



association of the
luxembourg fund industry

DIGITAL/FINTECH WHITE PAPER

DIGITAL FUND DISTRIBUTION: RECOMMENDATIONS FOR THE LUXEMBOURG FUND INDUSTRY



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Transforming Luxembourg into a digital fund hub

Luxembourg is the largest fund domicile centre in Europe, managing over EUR 4 trillion of assets on behalf of clients in more than 70 jurisdictions. The Luxembourg fund industry is mainly dedicated to fund administration, custody and transfer agency services, as well as compliance and risk management activities.

Today, the need to digitalise its services presents the industry with significant challenges. Investors' needs are rapidly changing. Investor expectations of service have changed, influenced by the plethora of user-friendly, easy to use applications that have been enabled via mobile phones, tablets and now also computers. With a generational transfer in wealth estimated at \$4 trillion occurring in the next two decades, fund managers need to really understand millennials, of the new tech-savvy generation, who require personalised experiences when investing. Robo-advisors have emerged, responding to these new client needs by offering automated portfolio management. Robo-advisors offer two-minute investor onboarding, real-time information on portfolio positions and "one-click" orders.

The digitalisation of asset management is taking place as a response not only to clients' needs but also due to the emergence of technologies such as distributed ledger technology (DLT), application programming interfaces (API), data analytics and automation. The European Commission is also encouraging innovation with directives such as the revised Payment Services Directive (PSD2).

In the current operating world, the industry is weighed down by paper, faxes and labour-intensive reconciliation work. As a consequence, costs are high and the operational model is not as flexible as is required by digital user interfaces and digital transformation in the broader sense.

Objective

The objective of this paper is to analyse the main challenges that the Luxembourg fund industry faces with respect to the digitalisation of asset management. In order to do so, we analyse the industry's current model, its challenges, the drivers towards digitalisation and its implications for asset managers and the related stakeholders in the fund value chain. In conclusion, we offer some recommendations to help the Luxembourg industry to embrace the digital revolution.

We would like to thank all those participating in our digital working groups for their dedication and very valuable input. In particular, we would like to thank KPMG Luxembourg for its support in the creation of this paper. We are very much looking forward to meeting you at the events we will be organising in the coming months. We hope that you find these recommendations interesting and useful.

ALFI, Association of the Luxembourg Fund Industry



Assets under management (AuM)

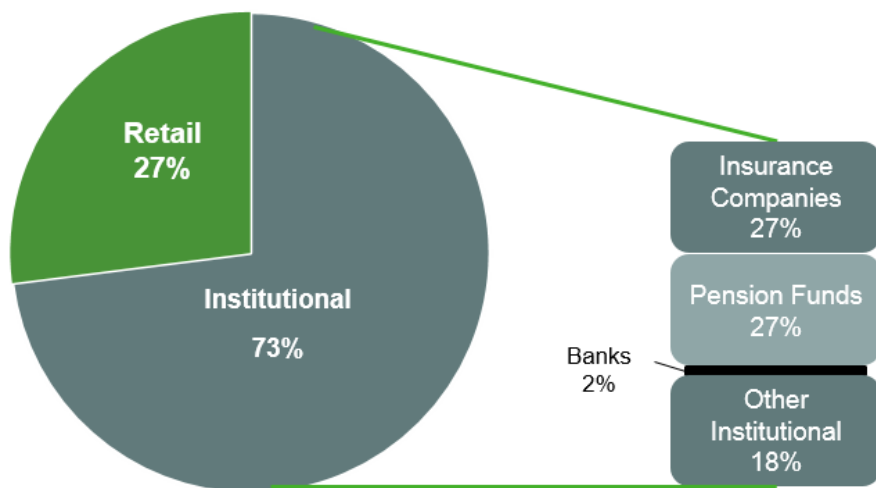
With about EUR 4.16 trillion in AuM¹, Luxembourg is the largest investment fund centre in Europe, and second in the world after the United States.

