

Power BI Project: Loan Analytics & Profitability Dashboard

Live Dashboard

View the interactive dashboard:

<https://app.powerbi.com/view?r=eyJrIjoiZTRmNTRmMTUtZmIxNC00OTc1LTk0NDUtZDM0ODIzYmZhOTI4IiwidCI6IjZhODgzMmRjLTUxNGQtNDZlZS05NmVILWU1YWY4NzVIY2VjNiIsImMiOiZ9.and>

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Overview

This Power BI dashboard presents a sophisticated analytics solution for monitoring loan performance, assessing credit risk, and segmenting profitability in lending portfolios. With comprehensive, interactive visuals, business users and lending executives can quickly uncover drivers of risk, revenue, and trade outcomes. The platform guides smarter lending decisions, targeted risk management, and maximized profitability.

Features

- **Loan Performance Monitoring:** Track portfolio KPIs, health, defaults, prepayments, and recoveries at a glance.
- **Credit Score Impact:** Analyze how applicant credit behavior and scores influence approval, performance, and risk.
- **AI-Powered Key Influencers:** Identify leading drivers of defaults, delinquencies, or profit with Power BI's AI analytics.

- **Profitability Segments:** Pinpoint most- and least-profitable segments across customer, region, amount, and vintage.
- **Trade Execution Detail:** Drill into loan pool trades, recoveries, loss ratios, and execution timing.

Dashboard Snapshots

Loan Statuses

loan_id	closing_date	file_in_audit	file_audit_complete	file_sent_to_custodian	file_at_custodian	Trade Status
5021398	8/28/2021	9/2/2021	9/6/2021	9/8/2021	9/10/2021	Closed - Ready to Trade
5021412	9/6/2021	9/8/2021	9/13/2021	9/13/2021	9/15/2021	Closed - Ready to Trade
5021444	8/3/2021	8/10/2021	8/16/2021	8/16/2021	9/15/2021	Closed - Ready to Trade
5021456	9/2/2021	9/8/2021	9/10/2021	9/13/2021	9/15/2021	Closed - Ready to Trade
5021475	9/3/2021	9/7/2021	9/10/2021	9/13/2021	9/15/2021	Closed - Ready to Trade
5021476	9/4/2021	9/8/2021	9/13/2021	9/14/2021	9/16/2021	Closed - Ready to Trade
5021484	8/25/2021	8/31/2021	9/2/2021	9/3/2021	9/6/2021	Closed - Ready to Trade
5021492	9/1/2021	9/3/2021	9/6/2021	9/7/2021	9/9/2021	Closed - Ready to Trade
5021499	9/2/2021	9/6/2021	9/8/2021	9/10/2021	9/13/2021	Closed - Ready to Trade
5021505	9/3/2021	9/7/2021	9/9/2021	9/10/2021	9/13/2021	Closed - Ready to Trade
5021511	9/2/2021	9/7/2021	9/9/2021	9/10/2021	9/13/2021	Closed - Ready to Trade
5021516	9/8/2021	9/13/2021	9/13/2021	9/14/2021	9/16/2021	Closed - Ready to Trade
5021519	8/24/2021	8/27/2021	8/30/2021	8/30/2021	9/1/2021	Closed - Ready to Trade
5021530	8/31/2021	9/2/2021	9/6/2021	9/6/2021	9/8/2021	Closed - Ready to Trade
5021554	9/7/2021	9/13/2021	9/15/2021	9/16/2021	9/20/2021	Closed - Ready to Trade
5021555	9/3/2021	9/6/2021	9/8/2021	9/10/2021	9/13/2021	Closed - Ready to Trade
5021566	9/4/2021	9/6/2021	9/8/2021	9/9/2021	9/13/2021	Closed - Ready to Trade
5021576	8/23/2021	8/27/2021	8/30/2021	8/30/2021	9/1/2021	Closed - Ready to Trade
5021617	9/6/2021	9/9/2021	9/13/2021	9/13/2021	9/15/2021	Closed - Ready to Trade
5021625	9/3/2021	9/8/2021	9/10/2021	9/13/2021	9/15/2021	Closed - Ready to Trade
5021664	8/26/2021	8/30/2021	8/30/2021	8/31/2021	9/2/2021	Closed - Ready to Trade
5021670	9/4/2021	9/7/2021	9/9/2021	9/10/2021	9/13/2021	Closed - Ready to Trade
5021675	9/4/2021	9/6/2021	9/10/2021	9/13/2021	9/15/2021	Closed - Ready to Trade
5021713	8/25/2021	8/30/2021	9/1/2021	9/2/2021	9/6/2021	Closed - Ready to Trade
5021715	9/7/2021	9/10/2021	9/13/2021	9/13/2021	9/15/2021	Closed - Ready to Trade
5021725	9/9/2021	9/13/2021	9/15/2021	9/16/2021	9/20/2021	Closed - Ready to Trade
5021768	9/1/2021	9/6/2021	9/9/2021	9/10/2021	9/13/2021	Closed - Ready to Trade
5021782	9/10/2021	9/13/2021	9/15/2021	9/16/2021	9/20/2021	Closed - Ready to Trade
5021787	8/31/2021	9/2/2021	9/7/2021	9/8/2021	9/10/2021	Closed - Ready to Trade
5021815	8/27/2021	8/30/2021	8/31/2021	9/1/2021	9/3/2021	Closed - Ready to Trade

