

Exuberace

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factors to boil down complexities & anticipate the future

Noumenon of World Order, to some extent, resembles the parable of "blind people and an elephant". With the aid of AI, can humankind better comprehend our world? Is AI only interested in craving more data unable to discern between sarcasm and the truth. Only.00003% of things that happen actually matter. Chasing big data consumes mental and physical energy. The premise that "more data leads to better performance" in Large Language Models (LLM) is increasingly being questioned. LLMs may soon run out of useful data. Per acclaimed author Alain de Botton, "There are multiple



versions of truth. The news, while attempting to inform, often selectively highlights certain aspects rather than recording everything in its entirety." By no means does this article prophesize the future, nor is it an attempt to boil the ocean. It is written based on 4 selected exuberance factors to reduce the complexities to focus on the importance of matters in the financial markets.

Exuberance 1: Pro-growth economic policies amid geopolitical tensions

In the US, Wall Street banks continue to raise targets for the S&P500 Index, citing rationales of "reduced policy uncertainty, resilient cooperate earnings and potential interest rate cuts." The industry generally welcomes the SEC's withdrawal of 14 controversial proposed rules. We foresee, however, at least a couple will need to be re-proposed. One being the Consolidated Audit Trail (CAT). The outdated design of CAT as a gigantic vault raises Civic concerns about Massive Government Surveillance, post security and privacy threats, and will sink money to a bottomless hole. The other likely repropose item is the re-definition of "Exchange". Law makers are scrambling to create a regulatory framework for stablecoin issuance and a pathway that will allow TradFi and DeFi to co-exist.

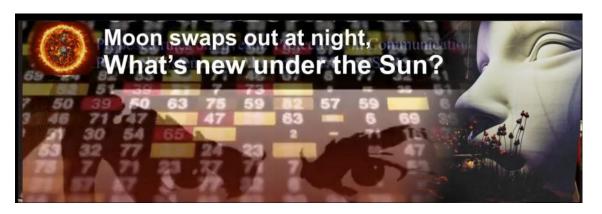
In Europe, the 'Savings and Investment Union' strategy aims to foster the EU citizens' wealth and economic competitiveness with recommendations to Member States on tax incentives. EU policy makers are advocating for simpler rules but choose NOT to follow the US capital markets reform path. Particularly, ESMA equites consolidated tape RTS departure from the comprehensiveness of US market data infrastructure rules and transparency of better priced orders rules (see this). Unfortunately, EU is overly ingrained with their 'addressable liquidity' concept, where efforts and attention are channeled to trade-lifecycle flags that make the post-trade tape more like the US CAT. Instead of making market data available securely in synchronized time for fair access, interests seem to gather around streamlining the EU market-on-close (MOC) fair access, interests seem to gather around streamlining the EU market-on-close (MOC) fair access, interests seem to gather around streamlining the

Likely, EU policy makers would agree to simplify the cumbersome MOC (for example, Denmark, Finland, Norway, Sweden, Ireland, Italy, Switzerland, all have a few minutes difference in closing auction times),

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and go with a synchronized close. Also, there is a possibility to reduce trading hours, opposite to the US proposal of <u>23x5 trading</u>. Volume will concentrate in a few large exchanges while hurting the smaller venues in Europe. The market shrinks because of protectionist policies that reduce **serendipity**. EU banning of payment for order flow in 2026 may follow the Australia and Singapore downward trends.

If the EU opts to depart from America's proven way for growth, they may as well adopt the 'order competition rule' that the US SEC had withdrawn. It is **not bad to be the "eBay"** running more periodic auctions throughout the day. EU traders are already accustomed to auctions running at different times. As long as Europe can preserve its good practice to have these auctions run mutually exclusive with the continuous market to avoid arbitrage. NOTE: the UK FCA does not need to align with the EU, particularly in the context of Systematic Internalizers and post-trade transparency reforms given the Brexit.



Exuberance 2: Rapid changes, now or never, first mover vs fast followers

Change has outpaced reflection in era of Generative AI. Yet, most of the A.I. talks are largely about automated intelligence in deploying data crawling agents and leveraging LLM to tackle information overload, rather than actionable insights powered by AI. LLM Neural Network black box, often consists of long-/short-memories for hidden Markov model. Reinforcement learning tends to overgeneralize. Trading is like a chess game involving multi-step planning and anticipating consequences. Self-attention and adversarial training mechanisms help improve context awareness. Select machine learning models that are robust to missing data and outliers, along with quant methods that can be trivially parallelized. "Bias" is an interesting topic, amidst different agent-based models having different tradeoffs between tractability versus realism.

