



# Financial Analyst Project

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2023 Individual Investor



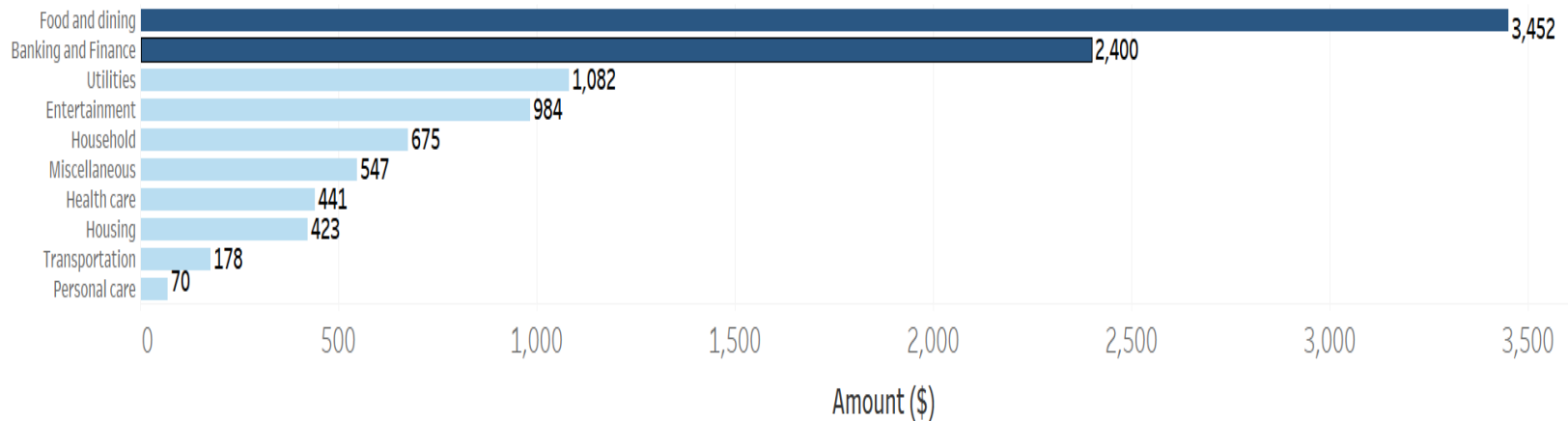
# Overview

- Historical spending analysis
- Insights and trends
- Projected future budget
- Additional information needed
- Summary





