MIT Golub Center for Finance and Policy presents:

Mission & Metrics

Finance Training for US Credit Program Professionals

July 11 12, 2016

This course is made possible by a generous gift of Mary and Warren Naphtal to the GCFP Naphtal Education Initiative Fund

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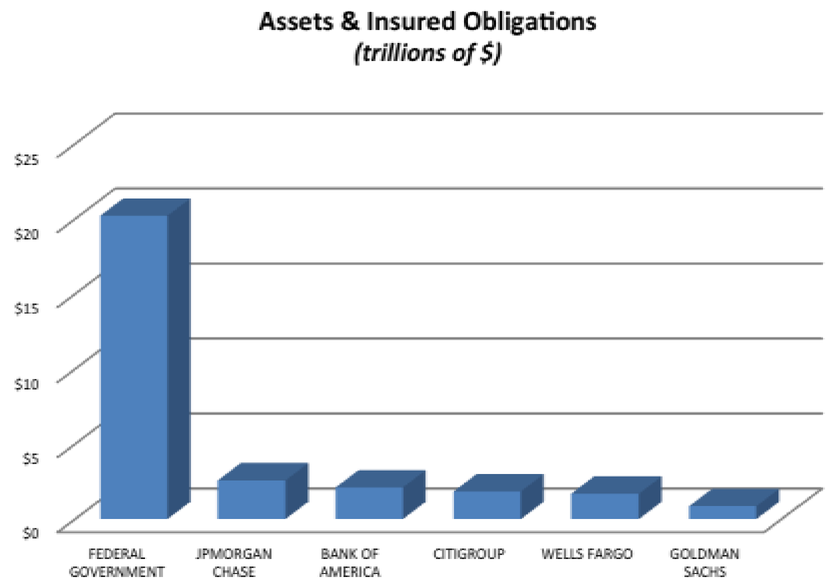
U.S. government is world’s largest financial institution



Graphic from Politico, The (Real) Bank of America, by Michael Grunwald, Jan/Feb 2015

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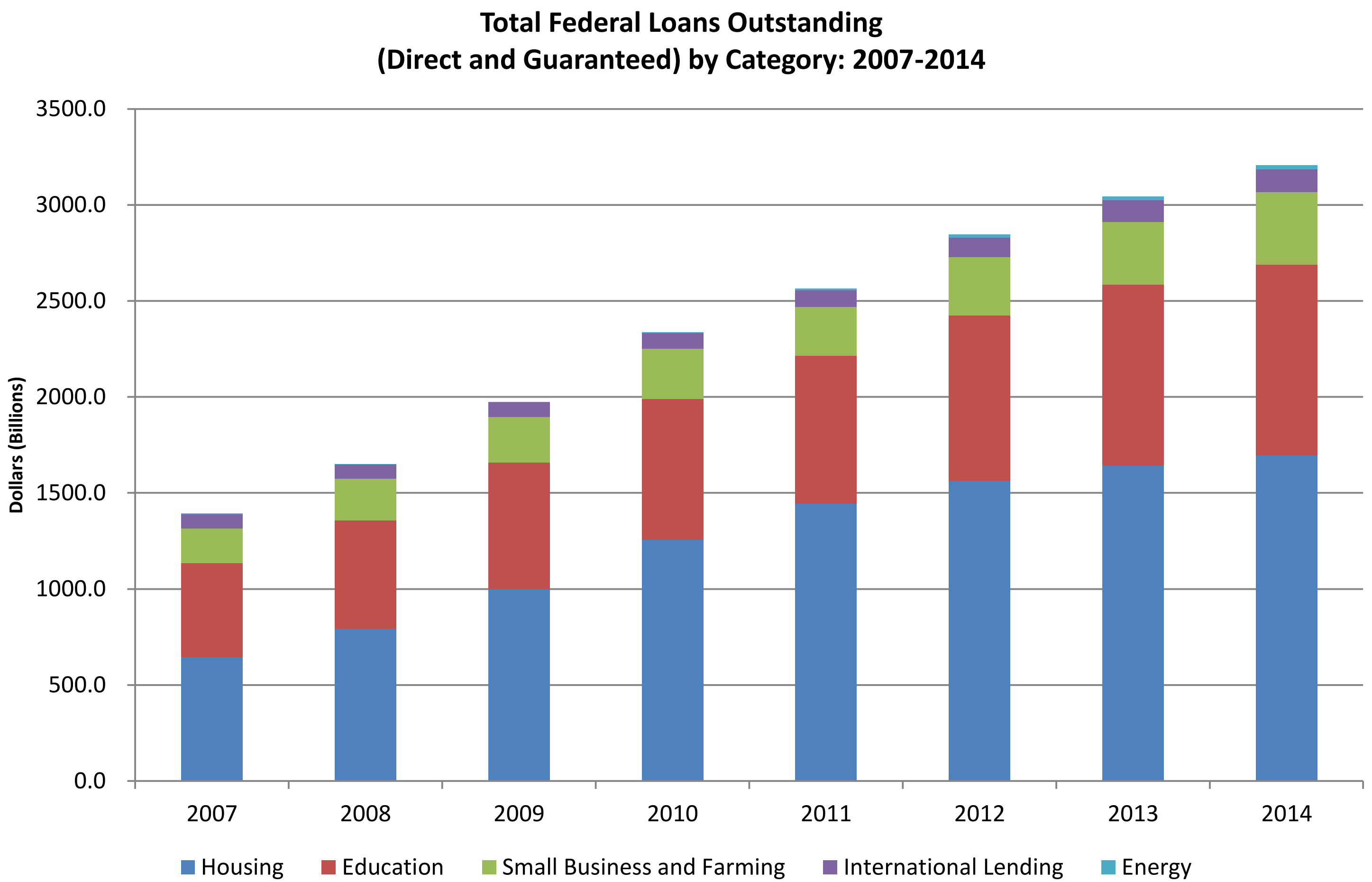
Loans across government show continuing growth



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Why mission & metrics?

