Bookkeeping Alternatives for Foreign-Currency CAPEX and Depreciation

IAS 21 requirements, procedures that produce identical results, and accounting-system design points — discussion paper for the external accountant (revised)

Entity: Australian company (IFRS; functional and presentation currency USD; participant in an Australian LNG development JV) | Date: 21 November 2026

Structure of this paper and conclusions

1. **Our situation and the IFRS treatment:** the functional currency is USD. Foreign-currency CAPEX is fixed at a USD cost using the payment (transaction) date rate and is not retranslated afterwards. Depreciation is calculated from that USD cost.
2. **Procedures that produce the same result:** the Base Case, 1-C, 1-D and Alternative 2 produce identical financial statements when each procedure is followed correctly (demonstrated with a numerical example).
3. **Pros and cons:** the Base Case is recommended. 1-C and 1-D are acceptable subject to conditions. Alternative 2 carries the most effort and the highest risk of error and is not recommended.
4. **System design points:** the common core is dual-currency amounts on every journal line, a monetary / non-monetary flag per account, a rate table, and a fixed-asset register holding USD cost.
5. **Questions for the accountant:** eight items, including the status of the branch, the acceptable use of average rates and the nature of JV cash calls.

1. Our situation and the IFRS treatment of foreign-currency CAPEX and depreciation

1.1 Our situation

Item	Situation	Accounting significance
Business	Participant in an LNG development JV in Australia. The JV is a joint operation; the company recognises its share of assets, liabilities and expenses (IFRS 11.20)	Operator billings (JIBs) and cash calls are the main source of transactions
Functional / presentation currency	Both USD. LNG sales prices, financing and major investment are in USD	Anything other than USD is a "foreign currency transaction" (IAS 21.20)
JV cash calls	Mainly USD, but sometimes AUD or other currencies	Few in number but large; the bulk of CAPEX
Own expenses	Operating in Australia, the company makes many AUD payments	High volume of small items; AUD amounts needed for GST returns
Reason for this review	To process high-volume AUD transactions efficiently while ensuring IFRS compliance and a smooth audit	To confirm how far simplifications and bookkeeping choices are acceptable to the auditor

1.2 Basic rules for foreign-currency transactions (IAS 21)

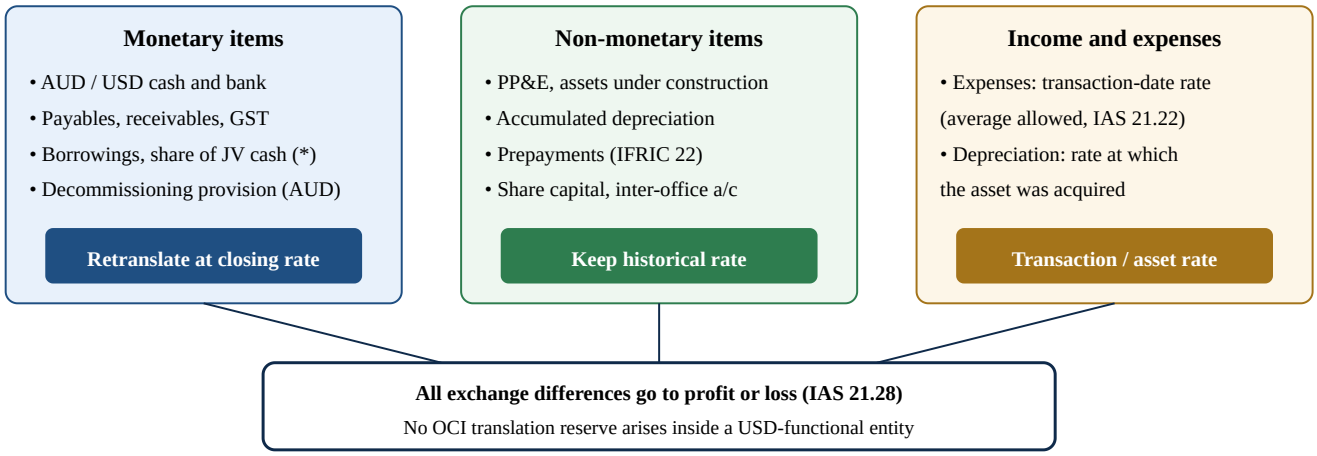


Figure 1 — Measurement of foreign-currency items when the functional currency is USD (*see Section 5 on the nature of JV cash)

