the period between the date of acquisition and the reporting date is not significant.

Had the acquisition occurred on 1 January 2019, the contribution by the acquiree to the Group's consolidated revenue and profit or loss would not have been significant.

The initial accounting has been provisionally completed at 31 December 2019. The Group is still evaluating the fair value of the net assets acquired.

Kony Inc

On 20 September 2019, the Group acquired 100% share capital of Kony Inc, the fastest growing digital banking SaaS company headquartered in Austin, US.

Kony has achieved rapid growth with both top tier and mid-market banks in the US and internationally with its Kony Digital Banking Experience product (Kony DBX) which is recognized as a leader by top analyst firms such as Gartner, Forrester and IDC. With 1,500 employees and deep expertise in digital and cloud technologies, Kony has been helping banks transform the experience for their clients with digital banking applications and its market leading development platform, all of which are served through a cloud hosted SaaS model.

The acquisition significantly enhances Temenos' scale and capabilities in the US, adds significant digital expertise and accelerates Temenos Infinity, the breakthrough digital front office product, which has over 500 banking clients.

The combined strength of Temenos, Kony and the recently acquired Avoka, will further strengthen the Temenos Infinity product, covering all banking verticals offering customer acquisition and onboarding, omni-channel banking, customer retention and marketing, and modules supporting payments, wealth advisor, financial crime, risk and compliance and analytics.

The goodwill arising from the acquisition is mainly attributed to cross-selling opportunities and strengthening 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	512,491
Contingent consideration	20,241
Total	532,732

Fair value of the identifiable assets acquired and liabilities assumed	Total USD 000
Cash & cash equivalents	5,774
Trade and other receivables	24,639
Property, plant and equipment (note 16)	4,841
Intangible assets (note 17)	241,125
Deferred tax assets (note 21)	40
Trade and other payables	(20,854)
Borrowings (including lease liabilities)	(55,413)
Income tax liabilities	(15,743)
Deferred revenues	(18,003)
Deferred tax liabilities (note 21)	(64,500)
Retirement benefit obligations	(2,504)
Total	99,401

Goodwill	433,331

Acquisition-related costs included in 'General and administrative' line in the statement of profit or loss	3,733

Consideration paid in cash	512,491
Debt repayment on acquisition date*	51,602
Cash and cash equivalents acquired	(5,774)
Cash outflow on acquisition	558,319

* Kony Inc outstanding term loan repaid on acquisition was triggered by a change of control.

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 USD 24.2 million and USD 14.6 million loss, respectively.

Had the acquisition occurred on 1 January 2019, the Group's consolidated statement of profit or loss would have reported a pro-forma revenue of USD 1,042.5 million and a pro-forma profit of USD 160.2 million.

The contingent consideration arrangement requires the Group to pay in cash an earn-out contribution based on the achievement of annual contract value targets over the fiscal year 2020 ('FY 2020') of the acquiree. The maximum undiscounted consideration value is USD 21 million and was deposited into an escrow account at the acquisition date and reported under other receivables (note 14).

The fair value of contingent consideration was estimated the present value of future expected cash flows.

The initial accounting has been provisionally completed at 31 December 2019. The Group is still evaluating the fair value of the net assets which includes acquired intangible assets.

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	
	2019 USD 000	2018 USD 000	**2019 USD 000**	2018 USD 000	**2019 USD 000**	re-presented 2018 USD 000
Revenues	**802,644**	687,279	**177,950**	153,688	**980,594**	840,967
Operating contribution	**407,553**	352,941	**33,090**	30,571	**440,643**	383,512
Total assets	**224,934**	197,970	**98,388**	64,299	**323,322**	262,269

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 1,079.4 million (2018: 635 million (re-presented)) was allocated to the product segment.

Reconciliation to Group's consolidated financial statements	**2019 USD 000**	2018 USD 000
Total operating contribution from the reportable segments	**440,643**	383,512
Fair value adjustment on acquired deferred income liability	**(8,625)**	(106)
Depreciation and amortization (note 9)	**(130,608)**	(92,746)
Unallocated expenses	**(65,990)**	(71,890)
Finance costs – net (note 11)	**(22,867)**	(23,369)
Profit before taxation	**212,553**	195,401

Total assets	**2019 USD 000**	re-presented 2018 USD 000
Total assets allocated to the reportable segments	**323,322**	262,269
Unallocated items:		
Other receivables	**73,242**	31,913
Cash and cash equivalents	**152,785**	287,439
Other financial assets	**26,792**	22,002
Property, plant and equipment	**67,283**	18,021
Intangible assets	**1,659,822**	1,009,945
Deferred tax assets	**19,155**	17,663
Total assets per the statement of financial position	**2,322,401**	1,649,252

Geographical information

Revenues from external customers	2019 USD 000
Switzerland (country of the Group's domiciliation)	**34,893**
United States of America	**129,420**
Luxembourg	**61,735**
United Kingdom	**58,501**
Australia	**54,272**
Ireland	**44,756**
Total – material countries	**383,577**
Rest of Europe	**210,499**
Middle-East & Africa	**150,593**
Rest of Asia	**135,420**
Rest of America	**91,881**
Total revenues	**971,970**