- **Mission**
  - Enabling agency mission accomplishment through credit programs
  - Key considerations:
    - Be ever mindful of using taxpayer dollars (and putting them at risk)
    - Determine, on ongoing basis, whether program is working as intended
    - Seek ways to measure & improve program performance
- **Metrics**
  - Collect & analyze data to gain understanding of program costs & benefits
  - Key considerations:
    - Embrace analytics to drive innovation, measure & manage performance & motivate staff
    - Take occasional step back to gain big picture insights
    - Remain passionate about agency mission, but dispassionate about programs being used

Course objectives and structure

- Gain deeper understanding of the following:
  - Program objectives - understanding mission and how best to achieve it
  - Considerations in program and product design
  - Economic cost drivers and relation to budgetary subsidy measures
  - Managing operating costs and credit risk
  - Working with private partners
  - Using evidence to track and measure outcomes
- Students will consider:
  - Designing and assessing credit programs
  - Measuring & accounting for credit activities
  - Managing federal credit programs

Course objectives and structure

- Format:
  - Lectures and participant discussions
  - Your voice is critical!
- Instructors:
  - Debbie Lucas
  - Doug Criscitello
  - Charles Tansey
- Three complementary perspectives:
  - Insights from financial economics as taught in b-schools and used by private sector financial practitioners
  - Managerial and budgetary considerations and best practices
  - Practical tools from the front lines of lending in the private, non-profit and public sectors

MIT Golub Center for Finance and Policy

- Mission is to produce and disseminate:
  - Original, cross-disciplinary and non-partisan research at intersection of finance and policy that will lead to improved decision-making by policymakers and regulators
  - Innovative educational materials and curricula that will make state-of-the-art financial tools relevant and accessible to students of public policy, employees of public institutions and policymakers
- Please visit us at cfpweb.mit.edu for more information on the GCFP

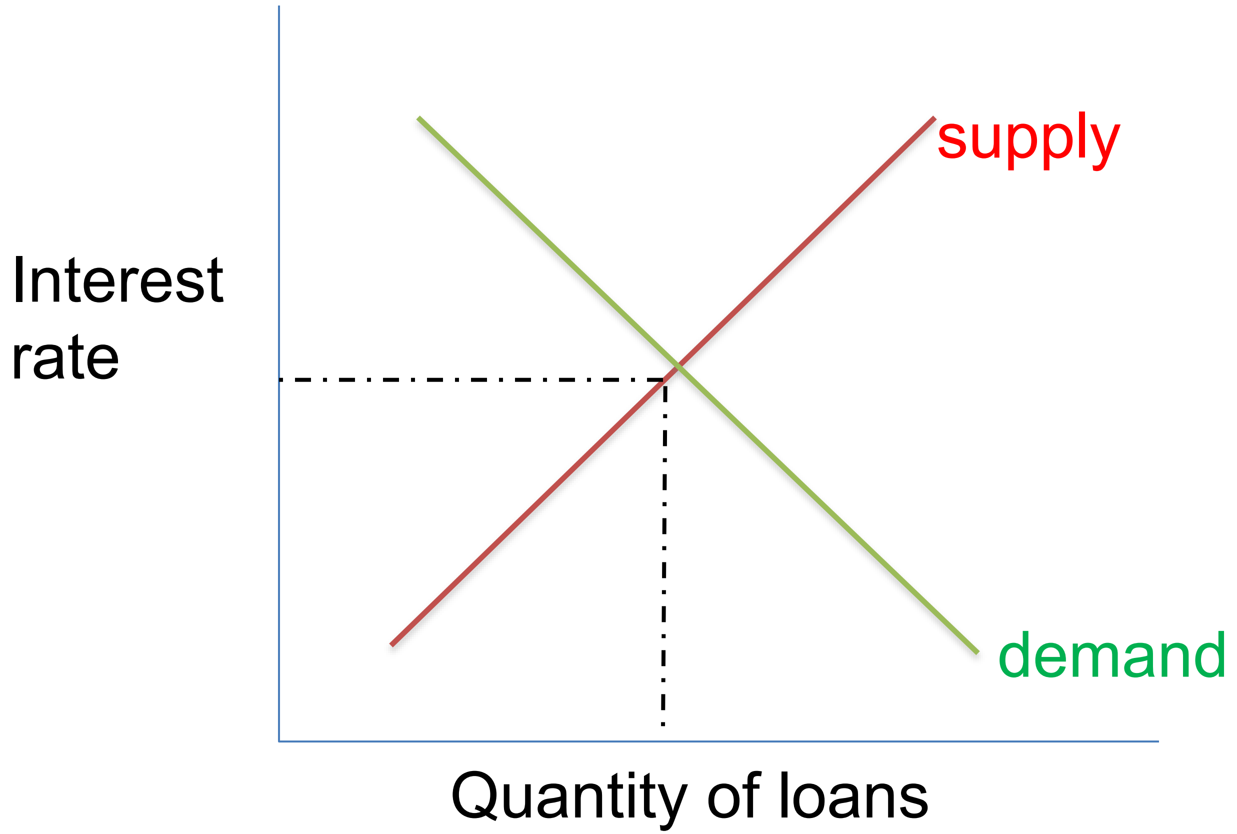
Session 1
July 11, 1:00-3:00pm

Program Objectives - Understanding Mission and How Best to Achieve It

Economic rationale for government credit support

- The story…
  - (famous paper by Joseph Stiglitz and Andrew Weiss "Rationing in Markets with Imperfect Information," *AER* 1981)
  - No special role for gov't credit in a "perfect" market
  - But credit markets are not perfect. Asymmetric information between borrowers and lenders and other contracting problems lead to:
    - Adverse selection (only the riskiest borrowers will borrow at high rates)
    - Moral hazard (debt induces risk-taking behavior)
  - Those problems limit banks' willingness to lend at any price
  - It is beneficial for the gov't to fill the resulting "credit gap" when access to credit leads to socially desirable outcomes whose value exceeds the cost to taxpayers of the credit support

