Future of Securities Services (FSS) 2023 Whitepaper

Points to note:

1. Trends need to be aligned to developments within the broader Capital Markets ecosystem that are **relevant for the Securities Services** industry.

2. Consider drivers of future growth for instance, arising from **new asset classes** (e.g., digital assets) and **new technologies**, impacting Securities Services.

3. **Global/regional/in-country nuances** need to be factored in as Securities Services markets operate worldwide, influenced by myriad geo-political considerations.

Link to the previous Whitepaper, published in 2020: Future of Securities Services - Publications- ISSA (issanet.org)

Topics:

Group A	Group B
✓ Shift into Digital and Alternative assets (partially started)	✓ Increased adoption of new technology
✓ Financial deepening and globalisation	✓ Industry disruption by Big Tech
✓ Increased data and associated use cases	✓ Emerging new risks
✓ Increased sourcing and partnerships	✓ Loose monetary and expansionary fiscal policy
✓ Uncertain regulation	

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Future of Securities Services - Framework

Trend: **Increased adoption of new technology**

		Sample provided below, please edit / add your inputs accordingly
1	**Relevance** Are the points mentioned in the previous paper relevant and are there any use cases?	*RPA, AI & ML are still relevant to the industry as many large players are in the midst of adoption to improve operational efficiencies. There has been a reduction in costs in certain areas of data processing using RPA, allowing large players to pass on the benefits to their clients, which has driven the overall industry margins to lower levels.* *APIs- - most firms are using them; they are not part of the infrastructure. But perhaps the standardization of them and their underlying data models has lagged.* *Cloud- - Most firms have a Cloud provider and are looking to share data and applications on their Cloud instance or on their clients' instances.* *Automation Tools - - There has been an increase in adoption and maturity of capability.* *DLT as a technology is still being debated across segments and there are barriers to adoption. However, with Digital Assets gaining traction and markets moving to shorter settlement cycles, in pursuit of harmonisation & transparency, industry adoption of DLT across the board looks realistic. While surveys indicate increased adoption, the big projects have not gone forward, with ASX discontinuing the DLT based CHESS replacement and HKEX's project having gone quiet. Some banks have successfully set up private blockchains for narrow purposes and specific use cases.*
2	**Correlation** Is there a link to other trends from the Whitepaper?	*Disruption by Big Tech in capital markets is still a potential challenge and risk to the incumbents. The extent of partnerships between the service providers and big tech firms mentioned in the paper is still relevant and could be explored further with additional data points.*
3	**Outliers** Are there any sub or underlying trends and have we critically examined them?	*The mention of technologies migrating from experimentation stage to adoption requiring significant investments – this needs additional analysis-to understand the longer-term benefits realized by the industry players.*
4	**Factuality** Are there any data points, visualizations, reference publications, to support the trend?	*There are no data points shared in the current paper examining outliers. Usage of new tech for improved client usability and benefits generating additional revenue to be analyzed.*
5	**Effectiveness** What predictions came true from the previous whitepaper and what has not?	*What have we seen: Adoption of Cloud infrastructure along with AI/ML framework already being implemented. Automated work-flow technologies (Alteryx, Xceptor) have been implemented for operational process automation.* *What is not considered: Development of APIs for data transfer and data warehousing was not mentioned. Investments on moving away from the existing monolithic platforms to new generation infrastructure are being considered but the scope for mutualization hasn't been investigated as such.*

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Future of Securities Services - Framework

