Private Markets Digitization
The Institutional Handbook

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Introduction & Management Summary

The first priority of governments going into the Covid crisis was (rightly) the preservation of life, at the expense of the economy. Going out of the crisis will be about the economy.

Tens of thousands of private companies, the backbone of the economy, will need capital to survive. The model for raising private capital (equity or debt) is slow, manual, extremely inefficient, and non-scalable. **The "new normal" means the manual processes must go digital.** This transition was coming anyway, but this crisis means we have to act now.

Call to Action

In May 2020, an industry group, the Private Markets Digitization Steering Group, was formed under the umbrella of GDF to address the challenge posed by the Covid crisis. The group included **dozens of the leading financial institutions, market infrastructure players, major technology companies, Fintech startups and regulation experts**.

The group is working together towards the initial launch of a global institutional network to digitize private markets within 6-12 months.

The market opportunity - Digitizing private markets

$894 billion of new capital flowed into private markets in 2019 alone. Global private equity net asset value grew 7.5 times this century, twice as fast as public market capitalisation (and with 330X LESS liquidity), as companies stay private longer, and investors look for exposure and diversified participation in global growth.

However, unlike public markets, the management and trade of private securities has remained largely manual and local, and not gone through the digitization, systematization and automation that we have seen in the public markets. Therefore, other than the very high-end of assets, institutions lack the technology, business models and even the culture required to interact with their client base around most of the private markets.

Now that digitization is coming, institutions have the opportunity to dramatically scale the way they work with assets earlier in their life cycle. A typical CEO sees 50 investors in a round - financial institutions could put them in front of thousands of institutional investors. Tech companies are already entering this market and engaging companies "up the river", but they lack the scale and distribution that a global institutional network can mobilize.

An institution's CEO and C-suite reading this handbook, will gain a clear view of the path to institutional digitization of the private markets, the new digital business models, and the strategic opportunities for their organisation.

Focus.

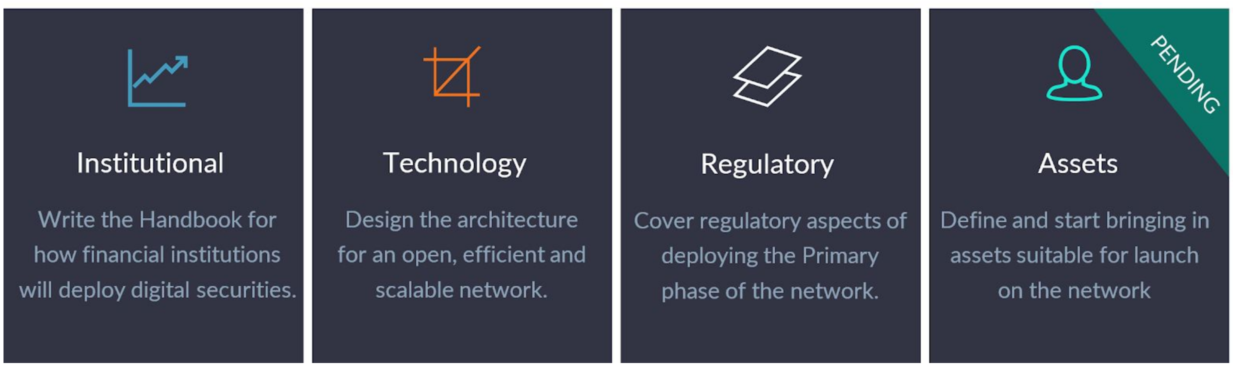
In trying to provide relief to a market suffering from an economic crisis, it is important to set achievable targets, and advance step by step, rather than try to “boil the ocean”.

Therefore, the GDF Private Markets steering group has put the focus on:

- **Private companies only.**
- **Raising from the institutional market (“Accredited and up”, not retail).**
- **Focus on primary capital raises only (secondary trading - phase 2).**

This Handbook

The Private Markets Digitization Steering Group created 4 work streams:



This document is the work of the **Institutional** work stream, describing the implementation of a digital securities network for institutions participating in the group.

It describes the vision for automating, systemizing and digitizing the global private markets on a shared network, which will be guided by the following principles

- A network open to all regulated institutions to bring in assets and investors.
- A network built on technical standards delivered through open Interfaces.
- A network that is multi-vendor and technology agnostic.