A remark by US Vice President JD Vance, "A.I. must remain free from ideological bias, and that American A.I. will not be coopted into a tool for authoritarian censorship." China is certainly a fast follower in the development of Al. Massive government surveillance could be one of their priorities. Amid the EU Al Act is the world's first Al law, it failed to address the true Al risks. It regurgitates a mix of GRC, business continuity, resiliency, cybersecurity, privacy, and non-discriminatory tools as Al compliance is the wrong approach. The incapable manages the capable and only legitimizes cahoots' rent seeking behaviors. We are optimistic about the US - Al Action Plan, particularly because of this commendable US copyright and Al report. It strikes the appropriate balance in

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assessing the divergence between private rights and social costs.

Al molds people into couch potatoes and drives modern society towards the risk of **hyper optimization**. Do we want consistency and act rationally every time to undermine the humans' unique ability to think laterally and/or selectively forget about things? It is now or never to require Al to follow <u>Asimov's Three Laws</u> and <u>Zeroth (Forth) Law</u> to prevent downfall of humanity.



AI Risks = Downfall of Humanity

Exuberance 3: Disrupting or abiding to World Order in sharing economy

Al exacerbates the 21st century challenges. These include: a rebellious move by an insurgent with a war chest to orchestrate a market wide shake-up, and foreign adversaries wanting to erode the US's prominent market position. Countries get caught in between the crossfire of <u>currency and trade wars</u>. Protagonists in a game of hegemony fight and form alliances in controlling the flow of both information and physical goods. We help reduce the complexities of geopolitics into vital few metrics. Test out how policies and/or retaliatory actions between needle-movers could play-out before it happens.

Despite critics have accused President Trump of rocking the boat. Yet, the US fundamentals have no dramatic shift. Domestically, consumptions remain the key driver of US GDP growth. Tariffs' de-minimis impact on consumers is silenced by promised tax breaks under the Big Beautiful Bill and suppressed oil price to keep down inflation. Regarding foreign policies, it is not difficult to see that US diplomats continue a pragmatic approach if one has studied Henry Kissinger. 3 ways to pressurized situations in forcing others to come to the negotiation table - squeeze the dependence loudly (Ukraine), quietly choking the opponents (ethane in exchange for rare earth), and abominated if necessary. The establishment wants to have shocked effect on bystanders, so they will abide by their orders. Ideology may persuade citizens to believe one ideology is better than the others. Some find it unjust that the US consumes 25% of the world's resources while its population is about 4-5%. Foreign adversaries attempt to tarnish American ideology for their envy of the US advantages in achieving more with less. Their provocations fail because any ideology is the enemy of free will in the US long standing heritage.

Using Japan's <u>TONA rate</u> as a global hedge is quite effective. We like the initiative to develop <u>derivative</u> <u>markets</u>. Question whether <u>consumer savings</u> will pour into active investments in what financial products.

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Risk free benchmarks may no longer be the same if Japan, being the largest foreign holder of US Treasury followed by China, will massively sell off their positions. I doubt the materiality of that happening. If I were to play the role of China, I would set the Chinese exposure in US Treasury at a level that causes the US inflation rate consistently above the 2% target and create rivalry tensions. Whereas their \$41 billion plan to boost retail consumption, I believe the Chinese consumers would lean more towards savings in time of stress following the property crisis. Culturally, Asians behave differently than the broke-and-dashing style of many Americans.



Pragmatic >< Ideology

Exuberance 4: Broke and dashing to create / tokenize an asset mythology

Will World Order be based on well-founded <u>principles</u>? The trend appears that it will NOT. Japan being on time to comply with Basel III end game may put their banks at a disadvantage. The FSOC 2023 guidance will likely be rolled back while the 2019 nonbank oversight guidance will likely be restored in the US (see this). Opportunists will not abide by multilateral agreements when bilateral deals generate higher returns without compromising efficiency. **Mass customization** and shared services unleash tremendous values that traditional property rights frameworks struggle to capture.

When formal orders legitimize exploitations, informal sub-orders will emerge as a counter respond. Who owns the data or should FinTech be charged for customer data access? Consideration factors are: whether streamers are exploiting content creators with rent seeking behaviors; would aggregators opt for heightening prices to pass increased costs on consumers or restricting access to cause information asymmetry; and the uniqueness in derivative product creation. Timely usable contents must have fair access at reasonable cost to apply competitive pressure against proprietary products.

