

Offering Effective Financial Advice to Small-balance Customers

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In an effort to address our fund's concerns about declining market share and narrow focus on a sub-sector of the asset management business in the long term, our team designed a robo advisor to automatically deliver tailored asset allocation plan for various type of customers. We propose launching our Bronestone robo advisor with low expense ratios, even no expenses. Besides the traditional fund services, we also provide unique Bronestone Plan targeting at small-balance customers. By doing this, we are providing values to small-balance investors that is unmatched by any other firm in financial services as well as the straightforward pricing and investment choices that investors deserve. This is the industry's another breakthrough with a larger customer coverage and true zero expense ratio. Below will be the detailed investment process of our products.

Questionnaire Design:

Given the personal privacy and customers behaviors, questions we designed includes the following items: Born year, Investment for personal or partners, Account type, Starting investment amount, Monthly contribution, Family annual income, Risk tolerance, Investment time horizon, Cash demand withdraw for each year, Whether need to using money in recent 3 years, Whether willing to join Bronestone Plan, Whether prefer low fee portfolio

	born_y	acc_user	inv_for	acc_type	start_amo	contri_em	family_inc	risk_tol	Time_horiz	cash_deman	using_money	yuebao_plan	low_fee
1	1974	one	other	Brokerage	24376	1204	154893	6	5.5	0	0	0	0
2	1984	one	other	Brokerage	24749	976	94439	5	1.5	6748	1	0	0
3	1958	one	pension	IRA	28467	1050	104143	4	2.3	7687	1	1	0
4	1973	one	other	IRA	26687	720	79627	9	12.1	0	0	0	1
5	1972	one	pension	Brokerage	16324	1123	97321	1	6.8	3620	1	1	1

Customer Risk Rating Methodology:

Subjective Risk Attitude + Risk Tolerance Capability + Cash Demand + Customer Preference

1. Subjective Risk Attitude: Rating own risk attitude among 10 levels and collected from customer questionnaire
2. Risk Tolerance Capability: Based on the quantitative customer data, a set of specific criteria are designed to evaluate their risk tolerance capability.

Rate	Age-st	Age-end	family_inc	start_amo	contri_em	Time_horiz
1	20	25	0	0	0	0
2	60	65	15000	0.05	0.005	1/12
3	55	60	25000	0.1	0.01	0.5
4	50	55	37000	0.15	0.015	1
5	20	25	50000	0.2	0.02	3
6	45	50	61000	0.25	0.025	4
7	25	30	75000	0.3	0.03	5
8	30	35	100000	0.35	0.035	6
9	40	45	125000	0.4	0.04	7
10	35	40	175000	0.45	0.045	9

As the picture indicates, there are 5 conditions should be considered. The groups between 35 to 40 years old, with family income over \$ 175,000, starting investment amount being higher than 45% of their family income, monthly contribution being higher than 4.5% of their family income, and choose over 9 years as their investment time horizon, then they can be regarded as the people have highest risk tolerance. According to these 5 separate rating conditions and subjective risk attitude of each customers, a total risk rating for portfolio selection will be produced.

3. Cash Demand: If customers state that they have money withdraw demand in recent 3 years and have specific amount of money needed, the portfolio will be adjusted automatically in the percentage of cash or Bronestone Plan.
4. Customer Preference: Customers have their own autonomy to decide their portfolio style, either more passive investment with low fees or more active portfolio management. If customers decide to invest in low fees, percentage of ETF in their portfolio will be increased.

Additional Asset Class:

ETF: S&P 500, we charge 9 bp management fee

Bronestone Plan: Much like a bank account for customers, no management fee, and it will provide higher return than the bank account. Customer could ask for withdrawing any amount of money at any time, they will get the money in three days. But they will be charged 0.01% each time they extract money. This plan will mainly invest in short-term treasury bonds, municipal bonds, etc. to ensure high liquidity as well as low risk.

Asset Allocation Methodology:

We assumed the MSCI index as the benchmark risk indicator of each asset class in the fund. Risk is measured on a rolling basis, that is, we use the standard deviation of the return of the index in the last one year as risk metrics. Also, if the risk of two asset classes are quite close, then we would prefer the asset class with the higher MorningStar rating.

Based on the customers' risk tolerance, customers' preference for fees and customers' requirements for money in short term, we could do different recommendations:

1. If customer needs to use money in short term and willing to attend the Bronestone Plan, the recommended asset is Bronestone Plan
2. If customer needs to use money, is not willing to attend Bronestone Plan, and requires low fee, the recommended asset will be cash and ETF
3. If customer needs to use money, not willing to attend Bronestone Plan, and does not require low fee, then we will set the cash reserve according to the requirement of the customers and recommend asset class according to customers' risk tolerance
4. If customer do not need to use money in short term, then we will recommend assets according to customer's risk tolerance.

Dynamic Adjustment: the machine will continuously measure the volatility of each asset class on a monthly basis, and if the risk of certain asset class has changed a lot (increases by 10%) and do not match the customers' risk tolerance any more, it will adjust the weight of the asset class.

Fees: We could calculate the weighted average management fees of the recommended portfolio. Normally speaking, the lower the risk tolerance, the higher portion will be in the cash and bond, the lower the management fee.

Potential Business Impact:

Higher customer Satisfaction and longer Client Retention: Smaller initial investment threshold and Bronestone Plan will attract young and more number of customers with moderate income. Customers also have autonomy to decide their portfolio preference and adjust their goals at any time. Continuously personal investment advice via website or in person will increase adherence of customers. Bronestone will have \$92M potential profitability and become the leading personal investment platform among millennials with small savings balance.