This will be an institutional network, where institutions can distribute assets to any investor across the globe (subject to regulation and distribution decisions).

This network is designed to reduce the time, costs and friction involved with private transactions, create a global online distribution market, and deliver new strategic business lines for institutions participating in the network.

At the end of each relevant chapter, this handbook details the opportunities for financial institutions to engage, and participate in the market.

The Private Markets in 2020

The world before COVID-19

At the start of the Covid-19 crisis, the Private Equity market had just completed its strongest six-year stretch in history with $3.2 trillion[1] in disclosed deal value. In 2019 alone, total private capital investment, including private equity, real estate, infrastructure and natural resources topped $894 billion. At the same time, Private Equity dry powder, or uncalled capital, hit a record high of $2.5 trillion. Two-thirds of this was raised in the last two years. That was all before a global pandemic changed the world in ways that we are only just starting to understand.

Impact on the Private Markets

Nobody really knows what the impact of Covid will be on the Private Markets. Looking at past economic shocks it is likely that there will be a short-term retreat from the recent period of high growth. Private Equity firms are currently focused on triaging clients and portfolios. However funds will not leave that uncalled capital unallocated for long.

One quality that both private equity investors and private companies have in common is their ability to adapt to changing circumstances with an agility that larger companies and listed funds lack. Many private companies have been put under financial stress by the pandemic. For some this has highlighted structural weaknesses that existed before the crisis. Many of those organisations may fail. For others they have been put under pressure through no fault of their own. They are fundamentally strong businesses that could be well placed to take advantage of the next growth cycle.

Certainly we face a unique set of circumstances. On a macro level we have entered a global economic crisis and many economies may slide from recession into depression. Against this backdrop investors are hoarding cash whilst private companies are adapting to the new reality and looking for financing to capitalise on new opportunities. But how well equipped is the financial services industry to bring this supply and demand together?

The process of raising capital in the private markets today is opaque, highly manual and inefficient. Due diligence is rarely mutualised; variances in regional regulatory requirements serve to isolate markets and there is no common network that can bring assets and investors together at a global level. On average a private company will only meet 50 potential investors as part of a funding round. These investors will invariably comprise contacts of the company, its bankers and immediate industry sector ecosystem. This inefficiency can be demonstrated in the contrast between the ease with which an

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[1] Bain & Company's 11th annual Global Private Equity Report

entrepreneur can raise capital in silicon valley based largely on an idea; whilst a revenue generating business in almost anywhere else can only dream of securing funding on such terms. The question is, can these inefficiencies and biases be overcome and will it happen now?

A Recipe for Disruption - Why now?

The Digital-led recovery from COVID-19

Who led the digital transformation of your company?

A) CEO
B) CTO
C) COVID-19 ✓

This was a popular meme that circulated on twitter early in the pandemic. It was popular because it also held a certain truth. The current crisis has accelerated digital adoption through necessity. However that transformation is now being sustained through an irreversible cultural change as society adapts to new ways of working in a virtual world.

We now understand that meetings can be held on line; that commuting is often unproductive and international travel is inefficient. Indeed many have discovered the benefits of the Zoom Effect - that virtual working facilitates collaboration between global parties that may not have met before the crisis; that new introductions are easier to arrange on a video call and that reliance on physical meetings limits business opportunities to local environments and cultures.

These benefits are equally applicable to the process of raising capital. Why should investors only come from a limited personal contact network in a local country? Why embark on expensive investor roadshows when those can be taken online? Why go public when a global private markets network can target the types of investors you are looking for in a much more efficient way?

The Vision of Digital Securities

Over the last five years the blockchain technology that was made famous by bitcoin has been adapted to meet the needs of new applications in various industry sectors. Arguably one of the most transformational of these will be digital securities. Digital Securities, as the name suggests, are digital representations of conventional financial securities, subject to traditional securities laws and regulations but in digital form.

The benefits of digital securities are immense. They can represent all types of assets including equity, debt, investment contracts and even a fractionalized interest in a physical asset such as a hotel or a wind farm.

The foundation of a digital securities network is a blockchain, or distributed ledger technology (DLT) network, that can track, audit and assert the record of ownership of assets through an immutable ledger that cannot be tampered with. Designed correctly such a network can automate a share registry; ensure regulatory compliance across multiple jurisdictions and manage the lifecycle of an asset from primary raise and custody through to secondary trading, clearing and settlement. Where a process cannot be fully automated, it can be systematized so increasing efficiency and driving down costs.