# Spending By Categories

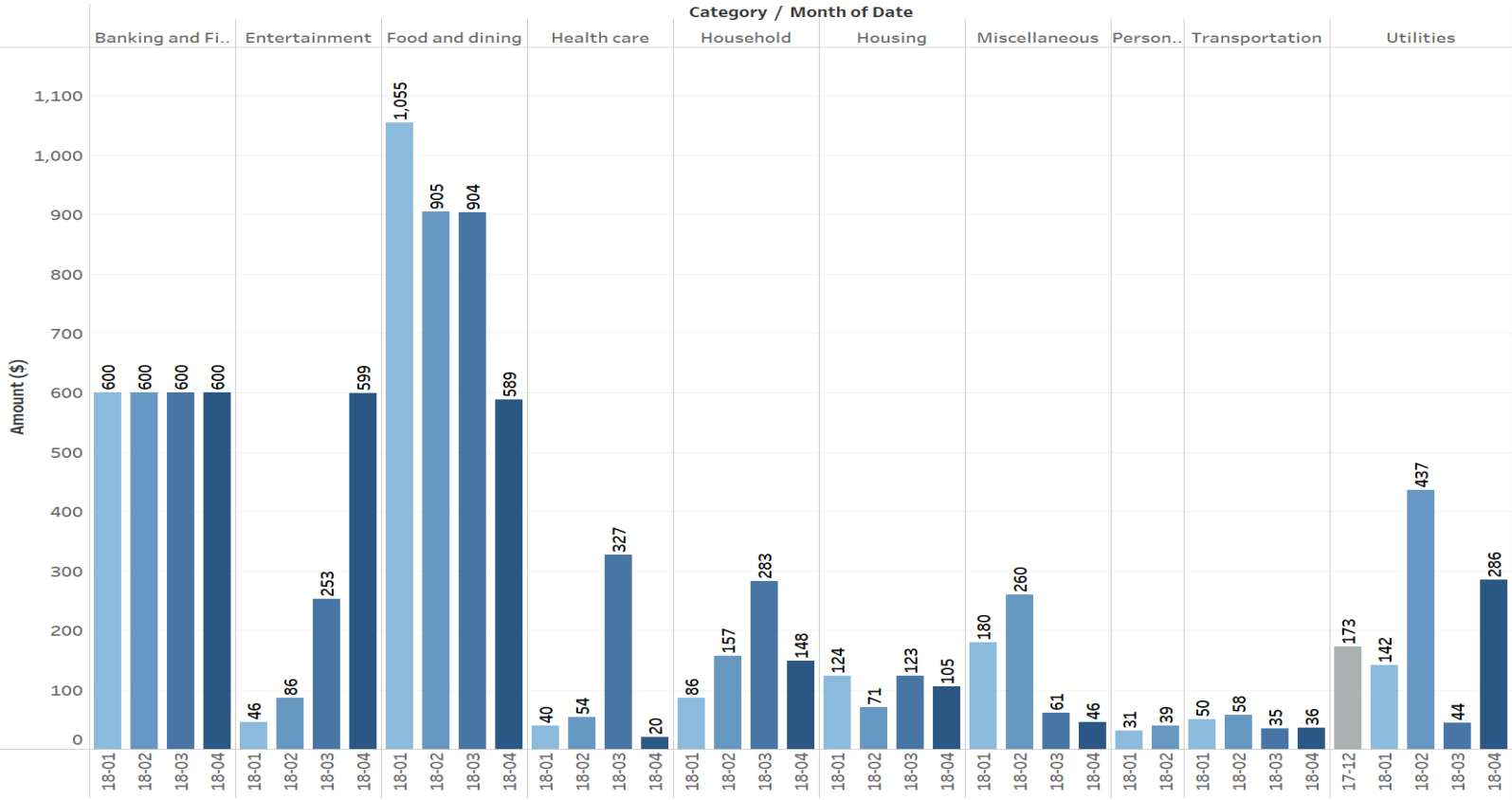


- Largest expenses are in the categories of Food and dining and Banking and Finance.
- Tomas's family spends most of their income on basic needs like food, finance, and utilities.
- Also set aside a portion of their income for leisure activities, but it's not a significant amount.

# Monthly Spending

Category <small>2+</small>	Date				
	2017	2018			
	4 12	01	1 02	03	2 04
Food and dining		1,055	905	904	589
Banking and Finance		600	600	600	600
Utilities	173	142	437	44	286
Entertainment		46	86	253	599
Household		86	157	283	148
Miscellaneous		180	260	61	46
Health care		40	54	327	20
Housing		124	71	123	105
Transportation		50	58	35	36
Personal care		31	39		

- "Food and dining" category has a decreasing trend
- "Banking and Finance" category is consistent.
- Some categories may have seasonal fluctuations, while others may remain relatively stable



