

Treasury Functions & Products

1) Why Treasury Exists (the 20-second picture)

Treasury is the bank's **central liquidity and balance-sheet manager**. It ensures the firm has the **right cash, in the right currency, for the right tenor**, at the **lowest risk-adjusted cost**, while money actually moves through payments safely and on time. Treasury also manages structural interest-rate and FX risks and sets internal prices for funds (FTP) so business lines feel the *true* cost of money.

2) Typical Treasury Products & Deals (what they are + why used)

Below are the everyday instruments you'll hear about, with **plain-English purpose** and a **tiny number example** so you can picture the cashflows. Day-counts differ by market; assume ACT/365 for quick math unless noted.

A. Overnight & Term Deposits / Loans (Unsecured)

- **What:** Borrow/lend cash **without collateral** for **Overnight (O/N)** up to **12 months+**.
- **Why:** Smooth day-to-day liquidity (O/N) and **lock cost** for a period (term).
- **Quick math:** Borrow **R700m O/N at 5.10%** → interest for 1 day $\approx 700,000,000 \times 0.051 \div 365 \approx \mathbf{R97,808}$; repay **R700,097,808** tomorrow.
- **Scenario:** Choose between rolling O/N at ~5.1% (flexible, rate can jump) vs **3M term at 5.8%** (cost certainty for 92 days).

B. Repos / Reverse Repos (Secured)

- **What:** Borrow/lend **against securities** (cash vs bonds); you give collateral and agree to **buy/sell back** later.
- **Why:** Usually **cheaper** than unsecured because the lender is protected by collateral.
- **Quick math (cash borrow via repo):** Post a bond worth **100** with a **2% haircut** → you receive **98** cash. Repo rate **5.0%** for **7 days** → interest $\approx 98 \times 0.05 \times (7/365) \approx \mathbf{0.094}$. You repay **98.094** and get the bond back.
- **Margining example:** If the bond price falls from **100** → **98**, collateral value drops. With a 2% haircut, required value is **exposure ÷ (1 - 0.02)**. A margin call tops up the shortfall so the lender stays protected.

C. Commercial Paper (CP) / Medium-Term Notes (MTNs)

- **What:** Debt issued to investors (short to medium term) via a programme.
- **Why:** Diversify funding and lock tenor/cost beyond bank lines.
- **Quick math:** Issue R2bn, 9-month CP at JIBAR 3M + 0.90%; if JIBAR 3M ~ 5.2%, all-in coupon ≈ 6.1%. Upfront dealer fee 0.20% (R4m) amortized → effective cost modestly higher than 6.1%.

D. FX Swaps & Short-Dated Cross-Currency Swaps (CCS)

- **What:** Borrow one currency, lend another, swap back later at a pre-agreed forward rate.
- **Why:** Fund foreign-currency needs without taking FX risk.
- **Quick math (1-month USD funding):** Spot USD/ZAR = 18.50; 1M forward points +0.07 → forward 18.57. To raise USD 50m, you deliver ZAR 925m today (50m × 18.50) and get USD 50m; in one month you return USD 50m and receive ZAR 928.5m (50m × 18.57). The ZAR difference reflects the rate differential.

E. Interest-Rate Swaps (IRS)

- **What:** Exchange fixed vs floating interest payments on a notional; no principal exchanged.
- **Why:** Align asset/liability repricing (ALM), stabilize margins.
- **Quick math:** On R500m, 5-year notional, you pay fixed 7.0% and receive 3-month JIBAR. If JIBAR rises from 6.0% → 7.5%, your received leg increases, offsetting higher short-term funding costs elsewhere.

F. Securities Lending

- **What:** Lend securities to a borrower (often a market-maker) for a fee, taking collateral.
- **Why:** Monetize inventory or source specific collateral.
- **Quick math:** Lend R50m of a scarce bond for 30 days at 0.80% annual fee → fee ≈ 50,000,000 × 0.008 × (30/365) ≈ R32,877. If you take cash collateral and rebate interest to the borrower, your net is fee minus rebate.

G. Internal Funding (FTP / Matched-Maturity)

- **What:** Internal rate by currency/tenor used to charge or credit business units so they feel the true cost of funds.
 - **Why:** Steers behaviour (tenor choice, product pricing) and measures performance fairly.
 - **Quick math:** 6-month FTP = reference 5.8% + liquidity premium 0.6% = 6.4%. A 6-month corporate loan priced at 8.2% has gross spread ≈ 1.8% before credit/loss/ops costs.
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3) Core Treasury Functions (what treasury does)

Below are the core jobs of a bank treasury in **plain English**, each with a short **worked example**.

1) Liquidity management — always have cash when/where needed

What it means: Make sure the bank can pay everything due **today and tomorrow**: client withdrawals, settlements, payroll, margin calls, taxes.

How it works: Keep a rolling **cash-flow ladder** (morning/noon/close; T+0 to T+7), maintain a **buffer**, and line up borrowing/investing to cover dips.

Worked example (intraday & EOD):

- 10:00 forecast shows **-R300m** by 16:00 (large corporate outflows), then **+R150m** inflow next morning.
 - Treasury takes **R400m O/N** at **5.1%** to sail through cut-offs. Interest $\approx 400,000,000 \times 0.051 \div 365 \approx \text{R}55,890$.
 - Next morning, inflows repay O/N and restore the buffer.
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2) Funding the balance sheet — pick the right mix of money

What it means: Decide **how much** to fund O/N vs term; **secured vs unsecured**; and when to issue **CP/MTN**.