Revenues from external customers	2018 USD 000
Switzerland (country of the Group's domiciliation)	29,859
United States of America	94,115
Luxembourg	61,711
United Kingdom	52,840
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 America	65,580
Total revenues	840,861

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	2019 USD 000
Switzerland (country of the Group's domiciliation)	**148,372**
United States of America	**732,077**
Australia	**322,867**
Luxembourg	**286,960**
United Kingdom	**73,856**
France	**61,417**
Other countries	**101,556**
Total	**1,727,105**

	re-presented 2018 USD 000
Switzerland (country of the Group's domiciliation)	133,236
Australia	327,726
Luxembourg	315,907
United States of America	62,563
France	61,365
United Kingdom	53,165
Other countries	74,004
Total	1,027,966

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 reporting period:

	2019			2018		
	Within one year USD 000	More than one year USD 000	Total USD 000	Within one year USD 000	More than one year USD 000	Total USD 000
Revenue expected to be recognized	**499,218**	**1,182,396**	**1,681,614**	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

	2019 USD 000	2018 USD 000
Contract assets	**51,211**	37,488
Deferred revenues	**287,325**	262,861

The amount of revenue recognized for the period ended 31 December 2019 from the deferred revenues balance at the beginning of the period is USD 191.4 million (2018: USD 180.2 million).

The amount of revenue recognized for the period ended 31 December 2019 from performance obligations satisfied (or partially satisfied) in previous periods is USD 6.7 million (2018: 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.

	2019 USD 000	2018 USD 000
Asset recognized from cost incurred to fulfill a contract:		
– Customization developments capitalized as work in progress	**641**	2,319

Cost associated with customization developments is recognized to statement of profit or loss when delivery is performed. In 2019, the amount recognized to profit or loss was USD 2.1 million (2018: USD 3.8 million).

	2019 USD 000	2018 USD 000
Asset recognized from cost to obtain the contract:		
– Sales Commission on SaaS contracts	**4,352**	988

Capitalized commission is amortized over the life of contract committed for by the customer as commission are driven by commitment period. In 2019, the amount amortized to profit or loss during the reporting period was USD 0.4 million (2018: 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.

9. Expenses by nature

	2019 USD 000	2018 USD 000
Third party licences and commissions	**30,685**	23,257
Personnel costs and external consultants	**530,301**	450,845
Depreciation and amortization (notes 16 and 17)	**130,608**	92,746
Travel expenses	**37,622**	31,940
Rent and other occupancy costs	**8,971**	21,877
Marketing and other professional costs	**26,370**	24,150
Other costs	**36,642**	29,901
Capitalized development costs (note 17)	**(64,649)**	(52,625)
	736,550	622,091

10. Employee benefit expenses

	2019 USD 000	2018 USD 000
Wages and salaries	**331,948**	278,028
Termination benefits	**5,157**	2,283
Social charges	**64,606**	56,200
Defined contribution pension costs	**10,676**	8,672
Defined benefit pension costs (note 23)	**2,704**	3,014
Cost of employee share option scheme (note 27)	**39,463**	38,018
	454,554	386,215

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

	2019 USD 000	2018 USD 000
Key management personnel of Temenos AG		
– Short term cash compensation and benefits	**6,617**	6,897
– Post-employment benefits	**303**	236
– Share-based payment	**21,437**	19,126
	28,357	26,259
Non-executive directors		
– Short term benefits	**824**	824

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

	2019 USD 000	2018 USD 000
Finance income:		
– Interest income on short term bank deposits and investments	**1,506**	1,766
– Interest income on non-current trade and other receivables measured at amortized costs	**591**	204
– Foreign exchange gain, net	**9,046**	1,147
Total finance income	**11,143**	3,117
Finance costs:		
– Interest expense on financial instruments measured at amortized costs	**(22,438)**	(13,817)
– Other financing costs*	**(4,872)**	(10,605)
– Net loss on derivatives not designated as hedging instruments	**(6,700)**	(2,064)
Total finance costs	**(34,010)**	(26,486)
Finance costs – net	**(22,867)**	(23,369)

* Other financing costs include commitment fees attributable to the undrawn portion of the banking facilities, fees related to guarantees issued (performance/bid bonds and equivalents) and issuance fees related to the financing facilities that is not recorded as an interest expense (note 2.11).

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.

	2019	2018
Profit attributable to equity holders of the Company (USD 000)	181,121	168,228
Weighted average of ordinary shares outstanding during the year (in thousands)	70,392	69,361
Basic earnings per share (USD per share)	2.57	2.43

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 employee under share based payment'.

For the period ended 31 December 2018 and 31 December 2019, this category was fully dilutive.

	2019	2018
Profit used to determine diluted earnings per share (USD 000)	181,121	168,228
Weighted average of ordinary shares outstanding during the year (in thousands)	70,392	69,361
Adjustments for:		
– Share options and restricted shares (in thousands)	3,097	3,596
Weighted average number of ordinary shares for diluted earnings per share (in thousands)	73,489	72,957
Diluted earnings per share (USD per share)	2.46	2.31

13. Net debt analysis

	2019 USD 000	2018 USD 000
Cash at bank and in hand	102,070	189,915
Short term deposits	21,279	89,896
Other short term liquid investments	29,436	7,628
Cash and cash equivalents*	152,785	287,439
Borrowings – repayable within one year (note 19)	(100,595)	(107,797)
Borrowings – repayable after one year (note 19)	(1,073,972)	(706,278)
Cross currency swaps – cash flow hedges (note 15)	(11,957)	(19,172)
Net Debt	(1,033,739)	(545,808)

* Included in the cash and cash equivalents, is USD 5.2 million (2018: USD 6.8 million) that are held in jurisdiction where regulatory exchange controls exist and, therefore, are not available for general use by the Group outside of such jurisdiction at the reporting date.

