



USAID GLOBAL HEALTH SUPPLY CHAIN PROGRAM
Procurement and Supply Management

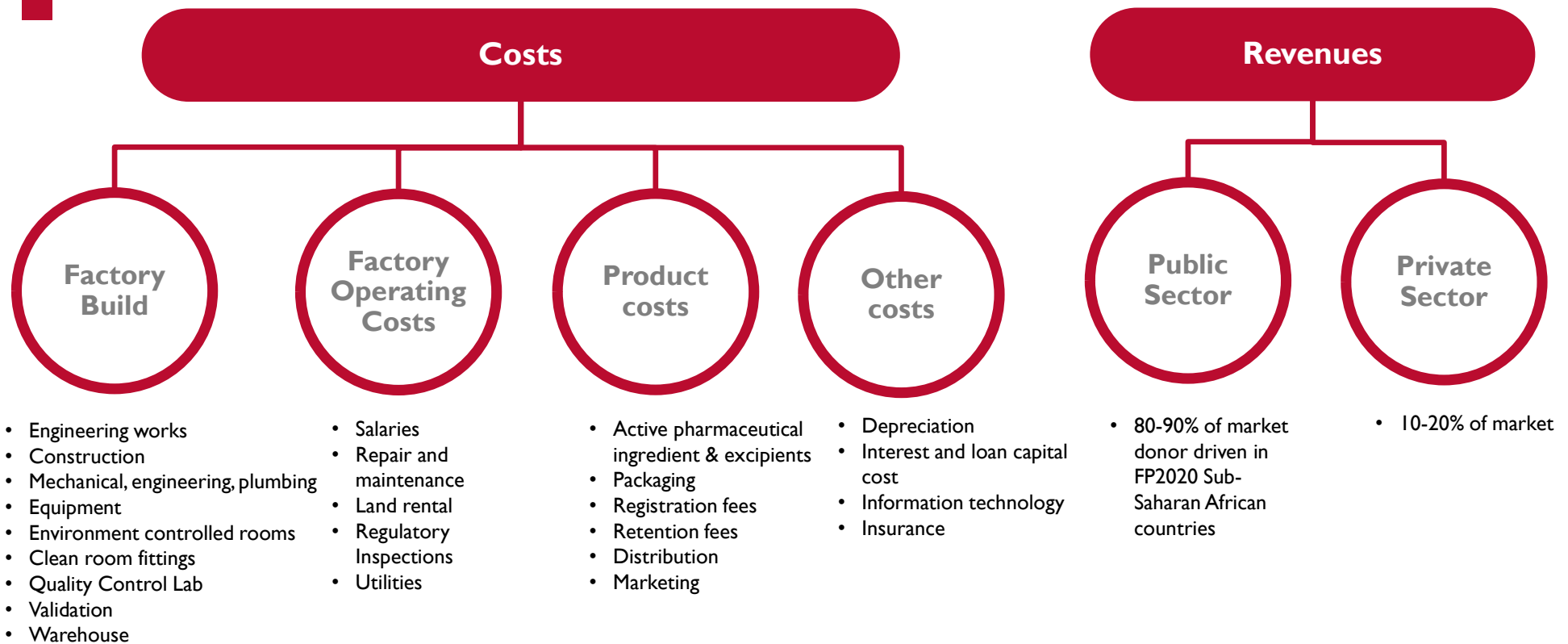
Modelling the Case for Hormonal Contraceptive Manufacturing in Sub-Saharan Africa