How it works: Blend for **cost + resilience**. Short money is flexible but can reprice; term money fixes cost; secured money is cheaper but uses collateral.

Worked example (cost comparison): Need **R5bn** for **6 months**.

- Option A: roll O/N at **5.1%** (assume rates drift to 6.1% by month 6). Estimated 6-month interest $\approx \text{R}153\text{m}$.
 - Option B: lock **6M unsecured at 7.0%** → interest $\approx 5,000,000,000 \times 0.07 \times (182/365) \approx \text{R}174.8\text{m}$.
 - Option C: **repo 3bn @ 6.3% + unsecured 2bn @ 7.0%** → blended $\approx 6.58\%$ over 6M → interest $\approx \text{R}166.2\text{m}$. Treasury might choose C to balance **cost** and **collateral usage**.
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3) ALM / IRRBB — line up earnings vs funding when rates move

What it means: The bank often **lends long** and **borrow short**. If rates jump, funding gets expensive before loan income catches up.

How it works: Measure **repricing gaps**, set limits, and use **interest-rate swaps (IRS)** so income and costs move together.

Worked example (NII sensitivity):

- Assets: **R10bn fixed-rate at 8%**; Liabilities: **R10bn 3M floating at JIBAR + 1%** (starts at 7%).
 - **+200bp shock**: assets stay at 8% (for now); liabilities rise to **9%** on reset → annualized NII change $\approx 10,000,000,000 \times (8\% - 9\%) = -R100m$.
 - Hedge: pay-fixed/receive-float IRS on **R6bn** notional reduces the exposure; post-shock NII shortfall materially smaller.
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4) FX & currency management — get the right currency, not just cash

What it means: Ensure money is in the **right currency** and **on time**; manage net-open-position (NOP) limits.

How it works: Use **FX swaps/CCS** to fund books, and a **roll calendar** to avoid bunching.

Worked example (NOP + roll): Limit **USD NOP = ±USD 20m**. A desk forecasts a **USD 35m** short tomorrow. Treasury books a **1M USD/ZAR FX swap** for **USD 40m** today and plans the **roll** one day before maturity to keep NOP within limits while minimizing roll risk.

5) Collateral & securities finance — turn assets into cheaper cash (and fees)

What it means: Borrow cheaper by pledging **high-quality collateral** (repo) and **earn fees** by lending securities.

How it works: Eligibility lists and **haircuts** define what can be pledged; margining keeps exposure covered as prices move.

Worked example (repo with margin call):

- Post **R200m** of govvies, haircut **2%** → **R196m** cash advanced. Repo **5.0% for 14 days** → interest $\approx 196,000,000 \times 0.05 \times (14/365) \approx R375,342$.
- Bond price drops **1.5%** next day → collateral value $\approx R197m$; to maintain haircut, lender calls **variation margin** ≈ a few million to top up protection.

Worked example (securities lending fee): Lend **R80m** bond for **20 days** at **0.60%** → fee $\approx 80,000,000 \times 0.006 \times (20/365) \approx R26,301$ (before any cash-collateral rebate).

6) Payments & settlements oversight — make money actually move

What it means: Ensure wires/settlements are **on time** with **clean controls**.

How it works: Maintain accurate SSIs, watch **cut-offs**, target high **STP** with clear repair workflows.

Worked example (STP & cut-off):

- Daily: **2,000** payments, **STP 98%** → **40** require manual repair. If average repair time **20 minutes** and cut-off miss fee **R2,000** per late item, improving STP to **99.5%** cuts repairs to **10**, likely avoiding ~**R60k** in daily fees and freeing Ops time.
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7) Transfer pricing (FTP) — set the internal price of money

What it means: Business units **pay/receive** an internal rate so product pricing reflects the **true cost of funds**.

How it works: For each currency/tenor publish **FTP = reference curve + liquidity premium** (and any policy spreads). **Charge at matched maturity**.

Worked example (product pricing):

- 6M FTP **6.4%**; credit spread for a BBB corporate **1.2%**; operating/capital **0.6%**; target margin **0.6%**.
 - Indicative client rate = $6.4 + 1.2 + 0.6 + 0.6 = 8.8\%$. If the market won't bear 8.8%, either reduce tenor, seek secured structure, or decline.
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8) Regulatory & reporting touchpoints — show the bank is liquid and safe

What it means: Produce liquidity/encumbrance metrics (e.g., **LCR/NSFR**) and stress results on time, with reconciled data.

How it works: Aggregate balances/cashflows, apply rulebooks, publish packs to management/regulators.

Worked examples:

- **LCR:** High-quality liquid assets (**HQLA**) **R120bn** vs 30-day stressed outflows **R100bn** → **120%** (comfortably > 100%).
- **NSFR:** Available stable funding (**ASF**) **R500bn** vs Required stable funding (**RSF**) **R450bn** → **111%** (> 100%).

- **Encumbrance:** Pledged assets **R90bn** / total assets **R900bn** → **10%** encumbrance; track trend so you don't over-pledge future capacity.
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5) A Simple Daily Rhythm (non-technical)

1. **Intraday:** Forecast cash, manage collateral calls, approve large payments, monitor FX gaps.
2. **End of Day:** Centralize funding (e.g., repo sweeps), cover valuation and oper