	Cross currency swaps – Principal USD 000	Other liabilities* USD 000	Lease liabilities USD 000	Other borrowings USD 000	Total USD 000
	Changes in liabilities from financing activities				
At 31 December 2017	(27,621)	(1,234)	–	(440,184)	(469,039)
Cash flows from financing activities	–	–	–	–	–
– Net proceeds	–	–	–	(374,326)	(374,326)
– Interest payments	–	4,233	–	8,430	12,663
– Other financing costs	–	8,953	–	–	8,953
Fair value and foreign exchange movement	8,449	–	–	1,026	9,475
Other movements	–	(13,767)	–	(9,021)	(22,788)
At 31 December 2018**	(19,172)	(1,815)	–	(814,075)	(835,062)
Cash flows from financing activities					
– Net proceeds	–	–	–	(295,002)	(295,002)
– Interest payments	–	10,211	–	11,503	21,714
– Other financing costs	–	5,835	–	–	5,835
– Payments of lease liabilities	–	–	16,289	–	16,289
Adjustment on initial application of IFRS 16 (note 2.1)	–	–	(53,175)	–	(53,175)
Acquisition of business (note 6)	–	–	(3,811)	(51,602)	(55,413)
Repayment of acquiree's debt at acquisition date (note 6)***	–	–	–	51,602	51,602
Fair value and foreign exchange movement	7,215	–	290	(15,356)	(7,851)
Interest on lease liabilities (note 20)	–	–	(1,490)	–	(1,490)
Other movements	–	(16,419)	(9,421)	(10,319)	(36,159)
At 31 December 2019	**(11,957)**	**(2,188)**	**(51,318)**	**(1,123,249)**	**(1,188,712)**

* Included in 'Other payables'.
** Comparative table is represented to reflect change in format.
*** Classified as an investing activity in the statement of cash flows.

14. Trade and other receivables

	2019 USD 000	re-presented 2018 USD 000
Trade receivables	**274,550**	230,491
Contract asset (note 8)	**51,211**	37,488
Loss allowance	**(2,439)**	(5,710)
Trade receivables and contract asset – net	**323,322**	262,269
VAT and other taxation recoverable	**9,348**	9,296
Other receivables	**9,588**	6,961
Escrow deposit for contingent consideration (note 6)	**21,000**	–
Prepayments	**33,306**	15,656
Total trade and other receivables	**396,564**	294,182
Less non-current portion	**(12,338)**	(10,987)
Total current trade and other receivables	**384,226**	283,195

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 receivable with the objective to collect the contractual cash flows and therefore measures them subsequently at amortized cost using the effective interest method.

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.

14. Trade and other receivables continued

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

	Carrying amount		Fair value	
	2019 USD 000	re-presented 2018 USD 000	**2019 USD 000**	re-presented 2018 USD 000
Current trade and other receivables	**346,623**	263,713	**346,623**	263,713
Non-current trade and other receivables.	**12,338**	10,987	**12,206**	10,692
	358,961	274,700	**358,829**	274,405

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.

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.

	Trade receivables and Contract assets	
	2019 USD 000	2018 USD 000
Balance at 1 January	**5,710**	3,210
Increase in loss allowance	**1,205**	2,926
Used amounts	**(4,564)**	(356)
Recoveries	**–**	–
Unused amounts	**(2)**	(52)
Acquisition of business (note 6)	**92**	–
Exchange (loss) or gain	**(2)**	(18)
Balance at 31 December	**2,439**	5,710

Included in 'Sales and marketing', is USD 1.2 million (2018: USD 2.9 million) of impairment loss related to trade receivables and contract assets.

15. Other financial assets and liabilities

	2019		2018	
	Assets USD 000	**Liabilities USD 000**	Assets USD 000	Liabilities USD 000
Foreign currency forwards – cash flow hedges	**2,314**	**670**	2,787	1,360
Foreign currency options – cash flow hedges	**68**	**–**	–	–
Foreign currency forwards – held for trading	**2,184**	**1,867**	4,215	1,087
Foreign currency options – held for trading	**147**	**–**	–	–
Cross currency swaps – cash flow hedges	**–**	**11,957**	–	19,172
Convertible notes	**6,000**	**–**	–	–
Equity securities	**16,079**	**–**	15,000	–
At 31 December	**26,792**	**14,494**	22,002	21,619
Reported as follows:				
Current	**4,431**	**2,518**	6,579	2,234
Non-current	**22,361**	**11,976**	15,423	19,385
At 31 December	**26,792**	**14,494**	22,002	21,619

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

Equity securities and convertible notes represent investment in NuoDB, a distributed SQL database provider headquartered in the US, which were acquired in December 2018 and December 2019, respectively. Equity securities are designated and measured at FVOCI as the Group intends to hold them for strategic purposes. Convertible notes are measured at FVTPL and intended to be held to maturity.