It is a global distribution hub, with funds distributed to more than 70 countries in Europe, Asia, Latin America and the Middle East². The processing of subscription and redemption orders are concentrated within the territory, as well as the maintenance of the fund register.

Retail investment market share

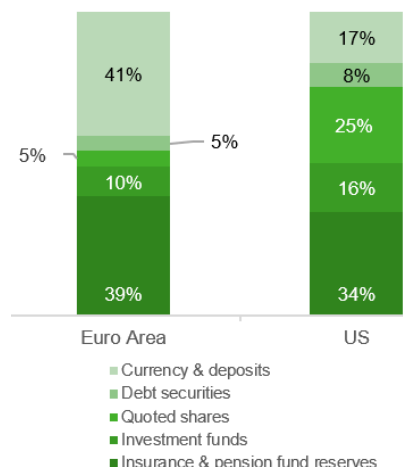
In Europe, AuM are mostly held by institutional clients such as insurance companies and pension funds. Retail clients account for only 27% of AuM in Europe³.

Repartition of European AuM



Source: Efama

Households' financial assets (share in total, end 2015)



Source: ECB, Efama

Share of retail investors invested into investment funds

European households account for 10% of the financial assets invested in investment funds. A large part of their assets (41%) are held in cash and deposits. In the United States, households invest in riskier assets (including funds) and have only 16% of their assets in cash and deposits. Decreasing European household exposition to cash by half would free up up to EUR 4 trillion⁴ for long-term investment products. This represents a significant and unexplored market segment for asset managers.

¹ ALFI

² KPMG

³ Efama

⁴ Mackay and ALFI

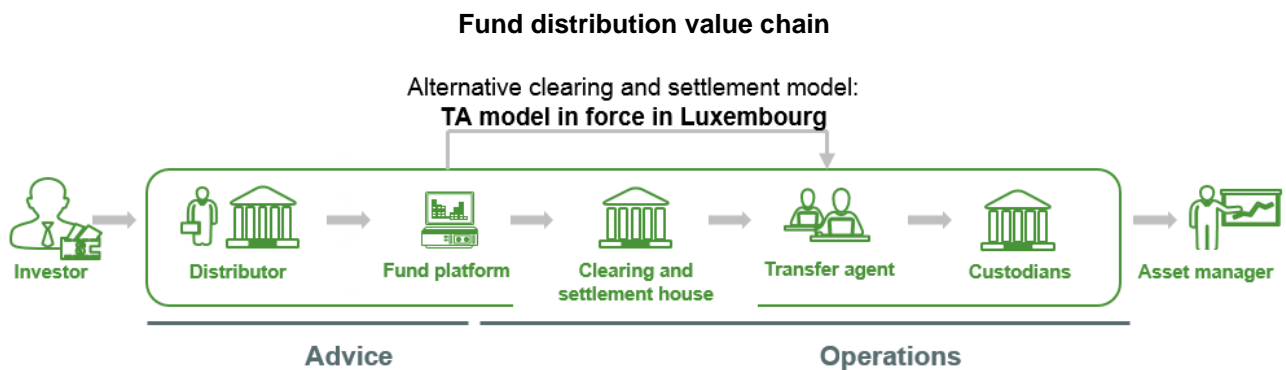
Fund distribution: current model

Value chain, actors and roles

The fund distribution value chain consists of various commercial and operational intermediaries. In Europe, asset managers mostly distribute funds based on a B2B2C (business-to-business-to-consumer) model via distributors such as banks, financial advisors and insurance companies.

Sometimes fund distribution platforms act as intermediaries between the asset manager and its distributors performing order routing and commission computation as well as other compliance and operational services.

Investor identification documentation is maintained at the distributor level, using a nominee account structure. For cost reasons, distributors aggregate investor orders before transmission to a platform or a transfer agent. As a result, most asset managers retain little or no information on their retail investor base.