Economic rationale for government credit support



- In a perfect market, rates clear markets
- Gov’t can help borrowers with grant to help pay interest

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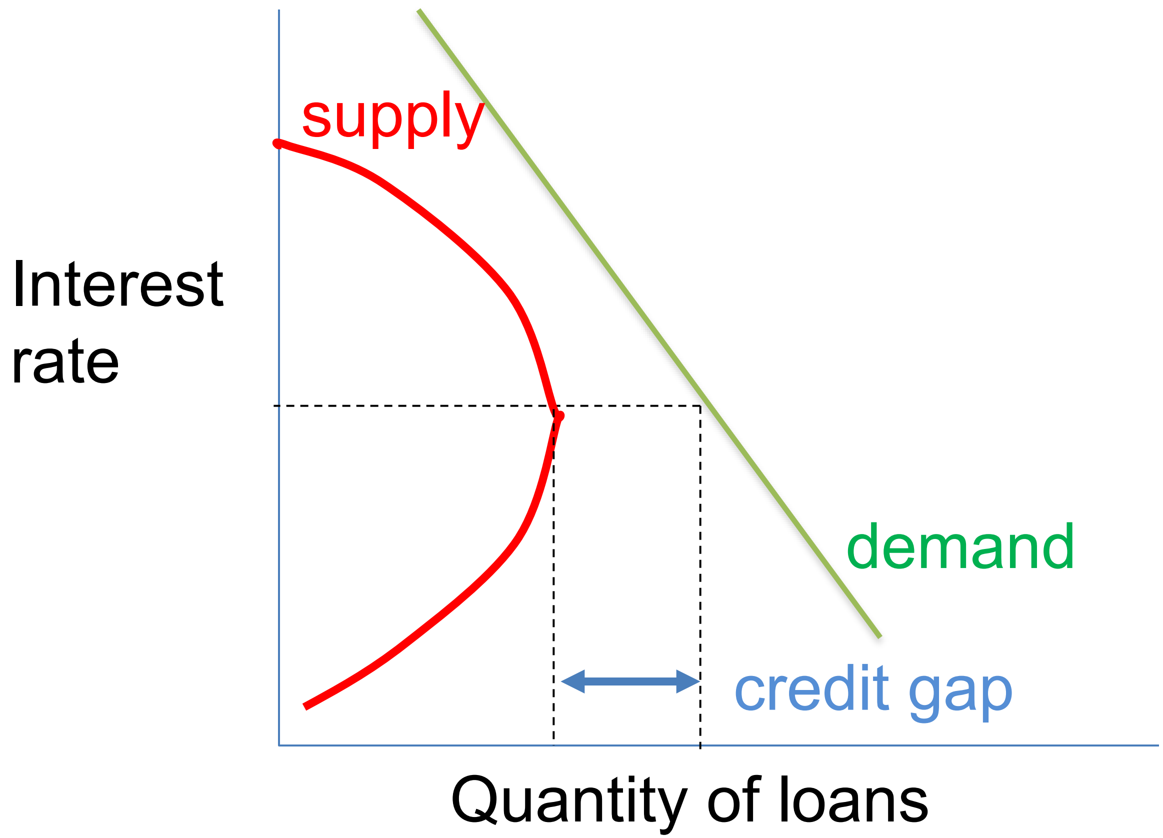
Economic rationale for government credit support



- Higher rates => lower borrower quality
- No market-clearing interest rate; credit rationing

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Economic rationale for government credit support

- Takeaways…
- Theory points to when credit support will be most useful:
  - Severe lack of information about borrower quality
  - Greatest social benefits from providing access to credit
  - Classic example is students loans
    - no credit or employment history
    - private and social gains to have a more educated populace
- Theory also highlights that **greater availability of funds** can be as or more important for recipients than lower rates and fees

Economic rationale for government credit support

- Takeaways…
  - The gov't can increase credit availability because, unlike banks, it does not have a breakeven constraint
  - That is, gov't can offer credit on subsidized terms
  - This can be efficient when expanding access to credit is the best way to achieve a policy goal
  - But this logic also implies that there is generally an economic subsidy involved when the government extends credit, else private lenders would step in to compete to capture the profit

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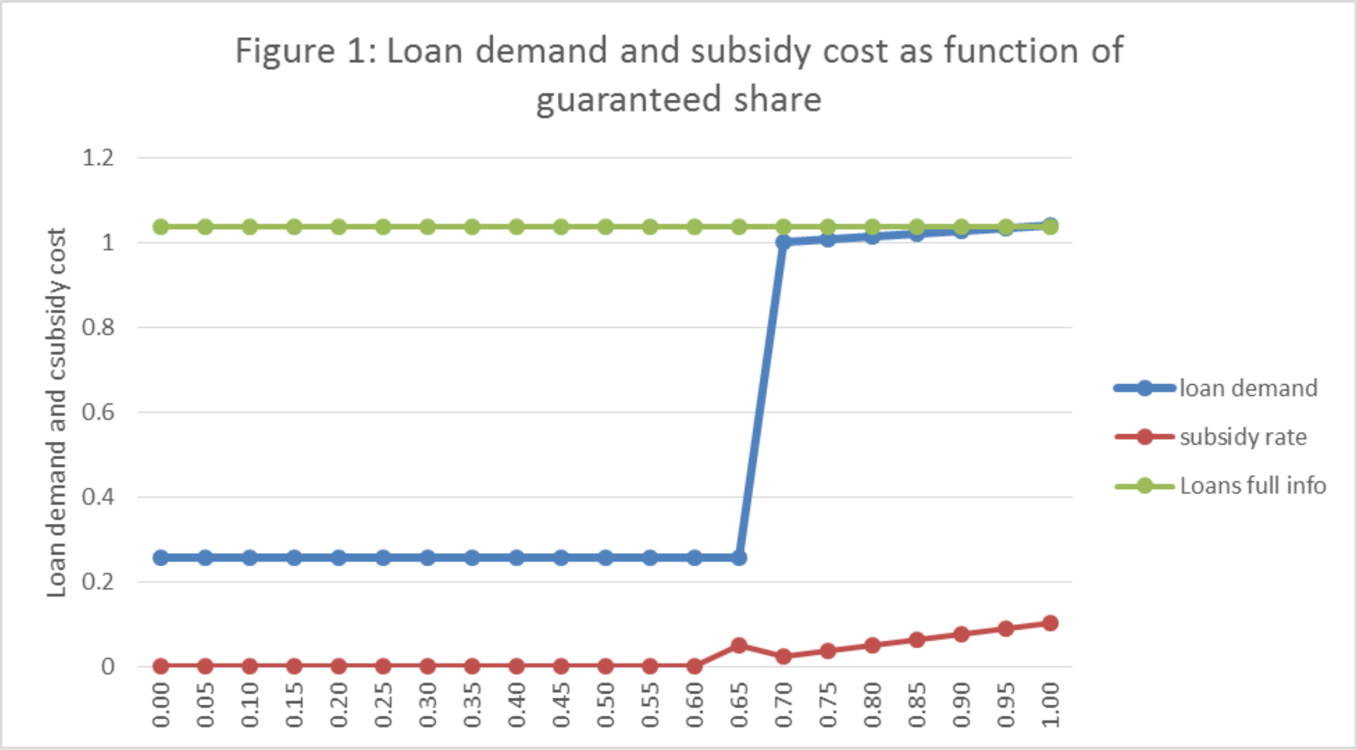
The downside of government credit support