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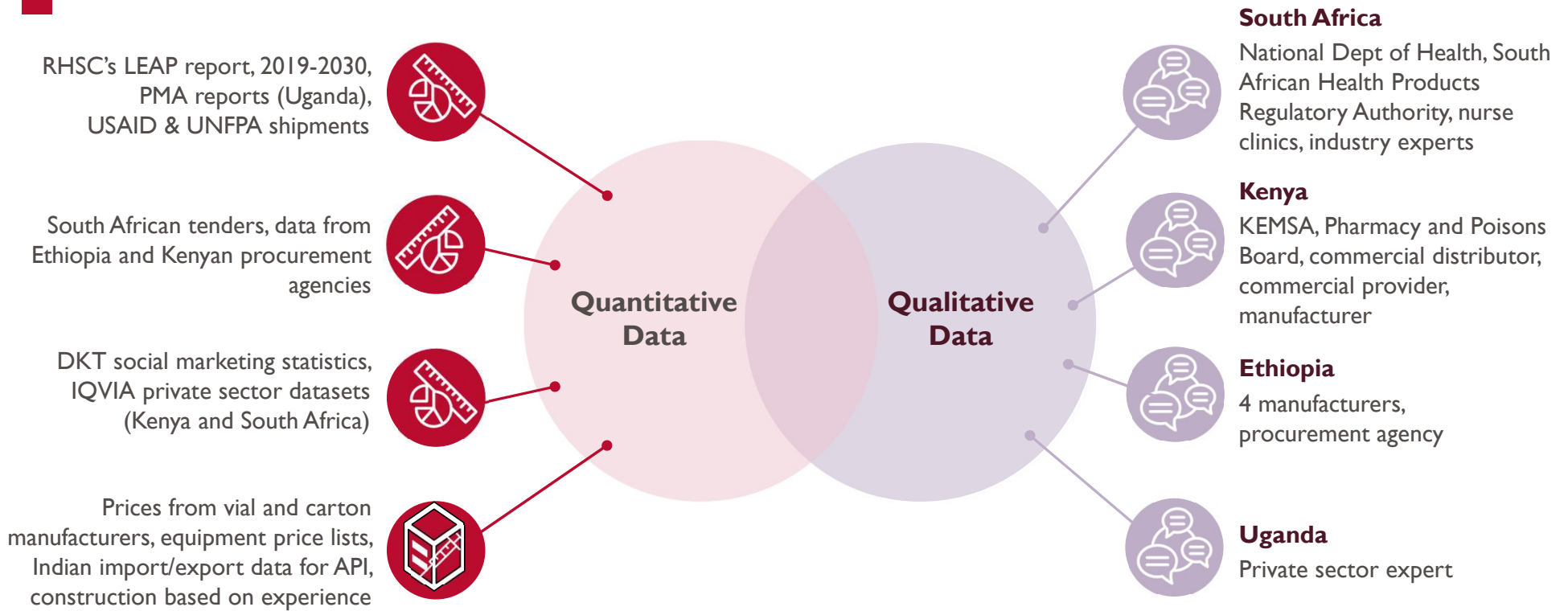
Project Background