Count of loan_id by Trade Status

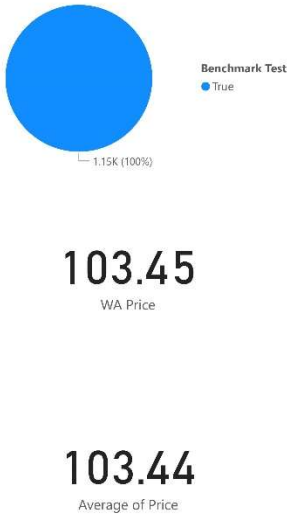


Comprehensive overview of lending KPIs: volume, default/loss rates, recovery, and aging—all filterable by cohort.

loan_id	first_payment_date	next_payment_due_date	Sum of current_balance	Sum of Scheduled Principal Balance	Trade Status
5021398	10/1/2021	10/1/2021	735,000.00	733,779.26	Closed - Ready to Trade
5021412	10/1/2021	10/1/2021	175,000.00	174,683.42	Closed - Ready to Trade
5021456	10/1/2021	10/1/2021	495,000.00	494,113.58	Closed - Ready to Trade
5021475	10/1/2021	10/1/2021	85,000.00	84,493.23	Closed - Ready to Trade
5021476	10/1/2021	10/1/2021	385,000.00	384,303.52	Closed - Ready to Trade
5021484	10/1/2021	10/1/2021	165,000.00	164,236.04	Closed - Ready to Trade
5021492	10/1/2021	10/1/2021	275,000.00	274,497.02	Closed - Ready to Trade
5021499	10/1/2021	10/1/2021	465,000.00	462,825.73	Closed - Ready to Trade
5021505	10/1/2021	10/1/2021	205,000.00	204,041.45	Closed - Ready to Trade
5021511	10/1/2021	10/1/2021	715,000.00	712,762.05	Closed - Ready to Trade
5021516	10/1/2021	10/1/2021	595,000.00	593,888.61	Closed - Ready to Trade
5021519	10/1/2021	10/1/2021	295,000.00	292,776.13	Closed - Ready to Trade
5021530	10/1/2021	10/1/2021	105,000.00	104,528.07	Closed - Ready to Trade
5021554	10/1/2021	10/1/2021	105,000.00	104,518.62	Closed - Ready to Trade
5021555	10/1/2021	10/1/2021	165,000.00	163,904.95	Closed - Ready to Trade
5021566	10/1/2021	10/1/2021	255,000.00	254,404.39	Closed - Ready to Trade
5021576	10/1/2021	10/1/2021	115,000.00	114,309.01	Closed - Ready to Trade
5021617	10/1/2021	10/1/2021	315,000.00	313,555.86	Closed - Ready to Trade
5021625	10/1/2021	10/1/2021	215,000.00	213,984.78	Closed - Ready to Trade
5021664	10/1/2021	10/1/2021	255,000.00	254,478.41	Closed - Ready to Trade
5021670	10/1/2021	10/1/2021	495,000.00	492,637.79	Closed - Ready to Trade
5021675	10/1/2021	10/1/2021	305,000.00	303,573.87	Closed - Ready to Trade
5021713	10/1/2021	10/1/2021	215,000.00	214,630.42	Closed - Ready to Trade
5021715	10/1/2021	10/1/2021	85,000.00	84,493.23	Closed - Ready to Trade
5021725	10/1/2021	10/1/2021	205,000.00	204,632.90	Closed - Ready to Trade
5021768	10/1/2021	10/1/2021	95,000.00	94,568.76	Closed - Ready to Trade
5021782	10/1/2021	10/1/2021	465,000.00	464,193.81	Closed - Ready to Trade
5021787	10/1/2021	10/1/2021	435,000.00	434,221.03	Closed - Ready to Trade
5021815	10/1/2021	10/1/2021	215,000.00	213,379.22	Closed - Ready to Trade
5021844	10/1/2021	10/1/2021	175,000.00	174,699.18	Closed - Ready to Trade
5021857	10/1/2021	10/1/2021	405,000.00	403,067.28	Closed - Ready to Trade
5021861	10/1/2021	10/1/2021	515,000.00	513,331.53	Closed - Ready to Trade
Total			337,610,000.00	336,576,636.43	

Correlation between credit scores, loan performance, and approval/decline decisioning.