The transformation of the existing public financial markets using digital securities will take many years to realise. However the technology can bring immediate benefits to the manual, low tech and inefficient world of private securities today.

Market Need

Inefficiencies in the private markets have always been there. Up until now the ability to address them has been constrained by technology, complex regulation, inertia, complacency and vested interests. However, these barriers are now been steadily peeled away:

- **Technology:** The technology now exists to deliver a private markets network
- **Regulation:** Over the last two years regulators have provide greater clarity on the treatment of digital securities in response to innovations in the public crypto-asset markets
- **Interia and complacency:** Local Private Markets networks have started to emerge, particularly in the US. They provide a platform for the growing number of companies who have decided not to go public. Investors are seeking out these platforms as alternative sources of investment in their portfolios that are less correlated to economic cycles in the public markets.
- **Vested interests:** The 'mystique' of investment banking is steadily eroding as companies find different avenues to raising capital. The value of good research, strong due diligence, effective risk management and trusted advice will always be there. However, inefficiencies in the process of deal making, evidenced by high margins and lack of distribution can be tackled.

This all comes at a time when thousands of private companies will all need financing due to the current economic crisis and investors are sitting on historically high-levels of unallocated capital.

The Vision of a Global Digital Securities Network

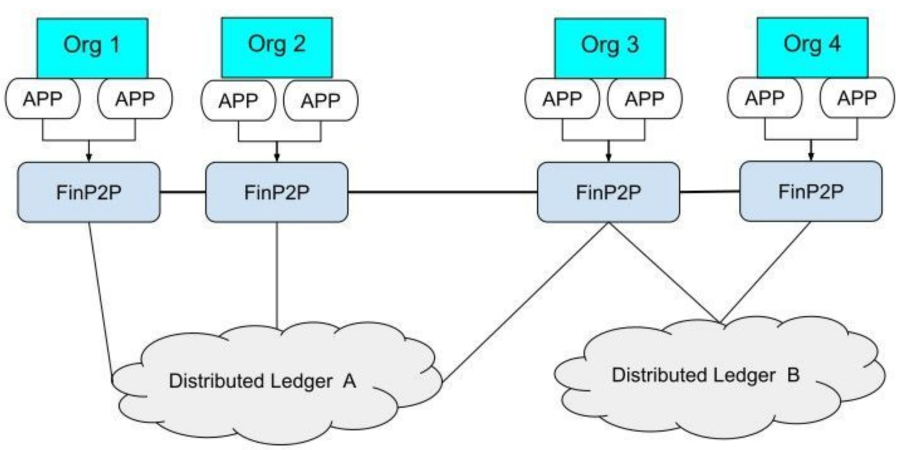
An Industry Collaboration.

Going into the crisis the financial ecosystem was already in the process of evaluating digital solutions for private securities. Nearly all major financial institutions are testing or exploring such private networks, and dozens of tech giants and startups are developing mostly incompatible tech for various layers of the stack. Everyone understands that without common rails it will be very difficult to scale a global market.

Sometimes a crisis is a catalyst to change, and with this initiative, the industry is taking this opportunity to look at creating a interconnected network which is:

- Open to all regulated institutions to bring in assets and investors.
- Multi-vendor.
- DLT/Blockchain technology agnostic.
- Based on open Interfaces.

A network, where every institution can connect to the same network (defined by the Technology group under the name FinP2P), where every institutional investor around the globe, can see and transact with every asset on the network (regardless which DLT it lives on), and with every other investors across the network (all, subject to regulation and distribution decisions by each institution).



The specifications for the FinP2P multi-blockchain network can be found [here]

Collaborating, yet fiercely competing.

A market cannot thrive without a strong business model for all participants. It is critical that all participants in the network will have a viable and attractive proposition for bringing in the assets, matching them with investors, and delivering the technologies and services around this new global digital marketplace.

The role of institutions in the network.

The strategic roles of institutions on the network will be to:

- Run the network nodes.
- Bring companies to the network to raise capital.
- Bring investors to the network to invest in the companies.
- Provide various services, such as facilitate instant delivery for payment.

This document will describe each of these roles in more detail, as well as the high level business models behind them.