# Spending By Sub Category

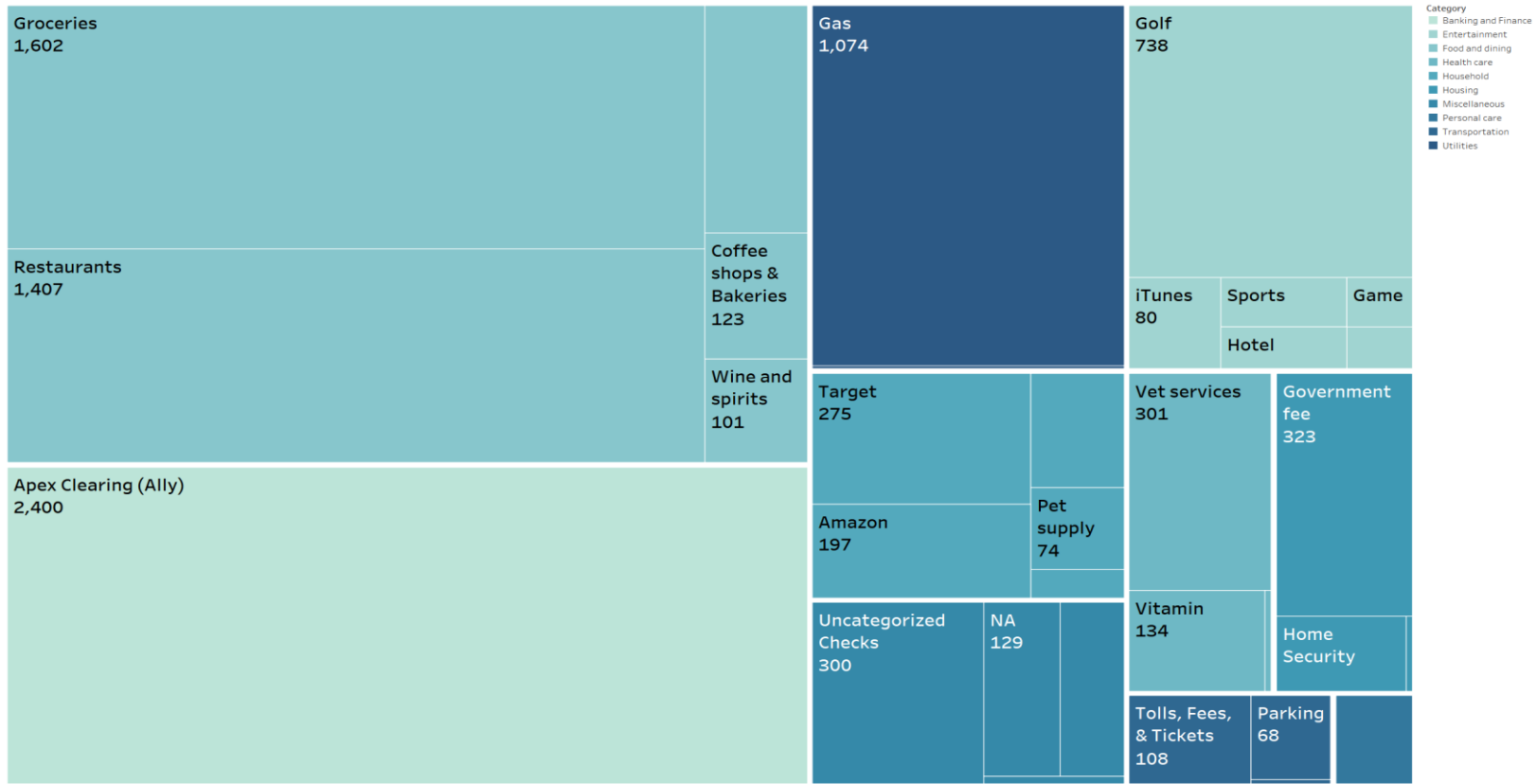
Category	Sub Category	
Food and dining	Coffee shops & Bakeries	123
	Convenience Store	220
	Groceries	1,602
	Restaurants	1,407
	Wine and spirits	101
	Total	3,452
Banking and Finance	Apex Clearing (Ally)	2,400
	Total	2,400
Utilities	Gas	1,074
	Inflight WiFi	8
	Total	1,082
Entertainment	Game	31
	Golf	738
	Hotel	51
	iTunes	80
	Kindle	26
	Sports	59
	Total	984
Household	Amazon	197
	Clothing	25
	Household goods	103
	Pet supply	74
	Target	275
	Total	675