Source: KPMG

Fund distribution: current model

Roles of the different actors in the current distribution model

Distributor	<ul style="list-style-type: none">▪ Perform AML/KYC checks▪ Advise investors on products▪ Sell products
Fund platform	<ul style="list-style-type: none">▪ Act as main distributor for a network of subdistributors▪ Compute and collect inducements▪ Sign and administer (sub)distribution agreements▪ Transmit fund documentation▪ Advise on fund selection▪ Order routing, clearing and settlement
Clearing and settlement house	<ul style="list-style-type: none">▪ Perform delivery vs payment: clearing and settlement transactions▪ Transfer cash and securities
Transfer agent	<ul style="list-style-type: none">▪ Perform AML/KYC checks on intermediaries or direct investors▪ Collect and valorise orders▪ Update the shareholder register▪ Perform corporate actions▪ Pay dividends
Custodian	<ul style="list-style-type: none">▪ Collect cash from investors and make payments▪ Perform reconciliations on TA orders▪ Safekeep fund assets▪ Perform oversight on fund flows
Asset manager	<ul style="list-style-type: none">▪ Invest cash received from investors▪ Risk management and compliance function▪ Develop new products

Source: KPMG

Fund distribution commercial model

B2B2C model

Asset managers mostly sell their fund shares to retail investors via fund distributors such as retail and private banks, insurers and independent financial advisors (IFA), following the B2B2C model. Under this model, distributors are remunerated by asset managers with commissions (also called inducements) that are embedded in the fees paid by investors.

Since the beginning of 2018, MiFID II partially or completely bans the inducements that distributors can receive, which fundamentally changes the economics of fund distribution. To our knowledge, no empirical study has yet been performed on the impact of the ban on inducement in continental Europe. However, it is expected that distributors will favour in-house products (via the captive distribution network) and significantly restrain the open architecture model. Asset managers without a captive distribution network will find it more difficult to gain access to final retail investors. In the private banking space, it may be difficult to justify the end of the open architecture model towards clients, and its impact may not be as important as in the retail space.

Fund distribution: current model

MiFID II also imposes greater transparency regarding fees from the investors' viewpoint. Upon client request, fees must now be broken down per payee.

D2C model

The D2C (direct-to-consumer) model is not as widespread in continental Europe as it is in the United States.

Several reasons can be cited:

Financial institutions such as banks or insurance companies retain the relationship with retail investors and remain the preferred investment advisors

- Asset manager brand awareness is low in the mass retail market
- Asset managers do not want to compete directly with their distribution partners
- Asset managers do not have the operational capacity to manage large volumes of accounts and transactions

Nevertheless, more and more asset managers are looking to distribute their funds directly to investors, aspiring to

- Develop better products that are aligned with the right client segment and meet the needs of individual client investors
- Achieve disintermediation by reducing the number of counterparties involved in the investment process. This will thereby reduce the cost of fund distribution, while providing better advice to clients
- Improve marketing, increase brand awareness and enhance the client experience while developing client loyalty and trust when buying funds

In the UK, where banks are not a predominant distribution channel and where a ban on inducement was already introduced in 2013 with the Retail Distribution Review (RDR), some asset managers have started selling funds via websites at lower costs. In continental Europe, it is still too soon to see an impact, but the ban on inducement may push independent asset managers to this model, since captive distribution networks will promote in-house products.

Fund distribution: current model

Distribution channels

In terms of distribution channels, Europe is characterised by its diversity and fragmentation. Types of distributor vary greatly from one country to another, with various local specificities. Overall, in continental Europe, banks are the main distribution channel. The following table gives an overview of the main distribution markets in Europe.