Private Capital Markets - Digitizing the Market

The main issues with current private capital markets largely fall into 6 buckets. In each of the buckets, we will define the pain, the cure, and the role of an institution joining the new digital market.

No standard due diligence materials or structured data.	No network effect. Investor access via personal connections.	Complex, non-standard legal docs. Global regulatory friction.
Manual management of investors and transaction.	Near zero liquidity potential for years. Trillions stuck in assets.	No business model for financial institutions to engage most deals.

A sample network use case

To demonstrate the target of the network, here is a simple use case (used also by the Technical work stream defining the technology), which demonstrates a scenario of how the network would operate.

This is the use case of a space exploration company, raising a primary private round.

BlueSky Raising Capital through Bank US

- BlueSky Space, a private company, wants to raise capital.
- Bob, BlueSky's CEO, contracts with his investment bank, BankUS to distribute the company on the network.
- BankUS:
    - Registers BlueSky on the network, and uploads its KYA (Know your Asset) docs, such as a placement memorandum.
    - BankUS sets up the regulatory requirements for the raise (Reg D 506c).
    - BankUS authorizes other banks on the network to participate in the round.

BR Capital Investing through Bank UK

- BR Capital is a client of BankUK (already verified for KYC/AML, Accreditation).
- Alice, Managing Partner of BR Capital, logs into her BankUK dashboard looking for Space sector opportunities, where she finds and explores BlueSky.
- Alice decides to invest $10m in BlueSky, and makes the investment:
    - Transaction is verified by BankUS's node for compliance.
    - Transaction **settles instantly**.
- Alice now has $10m in BlueSky shares on her BankUK dashboard.

BlueSky Receives the Capital

- BlueSky's CEO, Bob, receives a notification, and opens his BankUS mobile app.
- He can see the updated cap table, including BR Capital's shares, value of $10m.
- His bank account now shows an additional $10m (minus fees).

Business model

- Bank US received its fees for managing the asset.
- Bank UK received its fees for bringing the investor.

The target of the network, as described in this simplified use case, is to tackle the 6 pain buckets.

Standard Due Diligence.

Standard due diligence materials with structured data.

The Pain:

Unlike in the public markets, there are no legal requirements or market standards for what information must be provided by private companies. Every company creates its own materials in a different way, and provides different documents for due diligence. This is painful for the company, as different investors ask for more information separately, and painful for investors as they have to educate companies of their information needs.

Moreover, company data is not structured in any repository, so it's hard for institutional investors to identify the companies that may match their investment criteria across global markets..

There is also a potential issue of trust (especially given current travel restrictions), making sure the information provided is valid, consistent for different investors, does not materially change during the process without investors being updated, and so on.

An even bigger problem, is that in private markets, due diligence materials are only available for primary capital raises, but then, (unlike in secondary public markets), companies have no official disclosure and update requirements, which is one of the key reasons there is no vibrant secondary private market trade (more on that below).

The Cure:

Standardisation: We would be looking to publish over time the basic requirements from a private company going onto the network. The must-have and the nice-to-have in a company's private raise documents. These documents will be referred to as the asset's KYA (Know your Asset) documents.

Harmonisation: We will also enable companies to provide Structured Data to the network, so that potential investors can scan and search the market more efficiently at scale (across thousands of companies). In addition, in future, structured data will enable the creation of indexes, buckets and derivatives ("go long on growth Solar Power companies").

Reputation: Each asset will be brought onto the network by ONE institution. This institution will be known as the asset's Primary node. An institution's reputation on the network will be dependent on the quality of the assets they bring to market. To maintain reputation in the network, each institution will have distribution control over:

- Who sees their assets (where on the network they are distributed)
- Which assets their own clients see (which assets from other institutions are enabled)

Immutability: The KYA for each asset will be made immutable, on the network, so that changes and updates can be made in a transparent manner, and with all change-history tracked and kept on record.

Secondary market: This is out of scope for the first phase of this network, however, we are looking for self-governed industry standards, which are not too onerous on the companies (like the requirements from public companies), but are enough to provide the data required for potential secondary investors. This balance has to be discussed, and may vary across asset classes and life cycle stages, and there are some examples and best practices in the market.

Potential roles for your institution in the network:

1. Bring quality private companies onto the network.
2. Work with your companies to provide quality Know Your Asset documents.
3. Provide an interface (directly or via 3rd parties) for the companies to manage their capital raise on the network.