Miscellaneous	Financial services	107
	NA	129
	Shipping and Handling Ex..	10
	Uncategorized Checks	300
	Total	547
Health care	Medical	6
	Vet services	301
	Vitamin	134
	Total	441
Housing	Government fee	323
	Home Improvement	4
	Home Security	95
	Total	423
Transportation	Parking	68
	Railroad service	3
	Tolls, Fees, & Tickets	108
	Total	178
Personal care	Haircut	70
	Total	70
Credit	Payment	-6,104
	Refund	-191
	Return	-82
	Total	-6,377
Grand Total		3,874

- Food and Dining: Groceries(\$1,602)
- Entertainment: Golf (\$738)
- Miscellaneous: uncategorized checks (\$300)
- Health care: Vet services (\$301)



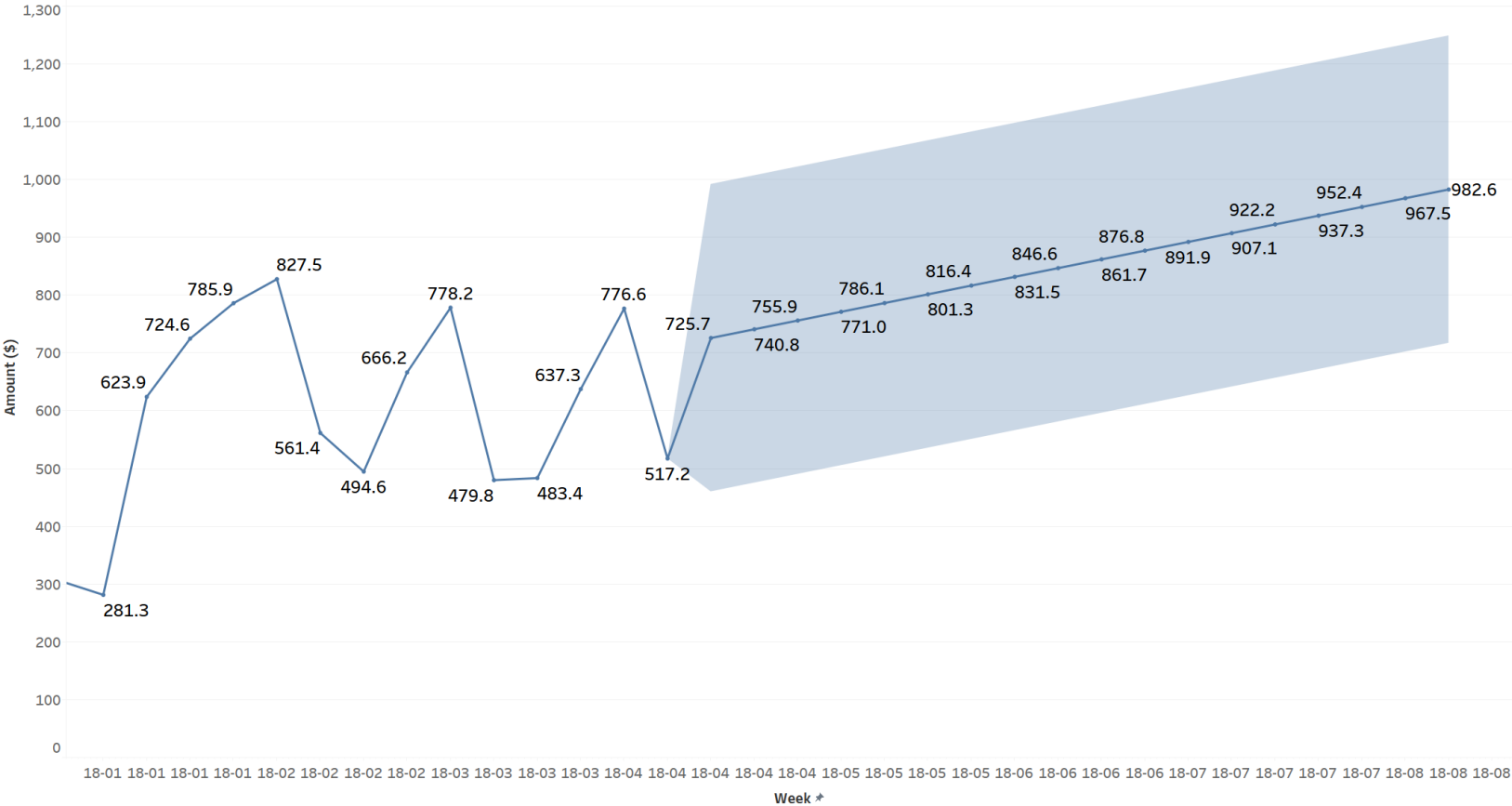
Heatmap



Sub Category, Category and sum of Amount. Color shows details about Category. Size shows sum of Amount. The marks are labeled by Sub Category, Category and sum of Amount. Details are shown for Sub Category. The view is filtered on Category, which excludes Credit.







# Projected Future Budget

- Forecasting is based on an exponential smoothing model with an additive level and trend and no seasonality component
- Based on Jan – April 2018 debit data only
- Model's predictions have an average error of approximately \$145 to \$162
- Tomas's family's budget has been steadily increasing from the end of December 2017 to August 2018
- This trend will continue for the next few months, with the budget reaching nearly 1,000 by the end of August 2018
- It's important to consider the factors that may impact Tomas's family's budget in the future.





# Additional Information Needed

- What is the family's current income and how stable is it? Any expected changes in the income soon?
- What are the family's current assets and liabilities? How are they managing their debt?
- What are the family's financial goals in the short-term and long-term? Are they saving for retirement, education, or a major purchase?
- What is the family's risk tolerance?
- How is the family's investment portfolio currently allocated?
- Are there any major life events expected soon that may impact their financial planning, such as a child going to college or a parent retiring?
- How is the family managing their cash flow? Are they living within their means or are they consistently overspending?
- Are there any other financial issues or concerns?





# Conclusion

- Food and Dining expenses show a decreasing trend.
- Banking and Finance expenses exhibit a consistent trend.
- The family prioritizes spending on basic needs.
- Forecasting using exponential smoothing indicates a steady increase in the budget from December 2017 to August 2018, nearing \$1,000.
- Additional information needed for a complete financial picture:
  - Current income and stability
  - Assets and liabilities
  - Financial goals
  - Risk tolerance
  - Investment portfolio allocation
  - Expected major life events
  - Cash flow management
  - Other financial issues or concerns





Thank you! Any questions?