16. Property, plant and equipment

Year ended 31 December 2019	Leasehold improvements USD 000	Vehicles USD 000	Fixtures fittings & equipment USD 000	Land and buildings USD 000	Right-of-use assets USD 000	Total USD 000
Cost						
At 1 January 2019	15,350	609	52,804	2,480	–	71,243
Adjustment on initial application of IFRS 16	–	–	–	–	45,085	45,085
Foreign currency exchange differences	22	(11)	(171)	(49)	(90)	(299)
Additions	3,340	126	6,759	–	11,718	21,943
Acquisition of businesses (note 6)	307	–	741	–	3,811	4,859
Retirements/Disposals	(371)	(67)	(1,553)	(506)	–	(2,497)
31 December 2019	**18,648**	**657**	**58,580**	**1,925**	**60,524**	**140,334**
Depreciation and impairment						
At 1 January 2019	12,851	400	39,516	455	–	53,222
Foreign currency exchange differences	30	(6)	(65)	(10)	89	38
Charge for the year	1,229	82	5,763	34	14,543	21,651
Retirements/Disposals	(261)	(55)	(1,480)	(64)	–	(1,860)
31 December 2019	**13,849**	**421**	**43,734**	**415**	**14,632**	**73,051**
Net book value						
31 December 2019	**4,799**	**236**	**14,846**	**1,510**	**45,892**	**67,283**
Year ended 31 December 2018						
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	–	–	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

17. Intangible assets

Year ended 31 December 2019	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 2019	483,743	635,000	229,799	234,936	1,583,478
Foreign currency exchange differences	(1,610)	(2,098)	(1,825)	(2,627)	(8,160)
Additions	64,649	–	5,335	–	69,984
Acquisition of businesses (note 6)	–	446,507	159,327	87,700	693,534
Retirements/Disposals	–	–	–	–	–
31 December 2019	**546,782**	**1,079,409**	**392,636**	**320,009**	**2,338,836**
Amortization					
At 1 January 2019	333,283	–	140,475	99,775	573,533
Foreign currency exchange differences	(1,393)	–	(1,056)	(1,027)	(3,476)
Charge for the year	49,578	–	36,312	23,067	108,957
Retirements/Disposals	–	–	–	–	–
31 December 2019	**381,468**	**–**	**175,731**	**121,815**	**679,014**
Net book value					
31 December 2019	**165,314**	**1,079,409**	**216,905**	**198,194**	**1,659,822**
Year ended 31 December 2018					
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	–	140,485	52,301	83,900	276,686
Retirements/Disposals	–	–	(4,996)	–	(4,996)
31 December 2018 (re-presented)	483,743	635,000	229,799	234,936	1,583,478
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 (re-presented)	150,460	635,000	89,324	135,161	1,009,945

Amortization charge of USD 104.7 million (2018: USD 82.1 million) is included in the 'Cost of sales' line; USD 0.4 million (2018: USD 0.3 million) in 'Sales and marketing' line; USD 1 million (2018: USD 1 million) in 'Other operating expenses' line and USD 2.9 million (2018: USD 2.7 million) in 'General and administrative' line.

Impairment tests for goodwill

Goodwill is allocated to the 'Product' reportable segment.

	2019			2018		
	Carrying amount USD 000	**Growth rate %**	**Discount rate %**	Carrying amount USD 000 re-presented	Growth rate %	Discount rate %
'Product' segment	**1,079,409**	**1%**	**9.89%**	635,000	1%	10.75%
	1,079,409			635,000		

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 (2018: 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

	2019 USD 000	re-presented 2018 USD 000
Trade payables	**42,543**	30,883
Accrued expenses	**127,678**	117,360
Contingent consideration (note 6)	**20,930**	–
Other payables	**31,068**	15,993
Total trade and other payables	**222,219**	164,236
Less non-current portion	**(2,272)**	–
Total current trade and other payables	**219,947**	164,236

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.

Contingent consideration is initially and subsequently measured at fair value.

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

	Carrying amount		Fair value	
	2019 USD 000	re-presented 2018 USD 000	**2019 USD 000**	re-presented 2018 USD 000
Current trade and other payables	**188,150**	161,064	**188,150**	161,064
Non-current trade and other payables	**1,583**	–	**1,540**	–
	189,733	161,064	**189,690**	161,064

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 fair value measurement of the non-current trade and other payables is based on a discounted cash flow model using a free-risk yield curve adjusted for credit risk and is within level 2 of fair value hierarchy.

The carrying amounts of the items measured at fair value as well as their level in the fair value hierarchy are disclosed in note 3.4.