1.3 Treatment of foreign-currency CAPEX and depreciation

Stage	IFRS requirement	Reference
Acquisition	Fix the USD cost at the spot rate on the payment (transaction) date. If an advance cash call is a prepayment for goods or services, the rate on the advance date is the transaction-date rate	IAS 21.21–22, IFRIC 22
Period-end	PP&E is non-monetary and is not retranslated. AUD payables are monetary and are retranslated at the closing rate	IAS 21.23
Depreciation	Calculated from USD cost using straight-line, units-of-production (UoP), etc. Depreciation must not be converted at the current-period average or closing rate	IAS 16.50, IAS 21.23(b)
Over the useful life	Total accumulated depreciation must equal USD cost (less residual value)	As above
Bookkeeping currency	Books may be kept in a non-functional currency, but at reporting all amounts must be remeasured to "the same amounts as if recorded in USD from the start"	IAS 21.34

1.4 Status of the AUD branch / AUD ledger — "remeasurement", not "translation"

The AUD branch is a bookkeeping division of the same legal entity; its activities are an extension of the head office and it is funded by the head office in USD. The additional factors in IAS 21.11 (autonomy, proportion of transactions with the reporting entity, direct impact on the reporting entity's cash flows, dependence on the reporting entity for funding) all point to USD, so the branch functional currency is also USD. Converting the branch ledger to USD is therefore done by IAS 21.34 **remeasurement** (monetary = closing rate; non-monetary and depreciation = acquisition rate; differences to profit or loss), not by foreign-operation **translation** (IAS 21.39: all assets and liabilities at closing rate, income and expenses at average, differences to OCI).

Examples of incorrect treatment (assumptions in Section 2)

- **Only depreciation converted at the average rate (mixed method):** depreciation 136,000 (correct: 130,000). Five-year total depreciation becomes USD 680,000, exceeding the cost of 650,000 by 30,000.
- **Branch translated as a foreign operation:** PP&E is increased to 700,000 at the closing rate and 63,000 goes to OCI. The 17,000 exchange gain on AUD cash also disappears from profit or loss.
- **AUD ledger simply translated:** a fictitious AUD-ledger exchange loss on USD cash (USD 76,593) is recognised and the net loss is overstated by about USD 100,000.

2. Procedures that produce the same result under the four methods

2.1 Assumptions for the numerical example

Item	Assumption
Exchange rates (USD per AUD)	1 Jan 0.65 (capital, AUD funding, CAPEX payment) / annual average 0.68 / 31 Dec 0.70
Transactions	① Capital injection USD 2,000,000 ② USD 975,000 converted into AUD 1,500,000 ③ AUD CAPEX of AUD 1,000,000 paid (company's share of a JV cash call) ④ AUD expenses of AUD 400,000 (average rate)
Depreciation	Straight-line, 5 years, nil residual, full year in year 1 (simplified; the issue is the same under UoP)
Closing balances	USD bank USD 1,025,000 / AUD bank AUD 100,000
Target result	Depreciation 130,000 / FX gain 17,000 / net loss 385,000 / PP&E NBV 520,000 / total assets 1,615,000 / OCI 0

