Premature Slippage

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AGENDA

- **Introduction – Katie**
  - Problems with traditional investment firm
- **The Robinhood-Citadel Dilemma / Slippage – Colin**
- **Our Proposal – Michael**
- **The base NFT/721 Framework = Philippe**
- **Howard – Example Account in Python**
- **Conclusion - Howard**

THE GROWING CONCERN WITHIN THE GLOBAL FINANCIAL SYSTEM

- Current financial system
  - Extensive problems
    - Unnecessary costs
    - Fees
    - Delays
    - Time consuming paperwork
    - 45% financial intermediaries suffer economic crime annually
    - Slippage

- Financial transactions are inefficient, and opportunistic, for crime.
  - We propose using blockchain for individual investors to bypass these inefficienci es of the current financial service transactions, creating instant, more secure, an anonymous way to make financial investments

TYPICAL FEE STRUCTURE OF A TRADITIONAL BROKERAGE FIRM

Program Fees	Program Fee
First $250,000 ($0 -$250,000)	1.35%
Next $250,000 (250K to $500K)	1.30%
Next $500,000 ($500K to $1Million)	1.25%
Next $1,500,000 ($1Mil to $2.5Million)	1.00%
Next $2,500,000 ($2.5Mil to $5 Million)	0.80%
Next $5,000,000 ($5 Mil to $10 Million)	0.60%
Over $10,000,000	0.50%

Additional Fees	Portfolio Fee
First $250,000 ($0 -$250,000)	0.09%
Next $250,000 (250K to $500K)	0.09%
Next $500,000 ($500K to $1Million)	0.08%
Next $1,500,000 ($1Mil to $2.5Million)	0.07%
Next $2,500,000 ($2.5Mil to $5 Million)	0.06%
Next $5,000,000 ($5 Mil to $10 Million)	0.05%
Over $10,000,000	0.05%

THE MYTH OF ROBINHOOD TAKING FROM THE RICH AND GIVING TO THE POOR

▶ Robinhood's model relies on revenue from selling investment choices of its users

　▶ They charge investment firms fees to view real-time investment choices of their users

▶ Robinhood relationship with the Citadel Securities

　▶ Half their orders or re-routed to Citadel

　▶ Robinhood limited trading to certain stocks (pressure from Citadel?)

　　▶ The restriction applied to stock Citadel had a short position

WHAT IS SLIPPAGE AND HOW DOES IT OCCUR?

Coinbase, BTC/USD - Slippage at 3 Order Sizes - 1 Day - 10 Minute Intervals
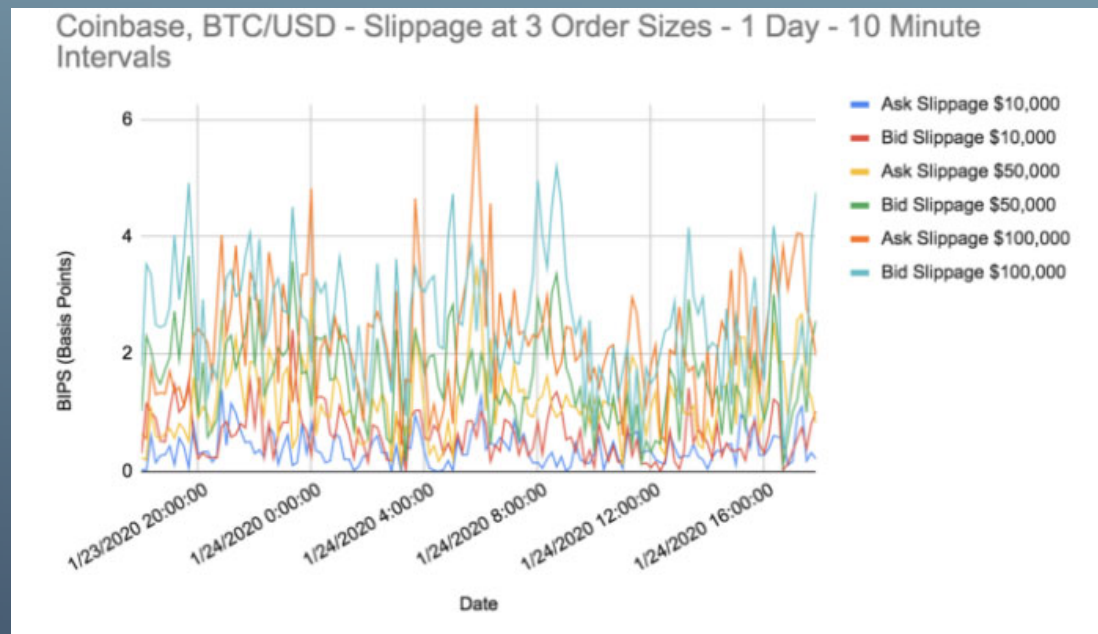
OUR SOLUTION: A BROKERAGE THAT UTILIZES THE NON-FUNGIBLE TOKENS AND THE ETHEREUM NETWORK TO ENCRYPT ORDER FLOW UNTIL EXECUTION