- In practice, gov't credit support can be problematic:
  - Target-inefficient
  - Opaque (both costs and benefits) compared to most other types of spending
  - Can distort capital allocation and crowd out private capital
    - Disguised industrial policy?
  - Can encourage excessive indebtedness
  - Incentives for excessive risk-taking with systemic consequences
    - e.g., gov't credit policies may have helped cause the 2007 financial crisis

These problems underscore the need for well thought out program objectives and designs, and for metrics for performance evaluation

Example: How a credit guarantee can increase borrowing at a modest subsidy cost



Source: "Credit Policy As Fiscal Policy" Deborah Lucas, *Brookings Papers on Economic Activity,* forthcoming

Example: Estimated fiscal stimulus from federal credit programs in aftermath of financial crisis

- In 2010, U.S. citizens borrowed $1.6 trillion through federal credit programs
- The spending resulting from that incremental borrowing provided roughly $344 billion of stimulus in 2010 by filling the "credit gap"
  - Estimate is from "Credit Policy As Fiscal Policy" Deborah Lucas, *Brookings Papers on Economic Activity,* forthcoming
  - Similar stimulus size as the American Recovery and Reinvestment Act
  - "Cheap" stimulus: Estimated fair value cost of $71 billion and reported budgetary cost of -$12 billion

Mission

- Mission statement = purpose of organization & its reason for existing
  - Guides actions
  - Spells out central goals
  - Provides a path to guide decision-making
  - Provides the framework or context within which strategies are formulated
- Among US departments & agencies, only Treasury makes any reference to ensuring appropriate use of taxpayer dollars
  - "Manage the U.S. Government's finances and resources effectively"
- Consider working every day as if the following clause appears at front of your agency's mission:
  - "As constant stewards of taxpayer dollars, we seek to…[insert mission]"
- Given large exposures across loan programs, mindset is absolutely critical for federal credit professionals

Recent focus on data-driven decisionmaking

- Emphasis on value of data, agency performance and results to achieve a smarter and more efficient government
- Example such as GPRAMA, DATA Act, Accountable Govt Initiative aim at improving agency performance & using data to make funding decisions
- Cost information is critical -- informs management decisions & contributes to improved planning, implementation, analysis of programs
- Benefits (or lack thereof) must also be measured
- Particularly relevant for credit agencies

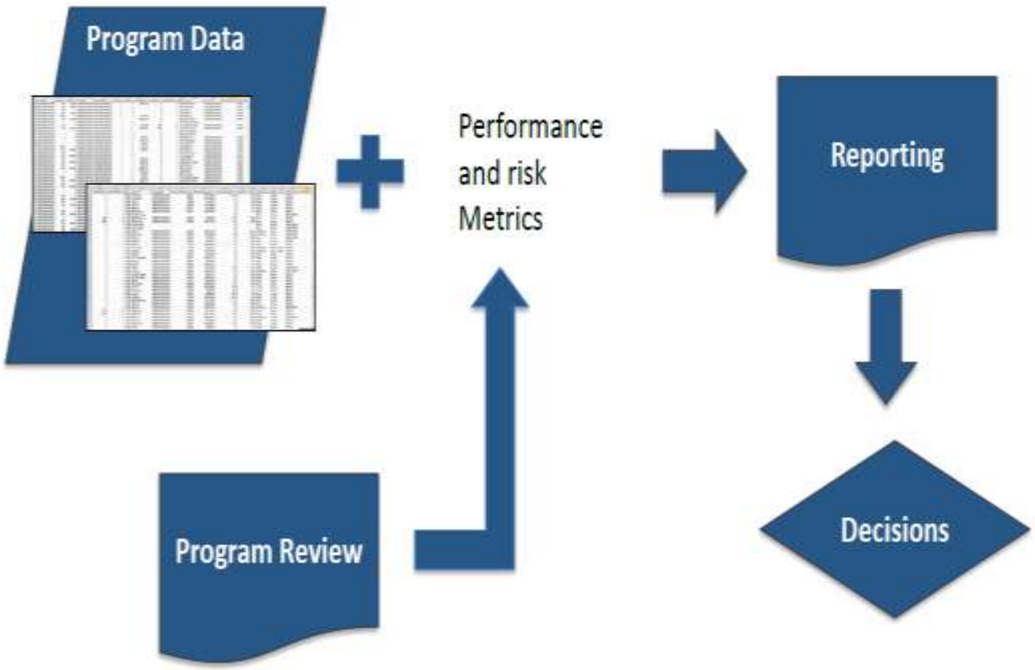
…and on risk management tools for credit agencies