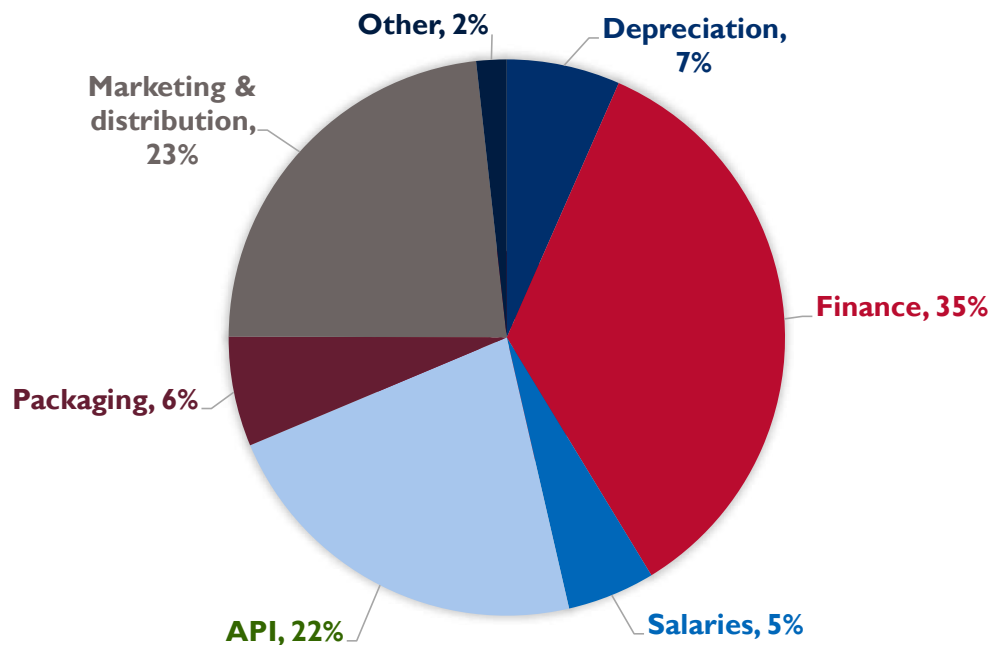
Approach



Data Sources



Operating Costs: Key Assumptions



OPEX breakdown for stand-alone facility, development bank loan

- **Finance**
 - Commercial bank 16% per annum
 - Development bank 9.5% per annum
 - 10-year term, time to production & WHO Prequalification = 6 years
- **Marketing & Distribution**
 - South African private sector ~33% Single Exit Price
 - Others ~15% sale price
- **API & Excipients**
 - Import price from Italy to India, 2019, small quantity
- **Depreciation**
 - 13% per annum (industry norm)
- **Packaging**
 - Sourced direct from manufacturers ~0.09 USD for primary, secondary and tertiary packaging
- **Salaries**
 - Expatriates in managerial position + production operators
 - Salaries based on interviews with local manufacturers

Revenue Assumptions (Base Case)

Market Share

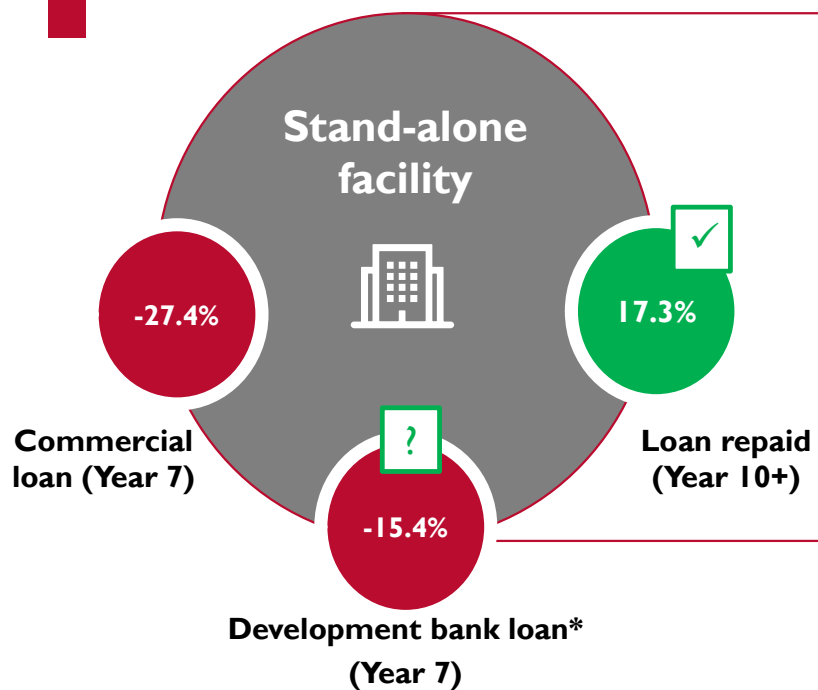
- Subcutaneous form takes 50% of total Medroxyprogesterone Acetate 150 mg/mL, intramuscular injection (MPA-IM) demand; factory only makes vial
- **South Africa**
 - 30% tender (National Dept of Health allocation formula)
 - 20% private (historical analogues)
- **FP2020 SSA countries**
 - Donor + Subsidised: 20%
 - Non-subsidised: 12%