Trend: **Increased adoption of new technology**

		Sample provided below, please edit / add your inputs accordingly
6	**Granularity** Have the opinions, arguments covered all key factors relevant for the time-horizon?	*A report by PwC on Capital Markets in 2030 highlights increasing investments in APAC markets and the move to compressed settlement cycles. These will require additional investments and adoption of new technology.*
7	**Time-Horizon** What's the time-horizon for the predictions, trends - 2030?	*Although there is no mention of a time-horizon for this theme, it seems to be implicitly short to medium term. Given the growing importance of the risks mentioned above, it could be applicable for the longer term too (>10 years), and if we further include all the other key risks.* *We should consider focusing on what the conditions are that will cause increased adoption, what problems the technologies need to address. For example, will faster settlements cause some of these technologies to be adopted throughout the industry?*
8	**Specificities** Are there any specific implications for Securities Services industry? [strategic, financial, operating model, technology stack, macro-economic, risk & regulatory]	*New technologies have the potential to disrupt the industry and impact all players impacting the overall revenue model & profitability by automating large sections of the operating model within the securities services. With the growth of additional regulatory reporting needs, the demand for automated workflow technologies, data ingestion and reporting is on the rise, which service providers need to address by adopting newer technologies within their technology stack. These and other new technologies have started down the adoption path but have moved much slower than we anticipated. The drivers are there, but many business people they see them as black boxes. Could it be that firms are still in the stage of looking for competitive advantage and are hesitant to work with other firms in the industry until after they have mastered the technologies themselves and used them to gain an advantage. Might they not be mature enough to invite industry standardization efforts? Perhaps firms even are prohibiting wide internal use of the technologies until the firm builds up expertise and understands all the risks and how to mitigate them. We have seen this with Cognitive AI applications like ChatGPT.*

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Future of Securities Services - Framework

Trend: **Industry Disruption by Big Tech**

		Sample provided below, please edit / add your inputs accordingly
1	**Relevance** Are the points mentioned in the previous paper relevant and are there any use cases?	*While Big Tech – Alphabet. Amazon, Apple, Meta and Microsoft (MAMAA) have had forays into financial services - Why Apple's Partnership With Goldman Is The Future Of Banking (forbes.com), they haven't cracked the institutional set up and at the other end we have front office platforms from Asset Managers and SaaS companies vying for a share of the wallet – BlackRock, Simcorp and others building solutions to tackle challenges faced by the middle office (IBOR-investment book of records) and the back office (ABOR - accounting book of records). The large Big Tech firms have not, on their own, made a dent in Capital markets or Securities Services. None have acquired a bank yet nor pursued a banking licence* The Big Tech firms are succeeding at increasing their revenue from the Capital Markets/financial services segment, without disrupting the industry, just as our asset classes may be changing to digital, so a very opportune time for them. Firms that own strategically valuable client relationships and data are in a good position to partner with Big Tech firms, gaining their capabilities to deliver innovations in digital asset classes. Our industry's revenue streams are changing and this time perhaps Big Tech firms will get a share of that through these partnerships. The incumbents prosper through these partnerships by getting to the changed/new revenue streams quicker and in the mature Custody of current asset classes business, by lowering their costs to sustain margins
2	**Correlation** Is there a link to other trends from the Whitepaper?	*Correlated to:* ***Increased adoption of new technology**: Securities Services players have been at the forefront of experimenting with AI, Blockchain, Cloud, Data models, etc.* ***Uncertain regulation**: Increasing data and technology localisation makes the role of custodians vital* ***Increased partnerships**: Securities Services firms have all tied up with Cloud services from Big Tech*
3	**Outliers** Are there any sub or underlying trends and have we critically examined them?	*Will DLT replace legacy technology?* *Will this be driven by the switch to digital assets?* *Will CSDs drive centralization i.e. do a CBDC for Securities?*
4	**Factuality** Are there any data points, visualizations, reference publications, to support the trend?	trv_2020_1-bigtech_implications_for_the_financial_sector.pdf (europa.eu) BigTech in Financial Services: Regulatory Approaches and Architecture (imf.org) R47104 (congress.gov) Finance's big tech problem | Financial Times (ft.com)
5	**Effectiveness** What predictions came true from the previous whitepaper and what has not?	*While the 2020 paper didn't predict a huge upheaval by Big Tech citing the regulatory barrier to entry, it did indicate two areas where the predictions were true:* *- Securities Services firms did indeed make the move along the value chain – State Street's acquisition of Charles River, BNY Mellon's partnerships with Aladdin, Bloomberg AIM, Simcorp Dimension.* *- Apple's move (mentioned above) confirms the move to retail first before an institutional foray.*

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Future of Securities Services - Framework