- Enhanced lender compliance (counter-party risk) monitoring & increased supervision/enforcement actions
- Use of analytics to measure risk & inform decision-making
- Enhanced risk assessment frameworks – composite views of risk (e.g., loan performance, financial condition, regulatory compliance)
- Growing number of risk management organizations – leading practices & capabilities from former financial services professionals now at credit agencies
- Better use of enterprise-wide risk management (ERM) & increasingly risk-aware cultures
- Increasing # of credit agencies with CROs & independent risk organizations and governance structures (e.g., risk committees)

A-129 guidance

- Program Reviews & Evidence Building
  - Frequent & specific
  - Define, quantify & justify
- Program Management: New Content
  - Covers organizational structure, risk management & metrics
- Data-Driven Decision Making
- Federal Credit Policy Council

A-129 directs Agencies to develop Data-Driven Decision Making reporting frameworks



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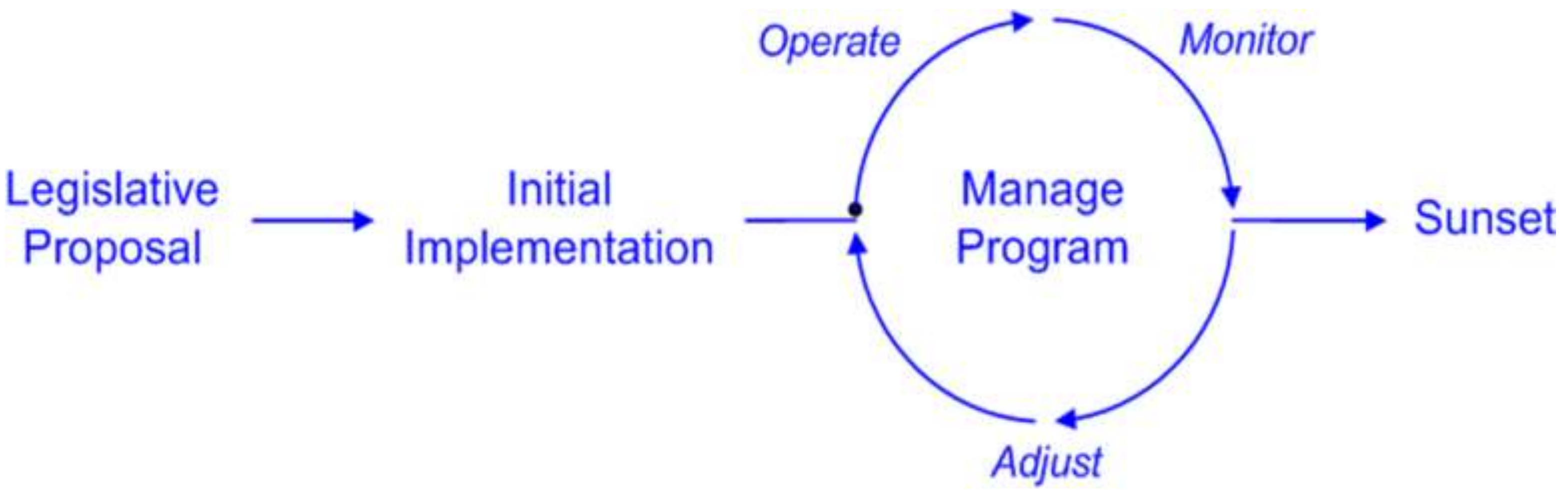
Goal of continual program improvement

- Need for constant program monitoring & refinement
- Measure impact thru periodic strategic reviews
  - Are public policy objectives being met?
  - Does need for program persist?
  - Are there ways to achieve goals at less cost/risk to taxpayers?



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Defining the Market and the Mission

- What are the primary rules for providing federal credit?
  - Define the perceived credit gap and fill only the credit gap as defined
  - Make sure the borrowers or the projects are viable, or if the risk is exceptional, that it is defined as such
  - Do not compete with (responsible) private sector providers
  - Pass the credit gap back to the private sector as soon as private sector lenders show interest in filling it

The Relationship Between Objectives and Outcomes

Objectives	Outcomes
What are we providing?	
Debt in cash. SBA disaster loan, Student Loan, USDA Direct 502	We are providing a guarantee of a second mortgage provided by other lenders, so this is not a direct loan.
Equity or Grants in cash. CDFI Fund, NeighborWorks, Pell Grants	$1,500 allocated per loan for certified homeownership counseling on all of the loans we guarantee.
Credit Enhancement. SBA 7a, USDA B&I, FHA, VA	95% guarantee of a 2nd lien mortgage for first time homebuyer purchases in amounts up to $40,000 for periods of up to 30 years at a fixed rate. Consolidated LTV up to 100%, Debt to Income not to exceed 40%, downpayment not to be less than 1%, fees can be financed.
Knowledge for borrower, lenders, market. FHA single family	$1,500 for certified homeownership counseling, which is required.
Support/Endorsement/Confidence. Ex-Im, OPIC	Provides "good housekeeping seal" for participating lender, and lets new homebuyer know that they are not being taken advantage of
Fairness/standards/level playing-field. USDA	Full disclosure, Truth-in-lending: the homebuyer knows the costs, the risks and the remedies.
Who is the beneficiary?	
Borrower financial description	Up to 80% AMI, average income $35,000, credit score not less than 620, credit counseling required, economically distressed census tracts priority.
What is the nature of the assistance?	Low cost, fixed rate 20 year second mortgage that cannot be obtained elsewhere with homeownership counseling and full disclosure
What are the desired outcomes?	
What does the product/service accomplish for the borrower upon receipt?	Closed 10,000 home purchase loans amounting to $400,000,000. This was 80% of the annual target. The lower volume was due to a new low downpayment first mortgage that a number of lenders adopted to capture market share with the target borrower.
What does it do for the borrower over time?	Since inception five years ago, the average credit score of homebuyers using the program has increased by an average 8% within 3 years of purchase. Prepayments have amounted to 12% of the total cumulative volume, 25% less than those experienced by conventional first mortgage lenders in this credit score range. Foreclosures have amounted to 7.5% over the five years, averaging 1.5% per year. This year the foreclosure rate was 1.8%. This compares with an eviction rate in the same census tracts as the home purchases of 3.25%. The actual average Debt to Income ratio for the borrowers this year was 33%. This compares with a rental cost of over 47% in the same census tracts for 3 bedroom apartments. There is an insufficient number of low income rental units nationally as well as in these census tracts.