19. Borrowings

	2019 USD 000	2018 USD 000
Current		
Other loans	59	75
Bank borrowings	80,000	–
Unsecured bonds	4,574	107,722
Lease liabilities	15,962	–
	100,595	107,797
Non-current		
Other loans	130	86
Bank borrowings	297,094	200,000
Unsecured bonds	741,392	506,192
Lease liabilities	35,356	–
	1,073,972	706,278
Total borrowings	1,174,567	814,075

Fair values of the borrowings

	Carrying amount		Fair value	
	2019 USD 000	2018 USD 000	2019 USD 000	2018 USD 000
Other loans	189	161	164	172
Bank Borrowings	377,094	200,000	376,832	200,014
Unsecured bonds	745,966	613,914	764,029	608,435
	1,123,249	814,075	1,141,025	808,621

The fair value measurement of other loans and bank borrowing 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:

	2019 USD 000	2018 USD 000
Swiss Francs	764,259	613,914
US dollars	368,245	200,000
Other currencies	42,063	161
	1,174,567	814,075

Unsecured bonds

The Group holds the following unsecured bonds:

- 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.
- 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.
- 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.
- CHF 220 million with a coupon of 1.50% paid annually on 28 November. The bond will mature on 28 November 2025 at par and was issued in 2019.

Bank facilities

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

- Interest at LIBOR plus variable margin, which is calculated by reference to financial covenants;
- The facility terminates on 5 July 2024 with an option to extend by two additional years; and
- Commitment fees are due on the undrawn portion.

As at 31 December 2019, a total of USD 297.1 million (2018: USD 200 million) was drawn under this new agreement.

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

As part of its acquisition of Kony Inc, the Group holds a bridge facility agreement for an outstanding amount of USD 80 million. The facility will terminate on 28 August 2020.

20. Leases

The Group primarily leased properties (office space) in jurisdiction from which it operates. The Group also have few leases for equipment and vehicles.

Information about leases for which the Group is a lessee is presented below.

Amounts recognized in the statement of financial position

	2019 USD 000	1 January 2019* USD 000
Right-of-use asset		
Property	**45,818**	45,085
Equipment	**47**	–
Vehicles	**27**	–
Total	**45,892**	45,085
Lease liabilities		
Current	**15,962**	14,918
Non-current	**35,356**	38,257
Total	**51,318**	53,175

* Adjustment on initial application of IFRS 16 on 1 January 2019. The right-of-use assets are included in property, plant and equipment and the lease liabilities in borrowings in the statement of financial position.

Amounts recognized in profit or loss

Leases under IFRS16	2019 USD 000
Depreciation charge of right-of-use-assets	
Property	**14,503**
Equipment	**37**
Vehicles	**3**
Total depreciation	**14,543**
Interest on lease liabilities	**1,490**
Expenses relating to short term leases	**1,497**
Expenses relating to leases of low-value assets, excluding short term leases of low-value assets	**145**
Income from subleasing right-of-use asset	**22**

Leases under IAS 17	2018 USD 000
Lease expense	17,713
Sub-lease income	(1,618)
	16,095

Amount recognized in statement of cash flows

The total cash outflow for leases in 2019 was USD 17.9 million.

At 31 December 2019, the commitment on short term leases is USD 0.9 million which has not been included in measurement of lease liabilities.

At 31 December 2019 the Group had committed to a lease which had not commenced and the total future cash outflows for leases not reflected in lease liabilities is USD 13.6 million.

Extension and termination options

Some leases of office property contain extension and termination options exercisable at a certain point in time of the contract period. Where practicable, the Group seeks to include extension and termination options in new leases to provide operational flexibility. The Group assesses at lease commencement whether it is reasonably certain to exercise the extension or termination options. The Group would reassess the reasonability of the option to extend or terminate if a significant event or significant change in circumstances occurs which is within its control.

21. Taxation

Tax expense

	2019 USD 000	2018 USD 000
Current tax on profits for the year	32,580	29,591
Adjustments in respect of prior years	(1,530)	(1,150)
Total current tax	31,050	28,441
Deferred tax – origination and reversal of temporary differences	382	(1,268)
Total tax expense	31,432	27,173

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 the Swiss statutory corporate tax rate for the Group of 24.1% (2018: 24.1%), is as follows:

	2019 USD 000	2018* USD 000
Profit before tax	212,553	195,401
Tax at the domestic rate of 24.1%	51,225	47,092
Non-taxable income and expenses	(540)	9,691
Recognition of previously unrecognized deferred tax	–	8,883
Origination and reversal of temporary differences	5,180	(9,476)
Prior period adjustments	(1,530)	(1,150)
Movement in other unprovided deferred tax	2,099	944
Losses not recognized in period	18,537	11,587
Unprovided losses utilized	(1,663)	(6,531)
Effects of different tax rates	(53,384)	(37,229)
Overseas withholding tax	7,173	4,454
Other tax and credits	4,334	(1,093)
Total tax expense	31,432	27,173

* The 2018 comparatives have been restated to aid ongoing comparability and consistency under IAS12 'Income Taxes' for users of the financial statements.

There is no income tax expense or tax credit arising relating to components of other comprehensive income (2018: USD nil). Due to the adoption of the IFRS 16 standard, a net tax charge of USD 0.5 million is directly posted to equity.

During the period Switzerland enacted tax reform (TRAF) to simplify their tax regime which should apply from 2020. Whilst TRAF reduced the high level corporate income tax rate for companies, it also removed a number of regimes, such that TRAF will not significantly alter the effective tax rate for the business in Switzerland and is not anticipated to have a material impact on the Group tax rate.

