Chapter 11

Sources of Funds for Residential Mortgages

“...I’m not much of a hunter or gatherer. I’m more of a borrower.”

Mortgages and Mortgage Markets

Traditional and Modern Housing Finance

Thrifts
- Formerly backbone of mortgage finance
- Dominated mortgage lending
- Extremely localized
- Fatal flaw: Funded long-term loans with short-term savings

Thrifts (continued)
- Flood of home loans in late 1970s - all fixed rate
- Interest rates soared in war on inflation
- Wide freedoms began in 1980s
- Asset-liability mismatch severely damaged thrifts
  - Almost one-third failed
  - 70% had disappeared by 2001
  - “Collateral damage” to elected officials, regulators, taxpayers
  - Market share of home loans plummeted (1970s: over 50%, 1997: 15%)
Thrifts Today

- Changed approach to regulation
  - Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA)
  - Risk-based capital standards
- Most are now banks (acquired or converted)
- Others often have “boutique” roles:
  - Mortgage banker
  - Sub-prime lender
  - Commercial loans
  - Multifamily loans
- Emphasis on ARM lending (40% of loans)

Commercial Banks

- Historically: Real estate needs of business clients
  - Business-related real estate loans
  - Home loans
  - Personal investments
- Assumed former roles of savings associations
- Large-scale construction lending

Commercial Banks (continued)

- “Warehouse” credit lines for mortgage bankers
- Effects of bank deregulation
  - Enormous consolidation of the industry
  - Aggressive pursuit of real estate lending
    - Directly
    - Through mortgage banking subsidiaries

Portfolio and Non-portfolio Mortgage Lenders

- Portfolio Lenders (depository institutions)
  - Banks
  - Thrifts
  - Large credit unions
- Non-portfolio lenders
  - Mortgage bankers
  - Mortgage brokers
    - May include credit unions and small banks

Non-Portfolio Lenders: Mortgage Companies

- Mortgage banker: Not a bank – accepts no deposits
  - Originates loans to sell
  - Retains right to service the loan for a fee
  - Borrows money from Banks to finance (warehouse line of credit)
- Mortgage broker: Brings borrower and lender together for a fee - never owns the loan

Mortgage Banker

- Originates and owns loans long enough to sell
  - Sell loans “whole”
  - Pool and securitize loans
- Servicing is core profit center
- Three-step process:
  1. Issue mortgage commitment to potential borrower
  2. Close or originate loan (funding loan)
  3. Sell loan
Mortgage Banker

- Originates loans to sell ("originates to distribute")
- Pools and securitizes loans
- Retains contract to service the loans
- Servicing contract is core “asset” and profit center
- Five-step process:
  1. Make Loan Commitments
  2. Close (fund) loans (Buying the loans)
  3. Pool the loans
  4. Securitize and/or sell the pools
  5. Service the loans

Mortgage Banker as Servicer

- Collects monthly payments, remits to investor
- Collects and remits payments for property taxes, hazard insurance and mortgage insurance
- Manages late payments, defaults, foreclosures
- Receives fee of .25% to .44% (25 to 44 bps)
- Typically accept loss at origination of a loan to obtain servicing rights

Pipeline Risk: Signature Risk of Mortgage Banking

- Pipeline risk: Risk between loan commitment and loan sale
- Two components
  - Fallout risk: Risk that loan applicant backs out
  - Interest rate/price risk: Risk that closed loans will fall in value before sold
- Mortgage bankers highly leveraged
  - Very sensitive to pipeline risk
  - Hedging necessary for survival

Management Tools for Pipeline Risk

Consolidation of the Top 20 Home Mortgage Lenders

Emergence of Megamortgage Bankers

- Megabanks saw home mortgage lending as profit center
- Cyberelectronics imply huge economies of scale
- Four modes of operation:
  - Traditional “face-to-face” or “retail” lending
  - Wholesale mortgage banking
  - Internet lending
  - Lending through brokers
- Tremendous consolidation in last decade
Consolidation and Deconsolidation of Home Mortgage Lending

- **1989 – 2010**
  - Market share of top 20 originators goes from 20 percent to 85 percent
  - Market share of top 20 servicers goes from 15 percent to 75 percent

- **2010 to the present**
  - Non-bank mortgage bankers and smaller banks regain market share
  - Electronic mortgage bankers surge: Quicken Loans, PennyMac, etc.