Trend: **Industry Disruption by Big Tech**

		Sample provided below, please edit / add your inputs accordingly
6	**Granularity** Have the opinions, arguments covered all key factors relevant for the time-horizon?	*We need to study not just Big Tech but FinTech, Large Asset Managers, Front-to-Back partnership models across a consortium as well as ICSDs to all disrupt different parts of the Securities Services ecosystem.* *Asset managers may also see an opportunity to build scalable platforms, aided by Big Tech capabilities, to provide front to back services for investors and even other asset managers through direct access to CSDs, possibly disintermediating some Securities Services firms.*
7	**Time-Horizon** What's the time-horizon for the predictions, trends - 2030?	*Big Tech will be a partner and unlikely to be a competitor. Co-opetition will be the order of the day and they will be the firmware on which the custodians depend to deliver services to their end clients.* *Front-to-back integrated models will be in place at large asset managers across the globe.*
8	**Specificities** Are there any specific implications for Securities Services industry? [strategic, financial, operating model, technology stack, macro-economic, risk & regulatory]	***Strategic**: Partnerships with Big Tech to continue – in fact, Securities Services firms will all be cloud native by the end of the decade.* ***Financial**: The high interest rate environment will assist Securities Services maintain the revenue arbitrage with Big Tech.* ***Operating Model**: Securities Services is a very global business spread thin and present in over 100+ markets, with a high level of operational footprint required. While Big Tech will capture at certain areas – data storage (cloud), deployment of new technologies (DLT, ML, RPA, cybersecurity, etc.) the managed services aspect of the business might not be attractive.* ***Technology**: Difficult to replace legacy tech unless the industry moves en masse to DLT.* ***Risk and Regulatory**: Client Asset Safety remains paramount and increasing de-globalisation adds regulatory barriers to entry for non-banks.*

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Future of Securities Services - Framework

Trend: **Emerging new risks**

		Sample provided below, please edit / add your inputs accordingly
1	**Relevance** Are the points mentioned in the previous paper relevant and are there any use cases?	*ESG and related risks are very relevant for the industry now, given that most of the firms and investors are looking at ESG risks for the investments and resultant decision making, it is expected to increase in the post-Covid era, as mentioned by the PwC article on 6 key challenges for financial institutions to deal with ESG risks. One use case that has become relevant now is ESG risk management, and this has taken a key role in many of the ESG conversations currently, including the ones which involve regulatory bodies. These are mainly focused on building an ESG risk assessment framework. This is one of the takeaways from a EY article on ESG risks. The ESG movement has in some cases slowed with elements of it under political attack.* *AI certainly presents new risks. The SEC Chair recently stated that AI could lead to a future financial crisis if many firms rely on the same model, which later turns out to have been flawed under certain conditions that then present themselves. AI also has the risk of using the technology for the wrong use cases (e.g., using ChatGPT as a search engine). There is a risk of AI technologies advancing without significant input by the Financial Industry. AI presents the risk of massive disinformation and the liability for that*
2	**Correlation** Is there a link to other trends from the Whitepaper?	*The mention of Covid-19 surfacing other risks could be a circular argument, given that a pandemic itself could be classified as a risk. Cybersecurity risks could also include other themes such as usage of data and adoption of new technology. The industry did not see the Pandemic coming, yet quickly coped with it and as a result has greatly increased resilience against many types of risk. Now the focus is on Third Party and Fourth Party Resilience. Geopolitical Risk is causing even more de-globalization, on top of the pullback caused by the supply chain risks that the Pandemic exposed. This included whether firms truly have control of their data in all jurisdictions they operate in. As a result, business models are changing, and it may slow down getting businesses started in many countries. The economics of serving global jurisdictions is changing for the worse. Firms' locations strategies that served to lower their costs are being re-evaluated due to lessons of the Pandemic and the war in Ukraine.* *It may take significant time to change supply chains to manage these risks. There may be balance sheet implications for the new geopolitical risks.*
3	**Outliers** Are there any sub or underlying trends and have we critically examined them?	*One of the sub-themes that can be explored is the importance of G in ESG. While there is urgency to look at the environmental and social aspects of ESG, having a strong governance is crucial to a long-term ESG strategy,*
4	**Factuality** Are there any data points, visualizations, reference publications, to support the trend?	*While the current paper does not include any data or research points as supporting evidence, it would have been stronger if there were some data points on the cybersecurity risks or ESG risks. For example, a post from IMF on the growing cyber risks on firms and the trigger calls for newer rules on ESG would be helpful as supporting evidence.*
5	**Effectiveness** What predictions came true from the previous whitepaper and what has not?	*What we have seen: Parts of the proposed cyber risk framework being implemented in many organizations, with more trainings on cybersecurity internally, certifications, focus on monitoring and compliance, etc.* *What the literature says: A McKinsey report says that organizations around the world spent $150 million on cybersecurity in 2021 and more organizations integrating ESG into their risk management framework.* *What is not considered: ESG related opportunities for the Capital Markets to kickstart the ESG journey.*