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:

	2019 USD 000	re-presented 2018 USD 000
Deferred tax assets – to be recovered after more than 12 months	14,686	17,562
Deferred tax assets – to be recovered within 12 months	4,469	101
Deferred tax assets	19,155	17,663
Deferred tax liabilities – to be recovered after more than 12 months	(101,238)	(35,033)
Deferred tax liabilities – to be recovered within 12 months	(2,427)	(1,961)
Deferred tax liabilities	(103,665)	(36,994)
Net deferred tax (liabilities)/assets	(84,510)	(19,331)

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.

The Group has not recognized deferred tax assets of USD 95.8 million (2018: USD 34.4 million) in respect of losses amounting to USD 477.4 million (2018: USD 189.8 million) that can be carried forward against future taxable income. Losses amounting to USD 114.4 million (2018: USD 90.9 million) will expire within the next 5 years, USD 5.7 million (2018: USD 22.8 million) will expire within 5 to 10 years and USD 15 million (2018: USD 9.9 million) will expire within 10 to 20 years.

The Group has recognized deferred tax assets of USD 0.1 million (2018: USD 0.2 million) in respect of temporary differences arising on an intra-Group transfer of intellectual property.

At the balance sheet date the aggregate amount of the temporary differences in relation to the investment in subsidiaries for which deferred tax liabilities have not been recognized was USD 1,081 million. No liability has been recognized in respect of these differences because the Group is in a position to control the timing of the reversal of the temporary differences and the Group considers that it is probable that such differences will not reverse in the foreseeable future.

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

	2019 USD 000	re-presented 2018 USD 000
At 1 January	**(19,331)**	6,535
Income statement credit	**(381)**	1,267
Foreign currency exchange differences	**531**	(183)
Acquisition of business	**(65,329)**	(26,950)
At 31 December	**(84,510)**	(19,331)

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 2018	17,080	204	288	4,371	21,943
Credited (charged) to the income statement	(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)	–	–	(394)	(726)
At 31 December 2018	14,511	162	–	2,990	17,663
Credited (charged) to the income statement	(6,866)	(31)	1,889	4,600	(409)
Acquisition of business (note 6)	–	–	–	40	40
Transfer from deferred tax liability	–	–	–	953	953
Foreign currency exchange differences	–	–	–	908	908
At 31 December 2019	**7,645**	**131**	**1,889**	**9,490**	**19,155**

The movement in deferred tax liabilities is as follows:

	Intangible fair value adjustment USD 000	Other USD 000	Total USD 000
At 1 January 2018	(13,967)	(1,441)	(15,408)
Credited to the income statement	4,249	(584)	3,665
Acquisition of business	(25,200)	(1,750)	(26,950)
Transfer from Deferred tax asset	–	1,156	1,156
Foreign currency exchange differences	512	31	543
At 31 December 2018 (re-presented)	(34,406)	(2,588)	(36,994)
Credited to the income statement	8,226	(8,198)	28
Acquisition of business (note 6)	(65,369)	–	(65,369)
Transfer from Deferred tax asset	–	(953)	(953)
Foreign currency exchange differences	(377)	–	(377)
At 31 December 2019	**(91,926)**	**(11,739)**	**(103,665)**

22. Provisions for other liabilities and charges

	Legal provision USD 000	Property provision USD 000	Termination benefits USD 000	Total USD 000
1 January 2019	242	642	636	1,520
Foreign currency exchange differences	(4)	11	–	7
Increase in provisions recognized in profit or loss	28	245	700	973
Used during the year	(168)	(36)	(604)	(808)
Unused amounts reversed during the year	(70)	–	(32)	(102)
31 December 2019	**28**	**862**	**700**	**1,590**

	Legal provision USD 000	Property provision USD 000	Termination benefits USD 000	Total USD 000
Reported as follows:				
2019				
Current	28	163	700	891
Non-current	–	699	–	699
31 December 2019	**28**	**862**	**700**	**1,590**
2018				
Current	242	381	636	1,259
Non-current	–	261	–	261
31 December 2018	242	642	636	1,520

Legal provision
The amounts represent provisions for certain legal claims brought against the Group. The balance at 31 December 2019 is expected to be utilized in 2020. Management believes that the outcome of these legal claims will not give rise to any significant loss beyond the amounts provided at 31 December 2019.

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 0.699 million 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 2020.

23. 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.

Pension plans in Switzerland

The Group currently holds two plans in Switzerland.

Swiss pension 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. Plans are funded through institutional investments and contributes the most in the Group's reported balance.

Swiss 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 funds. 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 Group can also make additional restructuring contributions.

The Swiss pension plans are managed and administrated by collective semi-autonomous foundations established by one of the leading insurance company for pension plans based in Switzerland. The Board of Trustee of each foundation is composed of equal numbers of employee and employer representatives.

One plan selected a foundation whereby the investment strategy and the appropriation of the return are delegated to the fund commission, which is composed of Temenos' representatives, and all within the framework set out by the LPP and the Board of Trustee. In this model, the plan directly bears the investment risk. The other plan follows a solution where the investment strategy and the allocation of return are established by the Trustees of the foundation. In this scheme, the investment risk, as well as the return fall within all the affiliated participants of the foundation. In both plans the risk benefits of disability and death are fully insured by an insurance company.