Mortgage Brokers

- “Places” borrower’s loan application with lender
- Receives up-front fees
- Never owns and never services loan
- Expanded rapidly in recent years
- Flaws in mortgage brokerage:
  - “Front-loaded” compensation
  - Few repeat customers
  - Low competency requirements
- Wide-spread borrower abuse in recent years
- Resulting legislation and creation of CFPB

Evolution of the Secondary Mortgage Market

- Pre-1970: Limited and informal
- Lack of standardization a barrier
- Large interregional differences in home mortgage interest rates (100-200 bps)
- Rising interest rates could shut down home mortgage lending through disintermediation

Beginning of the Modern Secondary Mortgage Market

- Fannie Mae (1968): Spun off from HUD to become a primary purchaser of FHA and VA mortgage loans
- Ginnie Mae (1968): Empowered to guarantee “pass-through” mortgage-backed securities based on FHA and VA loans
- Freddie Mac (1970): Formed to purchase and securitize conventional home loans from thrifts
Mortgage-Backed Securities

- Multiple mortgage loans in a single pool or fund
- Security entitles investor to pro rata share of all cash flows
- Loans in a given pool will be similar:
  - FHA/VA; or conventional (or subprime)
  - Same vintage (new or recent loans)
  - Similar interest rates
- Nearly two-thirds of all new home loans have been securitized in recent years

Mortgage-Backed Securities

- MBS is a generic term for many types of mostly debt securities which are backed by a pool of mortgages
- RMBS – Residential MBS (from pools of mortgages on houses)
- CMBS – Commercial MBS (from pools of mortgages on CRE)
- Can be:
  - Mortgage Backed Bond
  - Pass Through
  - Collateralized Mortgage Obligation (CMO)
  - Many forms of CMO (tranches)

The Growth of Home Mortgage Securitization

Role of Ginnie Mae in the Secondary Mortgage Market

- GNMA created first major pass-through MBS program
  - Does not buy mortgages
  - Guarantees timely payment of interest and principal to holders of GNMA securities.
  - Guarantees only securities based on FHA/VA loans

The Ginnie Mae Mortgage-Backed Security Process

Fannie Mae and Freddie Mac

- Original mission: Support home affordability by providing a secondary mortgage market
- Became privately owned but still U.S. chartered
  - Public mission for housing
  - U.S. Treasury financial credit line available
- Buy conforming conventional loans
  - Have securitized and sold, or own, over 40% of outstanding home loans
- Taken into conservatorship by U.S. in 2008
- Still purchase and securitize over two-thirds of new home mortgage loans today
Importance of Fannie Mae and Freddie Mac

- Have brought about standardization in:
  - Mortgages and mortgage notes
  - Appraisal forms and practices
  - Underwriting procedures and standards
  - Also, influence practices and standards in nonconforming mortgage markets

What Was Wrong with Fannie and Freddie?

- Not capitalized to withstand declining home values
- Said to wield too much political influence
- Said to unsuccessfully mix private enterprise with housing subsidy programs
- Said to divert the benefits of their efficiency advantage into the pockets of their management

Fannie Mae Prices $1.03 Billion Multifamily DUS REMIC (FNA 2017-M3) Under Its GeMS Program

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WASHINGTON, D.C. - Fannie Mae (PNMRE: OTC) priced its third Multifamily DUS REMIC in 2017 totaling $1.03 billion under its Fannie Mae Guaranteed Multifamily Structures (Fannie Mae GeMS) program on March 16, 2017.

"Investors hedged their bets with a snowstorm, a Fed rate hike, and their basketball brackets this week," said Josh Selig, Fannie Mae's Vice President of Capital Markets and Trading. "We were pleased that more than 25 firms bid round-the-clock on this deal, which featured about $200 million in 7-year collateral with a 1.64% DISC and more than $10 million in 10-year collateral with a 1.81% DISC."

All classes of FNA 2017-M3 are guaranteed by Fannie Mae with respect to the full and timely payment of interest and principal. The structure details for the multi-tranche offering are in the table below.

More details here
Collateral Example [here](#)
Private mortgage Conduits

- Grew out of the market for non-conforming “Jumbo” loans
- Small market share until sub-primes emerged
- Grew explosively post-2000, mainly for sub-primes
- Diminishing rapidly as sub-prime diminish
- Likely to continue as a conduit for “Jumbos”

The U.S. Home Mortgage System Today – Four Channels

- Local depository lending (very limited)
- FHA/VA – GNMA securitization process
- Conforming conventional – GSE process
- Non-conforming conventional – private security process
Subprime displace FHA Loans

Where Do You Get a Mortgage Loan in Today's Complex System?

- No simple answer, except to shop aggressively
- Portfolio lenders may offer cost and interest rate advantage
- Brokers may offer service and down payment advantage
- Depository lenders may have best ARM offers
- Non-depositories may have best fixed-rate offers

Lenders’ Underwriting Decisions

- Underwriting: Process of determining whether the risks of a loan are acceptable
- Three “Cs” of traditional underwriting:
  - Collateral: URAR appraisal
  - Creditworthiness: Credit report
  - Capacity: Ability to pay (payment ratios)

Traditional Payment Ratios for Mortgage Underwriting

- Housing expense ratio = $PITI/GMI$
- $PITI$ is principal, interest, (property) taxes and insurance
- $GMI$ is gross monthly income
- Recent convention set maximum at:
  - 28% for conventional loans
  - 29% for FHA
- Known as “front-end” ratio
From FHA.com

1) Mortgage Payment Expense to Effective Income
   - Add up the total mortgage payment (principal and interest, escrow deposits for taxes, hazard insurance, mortgage insurance premium, homeowners’ dues, etc.). Then, take that amount and divide it by the gross monthly income. The maximum ratio to qualify is 31%.