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Future of Securities Services - Framework

Trend: **Emerging new risks**

		Sample provided below, please edit / add your inputs accordingly
6	**Granularity** Have the opinions, arguments covered all key factors relevant for the time-horizon?	*Scope is limited to cyber and environmental risk in the whitepaper. We see the emergence of newer risks. For instance, we have geo-political risks, demographic risks and investment changes are some of the key risks to watch out for. A recent ESMA report on trends, risks and vulnerabilities mentions contagion, operation risks as high, followed by liquidity and market risk levels. Another report by PwC on Capital Markets in 2030 highlights geopolitical risks as endemic and one of the highest risk.*
7	**Time-Horizon** What's the time-horizon for the predictions, trends - 2030?	*Although there is no mention of a time-horizon for this theme, it seems to be implicitly short to medium term. Given the growing importance of the risks mentioned above, it could be applicable for the longer term too (>5 years), and if we further include all the other key risks.*
8	**Specificities** Are there any specific implications for Securities Services industry? [strategic, financial, operating model, technology stack, macro-economic, risk & regulatory]	*ESG is a key risk that is impacting all the players in the Securities Services industry. One key impact is ESG data governance, one of the growing requirements for banks given the changed regulatory and consumer needs. Furthermore, with growth of ESG-focused assets under management and related investing/funding, it also brings about challenges and changes the market and client requirements.* *Cyber threats in Capital Markets directly result on financial instability, with an impact to exchanges, regulators, market participants and clients.* *Pricing risk – there are asset classes that are now being made available to retail investors, that have a significant risk that they are overpriced. What happens if their valuations burst as transparency into their markets increases? The combined size of alternative investments is now actually larger than the entire mutual funds industry. Securities Servicing firms are providing services for asset classes that are opaque from a pricing perspective, providing prices to their clients based on transactions between a small group of buyers and sellers. This is driving regulators to react and limit growth in this area.*

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Future of Securities Services - Framework

Trend: **Loose monetary and expansionary fiscal policy**

		Sample provided below, please edit / add your inputs accordingly
1	**Relevance** Are the points mentioned in the previous paper relevant and are there any use cases?	*The paper predicts the direction of monetary policies set by Central Banks to be loose, which means that lower interest rates and even the continuation of negative interest rates in certain markets. However, post the pandemic, we have seen a spike in inflation, which has forced Central Banks to tighten their monetary policy. Interest rates currently are at the highest in 20 years, as mentioned by Morningstar's interest rate forecast. With regards to fiscal policy, the recent IMF fiscal policy monitor has highlighted that fiscal policies have been expansionary during the pandemic and slightly after but now show signs of returning to normal. During the pandemic, we saw governments suspending fiscal rules or modified policy responses but now we see a revisiting of the plans and framework, what is also termed as 'policy normalization'.* Back when we drafted the original FOSS paper, we were in a very low interest rate environment that was squeezing banks' interest income from balances and spreads and putting enormous pressure on firms to cut costs and find new revenue streams to sustain and grow margins. Is the new high interest rate environment now here to stay? Will it continue to drive good financials as banks can make more profits on balances?
2	**Correlation** Is there a link to other trends from the Whitepaper?	*While there is a mention of geopolitical uncertainties and the impact on market volatility and trading volumes, which points to emerging new risks, this impact could have been substantiated with more concrete correlation and included other macroeconomic impact. For example, the article by Schroders Wealth Management on measuring the impact of geopolitics on the markets highlights how geopolitical risks create uncertainty, which delays decision-makers from investing, consumers from spending and generally triggers a risk-averse reaction. These negatively impact stock valuations and economic activity. One way of measuring the impact is Geopolitical Risk Index (GPR) and the creators of this found that a higher risk indicator causes weaker economic activity and equity market returns. This trend can also be further explored, given the sustained geopolitical fragmentation (Ukraine war, US-China, etc) will in turn necessitate policymakers to respond.*
3	**Outliers** Are there any sub or underlying trends and have we critically examined them?	*One of the sub-themes that can be explored is the impact of other macroeconomic variables on the policy decisions. For example, we see from an IMF post on interest rates that the taming of inflation is a core objective of monetary policy decisions by many Central Banks. What might be critical to look at is whether this is a temporary or structural change.*
4	**Factuality** Are there any data points, visualizations, reference publications, to support the trend?	*While the current paper does not include any data or research points as supporting evidence, it would have been stronger if there were some data points on the trend and changes to monetary and fiscal policies, from IMF reports on the data trends or global economic prospects by World Bank Group.*