The Relationship Between Objectives and Outcomes (cont.)

Objectives	Outcomes
What are the desired outcomes?	
Are there other beneficiaries?	This year's closings benefitted 9,750 families and 250 single occupants totaling 50,000. Since inception, 312,000 individuals have benefitted from the program
Are there other participants, and if so, what are the benefits for them?	Based on the agency model, bank ROEs on a capital base of 9% were targeted for 14%. The reported actuals averaged 13.5%. 55% of the houses purchased were new construction, involving 50,000 construction jobs; 15% of the houses were bought out of foreclosure. According to HouseMAX, expenditures for equipment, furnishings and accessories for new houses at this income level averaged $4,950 generating an additional $49.5mm in economic activity.
How much new lending or investment does the credit leverage at inception? Over time?	While the notional value of the guarantee leveraged only an additional $5 in private sector investment per $95 of agency commitment, the actual leveraging of the second lien loans is 42:1, based on federal dollars paid out for credit losses by the agency. When the first mortgage lien amount is included, the leverage of private sector dollars to federal dollars is over 208:1.
What is the size of the problem?	
How big is the market need?	There are 1.5mm households currently renting, who would potentially benefit from the program. This indicates a potential market of $60B. Viable demand in any given year ranges from approximately 5,000 to 30,000.
How much is the agency responsible for doing?	There is no current interest in providing unguaranteed second lien mortgages to low income homebuyers among private sector lenders. Hence the agency is presently the only lender in this segment.
Who is responsible for the remainder - and what is their relationship to the agency?	To the extent credit risk can be properly sized, banks and non-banks may re-enter the sector with responsible loan structures. There is insufficient experience to date for them to do so with any certainty of profitability, based on the agency model.
Who are the partners?	
At program inception	There are 320 banks and credit unions that participate in this program. This is an increase of 15 from last year. Most of these lenders also provide the first mortgage.
At full program operation	There are 3,500 banks and 2,500 credit unions that provide first mortgage products to the target constituents and census tracts. (The agency objective is to get 50% participation)
Potential program successors	A new floating rate first mortgage with a lower rate PMI and short term approval may continue to expand in the market and could potentially eliminate the need for the agency product. It remains to be seen if this new product suite will take hold, or that it will provide as safe a home mortgage financing solution.
What are the resources available?	
Staff, skillsets, IT, administrative support, other agency resources?	See attached operating budget/actual and FTE reconciliation with line item support costs
What is the defining relationship between these resources and the size of the agency effort?	Based on available resources, the maximum volume that the agency could prudently perform in any given year is 11,000 or a total amount of $440mm.

The Relationship Between Objectives and Outcomes (cont.)

How do we manage performance?	
Staff	Staff certified and underwrote 1,000 transactions per FTE, serviced at a rate of 2,000 per FTE, tracked borrowers at a rate of 5,000 per FTE, and evaluated lenders at a rate of 30 per FTE. These rates represent an overall improvement of 2%, 5%, 6% and 3% over the prior year. Application backlogs declined from 10 days to 8 days, renewal backlogs from 5 to 4 days, and amendments from 16 days to 15 days. This was primarily due to a drop in volume.
Agency program support (IT, Administration)	The portfolio loan level detail is available on a real time basis. Partner reporting is available on a 14 day lag, and monthly comprehensive analyses are completed within 15 days of the end of each month and 30 days within the end of the year. Due diligence teams in the credit audit and field audit functions can perform 1/10 and 1/30 of the number of participating lenders each year. The target is 1/3 and 1/5 respectively.
Partners and vendors	Average annual production per lender for the program is $10mm and the mean is $3.75mm. This year 7 banks were denied delegated authority due to excessive risk-taking.
How do we manage costs?	
Operating expenses	Operating costs relative to budget and industry productivity benchmarks. The cost to certify, underwrite, service and monitor the guarantees was $.41 per loan for the agency. This was $.04 less than target.
Credit losses	Our loss rates continue to come in under budget. Over the 5 years the program has been in existence, delinquency has averaged 5%, and defaults have averaged 3%. A total of 7.5% of the loans made to date have ended in foreclosure, averaging 1.5% per year. These rates are 10% lower than those experienced by conventional lenders serving the 580-620 credit score nationally over the same period. Recoveries on the defaulted second liens have averaged 20% of principal, producing an actual loss of 2.4%. There are no comparable second mortgages being made by conventional lenders at the 620 credit score range in these census tracts.
How do we adjust for changes in market conditions?	
What are the 5-10 key indicators that demonstrate material changes in the market?	There has been no change in 6 of the top 8 indicators. Two indicators have changed as follows: (i) competition: there has been a rise in non-banks providing lower floating rate mortgages that do not require the second lien mortgage, and (ii) loan approvals are being made within a day, and they do not require homeownership counseling. These were the primary causes for the drop-off in demand this past year versus expectations.
What changes do these indicators prompt in the establishment of objectives?	The key changes were in volume targets for this year. Also considered were reductions in interest rates and downpayment requirements.
How do we define success?	
What are the 3 to 5 outcomes that justify our funding to Congress and the Administration?	Size of the need, and the number that have been served and the fact that nobody else is providing the credit
	The problems with the rental market as an alternative – eviction rate, cost, availability
	The proofs that the home purchases have contributed to (i) higher credit scores; (ii) job creation; (iii) economic activity in the community; and (iv) active participation by banks and other private sector lenders
	Operating costs and productivity are comparable to the private sector and credit risk, though higher, is being successfully managed
	The leveraging of private sector dollars