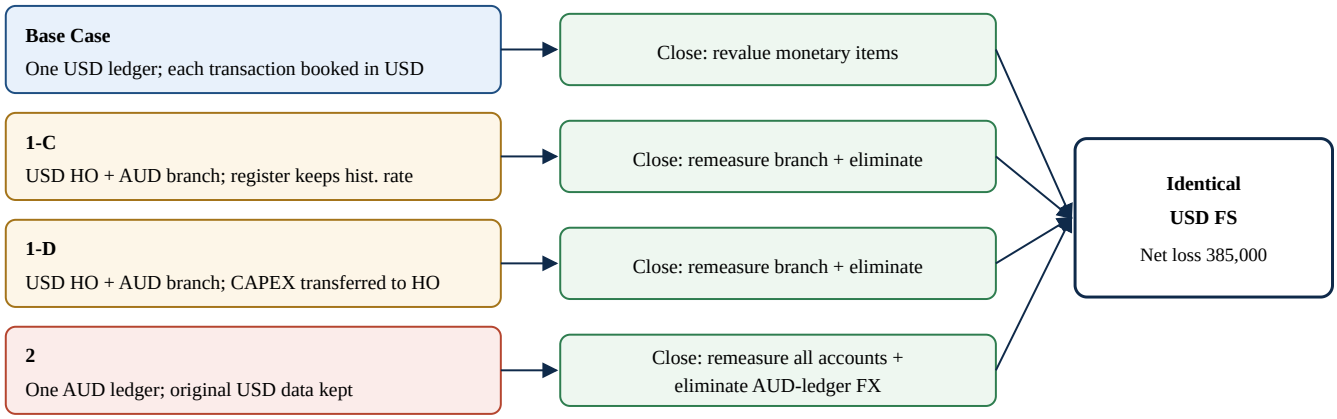


Figure 2 — Processing paths of the four methods (all converge to the same financial statements after closing)

2.2 Base Case: all transactions booked in the USD ledger

1. For each foreign-currency transaction, record the transaction-currency amount and compute the USD amount from the rate table (spot or monthly average).
2. Fix the USD cost of CAPEX at the payment-date rate and register it in the fixed-asset register.
3. Calculate depreciation from USD cost (no exchange rate involved at all).
4. At period-end, revalue only AUD monetary items (bank, payables, etc.) at the closing rate and recognise the difference as an exchange gain or loss.

Transaction	Debit	USD	Credit	USD	Currency / rate
① Capital	USD bank	2,000,000	Share capital	2,000,000	USD
② AUD funding	AUD bank	975,000	USD bank	975,000	AUD 1,500,000 @0.65
③ CAPEX	PP&E	650,000	AUD bank	650,000	AUD 1,000,000 @0.65
④ Expenses	Operating expenses	272,000	AUD bank	272,000	AUD 400,000 @0.68
⑤ Depreciation	Depreciation	130,000	Accum. depreciation	130,000	650,000 ÷ 5
⑥ Revaluation	AUD bank	17,000	FX gain	17,000	100,000 × 0.70 − 53,000

2.3 Method 1-C: head office / branch accounting with historical rates kept in the branch fixed-asset register

1. Book USD transactions in the head office (USD) and AUD transactions in the branch (AUD). Remittances from head office to branch are recorded in both inter-office accounts.
2. Record AUD CAPEX in the branch, and **keep the acquisition rate and USD cost for each asset in the fixed-asset register**.
3. The branch also books AUD depreciation, but the register computes USD depreciation (from USD cost) in parallel.
4. At period-end, remeasure the branch trial balance by account: monetary = closing rate; non-monetary (PP&E, accumulated depreciation, head office account) = acquisition / remittance rate; expenses = average rate; depreciation = USD amount from the register. The balancing figure is an exchange gain or loss (P/L).
5. Reconcile and eliminate the head office's branch account against the branch's (remeasured) head office account, then combine.

Branch account	AUD	Rate applied	USD
AUD bank	100,000	Closing 0.70	70,000
PP&E	1,000,000	Acquisition 0.65 (register)	650,000
Accum. depreciation	(200,000)	Acquisition 0.65 (register)	(130,000)
Head office a/c	(1,500,000)	Remittance 0.65	(975,000)
Operating expenses	400,000	Average 0.68	272,000
Depreciation	200,000	Acquisition 0.65 (register)	130,000
Balancing figure = FX gain (P/L)			**(17,000)**

Head office: USD bank 1,025,000, branch account 975,000, share capital (2,000,000). Eliminating the branch account 975,000 against the branch's head office account (975,000) and combining gives the Base Case result.

