# GENERAL LOGIC FRAMEWORK – ARMSTRONG CAPITAL

## 1. Client Personal Details

### Personal Information Capture

**Input Fields:**

- Client Name
- Date of Birth (DOB)
- Desired Retirement Age *(default to 55 if not provided)*
- Spouse Name
- Number of Children

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### Investment Horizon Classification

**Logic:**

- Calculate years until retirement:
  Retirement Age - Current Age
- For children's education goals (if age is provided), calculate:
  Expected Education Age - Current Age of Child

**Classification Rules:**

- If time to goal is **> 5 years** → **Long-Term**
- If time to goal is **3–5 years** → **Medium-Term**
- If time to goal is **< 3 years** → **Short-Term**

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### Risk Appetite Assessment

**Step 1: Equity Exposure Check**

- If current assets include **Direct Equity**, **Equity MFs**, or other equity instruments → **Equity Exposure = Yes**
- Else → **Equity Exposure = No**

**Step 2: Time to Retirement**

- If **Years to Retirement < 5**:
  - If **Equity Exposure = Yes** → **Risk Appetite = Medium**
  - If **Equity Exposure = No** → **Risk Appetite = Low**
- If **Years to Retirement ≥ 5**:
  - If **Equity Exposure = Yes** → **Risk Appetite = Medium to High**
  - If **Equity Exposure = No** → **Risk Appetite = Medium**

### Goal Identification

**Logic:**

- If user has specified goals → Use **user-defined goals**
- Else → Automatically assign:
  - **Retirement Planning** (based on retirement age or default age 55)
  - **Children's Education** (if children present and age-appropriate)

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# 2. Current Assets & Liabilities

## 1. Current Assets Summary (Visualization)

**Objective**: Display each current asset's proportion in a **pie chart** and show **total asset value** below.

**Inputs (Sample Categories):**

- Bank Balance / Cash
- Fixed Deposits
- Mutual Funds (Equity / Debt)
- Direct Equity
- Bonds
- Real Estate
- Provident Fund (PF)
- Public Provident Fund (PPF)
- National Pension Scheme (NPS)
- Gold
- Other investments

**Logic:**

- Calculate total asset value:
  Total = Sum of all individual assets
- For each asset:
  - % = (Asset Value / Total) × 100
- Plot pie chart with:
  - Asset categories as segments
  - Percentage labels

**Below Pie Chart Display:**

- Total Assets: ₹<Total Value> (formatted in lakhs or crores)
- If liability is present Subtract it and show the net worth post that.

# 3. Current Asset Classification Sheet

**Objective**: Classify assets into three buckets:

A. **Liquid Assets** *(Accessible financial assets)*

Includes:

- Bank Balance / Cash
- Fixed Deposits
- Mutual Funds (Equity/Debt)
- Direct Equity
- Bonds
- Gold
- Other Market-linked Assets

B. Retirement Assets

Includes:

- Provident Fund (PF)
- Public Provident Fund (PPF)
- National Pension Scheme (NPS)

C. Fixed Assets

Includes:

- Real Estate
- Land
- Property

**Logic:**

- Read asset types and classify into the respective bucket
- Sum values under each category
- Display output as a table or stacked bar chart with:
    - Category Name
    - Total Value
    - % of Total Assets

# 4. Loan Pre-payment analysis – (If its present)

## Step 1: Evaluate All Existing Loans

Before focusing on the home loan, review the client's full debt profile:

- **List all active loans**: Home loan, car loan, personal loan, credit card debt, etc.
- **Compare interest rates**:
    - Personal loans and credit cards often carry the **highest interest rates**.
    - Car loans generally come with **moderate interest rates** and no tax benefits.
    - Home loans usually have the **lowest rates**, with added **tax deductions**.

### Debt Repayment Strategy:

1. **Close highest-interest loans first**, unless early closure incurs heavy penalties.
2. **If liquidity is tight**, consider refinancing high-cost loans.
3. Use **debt snowball (lowest balance first)** or **avalanche (highest interest first)** based on behavioural or financial preferences.

**Example:** If the client holds a personal loan at 14% and a home loan at 8%, personal loan closure should take priority unless the liquidity is specifically earmarked for home loan prepayment.