	<p>The UK market does not follow continental fund distribution practices. Institutional investors (most of them pension funds) represent 78.5% of AuM. Distribution to retail investors, representing the remaining 21.5%, is dominated by financial advisors. UK-based banks hold less than 25% of mutual fund distribution, which is mostly concentrated on the private banking segment. The market has experienced major transformations since the implementation of the RDR, a regulation that bans inducements, causing a drop in the number of financial advisors and an increase in online investment platforms.</p>
	<p>Germany is a highly fragmented market in terms of distributors' practices and regional variations. The country has a broad network of branches that distribute funds across states. Germany also has a significant number of financial advisors, due to low regulatory barriers to entering the market.</p>
	<p>In France, the mutual fund market consists mostly of institutional investors, for two main reasons. First, French companies make intensive use of money market funds to manage cash. Second, large amounts are invested in employee savings plans, the so-called <i>fonds commun de placement d'entreprise</i> or FCPE. Banks dominate the retail distribution channel with in-house products. Insurance companies are also an important distribution channel because they intensively use funds to package life insurance contracts (unit-linked products).</p>
	<p>Distribution in Switzerland is dominated by private banks. International investors constitute a strong customer base of investment funds. Switzerland has one of the lowest levels of D2C distribution. It is a high-end market where investors prefer to talk face to face with their private banker.</p>
	<p>Spain has the highest level of distribution by captive network. Spanish banks rarely have open architectures, even in the private banking segment. Spain hosts Allfunds Banks, the leading B2B fund platform. It is said to control between 60% and 70% of the distribution of international funds in Spain according to a local asset manager.</p>
	<p>In Scandinavia, Sweden has one of the highest percentages of mutual fund penetration of retail investors in Europe. Pension funds account for more than half of fund flows. Interestingly, the Swedish pension agency has a platform where citizens can invest into more than 850 funds as a means of retirement planning. This explains the high level of direct sales in the country.</p>

Source: Cerulli

Fund distribution: current model

Operational model for distribution

Like the commercial model, the market infrastructure for fund order processing (trading, share issuance, settlement, distribution and fund administration) is highly fragmented. Each country has its own model and specificities. Luxembourg-domiciled funds mostly rely on transfer agents who perform the following activities.

Investor and distributor onboarding

Onboarding includes AML/KYC checks and general information collection. Investors are required to fill out paper forms and submit them with their identification documents.

Once the information has been received, transfer agents run checks and revert to investors in case of missing documents. Individual names are then manually checked in reference databases, indicating whether the person is on a sanctions list.

Investors are classified in a risk category (low, medium, or high) based on the collected information. Based on the rating, the asset manager decides to accept or reject the investor.

Order processing and valorisation

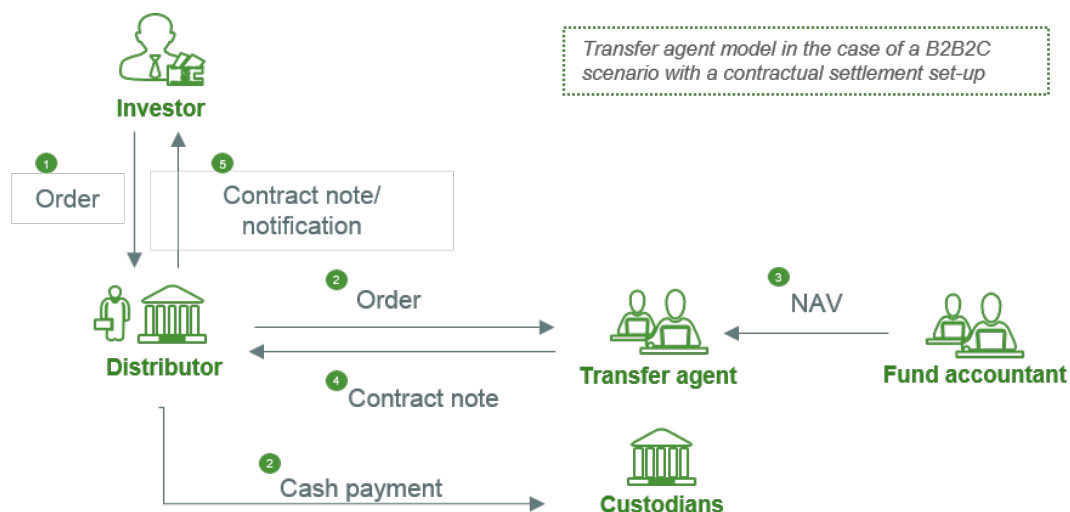
Transfer agents collect fund orders from various entities such as direct investors, distributors or fund platforms. Orders are captured in electronic form like SWIFT, files, and SFTP or in non-electronic form such as faxes, emails and phone calls.