2.4 Method 1-D: head office / branch accounting with AUD CAPEX transferred to the head office

1. Same ledger split as 1-C.
2. When the branch pays AUD CAPEX, **the branch debits the head office account** and does not record PP&E.
3. On the same day and at the payment-date rate, the head office records **PP&E (USD) and a credit to the branch account**.
4. Depreciation is calculated in the head office USD fixed-asset register (the branch holds no PP&E).
5. At period-end, remeasure the branch trial balance (monetary = closing; head office account = remittance / transfer rates; expenses = average), then reconcile, eliminate and combine.

Transaction	Branch ledger (AUD)	Head office ledger (USD)
② Remittance	Dr AUD bank 1,500,000 / Cr Head office a/c 1,500,000	Dr Branch a/c 975,000 / Cr USD bank 975,000
③ CAPEX (transfer)	Dr Head office a/c 1,000,000 / Cr AUD bank 1,000,000	Dr PP&E 650,000 / Cr Branch a/c 650,000 (@0.65)
④ Expenses	Dr Operating expenses 400,000 / Cr AUD bank 400,000	—
⑤ Depreciation	—	Dr Depreciation 130,000 / Cr Accum. depr. 130,000

Period-end remeasurement: AUD bank 100,000 → 70,000; head office a/c (500,000) → (325,000) [1,500,000 × 0.65 − 1,000,000 × 0.65]; operating expenses 400,000 → 272,000; balancing figure 17,000 = FX gain. This agrees with the head office's branch account of 975,000 − 650,000 = 325,000, which is eliminated.

2.5 Method 2: all transactions booked in an AUD ledger and remeasured into USD at reporting

1. Book all transactions in AUD. USD transactions are converted into AUD at the transaction-date rate, and **the original USD amount and rate must always be recorded alongside**.
2. When USD bank and similar items are revalued in the AUD ledger at period-end, AUD-perspective exchange differences arise (an AUD 112,637 loss in this example).
3. At reporting, remeasure every account: USD monetary items = original USD amount; AUD monetary items = closing rate; non-monetary items (PP&E, accumulated depreciation, share capital) = acquisition rate; expenses = average rate; depreciation = historical rate by asset.
4. **Eliminate all exchange differences booked in the AUD ledger** and recompute the USD-perspective exchange difference as the balancing figure.
5. Because USD transactions are converted twice (USD → AUD → USD), reconcile and adjust rounding differences.

Account	AUD ledger	Remeasurement basis	USD
USD bank	1,464,286	Original USD	1,025,000
AUD bank	100,000	Closing 0.70	70,000
PP&E	1,000,000	Acquisition 0.65	650,000
Accum. depreciation	(200,000)	Acquisition 0.65	(130,000)
Share capital	(3,076,923)	Original USD	(2,000,000)
Operating expenses	400,000	Average 0.68	272,000
Depreciation	200,000	Acquisition 0.65	130,000
FX loss (AUD ledger)	112,637	Eliminate	0
Balancing figure = FX gain (P/L)			**(17,000)**

2.6 Confirmation that the results agree

Method	Depreciation	FX gain	Net loss	OCI	PP&E NBV	Total assets
Base Case	130,000	17,000	385,000	0	520,000	1,615,000
1-C	130,000	17,000	385,000	0	520,000	1,615,000
1-D	130,000	17,000	385,000	0	520,000	1,615,000
2	130,000	17,000	385,000	0	520,000	1,615,000

Total assets 1,615,000 = USD bank 1,025,000 + AUD bank 70,000 + PP&E NBV 520,000 = share capital 2,000,000 − net loss 385,000.

