

Commercial Bank Revenue Model: Loan Projections



SHAWBROOK



Question That Came in... A Long Time Ago

“I think you should provide **more detail** on how to project a bank’s revenue.

You’re just assuming simple growth rates for its loans and a simple interest rate.

But what **drives** the loan growth?
Where do we get those numbers from?”

My Response:

- Yup, he's right, we should have given more detail...
- And so we did! The new version of the course goes into far more detail on **loan growth**
- To explain it, I'm going to use some examples based on **Shawbrook**, the UK-based bank we use in the new course
- But first, some background on how to think about **revenue projections** for commercial banks...



SHAWBROOK  BANK



Revenue for Commercial Banks

- **Pure-Play Commercial Banks:** Vast majority of revenue will come from “Net Interest Income”:

Income Statement:	Units:	Historical				
		FY10	FY11	FY12	FY13	FY14
Net Interest Income:						
(+) Interest Income:	£ M	£ 1.5	£ 4.8	£ 48.4	£ 93.3	£ 156.7
(-) Interest Expense:	£ M	(0.7)	(3.0)	(27.4)	(38.4)	(54.0)
Total Net Interest Income:	£ M	0.8	1.8	21.0	54.9	102.7
Net Income from Operating Leases:						
(+) Operating Lease Rental Income:	£ M	-	-	15.1	17.1	15.7
(+) Other Income:	£ M	-	-	0.3	1.1	1.1
(-) Depreciation on Operating Leases:	£ M	-	-	(12.1)	(13.8)	(13.1)
Total Net Income from Operating Leases:	£ M	-	-	3.3	4.4	3.7
Net Fee and Commission Income:						
(+) Fee and Commission Income:	£ M	0.5	0.6	0.5	0.8	7.6
(-) Fee and Commission Expense:	£ M	(0.1)	(0.2)	(0.2)	-	(1.7)
Net Fee and Commission Income:	£ M	0.4	0.4	0.3	0.8	5.9
(-) Fair Value Losses on Financial Instruments:	£ M	-	-	-	-	(0.1)
Revenue (Net Operating Income):	£ M	1.2	2.2	24.6	60.1	112.2

Revenue for Commercial Banks

- **Net Interest Income:** Interest Income on Loans, less Interest Expense paid on Deposits, Debt, and “Other Funding Sources”
- **KEY COMPONENT #1:** What will Loans and Deposits be?
- **KEY COMPONENT #2:** What will Interest Rates Earned and Paid Be?
- **Interest Rates:** Whole separate topic; not going to cover for now
- **Here:** Deposits are usually linked to Loans, so we'll focus on the key drivers behind **Loan Growth**



Loan Growth for Commercial Banks

- More so than “normal companies,” commercial banks’ fortunes are **very heavily linked to the overall economy**
- Higher GDP growth → More buying and selling → More people and businesses need to borrow money from banks
- A healthy bank will tend to grow its loans **more quickly** than the GDP growth rate – credit expansion leads economic expansion
- **Key Driver #1:** GDP Growth of the bank’s country or region
- **But...** does Loan Growth *always* trend with GDP Growth?



Loan Growth for Commercial Banks

- **Answer:** No! Because some banks perform better or worse than others
- **Example:** Mortgages are expanding rapidly because GDP growth is up, employment is up, and more people are buying homes
- Will two banks grow their mortgages at the same rates?
- **No!** One bank might offer better terms, have a more effective sales force, or have different lending standards
- So **Market Share** is Key Driver #2 for Loan Growth







Projecting Loan Growth

- **Step #1:** Determine the sizes of a bank's markets (e.g., Mortgages, Auto Loans, and Credit Cards) to calculate its market share(s)
- **Step #2:** Make each market a percentage of the country's GDP
- **Step #3:** Project how the GDP changes in the future
- **Step #4:** Project the bank's market share in the future
- **Step #5:** Calculate the Loan Size in each segment with $\text{GDP} * \text{Loan Market Size as a \% of GDP} * \text{Bank's Market Share}$



Steps 1 & 2: Sizing the Loan Markets

- You're limited by the **available data** here – it's easy to find the Mortgage Market Size in the U.S., but not so easy to find the size of the Personal Loan Market in Ghana 
- **Possible Sources:** Bank's IPO Prospectus, Industry Reports (UK – De Montfort Group), Bank's Interim/Annual Reports or Earnings Calls, Equity Research... 
- **Can't Find** → Make it less granular and look at Total Loans instead, and the bank's market share of all Loans in the country 
- **Goal:** Get a *rough sense* of whether the bank's share is rising or declining 

Step 3: Projecting GDP Growth

- **Country's Nominal GDP:** This should be easy to find – governments collect this information; Wikipedia, Statista, the IMF/World Bank, etc....
- **GDP Growth Projections:** You look at different **cases** and see what happens if growth continues in-line with historical trends, if it goes higher, or if it turns negative and then recovers (recession)
- **Numbers:** See the sources above → it doesn't matter that much because most developed economies are growing at slow rates of 2-3% or less



Step 4: Projecting Future Market Share

- **Approach #1:** Could just follow and extend historical trends (If the bank is losing/gaining market share, continue that; otherwise, keep it steady)
- **Approach #2:** Speak with people in the market, such as real estate brokers and new home owners, and see if you can discern trends from them (“channel checks”)
- **Approach #3:** Look in outside sources such as equity research and buy-side research and see what they’re saying



Step 5: Calculating Loan Size in Each Segment

- Nominal GDP * Loan Market Size as % of GDP * Bank's Market Share
- **Harder:** Checking your numbers afterward... do these estimates seem reasonable? Do they accurately reflect different outcomes?
- **Goal:** Often want the Base or Upside Cases to be close to equity research / consensus / management estimates... and the Downside Case should be real (e.g., 2009-style recession)!
- **But...** we also need the rest of the model to complete this fully



Recap and Summary

- **Revenue for Banks:** Loans, Deposits and Interest Rates
- **Loan Growth:** Tied to GDP growth and the bank's market share(s)
- **Steps #1 and #2:** Size the bank's addressable lending markets and make each market a % of the GDP of the bank's country
- **Steps #3 and #4:** Project GDP growth rates and the bank's market share in each segment, factoring in different scenarios
- **Step #5:** Calculate the Loan Size in each segment and check the numbers against other sources