In the case of non-electronic orders, operators must input them into their order management system. They are first validated on the basis of fund criteria (minimum amount, approved investors etc.). Next, orders are valorised with the fund net asset value (NAV). An important concept is that investors buy at an unknown price, with an order for a number of shares or an amount.

The NAV is computed by the fund accountant and defines the number of shares an investor will receive if the order was made for an amount. If the order was for a number of shares, the total order amount to be paid is computed.

Once the order has been valorised, the transfer agent sends a contract note to the investors as confirmation. Investors then transfer the cash to the transfer agent collection account in the case of a contractual settlement. In the case of cleared funds, the transfer agent only executes the order once the cash has been received.

Transfer agent model in Luxembourg (B2B2C)



Source: KPMG

Fund distribution: current model

The transfer agent must now perform reconciliation against the fund custodian positions (i.e. cash received vs orders). Entire teams are dedicated to this activity.

Register management and application of corporate actions

Transfer agents update the fund register with new orders and compute the total number of fund shares. They also carry out corporate actions voted by the fund board.

Reporting

After the cut-off, transfer agents send a cash flow report to the asset manager with all collected orders. This allows asset managers to anticipate large cash inflows and outflows.

Various reports are sent by transfer agents to investors, fund custodian, fund accountant and tax authorities.

Evolution of the transfer agent model

Transfer agents used to be the dominant players in the fund distribution game. As the fund market developed, shortcomings were increasingly revealed in transfer agents' ability to service investors and distributors, each with their different needs and operational requirements. There were operational deficits in open architecture and an inability to provide a "one-stop shop" solution.

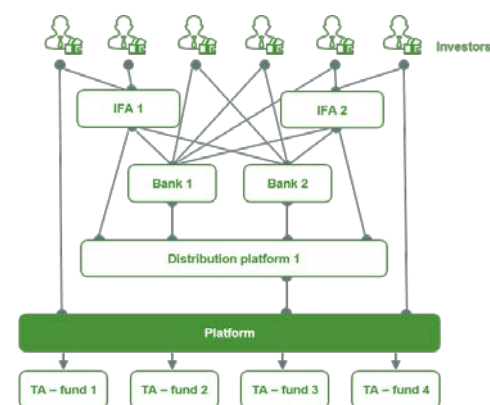
In the early 2000s, platforms emerged with new services for asset managers and distributors.

The development of platforms was the answer to an increasing need for distributors to outsource certain non-core activities that could be pooled, and for asset managers to find partners that help them manage the growing complexity of cross-border distribution. Platforms focus on distributors, offering commission computation and distribution agreement management.

The concept of the transfer agent is based on the B2B2C model. Transfer agents mostly deal with large institutional investors or distributors. Retail investors rarely interact with transfer agents, since they usually buy fund shares from distributors. Due to the current operational model, retail investors are a labour-intensive client segment (representing a large number of individuals with small investment amounts). Today, services performed by transfer agents are considered as a commodity and competition is based predominantly on price. Some actors however are developing added value services such as data analytics or support for digital distribution.

Most players are confronted with technical challenges as they develop these services. On the data analytics side, getting meaningful insights is difficult for transfer agents, as data is aggregated and the register is non-transparent. It can thus be challenging to draw conclusions about fund cash flows. On the digital distribution side, the integration of modern customer interfaces into legacy systems can cause problems.

Fund distribution platform model



Overview

The most important challenges in the asset management industry are achieving an effective operational model and the impact of regulations.