Network Effect

A global digital network reaching investors across financial institutions.

The Pain:

The current model for meeting investors in the private market is mostly based on **personal relationship networks**. These networks tend to be localized, limited, dependent on “who the CEO knows directly or via one hop”, and therefore suffer from inefficiencies and biases.

The very large companies can go public and meet **millions** of investors. The very small companies can go crowdfunding and meet **thousands** of investors. But both these options are very limited in terms of launch capacity and suitability.

The vast majority of private companies approach investors directly. A typical raise takes 3-6 months, in which management would pitch 30-50 investors. The mirror view is that only 50 investors (out of potentially thousands of suitable investors globally) get exposure to the average company.

It’s not that the current model doesn’t work - companies obviously do raise capital and the top funds may fight to maintain the status quo, it’s that the market as a whole is **inefficient**, **not optimized** and reaching its **scalability limitations** (especially during an economic crisis) as much more capital is looking for private allocation, and company creation through technological innovation is at an all times high.

The institutional financial industry is currently playing only a small part in this market (see business model pain below), but it now has the opportunity to bring true efficiency and scale through a much more **elastic** market - where the exposure and distribution a company gets will correlate to its core parameters, potential, and risk profile.

The Cure:

Technically, the “ideal” scenario, the most theoretically efficient market possible, is a global network, on which every private company will have the ability to present to every suitable institutional investor, and every institutional investor will have the option to look through a pool of all relevant companies, and where ticket size and pricing will reflect that market efficiency.

This initiative can enable such a structure. Then, on top of the “ideal” market model, we can layer the real world limitations of regulations, distribution and business decisions, as well as smart tools for both the companies and investors - so that we can maximize the market potential for growth.

The resulting elastic and digital market, will create a network effect - and will end up with companies distributed across the entire long-tail spectrum. Some companies will still prefer to continue engaging only top investors (and only enjoy the network's operational efficiency gains), while for many companies, it will be an opportunity to optimize their funding process against a significantly larger investor base and capital pools.

Potential roles for your institution in the network:

1. Bring institutional investors ("Accredited" and above).

2. Provide an interface (new, or added to their existing dashboards) for your investors to manage their private asset portfolios, and evaluate and search for new opportunities.

Legal and Regulatory

Simplified legal, Automated regulation compliance.

The Pain:

Legal: today, every private company creates its own documents for every round. There are then multiple negotiations per round with various lawyers from all sides, each bringing their own unique agendas and idosyncronities into the process. This leads to complicated ownership structures, which often limit future rounds and secondary liquidity potential.

These structures are often the result of the stronger side's ability to exert pressure (usually the investor, and especially in a crisis). In contrast, public market shares offer clear cut rights to investors, and are therefore much easier to transact. The negative results of this inefficient legal private deals process are measured in costs, time, lost deals, "time bombs" for future rounds, and complicated / non-liquid structures.

Regulatory: Regulatory issues mostly affect cross-border transactions, especially in secondary markets. The regulatory knowledge required to put such deals together is complicated and often unclear ("ask 3 lawyers, get 3 answers"). In practice - regulation is a major barrier for the already difficult process of international private transactions.

The Cure:

Legal: Standardise. Get closer to the public model - develop core templates for the definition of digital-security holder rights, where a company can, with the advice of its institutional partner and its lawyers, choose and publish the terms of the round. A company will still have the ability to negotiate agreements with leading or strategic investors, but as far as the digital security legal agreements - those will be published in the company's KYA. The advantages - one time effort, template based, same rules for all investors, which would open the optionality of frictionless liquidity.

Regulation: Artificial Intelligence! The market has already demonstrated the technology to apply regulation enforcement code (smart contracts, apps etc) to verify every action and transactions against all regulation combinations. The advantage - make international private market trading instant and frictionless. Using AI to streamline regulations can be a very valuable win for a global network.

Potential roles for your institution in the network:

1. Have your legal team review and approve the legal and regulatory measures provided by the network.

2. Work with your companies to adapt to the best legal and regulatory practices published by network members.

3. Offer regulatory compliance services to your clients.

Transactions and investor management

The Pain:

Transactions across the private market are today managed manually. This is a slow, costly, error-prone and non-scalable process. It is less of a problem for a 5-investors transaction, but becomes an operational and scalability issue for 100+ investor transaction.