Defining Success

- How do we know we’ve succeeded?
  - We can demonstrate that we are aligned with the Agency Mission: the data and metrics we use for the outcomes are the same as the ones we used to identify the credit gap and establish the mission objectives.
  - We can demonstrate our role in the market: At both the front and back ends we can produce data that shows (a) market conditions; (b) private sector activity in the sector we serve; (c) changes (if any) in the target beneficiary; and (d) the impact of agency program outcomes.
  - We can demonstrate improvement: using the data and metrics we've selected we can demonstrate impact and show positive trends.
  - We can demonstrate a solution: Where relevant and possible, we can promote individual, business, or project borrowers back out to conventional private sector credit channels

Examples of Different Kinds of Lenders

The Summary Expenses of Lending 2014	Large Bank	Small Bank	Credit Union	Finance Company	Online Lender	Credit Card Company	CDFI Non profit Lender	State HFA
	(000's)							
Total Assets	$1,687,155,000	$6,760,879	$5,831,677	$47,880,000	$792,362	$159,103,000	$38,718	$5,306,000
Gross Income (Revenues) to Assets	5.00%	4.47%	3.40%	7.57%	19.95%	22.56%	31.90%	6.01%
Interest Expense to Assets	0.24%	0.28%	0.68%	2.27%	2.17%	1.07%	0.98%	2.85%
Operating Expense to Assets	2.91%	2.33%	2.08%	3.67%	10.16%	14.55%	23.52%	2.00%
Loss Expense to Assets	0.08%	0.27%	0.09%	0.21%	8.51%	1.28%	2.85%	0.05%
Total Expenses	3.23%	2.88%	2.85%	6.15%	20.84%	16.91%	27.35%	4.89%
Net Profit After Tax to Assets	**1.37%**	**1.85%**	**0.58%**	**1.42%**	**-2.36%**	**3.70%**	**7.50%**	**1.00%**
Total Equity	$185,262,000	$946,188	$490,222	$9,063,000	$310,605	$20,673,000	$15,885	$1,112,000
Ratio of Capital to Assets	10.98%	14.00%	8.41%	18.93%	39.20%	12.99%	41.03%	20.96%
Return on Equity/Subsidy	12.45%	13.22%	6.89%	7.51%	-6.02%	28.47%	18.28%	4.77%
Total Loans	$824,997,000	$5,074,883	$3,265,738	$19,148,000	$454,303	$70,104,000	$22,745	$3,379,000
Delinquency Rate	3.84%	1.14%	1.20%	0.16%	13.18%	1.87%	1.79%	0.34%
High Stock Price	$55.95	$69.99	NA	$52.15	$27.98	$96.24	NA	NA
Average Stock Price	$54.77	$37.45		$47.17	$23.71	$89.79		
Low Stock Price	$44.17	$30.59		$41.86	$22.43	$78.41		
Dividends per share	$0.35	$0.11		$0.15		$0.25		
Dividend payout (annual)	$1.35	$0.45		$0.55		$1.01		
EPS	$4.12	$1.52		$5.96	($0.60)	$5.56		
Note: due to the need to simplify, the NPAT is not intended to reconcile to Revenues minus Total Expenses					Went public in 2014: 700% TA growth in 3 yrs		(The revenue includes $7.1mm in grants)	

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Commercial Banks with Assets Greater than $3 Billion (EOY)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Earnings and Profitability											
Percent of Average Assets:											
Interest Income (TE)	5.15	5.95	6.17	5.25	4.36	4.14	4.03	3.81	3.61	3.52	3.44
- Interest Expense	1.87	2.7	2.95	2.05	1.29	0.85	0.63	0.46	0.36	0.3	0.29
Net Interest Income (TE)	3.27	3.24	3.19	3.12	3.02	3.25	3.37	3.33	3.22	3.19	3.12
+ Noninterest Income	1.52	1.29	1.25	1.16	1.38	1.25	1.13	1.13	1.05	1.01	1.02
- Noninterest Expense	2.74	2.57	2.67	2.94	2.84	2.81	2.8	2.75	2.73	2.65	2.55
- Provision: Loan & Lease Losses	0.14	0.13	0.3	1.17	1.72	1.03	0.47	0.32	0.14	0.11	0.12
Pretax Operating Income (TE)	1.98	1.92	1.54	0.24	-0.08	0.75	1.25	1.42	1.44	1.46	1.48
+ Realized Gains/Losses Sec	0	-0.01	-0.02	-0.11	0.02	0.04	0.05	0.04	0.02	0.01	0.01
Pretax Net Operating Income (TE)	1.97	1.9	1.5	-0.06	-0.12	0.8	1.3	1.47	1.46	1.47	1.49
Net Operating Income	1.28	1.24	0.98	-0.16	-0.21	0.5	0.89	1.03	1.02	0.98	1
Adjusted Net Operating Income	1.29	1.25	1.09	0.37	0.21	0.43	0.73	0.96	0.97	0.98	1.04
Net Inc Attrib to Min Ints	0	0	0	0	0	0	0	0	0	0	0
Net Income Adjusted Sub $	1.29	1.24	0.97	-0.16	-0.24	0.49	0.87	1.02	1	0.97	0.98
Net Income	1.29	1.24	0.97	-0.16	-0.23	0.49	0.89	1.03	1.02	0.98	1
Margin Analysis:											
Avg Earning Assets to Avg Assets	91.71	91.8	91.56	91.87	92.29	91.54	91.56	91.93	92.12	92.37	92.82
Avg Int-Bearing Funds to Avg Assets	80.76	81.56	81.55	81.96	81.2	80.23	78.7	77.77	77.48	77.35	77.84
Int Inc (TE) to Avg Earn Assets	5.64	6.5	6.75	5.73	4.75	4.54	4.42	4.15	3.92	3.83	3.71
Int Expense to Avg Earn Assets	2.05	2.96	3.24	2.24	1.4	0.93	0.69	0.5	0.39	0.33	0.31
Net Int Inc-TE to Avg Earn Assets	3.58	3.54	3.5	3.42	3.29	3.57	3.69	3.63	3.5	3.47	3.37
Liquidity											
Net Non Core Fund Dep New $250M	34.76	36.22	35.89	38.85	30.19	17.19	15.13	11.68	12.88	12.87	13.95
Net Loans & Leases to Assets	62.21	63.97	65.44	65.86	62.88	60.5	60.44	60.84	63.51	65.02	66.74
Capitalization											
Tier One Leverage Capital	7.84	8.19	8.07	8.22	8.69	9.17	9.63	9.76	9.87	9.83	9.78
Cash Dividends to Net Income	46.63	47.54	62.22	35.46	20.41	21.49	29.61	46.39	42.16	41.19	41.12
Retained Earnings to Avg Total Equity	6.33	5.66	2.05	-6.09	-5.31	1.28	4.03	3.55	4.29	4.32	4.62