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:

	2019 USD 000	2018 USD 000
Present value of funded obligations	50,030	47,864
Fair value of plan assets	(46,904)	(41,612)
Deficit of funded plans	3,126	6,252
Present value of unfunded obligations	7,410	4,068
Net liability in the statement of financial position	10,536	10,320

23. Retirement benefit obligations continued

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 2019	**51,932**	**(41,612)**	**10,320**	**–**	**10,320**
Current service costs	**3,014**	**–**	**3,014**	**–**	**3,014**
Past service costs	**(609)**	**–**	**(609)**	**–**	**(609)**
Other cost	**–**	**64**	**64**	**–**	**64**
Interest expense/(income)	**914**	**(679)**	**235**	**–**	**235**
	3,319	**(615)**	**2,704**	**–**	**2,704**
Remeasurements (included in OCI):					
– Return on plan assets, excluding interest income	**–**	**(4,658)**	**(4,658)**	**–**	**(4,658)**
– Actuarial loss (gain) from:					
– demographic assumptions	**(1)**	**–**	**(1)**	**–**	**(1)**
– financial assumptions	**3,829**	**–**	**3,829**	**–**	**3,829**
– experience adjustment	**(365)**	**–**	**(365)**	**–**	**(365)**
	3,463	**(4,658)**	**(1,195)**	**–**	**(1,195)**
– Exchange differences	**563**	**(576)**	**(13)**	**–**	**(13)**
– Acquisition of business	**2,504**	**–**	**2,504**	**–**	**2,504**
Contributions:					
– Employers	**–**	**(3,784)**	**(3,784)**	**–**	**(3,784)**
– Plan participants	**854**	**(854)**	**–**	**–**	**–**
Payment from/to plans:					
– Benefit paid	**(5,195)**	**5,195**	**–**	**–**	**–**
	(1,274)	**(19)**	**(1,293)**	**–**	**(1,293)**
Balance at 31 December 2019	**57,440**	**(46,904)**	**10,536**	**–**	**10,536**
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

At 31 December 2019 (2018: nil), one Swiss plan reported a surplus with no asset ceiling.

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.

Plan assets comprise:

	2019	2018
Equity securities:		
– Quoted	**25%**	19%
– Unquoted	**0%**	0%
Fixed income securities:		
– Quoted	**29%**	15%
– Unquoted	**0%**	0%
Real estate	**24%**	12%
Insurance contracts	**14%**	48%
Other	**8%**	6%
	100%	100%

The governance of the plan schemes and the foundations annually performs an asset-liability assessment. The objective of such assessment is to select an appropriate asset allocation to match future cash outflows of the plan while maximizing the return and minimizing the risk.

Actuarial assumptions:
The 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):

	2019	2018
Discount rate	**1.50%**	1.82%
Inflation	**0.79%**	0.78%
Future salary growth	**2.59%**	2.37%

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

			2019
	Change in assumption	**Increase USD 000**	**Decrease USD 000**
Discount rate	**50bps**	**(2,931)**	**3,265**
Future salary growth	**0.50%**	**731**	**(704)**

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

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 2020 are USD 3.3 million.

At 31 December 2019, the weighted-average duration of the defined benefit obligation was 11 years (2018: 10 years).

24. Share capital

As at 31 December 2019, the issued shares of Temenos AG comprised 72,757,466 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 2019 are summarized below:

	Number
Total number of shares issued, as at 31 December 2018	71,044,267
Treasury shares	(1,804,267)
Total number of shares outstanding, as at 31 December 2018	69,240,000
Creation of new ordinary shares out of conditional capital for share-based payment transactions	1,713,199
Disposal of treasury shares for share-based payment transactions	–
Acquisition of treasury shares (share buy-back)	–
Total number of shares outstanding, as at 31 December 2019	**70,953,199**

As at 31 December 2019, the number of treasury shares held by the Group amounted to 1,804,267 (2018: 1,804,267).

Temenos AG also has conditional and authorized capital, comprising:

Authorized shares available until 15 May 2021	7,100,000
Conditional shares that may be issued on the exercise of share-based payment transactions	5,092,458
Conditional shares that may be issued in conjunction with financial instruments	6,607,904

25. 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 2018	221,818	206,756	(546,405)	(68,456)	(186,287)
Cost of share options (note 27)	–	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)
Cost of share options (note 27)	–	39,463	–	–	39,463
Exercise of share-based payment transactions	270,145	–	(278,786)	–	(8,641)
Costs associated with equity transactions	(111)	–	–	–	(111)
Balance at 31 December 2019	**513,524**	**284,237**	**(987,689)**	**(68,456)**	**(258,384)**

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.

Share options reserve

As detailed in note 27, 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 27, 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.

26. Other equity

	Cumulative translation adjustment USD 000	Costs of hedging reserve USD 000	Cash flow hedge reserve USD 000	Total USD 000
Balance at 1 January 2018	(84,607)	–	(8,734)	(93,341)
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)
Currency translation differences	(24,104)	–	–	(24,104)
Foreign currency risk				
Transfer to profit or loss within 'Personnel costs'	–	–	746	746
Transfer to profit or loss within 'Software licensing revenue'	–	–	(2,942)	(2,942)
Transfer to 'Deferred revenues'	–	–	(2,150)	(2,150)
Transfer to profit or loss within 'finance costs'	–	–	(5,635)	(5,635)
Changes in fair value of hedging instruments	–	9	11,825	11,834
Balance at 31 December 2019	**(141,594)**	**9**	**(2,157)**	**(143,742)**

Cumulative translation reserve

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

Costs of hedging reserve

It represents fair value changes of the time value of options when designating the intrinsic value of the options as the hedging instrument in cash flow hedge relationship.