Loan Bids							
loan_id	umbs_price	Counterparty	Price	Benchmark Test	Scheduled Principal Balance	Trade Amount	Sum of Trade Premium
5021398	103.19	bank_of.americans	103.77	True	733,779.26	\$761,415.22	\$27,635.96
5021412	99.88	bank_of.americans	103.24	True	174,683.42	\$180,334.43	\$5,651.01
5021444	99.88	storgan_manley	103.28	True	244,222.70	\$252,242.37	\$8,019.66
5021456	103.19	storgan_manley	103.77	True	494,113.58	\$512,723.13	\$18,609.55
5021475	99.88	storgan_manley	101.91	True	84,493.23	\$86,106.00	\$1,612.76
5021476	99.88	storgan_manley	101.78	True	384,303.52	\$391,158.54	\$6,855.01
5021484	99.88	storgan_manley	102.60	True	164,236.04	\$168,500.02	\$4,263.98
5021492	99.88	storgan_manley	103.16	True	274,497.02	\$283,167.70	\$8,670.67
5021499	99.88	storgan_manley	102.72	True	462,825.73	\$475,420.38	\$12,594.65
5021505	99.88	pi_logan	102.47	True	204,041.45	\$209,083.83	\$5,042.37
5021511	103.19	pi_logan	103.77	True	712,762.05	\$739,606.45	\$26,844.40
5021516	99.88	bank_of.americans	102.30	True	593,888.61	\$607,533.20	\$13,644.59
5021519	97.45	storgan_manley	102.60	True	292,776.13	\$300,377.33	\$7,601.20
5021530	103.19	pi_logan	103.83	True	104,528.07	\$108,530.19	\$4,002.12
5021554	99.88	pi_logan	102.47	True	104,518.62	\$107,101.54	\$2,582.92
5021555	99.88	bank_of.americans	101.69	True	163,904.95	\$166,674.94	\$2,769.99
5021566	103.19	storgan_manley	105.49	True	254,404.39	\$268,368.02	\$13,963.62
5021576	99.88	bank_of.americans	103.77	True	114,309.01	\$118,614.17	\$4,305.16
5021617	99.88	bank_of.americans	102.61	True	313,555.86	\$321,739.67	\$8,183.81
5021625	97.45	pi_logan	103.07	True	213,984.78	\$220,543.41	\$6,558.63
5021664	103.19	storgan_manley	103.45	True	254,478.41	\$263,267.45	\$8,789.05
5021670	97.45	bank_of.americans	102.42	True	492,637.79	\$504,571.94	\$11,934.15
5021675	99.88	bank_of.americans	101.13	True	303,573.87	\$306,996.66	\$3,422.80
5021713	103.19	pi_logan	103.89	True	214,630.42	\$222,982.22	\$8,351.81
5021715	99.88	storgan_manley	101.10	True	84,493.23	\$85,419.49	\$926.26
5021725	103.19	pi_logan	103.64	True	204,632.90	\$212,084.09	\$7,451.20
5021768	99.88	storgan_manley	103.45	True	94,568.76	\$97,834.93	\$3,266.17
5021782	103.19	storgan_manley	103.77	True	464,193.81	\$481,676.51	\$17,482.70
5021787	103.19	bank_of.americans	104.80	True	434,221.03	\$455,069.06	\$20,848.04
5021815	97.45	pi_logan	103.83	True	213,379.22	\$221,548.97	\$8,169.76
5021844	102.19	bank_of.americans	102.64	True	174,699.18	\$181,060.41	\$6,361.22
Total							\$11,628,083.05

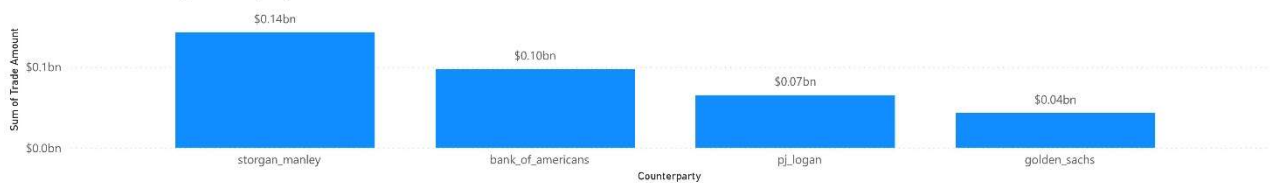


How factors such as applicant type, income range, and employment status drive performance/risk, as surfaced by AI.