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Commercial Banks with Assets Greater than $3 Billion (EOY)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Growth Rates											
Total Assets	13.04	12.56	12.25	11.35	4.24	2.89	7.99	7.71	6.13	11.72	10.86
Tier One Capital	12.74	14.04	9.15	12.3	9.53	9.64	11.21	7.3	7.87	11.51	11.29
Net Loans & Leases	16.04	13.52	14.03	9.12	-1.24	0.89	8.68	9.08	9.66	15.41	13.48
Short Term Investments	56.84	160.11	39.5	90.47	218.88	62.93	26.18	23.68	6.34	23.67	18.29
Short Term Non Core Funding	21.6	23.11	23.37	15.86	-14.16	-13.31	-23.67	-2.47	11.23	20.03	18.4
Average Total Assets	6,744,940,461	7,531,338,722	8,366,510,342	9,419,492,066	9,660,121,198	9,631,860,126	9,997,715,097	10,668,789,465	11,099,607,468	11,827,707,942	12,587,032,977
Total Equity Capital	666,625,345	753,827,513	856,014,892	870,050,258	1,007,684,322	1,059,703,186	1,142,197,861	1,224,089,373	1,265,631,474	1,365,176,213	1,429,366,369
Net Income	83,728,807	92,099,239	66,149,081	3,088,010	14,612,209	61,638,174	82,441,902	99,660,156	110,870,155	113,014,498	124,289,604
Number of banks in Peer Group	181	183	188	188	181	174	180	190	201	223	228
Percent of Average Assets											
Personnel Expense	1.35	1.28	1.28	1.22	1.18	1.23	1.3	1.32	1.32	1.3	1.29
Occupancy Expense	0.36	0.34	0.35	0.34	0.33	0.33	0.34	0.33	0.33	0.32	0.31
Other Oper Exp (Incl Intangibles)	1	0.91	1	1.3	1.24	1.18	1.13	1.07	1.02	0.99	0.89
Total Overhead Expense	2.74	2.57	2.67	2.94	2.84	2.81	2.8	2.75	2.73	2.65	2.55
Overhead Less Nonint Inc	1.15	1.2	1.36	1.63	1.35	1.43	1.62	1.57	1.61	1.59	1.49
Other Income & Expense Ratios:											
Efficiency Ratio	56.15	55.97	58.44	65.64	64.97	61.73	62.94	61.55	63.01	62.46	60.92
Avg Personnel Exp Per Empl ($000)	67.27	72.1	72.23	74.07	76.11	79.9	81.78	86.81	89.52	90.36	94.68
Assets Per Employee ($Million)	6.01	7.88	7.52	9.42	12.44	10.1	9.36	9.41	9.08	8.82	9.19

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Metrics That Define the Asset (Example)

What kinds of deals are getting done in the marketplace?			
	Individual	Business	Project (RE, Infrastructure, Mfg, etc.)
Potential Volume	# 10,000,000	#500,000	#50,000
Deal Size	$350,000	$1,000,000	$50,000,000+
Credit History	680+	Good, > 5 yrs old	10+ yr track record, A rated, Bank Relations, Capital. Strong buyer
Term	30 years	5 years, term loan	Up to 20 years
Capacity to Pay	D/I = 38%	DSC 1.5x	1.2 but will finance interest
Collateral	LTV = 95%	1.25x	LTV 80%, will finance soft costs. Feasible Plan B
Location	Stable Market, urban, suburban	Stable Market, urban, suburban	Global - developed countries
Regulators	No problem	No problem	Some concentration risk
What kind of credit asset is needed?			
	Individual	Business	Project
Potential Volume	#300,000	#25,000	#1,000
Deal Size	$200,000	$150,000	$2,000,000
Credit History	580+	OK Pay History, credit score >160, >2 yrs old	New developer, modest client, limited track record
Term	30 years fixed	7 years working capital	up to 35 years including construction and permanent
Capacity to Pay	D/I =45%	DSC 1.2x	Finance interest
Collateral	LTV = 98%	1.0x	at least 1.1 upon completion
Location	Declining/Distressed or rural	Declining/Distressed or rural	Declining/Distressed or rural
Regulators	Limit exposure	Limit exposure, Raise capital allocation	Limit exposure, Raise capital allocation

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Discussion: program contributions to mission objectives and the use of metrics

Please write a paragraph or series of bullet points thinking critically about the key program objectives of a federal credit program with which you are familiar.

- How does that program contribute to the agency's mission?
- Are sufficient data and metrics available to assess costs and benefits? Are there additional metrics that could be helpful?
- If you could revise program objectives or intended outcomes, would you? How?