3. Pros and cons of each method

Method	Pros	Cons
Base Case	• Implements the IFRS requirements directly, with minimal room for error • Period-end work limited to revaluing AUD monetary items • All PP&E in a USD register, easy to audit • If transaction-currency amounts are kept, AUD data for GST and Australian tax can be extracted	• Every AUD transaction needs a USD conversion at entry (solved by automating it in the system) • Requires a by-currency view of AUD balances (e.g. AUD bank balance in AUD)
1-C	• AUD transactions handled naturally in an AUD ledger; AUD balances and GST are easy to manage • No CAPEX transfer entries; fewest day-to-day journals	• Branch trial balance must be remeasured at period-end • Fixed-asset register must hold acquisition rate and USD cost for each asset • Risk of confusing "translation" with "remeasurement" (especially when staff change) • Auditor tests both the remeasurement worksheet and the register
1-D	• PP&E always held in the USD head office register; structurally less error-prone • Branch holds only monetary items and expenses, so remeasurement is simple	• Transfer entry and inter-office reconciliation for every AUD CAPEX payment • Administrative burden grows if cash calls are frequent • Missed transfers or rate mismatches prevent the inter-office accounts from eliminating
2	• Simplest day-to-day AUD entry • AUD-based management reports available as is	• Original USD amounts and rates must be kept for every transaction, effectively a second ledger • Every account must be remeasured and exchange differences eliminated at reporting • Rounding differences from double conversion of USD transactions • Highest probability and impact of errors (see below)

3.1 Evaluation matrix

Criterion	Base	1-C	1-D	2
IFRS compliance (if applied correctly)	◎	○	○	○
Risk of misapplication	◎ Low	△ Medium	○ Low–medium	× High
Day-to-day AUD entry effort	○ (◎ with auto conversion)	◎	◎	◎
CAPEX processing effort	◎	○	△	△
Month-end / year-end close effort	◎	○	○	×
Weight of system requirements	○	△	○	×
Auditor testing burden	◎	○	○	×
Ease of GST / AUD management	○	◎	◎	◎
Overall	**◎ Recommended**	**○ Conditional**	**○ Conditional**	**△ Not recommended**

3.2 Why Method 2 involves the most effort and risk

Specific risks of Method 2

- **Fictitious exchange differences:** the AUD ledger revalues USD bank, USD payables and USD borrowings as "foreign currency", so exchange differences that do not exist in USD functional terms arise every period — AUD 112,637 (about USD 76,600) in this example. Missing a single elimination distorts profit or loss directly.
- **Missing exchange differences:** conversely, the exchange differences on AUD items that genuinely arise from a USD perspective (17,000 in this example) are zero in the AUD ledger and must be recomputed separately. Both the elimination and the recomputation must be done accurately every period.
- **Effectively a second ledger:** remeasurement is impossible unless every USD transaction (large cash calls, capital, borrowings) carries its original USD amount and rate. Any gap means cost cannot be reconstructed and retrospective investigation is required.
- **Rounding from double conversion:** USD → AUD → USD round trips create differences from rate precision and rounding, making reconciliation a permanent task.
- **Tracking non-monetary items:** a history of acquisition rates is needed for all PP&E, prepayments and share capital. JV CAPEX is large in number and value, so the tracking burden is heavy.
- **Audit impact:** the auditor re-performs the whole remeasurement worksheet and the scope of ITGC testing expands. Agreement with the Base Case is hard to evidence, which tends to lead to accumulated uncorrected differences, management-letter points and higher audit fees.
- **Questions on the functional-currency judgement:** when books and management reports are AUD-centred, the auditor is more likely to question the evidence supporting a USD functional currency (i.e. which currency management actually uses to run the business).