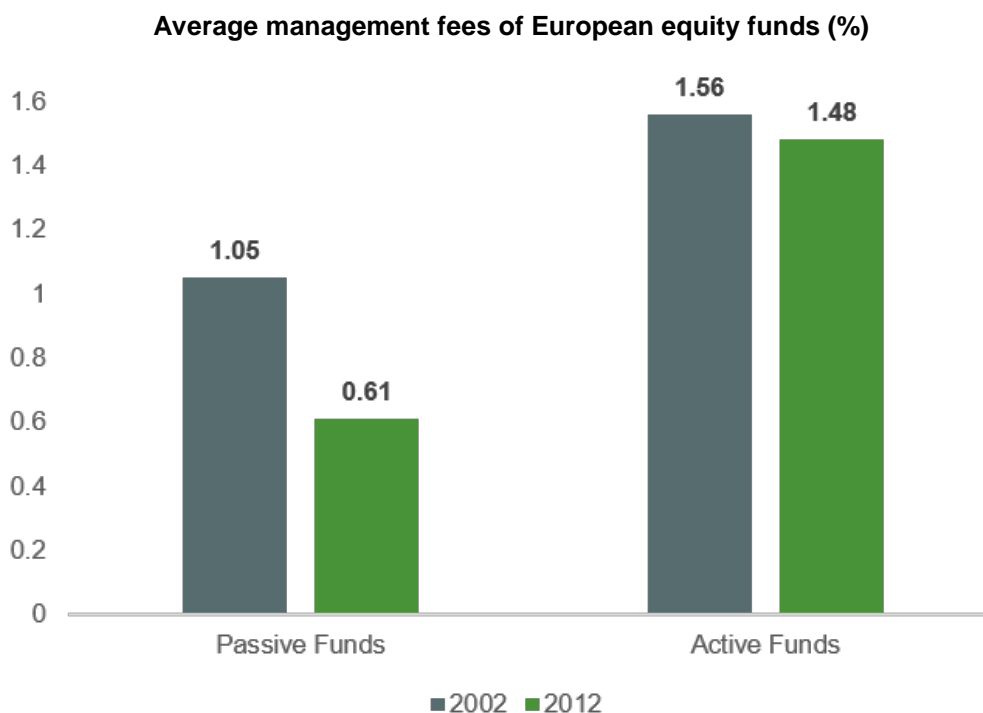
Investment fund fees under pressure

Actively managed funds face increasing competition from passive funds such as ETFs (mostly composed of funds replicating indexes or benchmarks). According to Morningstar, ETFs accounted for 7.5% of total AuM of European investment funds at the end of 2016. This represents a growth of 5% over the past five years.

These passive funds charge as low as 7 basis points to follow an index or benchmark⁵.

Regulators have investigated the fee model performed by actively managed funds and have raised questions on the corresponding value. Actively managed funds are delivering the same performance as their index of reference. Over a period of 15 years, the S&P Dow Jones Indices found that “92.15% of large-cap, 95.4% of mid-cap, and 93.21% of small-cap managers trailed their respective benchmarks”⁶.

As shown in the graph below, in Europe, the fund industry has seen its fees decrease since 2012. As such, asset managers are under significant margin pressure as costs have remained stable or even increased. The fee transparencies required by MiFID II will offer more information to investors and are likely to put additional downward pressure on fees.



Source: INSEAD OEE Data Services

⁵ Chris Chancellor and CFA Institute

⁶ S&P Dow Jones Indices, reference period 15 years ending December 2016

Current challenges for asset managers

Operational model

Overall, current operational models rely on manual interventions, which make them time-consuming and expensive. We have broken down the processes into client onboarding, account management and clearing and settlement of fund shares.