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## Step 2: Check for Liquidity Constraints

- If **EMI burden > 50%** of net monthly inflows, avoid increasing EMI or committing to large lump-sum prepayments.
- Ensure surplus availability for:
    - **Essential living expenses**
    - **Emergency fund**
    - **High-priority goals** (retirement, children's education)

Consider a **SIP toward prepayment** or staggered partial payments only **after funding priority goals**.

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## Step 3: Evaluate Existing Liquid Assets

- If the client holds **low-yielding instruments** (e.g., FDs, liquid funds, idle savings):
    - Use part of these assets to **prepay the costliest loan** (based on Step 1).
    - Reinvest EMI savings into **higher-return investments**.

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## Step 4: Prioritize Home Loan Prepayment (if applicable)

### Assess Based on EMI Composition

- In **early years**, the **interest portion is higher**, making prepayment more effective.
- In **later years**, when the **principal dominates**, the benefit is limited.

### Assess Based on Tax Benefits

| Section | Deduction Type | Max Limit | Notes |
|---|---|---|---|
| 24(b) | Interest Paid | ₹2,00,000 | Only for self-occupied homes |
| 80C | Principal Repaid | ₹1,50,000 | Shared with other 80C items |

**Avoid over-prepaying** if it leads to **underutilization of deductions** under 80C and 24(b).

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## Step 5: Prepayment Strategy Options

- **Lump Sum Prepayment**: From bonuses, maturing policies, or FDs.

- **SIP Toward Prepayment**: Invest surplus monthly in equity/hybrid funds to build a corpus for future prepayment.
- **EMI Top-up**: Only if EMI is ≤ 30% of net income and goals are well-funded.

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### Final Decision Framework

Ask these key questions:

- **Is a liquidity cushion in place?**
- **Are high-cost loans already closed or being addressed?**
- **Are financial goals fully funded or at risk?**
- **What is the effective return on investments vs. interest saved by prepaying?**
- **Will prepayment reduce tax benefits significantly?**
- **Can a hybrid strategy (partial prepay + invest) optimize both risk and return?**

**Recommendation:** Run a **scenario analysis** comparing:

- Full prepayment
- Full investment
- Partial prepayment + continued investing

to determine the **optimal financial outcome**.

## 5. Goal Input Sources

**Goal Types:**

- **Retirement**: Based on client input or assume retirement at age **55**
- **Education**:
  - **Undergraduate (UG)** → Default at **Child's Age 18**
  - **Postgraduate (PG)** → Default at **Child's Age 22**
- **Other Goals**: As explicitly specified by the client (e.g., Home Purchase, Car, Vacation, Marriage, etc.)

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2. Goal Details Captured per Entry

Each goal entry should include:

- **Goal Name** (e.g., Retirement, UG for Child 1, PG for Child 2, Home Purchase)
- **Target Year** (calculated)
- **Time Remaining (Years)** = Target Year – Current Year
- **Estimated Cost (optional)** – If input is available

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3. Goal Target Year Calculation

**Retirement Goal**:
Target Year = Current Year + (Retirement Age – Current Age)

**Education Goals**:
For each child:

- UG Goal Year = Current Year + (18 – Child's Age)
- PG Goal Year = Current Year + (22 – Child's Age)

**Other Goals**:

- Use client's provided year or calculate using time to goal.

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4. Goal Sorting Logic

- Sort all goals by **Target Year (ascending order)**
- In case of same year, maintain order: **Education → Retirement → Others**

# 6.Current Financial Health

To assess the client's current financial health across the following dimensions:

- Liquidity
- Flexibility
- Asset Allocation (vs. ideal benchmarks)
- Goal Feasibility (based on Retirement & Education needs)
- Savings Adequacy
- Spending Behaviour

Even though this sheet comes earlier in the plan, it must **reference calculations from later sheets**, especially **retirement and education goal feasibility**.