4. Key points for building the accounting system (Base Case, 1-C, 1-D)

4.1 Elements common to all three methods

Element	Key points
Journal line fields	Each line holds "transaction currency / transaction amount / rate applied / rate type (spot, monthly average, acquisition, remittance, closing) / functional amount (USD)". The USD amount is fixed when saved and does not change if the rate table is later edited
Rate table	Manage currency pair, date, rate type and source (RBA, WM/Reuters, etc.). Record how monthly averages are calculated (e.g. simple average of daily rates). Lock rates after approval and keep a change history
Chart of accounts	For each account set a "monetary / non-monetary" flag, a "revalue at period-end" flag and the account for revaluation differences (FX gain/loss). Classify prepayments in line with the IFRIC 22 conclusion
Period-end revaluation	For monetary foreign-currency accounts, automatically compute balance by currency × closing rate − USD book balance and post the FX entry. Fix in the policy how realised and unrealised FX are split and whether entries are reversed at the start of the next period
Fixed-asset register	Hold, per asset, acquisition date, acquisition-currency amount, acquisition rate, USD cost, depreciation method (straight-line / UoP) and useful life. Depreciation is always computed from USD cost; design it so that no exchange rate is referenced
JV cash calls and JIBs	Link cash-call advance balances (by currency) to settlement through JIBs. Allow the system to use either the advance-date rate or the payment-date rate on settlement, depending on whether the advance is monetary or non-monetary
Balances by currency	View the AUD balance of AUD bank and AUD payables by currency, so that bank reconciliations are done in the transaction currency
GST and tax output	Produce AUD GST summaries (for the BAS) from transaction-currency amounts, and output in the currency required depending on whether a tax functional-currency election has been made
Audit trail and reconciliation reports	Output the basis for rates applied, revaluation calculation details and FX gain/loss breakdown (by currency and account). Approval workflow and change history
Rounding	Define the USD rounding unit (cents) and how differences between foreign-currency totals and USD totals are handled

4.2 Points specific to the Base Case

- When the AUD amount is entered on the input screen, the USD amount is shown automatically from the date and rate type (the user need not think in USD).
- Set a **default rate type per transaction type** in the master — e.g. monthly average for small expenses, spot for CAPEX and cash calls — with an automatic switch by threshold (e.g. spot above a certain amount).
- With a single ledger, no inter-office accounts or remeasurement functions are needed. This is the simplest configuration and keeps the ITGC scope smallest.

4.3 Points specific to 1-C

- Configure **ledger divisions (head office USD, branch AUD)** and the bookkeeping currency of each. Treat inter-office accounts as non-monetary, fixed at remittance rates.
- **Dual-currency fixed-asset register:** keep USD cost for branch assets too, and compute AUD and USD depreciation in parallel. Use the register's USD amounts for depreciation and accumulated depreciation when

remeasuring.

- **Remeasurement engine:** apply rates to each account in the branch trial balance automatically according to the account classification, and post the balancing figure to FX gain/loss. Stop processing if any account lacks a classification.
- **Do not use translation (OCI) logic:** if the system also has a translation function for foreign subsidiaries, make the classification explicit so that it is never applied to the branch by mistake.
- **Automatic reconciliation and elimination of inter-office accounts**, and a reconciliation report showing zero difference from the Base method.

4.4 Points specific to 1-D

- **Automatic posting of CAPEX transfers:** when a CAPEX-type payment is entered in the branch, generate the branch head-office-account entry and the head office PP&E / branch-account entry together (same date, same rate).
- Block PP&E accounts in the branch's chart of accounts to prevent missed transfers.
- Produce a monthly inter-office reconciliation report (detail of any uneliminated difference).
- Branch remeasurement covers only monetary items, expenses and the head office account, so it is simpler than 1-C.