Investor onboarding

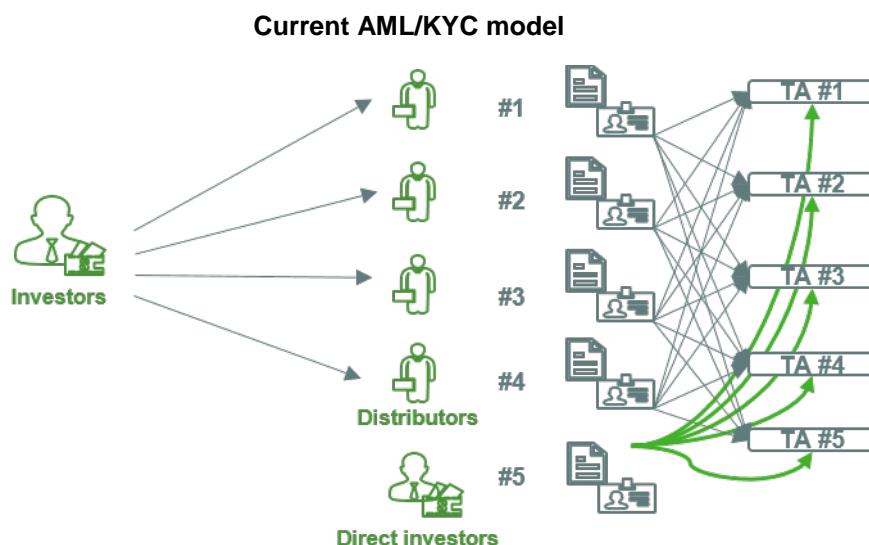
For most established distributors, bank or other, the onboarding process for fund investors is manual, lengthy and far from user-friendly. It requires clients to deal with a significant amount of paperwork, often in several stages, including collecting and providing numerous documents evidencing personal details as proof of identity, address, financial soundness etc.

Retail investors also have to complete a MiFID risk profile questionnaire that classifies them according to investment risk categories (e.g. conservative or aggressive). This questionnaire collects information on the investor investment horizon, personal and financial situation and examines investors' risk appetite for different investment scenarios. The goal is to ascertain the financial and market knowledge of the investor in order to propose the most appropriate product. The traditional questionnaire is long and can be hard to understand. In addition, it does not capture any behavioural bias on the part of the investors.

In the case of direct distribution, via a transfer agent, the onboarding process is likewise user-unfriendly and complex. Many transfer agents are not used to dealing directly with retail investors and have not invested in the process, let alone onboarding digitalisation.

In the case of a D2C offer, where an asset manager uses its transfer agent as a direct client contact, the current model is unlikely to be fit for purpose due to changing customer expectations as well as the operational inefficiency and risk inherent in the largely manual process which are a constraint on the business in terms of growth and costs.

Another issue is that AML/KYC checks are duplicated in the industry. As illustrated in the schema below, the same investor is checked several times by different transfer agents and distributors. This is a suboptimal use of resources that leads to customer frustration and can create barriers to acquiring clients. In addition, a (perceived) redundancy bears the risk of these imperative controls not being carried out with the appropriate rigour.



Source: KPMG

Current challenges for asset managers

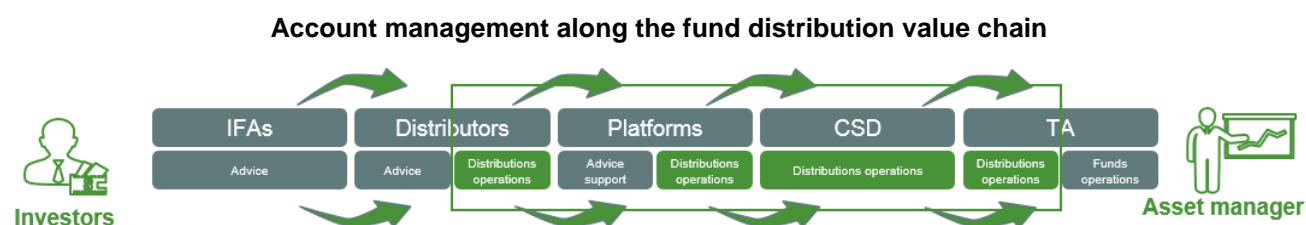
Account management

Retail investor positions in funds are aggregated at the distributor level and not visible to asset managers. This aggregation has the following consequences:

- Asset managers have insufficient information on their end investors, mostly limited to high-level investor categories. Few other industries are likely to have such poor knowledge of their clients.
- It is difficult for the industry to develop products that are based on investor profile and behaviour. As a consequence, fund managers develop funds that investors do not necessarily want, wasting resources and capital.
- Due to this lack of connection with end clients, asset managers have to perform oversight on the application of regulations touching end investors (AML, MiFID II) by their distributor. As a consequence, asset managers are incurring heavy oversight and due diligence costs of their distribution network.