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2. Key Parameters and Logic

### *A. Liquidity Ratio*

- **Formula**:
  Liquid Assets / Total Assets
- **Red Flag if**:
  < 10–15% → Suggests illiquidity

### *B. Real Estate + Low Yield Exposure*

- Combine:
  - Real Estate
  - LIC Policies
  - FDs
- **Formula**:
  (Low Yield Assets / Total Assets) × 100
- **Red Flag if**:
  > 50% → Overweight in illiquid/low-return assets

### *C. Flexibility*

- If majority of assets are in fixed income + real estate → Low flexibility
- If substantial assets in market-linked or redeemable products → Medium to High flexibility

**Classification:**

- **High**: >30% in market-linked/liquid
- **Medium**: 15–30%
- **Low**: <15%

### *D. Goal Feasibility Reference (from Retirement/Education Sheets)*

- Use gap between **goal corpus required** and **corpus available + projected savings**

**Logic:**

- **Feasibility Rating**:
  - **Feasible**: Gap ≤ 10%
  - **Stretch**: Gap between 10–30%
  - **Unrealistic**: Gap > 30%

### *E. Savings Gap Analysis*

- If current savings rate is **inadequate** to meet retirement/education goals:
  - Show required increase:
    Required Monthly Savings – Current Monthly Savings
  - **Red Flag if**: required increase > 50%

### *F. Spending Behaviour*

- **Savings Ratio = Savings / Income**
- **Red Flag if**:
  - Savings < 20% for age < 40
  - Savings < 30% for age ≥ 40
- OR if **expenses consume more than 70% of income**

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3. Output: Financial Health Summary

| Parameter | Value / Diagnosis | Remark / Actionable |
|---|---|---|
| Liquidity Ratio | 6% → Low Liquidity | Improve emergency corpus |
| Real Estate Allocation | 65% → High | Diversify portfolio |
| Flexibility | Low | Switch to more flexible assets |
| Retirement Goal Gap | 35% → Unrealistic | Increase savings or delay retirement |
| Education Goal Feasibility | Stretch | Start SIPs in long-term funds |
| Savings Gap | Needs 2× current saving rate | Review expenses or income sources |
| Spending Behaviour | 75% income spent → High Spending | Track and reduce lifestyle inflation |

Combine all these parameters and draft a paragraph mentioning key areas for improvement.

# Educational planning

## 1. Determine "Years Left" for Each Child's Education

**UG Default Age** = 18
**PG Default Age** = 22

**Years Left = UG/PG Year – Child's Current Age**

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## 2. Define Education Type (Domestic vs International)

➤ *Years Left < 5 (Near-Term Goals)*

- Check if **financial assets ≥ ₹2 Cr**
- If **yes**, suggest **foreign education (US/UK)**
- If **no**, suggest **domestic UG/PG**

➤ *Years Left ≥ 5 (Long-Term Goals)*

- **Net worth < ₹2 Cr** → Default: **UG domestic, PG domestic**
- **Net worth ≥ ₹2 Cr** → UG domestic, PG international (US/UK)

**Exception**: If there is a substantial **retirement goal gap**, even PG international is deprioritized.

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## 3. Choose the Cost Base

◇ *International UG/PG (US/UK)*

- Use **average of top 10 engineering/MBBS colleges** (depending on input)
  - UG Engineering (default)
  - PG MBA or Masters in Tech
  - MBBS only if specifically mentioned
- Use 6–8% **annual inflation** to project **future cost**
- Example:
  Future Cost = Current Cost × (1 + Inflation Rate) ^ Years Left

◇ *Domestic UG/PG*

- Use **average of top 20 Indian colleges (IITs, NITs, top private)**
- Apply **education inflation (~9-10%)** to get future value

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## 4. Evaluate Existing Education Savings

If education savings exist (e.g., SIPs, Sukanya, policies):

- Net Future Value (FV) of these investments
- Subtract from estimated **future cost**
- Remainder = **Additional savings needed**

*Prioritization Logic:*

- **Years Left < 5** → Use **current assets first**
- **Years Left ≥ 5** → Split across:
  - Future savings (through SIPs)
  - Step-up savings
  - Minimal draw from current corpus if flexibility is low

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### 5. Retirement Cross-Check

If there's a **gap in retirement goal**:

- Deprioritize **foreign PG**
- Focus on **UG + Retirement first**
- Mark **PG as aspirational goal** and display gap
- Suggest revisiting after income or savings rise

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# Step-Up Savings Logic Framework

| Age Group | Max Step-Up Rate | Notes |
|---|---|---|
| 30–40 | Up to 15% | High income growth potential |
| 40–50 | Up to 10% | Moderate step-up possible |
| >50 | Up to 5% | Low flexibility due to nearing retirement |