Cap table management is either done on spreadsheets, or via specialized services companies (where cap table management and auxiliary services are automated). In all of these options - updates and changes to the actual ownership following transactions, are still manual, and error prone.

In addition, managing processes such as dividend distribution, voting, and investor disclosures can be cumbersome, and inefficient.

The Cure:

The network will manage a live cap table for each company, where transactions are **instant, direct between the two sides to the transaction, including instant delivery vs payment, with minimal counterparty risk, and with instant finality.**

In fact, the proposed network is likely to leapfrog the operational and financial efficiency of transactions in most public markets, as a result of utilizing shared ledgers via DLT technology with instant settlement.

The basic information required to manage cap tables will then be available from the networks via an API, and so it can be easily pulled into a variety of 3rd party cap management service companies.

In addition, payment of dividends, can be simple and instant - and therefore may lead to a new set of business models based on the operational simplicity of paying investors.

It's important to note: Instant settlement requires the availability of representation of money digitally on the network, and the ability to move it between DLT accounts. This would be achieved in stages:

- Initially: automated escrow - which is available today, under existing regulations.
- Then, when available: stable coins or payment-on-chain (such as Fnality, Libra, JPM Coin or similar).
- Also when available: CBDC - Central Bank-issued Digital Currency.

Potential roles for your institution in the network:

1. Implement digital representation of money in account, to enable instant transactions (for your own client, or as service to the network).

2. Deploy various digital financing and ownership management services, such as custody, transfer agency, prime services, banking services etc.

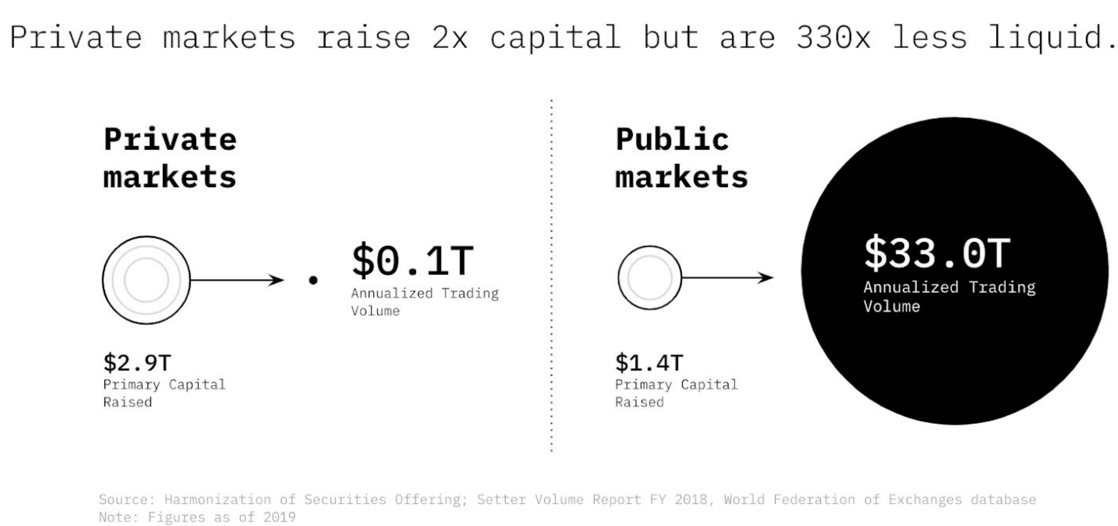
3. Optional: offer (own or 3rd party) cap table management solutions.

Secondary Trading

The Pain:

The vast majority of private assets are effectively illiquid. It is extremely hard to estimate the size of the asset supply that might be added to the market if frictionless trading and price elasticity would become available, because this has never been tested. The total value of private assets is in the hundreds of trillions, over $250 trillion in commercial real estate alone. This is not the scope of this initiative, but may be a future consequence of it.

Closer to this initiative, In the private companies space, there are a few trading venues that offer secondary liquidity, mostly in “unicorn” private companies, which could be demonstrating the potential, as well as the significant friction that is inherent to secondary liquidity in the market we have today.



Source: Tribe Capital

There are three main reasons why this market has so little liquidity:

- Inherently, many private assets are less attractive for trading (high risk). However, many also offer greater growth opportunities, or simply prefer not to go public. The real issue is lack of price elasticity. For example, an estimated 25-35% of private company stock is held by founders, management and early stage investors, many of whom would be happy to sell at least a portion of their holding at prices that take into account significant risk discount.