Trade Execution Detail

Counterparty	Count of loan_id	Sum of Scheduled Principal Balance	WA Price	Sum of Trade Amount	Sum of Trade Premium
storgan_manley	474	137,853,927.22	103.44	\$142,596,207.88	\$4,742,280.66
bank_of_americans	323	94,405,740.13	103.06	\$97,298,166.06	\$2,892,425.93
pj_logan	217	62,674,344.38	104.10	\$65,241,223.74	\$2,566,879.36
golden_sachs	132	41,642,624.70	103.43	\$43,069,121.80	\$1,426,497.10
Total	1146	336,576,636.43	103.45	\$348,204,719.48	\$11,628,083.05

Sum of Trade Amount by Counterparty



Sum of Trade Premium by Counterparty

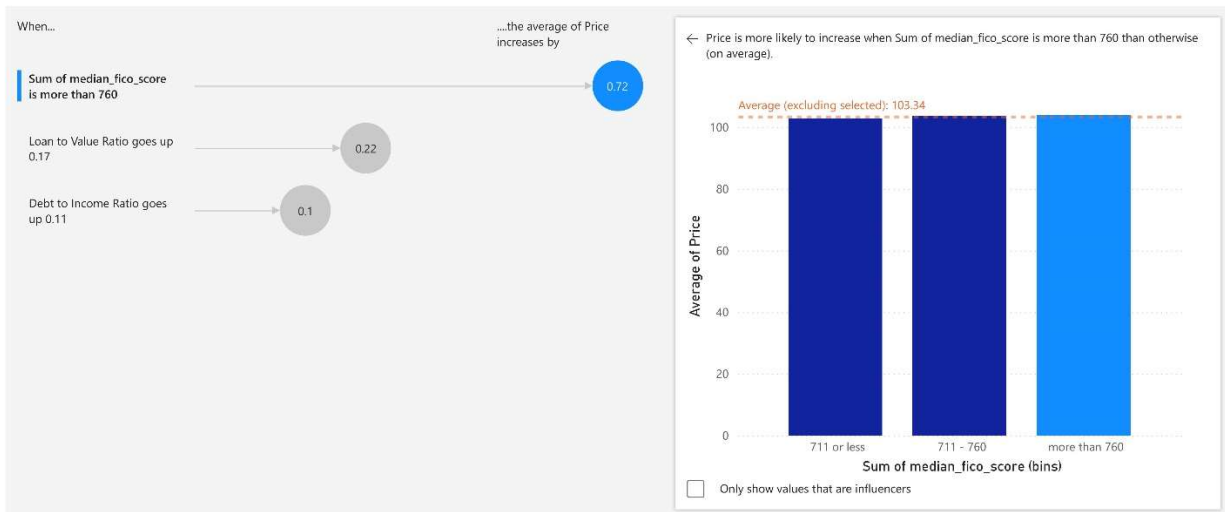


Compare segment profitability by slicing into loan type, purpose, vintage, or geography.

Sum of Scheduled Principal Balance	Total Loan Revenue	Loan Gross Profit	Loan Profit Margin	Sum of target_profit	Target Profit Margin
336,576,636.43	23,812,719.05	23,807,032.28	7.073%	\$16,880,500	5.00%

Key influencers Top segments

What influences Price to ?



Detailed drilldowns into bulk sales/execution metrics for compliance, accounting, or strategy teams.

Key Insights

- Credit score is a top predictor of loan performance and default risk.
- AI-powered influencers highlight which applicant attributes drive profit or risk, giving clear guidance for underwriting.
- Segmenting lending segments by profitability uncovers hidden revenue drivers and actionable risk exposures.
- Trade execution and aging detail enables better planning and compliance oversight for secondary market trades.

How to Use

1. Open the live dashboard for drilldowns, filtering, and “what-if” analysis.
2. Use dashboard images above for quick context or to showcase project impact in your portfolio/web.
3. Guide underwriting, portfolio, and risk management actions with data-driven segment insights.

About

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All data and visuals for demonstration and portfolio purposes only. Images are located in the /images folder.