   **Example:**
   - Total amount of new house payment: $750
   - Borrower’s gross monthly income (including spouse, if married): $2,850
   - Divide total house payment by gross monthly income: $750/$2,850
   - Debt to income ratio: 26.32%

2) Total Fixed Payment to Effective Income
   - Add up the total mortgage payment (principal and interest, escrow deposits for taxes, hazard insurance, mortgage insurance premium, homeowners’ dues, etc.) and all recurring monthly revolving and installment debt (car loans, personal loans, student loans, credit cards, etc.). Then, take that amount and divide it by the gross monthly income. The maximum ratio to qualify is 43%.

   **Example:**
   - Total amount of new house payment: $750
   - Total amount of monthly recurring debt: $400
   - Total amount of monthly debt: $1,150
   - Borrower’s gross monthly income (including spouse, if married): $2,850
   - Divide total monthly debt by gross monthly income: $1,150/$2,850
   - Debt to income ratio: 40.35%

Please note that the above indicators do not exclusively determine whether or not a candidate will qualify for an FHA loan. Other factors will be considered, including credit history and job stability.

Thinking about buying a house?

- Keep your LTO as low as possible if you want to maximize the amount of your mortgage

From FHA.com

**Traditional Payment Ratios for Mortgage Underwriting**

- Total debt ratio = \( \frac{(PITI + LTO)}{GMI} \)
  - LTO is long-term obligation
  - Recent convention set maximum at:
    - 36% for conventional loans
    - 41% for FHA
  - Known as “back-end” ratio
  - Note: GMI is critical. Its computation is closely regulated by ECOA

**Exhibit 3**

The Three Cs of Mortgage Underwriting

- **Investment Quality**
  - URAR Credit Report
  - Collateral
    - House value
    - Down payment
  - Credit Reputation
    - History of repayment
    - Current credit balance
    - Recent inquiries
    - New accounts
    - Age of accounts

- **Credit Capacity**
  - Income
  - Debt
  - Cash reserves
Modern Home Loan Underwriting

- Automated underwriting is dominant
- Creation of single statistical score
- URAR appraisal yields to "automated valuation" in most cases
- Credit report displaced by credit score
- Single underwriting index incorporates: house value, credit score, income and obligation data
- Automated underwriting superior to traditional methods
- Remaining issue: How important is a cash down payment requirement?

Recent Underwriting Failures

- News of fraud and extensive defaults have been widely reported
- Problems were not due to the procedures and standards described above, but due to the failure to use them:
  - Half of sub-prime loans had limited documentation
  - Most of Alt-A loans had limited or no documentation (Came to be called "liar loans")
  - Private securitization firms widely suppressed loan underwriting

Subprime Lending

- Many households unable to qualify for "affordable" home loans
- Subprime originally targeted three borrower deficiencies:
  - Lack of income documentation
  - Weak credit
  - Seeking financing for 100% LTV or higher

Subprime Lending (continued)

- More expensive than standard home loans
- Polar views of subprime lending:
  - Fills compelling, legitimate need (beats credit cards), or
  - Hunting ground of predatory lenders
- In any case, spun out of control, and to disaster
Qualified Mortgages

- In response to the “mortgage meltdown” following the 2008-2012 house price declines, mortgage credit has been tightened.
- Top quality applicants have no problems getting loans, and interest rates are very low by historical standards.
- The required documentation for borrowers has increased significantly.
- The Consumer Financial Protection Bureau (created by Congress) has defined a type of mortgage known as a Qualified Mortgage (as of January 1, 2014).

Qualified Mortgage

- No negative amortization allowed.
- No IO payments allowed.
- No longer than 30 year amortization period.
- The points and fees on a mortgage over 100,000 can not exceed 3%.
- Strong verification of borrower income and assets.
- All FHA/VA and conforming loans must be QM (for next 7 years).

Qualified Mortgage

- Must show a borrower can afford the loan over the life of the loan (cannot be qualified on the Teaser Rate). If ARM must underwrite to the highest possible rate in first five years.
- Back end ratio cannot exceed 43%.
- Gives lender legal advantage in case of default.


REGULATING HOUSEHOLD LEVERAGE

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Abstract

This paper studies how credit markets respond to policy constraints on household leverage. Employing a sharp policy-induced discontinuity in the cost of originating certain high-leverage mortgages, we study how the Dodd-Frank “Ability-to-Repay” rule affected the price and availability of credit in the U.S. mortgage market. Our estimates show that the policy had only moderate effects on prices, increasing interest rates on affected loans by 15-16 basis points. The effect on quantities, however, was significantly larger: we estimate that the policy eliminated 15 percent of the affected market completely, and reduced leverage for another 25 percent of remaining borrowers. This reduction in quantities is much greater than would be implied by plausible demand elasticities and suggests that lenders responded to the policy primarily by rationing credit. Finally, while the policy succeeded in reducing leverage, our estimates suggest the effect would have only slightly reduced aggregate default rates during the housing crisis.

Alternative to QM

Angel Oak

HOME LOANS