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Future of Securities Services - Framework

Trend: **Loose monetary and expansionary fiscal policy**

		Sample provided below, please edit / add your inputs accordingly
5	**Effectiveness** What predictions came true from the previous whitepaper and what has not?	*What we have seen: Instead of loose monetary and expansionary policy, it is the reverse that is taking place in the last few years to curb headline inflation and to reset from the pandemic.* *What the literature says: The fiscal policy monitor by IMF reports that globally fiscal deficits fell to 4.7% of the GDP in 2022, which is better than pandemic levels. It is however expected that governments continue efforts between rebuilding fiscal buffers and supporting stable macroeconomic indicators. Major economies such as the US and European markets still mention that the battle against inflation is yet to be won, giving hawkish signals.* *What is not considered: All policies have short-term and long-term goals, especially the macroeconomic policies that are subject to different variables. Also, both monetary and fiscal policy work hand in hand or can be implemented to soften the impact of the other, this can be considered too.*
6	**Granularity** Have the opinions, arguments covered all key factors relevant for the time-horizon?	*While the scope is limited to monetary and fiscal policy, the points mentioned do cover the general direction which the macroeconomic policy will head towards. What might be useful to cover is to unpack the factors that determine the prediction (example, short term headline inflation, fiscal deficit, long-term financial stability, investments, etc).*
7	**Time-Horizon** What's the time-horizon for the predictions, trends - 2030?	*Although there is no mention of a time-horizon for this theme, it seems to be implicitly short term. While it might be tough to see where the policies will change in the long-term, it would be good to give a baseline indicators of variables that every Central Bank or government will seek to tackle (macroeconomic goals, etc.). Also, predictions for the rate drives for example will also directly impact the interest rates. For example, this IMF report seeks to explore various scenarios of interest rates (based on the drives and historical rates).* *Is the new high interest rate environment now here to stay? Will it continue to drive good financials as banks can make more profits on balances?*
8	**Specificities** Are there any specific implications for Securities Services industry? [strategic, financial, operating model, technology stack, macro-economic, risk & regulatory]	*Macroeconomic policies have a direct and strong impact on the interest rates, exchange rates, investments and capital flows, all of which directly impact our business – Assets under Management, capital flows in and out of a country and retail investor activity. Furthermore, macroeconomic surprises do also have a strong and prevalent impact on investments and trading activity in the stock market as shown by the research on financial markets responding to surprises. The form of cash and its mobility is perhaps undergoing revolutionary change. If cash goes fully digital and clients can move it 365 x 24, they can manage their cash much more effectively and not leave excess cash at Securities Services firms. So, this time around in the business cycle, things may be very different with CBDCs and digital cash. Perhaps a Custodian's cash management services will not be required by many clients, though other existing and new services will be. Where will the deposit risk be in this new world?* *Partnerships that drive issuers of securities closer to the end investors in those securities may become very desired and valuable in the new digital asset ecosystem. All this can cause Securities Services to be more portable.* *The digital assets ecosystem may provide full transparency to issuers of who the beneficial owners are, much different from in traditional assets with omnibus accounts obscuring to the issuer who its common share owners are. Issuers will likely still need issuing/paying/transfer agents' services, perhaps even more so to take advantage of the new much greater transparency.*