Cash flow hedge reserve

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.

27. 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:

	2019		2018	
	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
Outstanding at the beginning of the year	3,000	$30.74	3,000	$31.94
Exercised during the year	(3,000)	$30.00	–	$0.00
Outstanding at the end of the year	–	–	3,000	$30.74

All of the outstanding options (2018: 3,000) were exercised in 2019. No options were exercised in 2018.

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 non-IFRS earnings per share and non-IFRS product revenue targets. In case of over achievement of 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:

	2019		2018	
	Number of rights	Weighted average exercise price	Number of rights	Weighted average exercise price
Outstanding at the beginning of the year	6,563,326	$63.82	7,006,275	$46.89
Granted during the year*	1,699,297	$127.00	1,644,992	$99.67
Forfeited during the year	(251,405)	$109.32	(35,868)	$56.08
Exercised during the year	(2,433,503)	$50.34	(2,052,073)	$34.78
Outstanding at the end of the year	5,577,715	$86.86	6,563,326	$63.82

* Including overachievement for share appreciation rights Plan 2017-2019 with the same conditions as the original share appreciation rights Plan grant.

1,748,117 of the outstanding share appreciation rights (2018: 621,893) were exercisable at the balance sheet date with a weighted average exercise price of USD 39.98 (2018: USD 25.68). The share appreciation rights exercised during the year had a weighted average share price at the time of exercise of USD 160.83 (2018: USD 131.96).

As described above, in case of overachievement 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 2019, 318,628 SARs (2018: 531,592 SARs) have been added to the 2017-2019 plan as a result of overachievement. There are 2,231,315 remaining share appreciation rights (2018: 5,409,841) that may be subject to the over achievement provisions in the future with a weighted average exercise price of USD 134.57 (2018: USD 70.15).

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

2019 Exercise price (USD)	Number	Remaining contractual life (years)
0-9.99	215,466	2.82
10-19.99	14,494	0.01
20-29.99	357,260	5.08
30-39.99	991,684	6.14
40-49.99	158,388	6.56
50-59.99	10,825	6.93
60-69.99	1,557,577	6.76
70-79.99	3,591	7.31
80-89.99	17,959	7.46
90-99.99	19,156	7.70
100-109.99	53,500	8.98
110-119.99	814,380	8.13
120-129.99	938,285	9.13
130-164.00	396,150	9.67
	29,000	9.37
	5,577,715	7.21

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

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 30.19 (2018: USD 23.53). The significant inputs into the model were: weighted average share price at grant date of USD 127.06 (2018: USD 99.96), weighted average exercise price of USD 127 (2018: USD 99.67), standard deviation of expected share price returns of 30% (2018: 30%), weighted average option lives of 3.53 years (2018: 3.57 years), weighted average annual risk-free interest rate of 2.19% (2018: 2.15%) and weighted average expected dividend yield of 0.66% (2018: 0.77%). 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.

27. Share based payments continued

Short term incentive (STI) share plan

	2019 Number of shares	2018 Number of shares
Outstanding at the beginning of the year	47,710	14,521
Granted during the year	29,653	39,163
Forfeited during the year	(1,425)	(5,974)
Transferred during the year	(40,412)	–
Outstanding at the end of the year	35,526	47,710

STI share plan

For the year ended 31 December 2019 and 31 December 2018 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 2019, 3,311 (2018: 7,081) deferred shares were committed under this scheme. The shares committed in 2018 vest on 1 March 2020 and the shares committed in 2019 vest on 1 March 2021. In case of over achievement of earnings per share targets, certain short term incentive plan grants may be increased or decreased from the original grant. As at 31 December 2019, 1,296 short term incentive shares have been added to the STI 2017 plan as a result of overachievement for some senior management.

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 2019 25,032 deferred shares were committed under this scheme for the bonus relating to the financial year 2018. These shares will vest on 1 March 2020.

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 39.5 million (2018: USD 38 million).

28. 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 2019 financial year is amounting to CHF 60 million (CHF 0.85 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 2019 related to 2018 financial year amounted to CHF 52.9 million (CHF 0.75 per share).

29. Commitments and contingencies

The future aggregate undiscounted minimum lease and sub-lease payments under non-cancelable lease agreement are as follows:

	2019* USD 000	2018 USD 000
No later than 1 year	–	15,695
Later than 1 year and no later than 5 years	–	37,299
Later than 5 years	–	3,960
Total	–	56,953

* With the adoption of IFRS 16, the Group is required to disclose a maturity analysis of its lease liabilities (refer note 3.2 Financial risk factors).

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 2019, the guarantees in issue were USD 12.6 million (2018: USD 10.8 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 22.

30. 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, SARSs and shares is described in note 27.

There were no other significant transactions with related parties during the year ended 31 December 2019.

31. Events after the reporting period

On January 28 2020, the Group entered into an agreement to increase its current financing facility by USD 160 million. The total commitment is now USD 660 million.