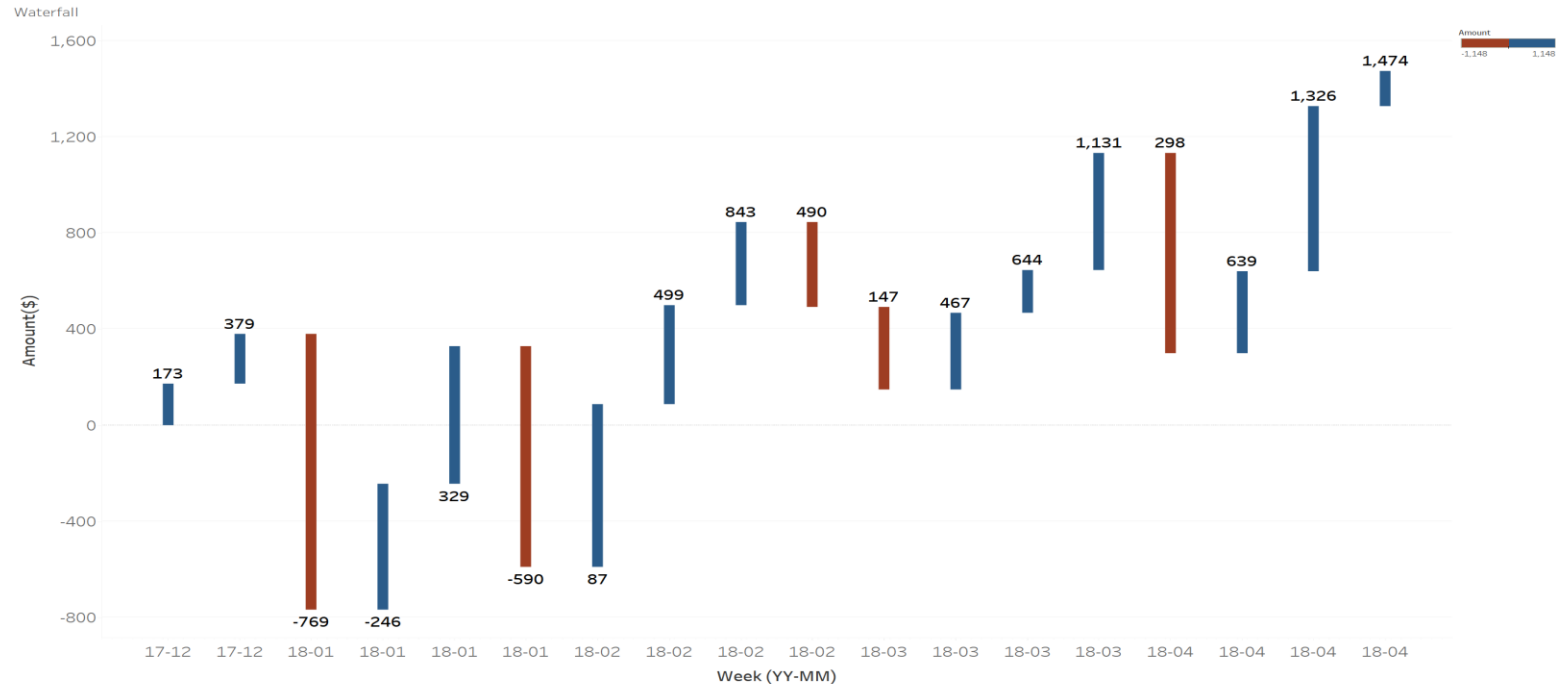
# Appendix



# Category Description

1	Housing	This can include rent or mortgage payments, property taxes, and homeowners' insurance.
2	Household	This can include expenses related to maintaining a household, such as cleaning supplies, home repairs, furniture, and appliances.
3	Utilities	This can include electricity, gas, water, internet, and phone bills.
4	Transportation	This can include car payments, gas, oil changes, repairs, and insurance.
5	Food and dining	This can include groceries, eating out, and ordering in.
6	Health care	This can include health insurance premiums, doctor visits, prescriptions, and medical supplies.
7	Personal care	This can include gym memberships, haircuts, and other personal grooming expenses.
8	Entertainment	This can include movies, concerts, and other leisure activities.
9	Banking and Finance	This can include expenses related to managing money, such as bank fees and investments.
10	Miscellaneous	This can include any other expenses that do not fit into the above categories, such as bank fees, legal fees, and other miscellaneous expenses.

# Cash Flow Waterfall Analysis



The plot of Running Sum of Amount for Date Week. Color shows sum of Amount. Size shows -SUM[Amount]. The data is filtered on Category, which excludes Banking and Finance and Null.



# Forecast Model Summary

## Options Used to Create Forecasts

Time series: Week of Date

Measures: Sum of Amount

Forecast forward: 18 weeks (18-04 – 18-08)

Forecast based on: 17-12 – 18-04

Ignore last: 2 weeks (18-04)

Seasonal pattern: None

## Sum of Amount

Initial 18-04	Change From Initial 18-04 – 18-08	Seasonal Effect		Contribution		Quality
		High	Low	Trend	Season	
725.678571429 ± 265.840416981	256.942857143	None		100.0%	0.0%	Poor



# Forecast Model Summary

All forecasts were computed using exponential smoothing.

## Sum of Amount

Model			Quality Metrics					Smoothing Coefficients		
Level	Trend	Season	RMSE	MAE	MASE	MAPE	AIC	Alpha	Beta	Gamma
Additive	Additive	None	161.619497702	145.213809524	1.00	28.4%	163	0.000	0.043	0.000