Using thERC-721Non-Fungile Token Standard, each indididual order would be minted to contain all the salient information unique to the order (Account ID, Security ID, Buy/Sell, Timestamp). This Token would be decrypted only at the moment of execution, ensuring that no-other market participant can have prior knowledge of their order

We would have a tiered subscription based model corresponding to trades executed in a month, which would be disclosed up front to the customer. As such, we believe we can ensure that customers enjoy the autonomy and economic efficiency of other electronic trading platforms, while also avoiding the slippage that arises as a consequence of PFOF-based models.

NFT

✓ [block:28 txIndex:0] from: 0x4ba...b6864 to: newNFT.(constructor) value: 0 wei data: 0x608...00033 logs: 0 hash: 0x935...b27a9

status   true Transaction mined and execution succeed

transaction hash   0x9355b2ed19a58fa2a64c64db148fce91c870c903b4960c19f7eb7da1f05b27a9

from   0x4ba1474392826fB6396F5bd1B09AbA61b33b6864

to   newNFT.(constructor)

gas   2704138 gas

transaction cost   2704138 gas

hash   0x9355b2ed19a58fa2a64c64db148fce91c870c903b4960c19f7eb7da1f05b27a9

input   0x608...00033

decoded input   {}

decoded output   -

logs   []

value   0 wei

CONCLUSION

- In 6 months, four eBrokers made $1.107 Billion on user order flow.

- Robinhood increased in trade volume by 138.7%.

- A blockchain based exchange could offer protection to these new retail investors by charging a subscription to utilize the platform. This could help keep trading costs low, utilize the reduction in trade slippage, and allow trader data to be secure.

Quarterly PFOF Received By Security Type Across eBrokers

	1Q20			2Q20			change		
	PFOF	Rate	Volume (1)	PFOF	Rate	Volume (1)	PFOF	Rate	Volume (1)
AMTD									
Equity	$72,782,936	0.0015	49,212,002,671	$144,219,349	0.0015	98,364,165,054	98%	-1%	100%
Option	$129,597,189	0.0053	24,255,637,772	$179,991,996	0.0058	30,795,846,666	39%	9%	27%
Total	$202,380,125	0.0028	73,467,640,443	$324,211,345	0.0025	129,160,011,719	60%	-9%	76%
DARTs			2,101,804			3,397,286			62%
ETFC									
Equity	$29,822,204	0.0016	18,562,366,184	$50,210,044	0.0015	33,144,467,379	68%	-6%	79%
Option	$49,829,545	0.0045	11,036,341,199	$60,117,332	0.0046	13,122,443,101	21%	1%	19%
Total	$79,651,749	0.0027	29,598,707,383	$110,327,376	0.0024	46,266,910,480	39%	-11%	56%
DARTs			657,183			1,009,956			54%
SCHW									
Equity	$25,447,153	0.0011	22,232,834,484	$32,396,842	0.0011	28,482,112,023	27%	-1%	28%
Option	$28,517,592	0.0036	8,024,553,916	$33,745,172	0.0037	9,145,934,130	18%	4%	14%
Total	$53,964,745	0.0018	30,257,388,400	$66,142,014	0.0018	37,628,046,153	23%	-1%	24%
DARTs			1,540,000			1,619,000			5%
Robinhood									
Equity	$31,116,950	0.0024	13,005,221,609	$69,116,307	0.0017	41,347,550,375	122%	-30%	218%
Option	$59,802,125	0.0048	12,394,283,097	$111,148,089	0.0058	19,280,349,422	86%	19%	56%
Total	$90,919,076	0.0036	25,399,504,706	$180,264,395	0.0030	60,627,899,797	98%	-17%	139%
DARTs			n/a			n/a			n/a

PFOP report