China's protectionist policy favors their own <u>CBDC</u> but has banned all cryptocurrencies transactions since 2021. How to <u>trust</u> when legitimate blockchain initiatives are mixed-in with illicit activities hiding under the guise of DeFi? When a vast percentage of American already have vested interest in crypto, how could there be efficient ways in **discerning and deterring** de-dollarization movements? The <u>GENIUS Act</u> is applaudable to ties stablecoin reserves to US Treasuries. TradFi establishments infuse trust into crypto ecosystem while a toll gate to profit or rent seek from flows passing through their infrastructures. Are digital asset portals akin to Stock Exchanges or Casinos? Without DeFi keeping

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TradFi intact, bureaucracy and barriers would be built and accumulated. We recommend a <u>stackable approach to create a 2-tier hierarchy.</u>



Concluding Remarks: Altruists cooperate selectively and the survival of the fittest

Intrinsic ambivalence of human nature - the coexistence of conflicting or opposing tendencies within an individual - presents a paradox when considered with <u>multilevel selection theory</u>. <u>Green-beard altruism</u> describes a form of selective cooperation. Imposters outnumber the Cowards. Altruism may only work in condition of collective majority. Sadly, Altruism and Green-beard altruism are first to become extinct in a **race for survival in the human evolution**. Hence, the US pragmatic approach helps ensure survival of the fittest, amid the controversies surrounding Realpolitik.



Chinese Diplomat - Wang Yi used characters from Martial Art fiction - The Smiling, Proud Wanderer to describe the Sino-US fights. Guessing he might allegedly demonize the US President as a strong opponent - Ren Woxing a.k.a. Walk diagonally, has strong power to suck up others' energies quickly for his own use. Whereas the character representing China - Feng Qingyang, a.k.a. the Breeze, is a lonely old sword man, whose Tai Chi swing redirects the opponent's force slowly to attack back (analogy to DeepSeek, knowledge distillation). The two characters did not end up destroying each other.

Ren Woxing was replaced but not killed by a rebellious villain - Dongfang Bubai, a.k.a. <u>The East Never Defeat</u>. I cannot guess who that may be. If this fiction is predicative of the future, then **the world** is **A-okay at least till 2028** before the emergence of an insurgent.

A <u>disclaimer</u> - "Past performance is NOT indicative of future results." Those who know laugh, those who do not know are scared - nonsense <u>babble</u> fills the air. Can A.I. empower everybody to strive for <u>self-actualization</u>? Everybody is an expert, nobody is an expert. Anybody can easily find and share information that proliferates Expert Syndrome. Somebody's endorsements are often reciprocal favors not equating to creditability. Bad <u>news</u> travels fast. Controversial noises are amplified. **LESS is MORE**. Emphasis should be placed on appreciating human ability to adapt and think independently, instead of always seeking more. Which **exuberance** factors are rational or <u>irrational</u> in driving asset prices higher than those assets fundamentals justify? <u>The answer is blowing in the wind</u>

About Us





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Kelvin To

Founder and President

Kelvin brings over 30 years of big data experience to FinTech innovations. His patented invention has earned him a nomination for the FinTech Person of the Year Award in 2015. In his prior career, he was VP at Broadridge, Functional Head at Citigroup, and Examiner at the Institute of Bankers. His proven successes include formulation of a 500+% growth model, products and e-

banking platform development, and led M&A research. He has spoken at various professional organizations. A current member of the European Commission's Data Expert Group and former Tech Advisory Council committee for the Financial Services Roundtable/ BITS (Banking Policy Institute). He holds an MSc degree in Banking from City University, a Master of Management from Macquarie, and a BSc degree from Bentley University.



Peter Martyn

Managing Partner

Peter is known by the Stock Exchange and Trading space for his track record of success and deep industry knowledge. He was a Managing Director/VP at NASDAQ, VP at NSX, and Chief Technology Officer at Quadriserv (an equity finance solution provider). During his 18 years of service at NASDAQ, he was responsible for multiple exchange trading systems, access services

and market data products. At NSX, he was responsible for Market Operations, FIX Support, product development and the FINRA/NSX Trade Reporting Facility. He has multiple patents, a BSc Degree in Computer Information Systems from Manhattan College, as well as substantial consulting experience in recent years and prior.

Data Boiler has patented inventions (US, Canada, Singapore, Japan, Europe, and recently approved in Australia). It is a crossover between Music and Trading in signal processing, trade analytics, machine learning, time-lock cryptography, etc. We commented quite a bit on regulatory policies. With over 12 years in business, we remain deeply passionate about the long-term development of capital markets.

Contact us at <u>info@databoiler.com</u> to learn more.

DEVELOPMENT OF AN ARTIFICIAL INTELLIGENCE (AI) ACTION PLAN

the Office of Science and Technology Policy (OSTP), the NITRD NCO requests input from all interestenent of an Artificial Intelligence (AI) Action Plan ("Plan"). This Plan, as directed by a Presidential Exeroscopy ("Standard of the Priority Policy actions needed to sustain and enhance America's AI dominatinecessarily burdensome requirements do not hamper private sector AI innovation.