Price

- **Donor + Subsidised**
 - UNFPA catalogue price
- **South Africa Public Sector**
 - Price to achieve 30% volume versus 2021 tender price
- **South Africa private sector**
 - 20% discount to current MPA-IM Single Exit Price
- **FP2020 Unsubsidised**
 - Average wholesale sale price for Kenya

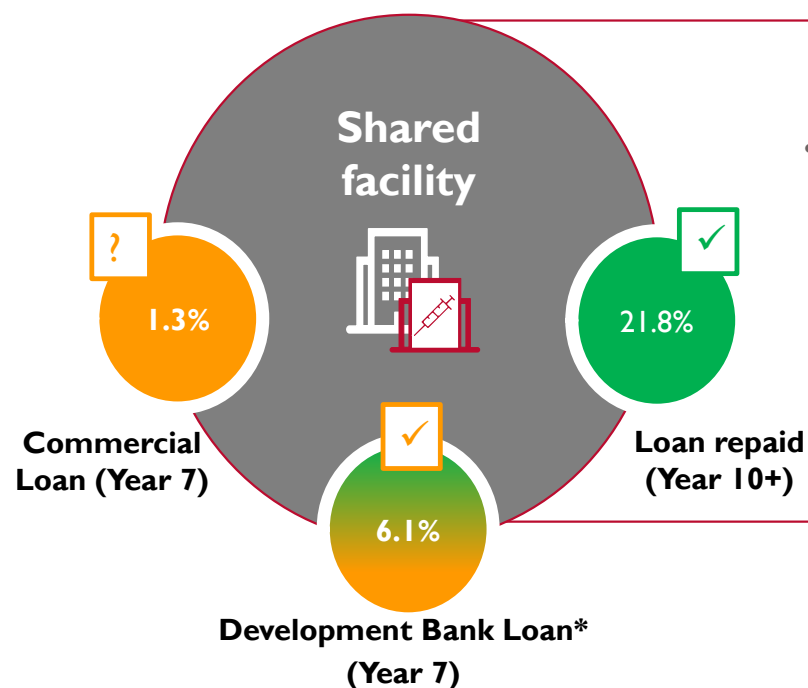
Stand Alone Facility – Profitability



- Stand-alone facility would not pay off a commercial or development bank loan over a 10-year term

*Assumed 10-year term; Ethiopian Development Bank (DB) will offer up to 20 years

Shared Facility - Profitability



- **Shared facility would pay off Development bank loan in 10-year term even if:**
 - Interest rate increased by 2% (from 9.5% to 11.5%); or
 - Donor price fell by 15% from current UNFPA catalogue price; or
 - Share of South African public sector fell to 20%; or
 - WHO Prequalification, registration or peak market shares delayed by one year

*Assumed 10-year term; Ethiopian DB will offer up to 20 years

Summary and Conclusions

- A stand-alone facility is likely not feasible
 - Would not be able to pay off loan within a 10 year term
- A shared facility is likely feasible
 - Profits are sufficient to withstand changes to key assumptions.
- Key points not addressed in this business case are:
 - Challenges in accessing foreign currency to pay for Active Pharmaceutical Ingredient, Excipient and packaging imports
 - Risk of expropriation or of instability in the selected country of manufacture
 - Potential expansion of subcutaneous presentation of MPA (MPA-SC) into South Africa or further reductions in donor prices paid in FP2020 Sub-Saharan African countries
 - The availability of matching funding (i.e. banks require ~50% co-investment)
 - The availability of a willing manufacturer to share facility/technological expertise
 - Expansion and sales beyond Sub-Saharan African FP2020 and South Africa
- In summary, manufacturing of an injectable contraceptive in Sub-Saharan Africa may be possible under certain conditions and further investigations with local manufacturers and development banks may be appropriate

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