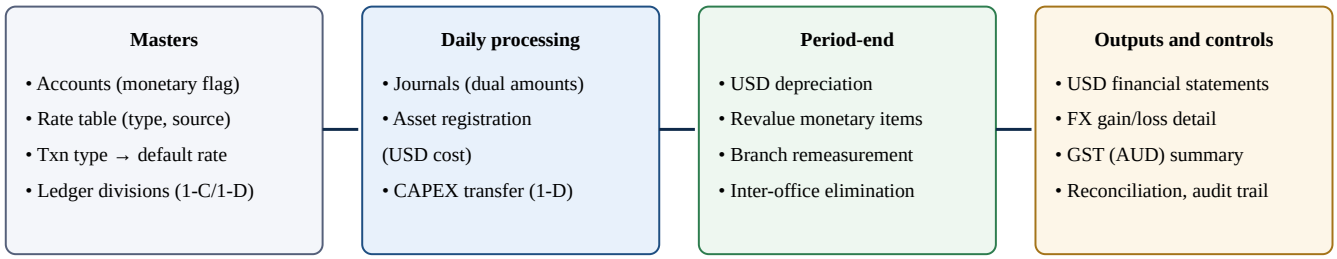


Figure 3 — Overall system functions (common to Base Case, 1-C and 1-D)

5. Points to confirm with the accountant

#	Question	Background and issue	Expected answer / materials to prepare
1	Agreement that the AUD branch / AUD ledger is subject to IAS 21.34 remeasurement and that foreign-operation translation does not apply	Premise of 1-C and 1-D. Explain that the branch functional currency is USD using the IAS 21.11 factors	Functional-currency memo (assessment of IAS 21.9–12 indicators)
2	Whether monthly average rates may be used for high-volume AUD expenses, and the fluctuation threshold above which they may not	IAS 21.22 says averages are inappropriate when rates fluctuate significantly. An agreed threshold makes in-year decisions clear	Historical intra-month high–low ranges; estimated impact
3	Amount threshold above which CAPEX and cash calls must use individual spot rates	The principle is the transaction-date rate. Clarify how far averages may be used for small CAPEX items	Distribution of CAPEX items by number and amount
4	Nature of JV cash-call advance balances (monetary or non-monetary)	(a) If they are the company's share of the joint operation's cash, they are monetary and retranslated at the closing rate. (b) If they are prepayments for goods and services, IFRIC 22 fixes them at the advance-date rate. This changes when exchange differences on AUD cash calls arise	JOA cash-management clauses, JIB format, currency of the operator's JV account
5	Rate source and time of day	RBA published rates, WM/Reuters 4pm, etc. Consistent application assumed	Draft rate-management rules
6	Which is easier to audit: 1-C (dual-currency register) or 1-D (transfer to head office)	Directly determines the system design choice. Confirm audit efficiency	Process flow of each method (Section 2 of this paper)
7	How differences from simplifications are quantified, and at what level they are accumulated as uncorrected misstatements	No correction needed if immaterial individually and in aggregate (IAS 8.8). However, immaterial errors made intentionally to achieve a particular presentation are non-compliant (IAS 8.41)	Annual calculation of differences from the Base method
8	Treatment of exchange differences on an AUD-denominated decommissioning provision	The provision is monetary (closing rate); the related asset stays at the acquisition rate. Is the exchange difference taken to profit or loss, or treated as a change in estimate adjusting the asset under IFRIC 1?	Currency of the provision and estimate assumptions

Suggested approach to the discussion

1. First agree the functional-currency judgement in Section 1 and the treatment of the branch by remeasurement (question 1).
2. Then present the Base Case as the default policy, and confirm the conditions for adopting 1-C or 1-D (question 6).
3. Agree the rate simplifications (questions 2, 3 and 5) and the nature of cash calls (question 4), and reflect them in the accounting policy manual and rate-management rules.
4. After the system is built, present a zero-difference reconciliation with the Base method in the first year for the auditor to test.

References

IAS 21: 8 (definitions), 9–12 (functional currency), 11 (additional factors for a foreign operation), 20–22 (initial recognition, average rates), 23 (reporting at period-end), 28 (exchange differences in profit or loss), 34 (books in a non-functional currency), 38–47 (translation to presentation currency, foreign operations) | IFRIC 22 Foreign Currency Transactions and Advance Consideration | IAS 16 Property, Plant and Equipment, para. 50 | IFRS 11 Joint Arrangements, para. 20 | IFRIC 1 | IAS 8: 8, 41

This paper is prepared for discussion with the accountant and does not replace professional accounting, audit or tax advice. The numerical example uses illustrative assumptions and does not represent actual rates or transactions.