- Lack of information. Private companies don't have to, and usually also don't want to share too much information. This is where we need to find the right balance as discussed above in the due diligence section.
- Lack of a frictionless market. Until a digital network will be in place, there are very few trading venues for these assets, and the friction is prohibitive. These venues only cater for companies of a certain size, deals are often done via complex SPV structures rather than direct ownership of shares, there is very little price elasticity, transactions take days or weeks, and may not be final until ROFRs are checked, large minimum tickets. A digital securities market will streamline these processes dramatically.

The Cure:

The first phase of this initiative is about Primary raises rather than secondary. That said, several participants in the steering group are in various stages of obtaining the required licenses to engage in digital securities trading (over the counter, ATSs, full exchanges).

The network is designed by the group to support future secondary trading, including instant settlement.

As in other pain points described in this handbook, the current market is very binary - a company is either Public and can trade frictionlessly, or is Private and effectively not tradable. Digitization provides the **price elasticity and frictionless distribution**, where some assets may trade more and others may still not trade at all, buyers and sellers from across the global network can name their price, and market players can index and bucket products to reduce risk and increase exposure and diversification.

Potential roles for your institution in the network:

1. If you are a licensed secondary market venue - offer secondary trading for the assets on the network. Given the right regulatory cover and distribution deals, you will (technically) have the ability to offer any asset on the network.

Business model

> New business models for market participants enabled by digitization.

The Pain:

The institutional financial industry does not currently have a viable model for engaging with most private companies below a certain size.

The cost side: the process for funding a company is slow, manual , and involves as much work, facetime and meetings for a mid-size deal as it would for a much larger deal (sometimes more). As a result, there is no scalable process in place for many institutions to engage with all but the largest companies.

The revenue side: the revenue potential for a smaller deal is dramatically smaller while the costs and effort are the same or more. On top of that, there is no prospect of a secondary market from which to generate additional services revenues throughout the lifetime of the asset.

As a result major financial institutions only have a business model for engaging with the very top end of the market. This leaves most of the market without the expertise and distribution capacity of the financial ecosystem - and the financial ecosystem is sitting (most of) this fast growing market out.

The Cure:

Cost side: through digitization, automatization and systematization, as well as the increased distribution from an interconnected global network - we expect a strategic reduction of costs per deal for financial institutions. The automatization of manual processes also means increased scalability,

Revenue side: As the network grows, so will the revenue opportunities for financial institutions from both sides of the equation:

- Bringing and distributing assets across the network
- Bringing in the client base to participate and invest.

Lifetime revenues: currently in the private market the only revenue potential for financial institutions is in the primary raise (no secondary). With the network, financial institutions may be able to continue to generate revenues for the lifetime of the assets, while enjoying the increase in transaction value as companies grow. Lifetime revenues can represent (over many years) as much as 3-10X the revenue potential compared to the revenues from just the primary raises.

Potential roles for your institution in the network:

1. Strategically automate, systemize, reduce costs and increase your private capital market activity to generate new revenues lines.

2. Generate new revenues from both private assets and your client base, on a global network, for many years of each asset's lifecycle.

3. Generate new revenues from digital financing and management services, such as custody, transfer agency, prime services, banking services etc.

4. Offer regulatory compliance services to your clients.

Conclusion

This document makes the case for digitising the private markets now. It has been written to brief executives, support a debate on the topic within major financial institutions, and offer a practical approach to deploying an institutional network within 6-12 months - in time to make an impact on the recovery of the market from the Covid-19 crisis.

It can be tempting to take a position that the private markets will not change; that the process of raising finance will continue the way it always has done - face to face meetings. Yet, automatisation and digitization offer such advantages, scalability and new business models, that the transition to digital has already begun. Recent history tells us that when any market starts moving to the online world, there is no way back, only forward. Fintechs are already embracing new digital opportunities, but most of them still lack the relationships, scale and distribution that this market demands.

The opportunity that exists right now is for the incumbent Financial Institutions to be proactive, work together, and take the private markets digital in a way that maintains strong client relationships and continues to add value to the financing process.

The Covid-19 crisis is the catalyst, the opportunity to help the economy, and on the way, to bring private capital markets to the 21st century.