Account management efforts are also duplicated throughout the value chain; each institution performs its own account management. Consequently, otherwise dispensable reconciliation efforts become necessary between value chain entities (e.g. distributor vs platform vs transfer agent). All this leads to high operational costs with low added value.

Finally, transfer agents are not able to manage large volumes of retail investor accounts should an asset manager want to launch a D2C solution. Under the current operational set-up, it would be too expensive to service such a high number of investor accounts (e.g. to carry out corporate actions). This is due to the fact that the Luxembourg market is used to dealing with aggregated positions from distributors and largely runs on legacy systems.



Source: Fundsquare, KPMG

Clearing and settlement of fund shares

There is a lack of harmonisation from an operational point of view on the clearing and settlement side. Each country has a specific operational model to which investors need to adapt, leading to a raised cost of distribution and sets barriers for European integration on cross-border fund distribution.

The high number of entities and duplication of processes in the value chain leads to significant delays in transaction processing.

The process still features a lot of redundant manual tasks, such as the exchange of data on cash flow, and the data required to perform reconciliations.

Finally, intensive reconciliation work needs to be performed between the fund order received by the transfer agent and the cash received by the custodian bank.

Current challenges for asset managers

Regulatory challenges

MiFID II

The MiFID II framework aims to create more efficient and robust market structures by improving investor protection and increasing transparency. The framework is expected to have a significant impact on asset managers and fund distributors.

The largest impact stems from the ban on inducements, i.e. commissions paid by the asset managers to distributors to sell their funds, received from independent advisors and distributors. Dependent advisors can still perceive inducements but must now justify their added value and be remunerated proportionally to this added value. This ban completely changes the current economic model behind fund distribution performed by distributors.

Some captive distribution networks (where the distributor is part of the same group as the asset manager) are replacing third-party products with in-house ones and closing the open architecture model for the mass retail market. In some cases, distributors that were previously not affiliated to a particular asset manager are setting up their own asset management subsidiary. This allows them to replace the former inducements with fund management fees.

The private banking channel will probably keep an open architecture model as wealthy clients have enough capital to select their own brands and compete less on lowering costs.

Independent asset managers that have no captive or in-house distribution network will likely lose some distributors and will have to find new distribution channels to reach final investors.

Asset managers will not be able to push products on the basis of high levels of inducements (that used to incentivise distributors to sell these products) but will need to develop other services for distributors around their products (e.g. advisory material to justify inducements for their dependent advisors).

In the past, passively managed investment products (i.e. ETFs) were not promoted by advisors due to the underlying low charges, which made retrocessions unaffordable. However, after MiFID II, passively managed investment products will most probably receive more attention from investors that would like to avoid advisory fees.

MiFID II also introduces new criteria at product level for client suitability assessments and client classification with respect to numerous parameters. This requires asset managers to exchange information on their funds' target markets in terms of investor risk profile with their distribution network. More documentation will be required to demonstrate due diligence which poses an additional burden on all counterparties in the finance and banking sector with additional cost and complexity.

GDPR

The General Data Protection Regulation (GDPR) has come into effect in 2018 and is intended to strengthen and unify data protection rules for all individuals within the EU.

Asset managers, fund distributors and fund administrators must also comply with the upcoming regulation and understand the extent to which they have to manage, process and control their clients' personal data. Information gathered for AML/KYC purposes typically includes data qualifying as personal information, such as name, date of birth, tax residence, employment, financial situation etc.

Currently much of the collection and management of client information is handled by transfer agents and fund distributors. Under GDPR, transfer agents, distributors and asset managers should work together to clearly define all processes related to data management, storage and use, as well as clarify the roles of data controller and processor. In that respect, clarifying the duties related to personal data management for each participant in the value chain of fund distribution is a major challenge that counterparties will face in the upcoming years.

Current challenges for asset managers

GDPR, among other things, requires the appointment of a data protection officer to monitor processes concerning personal data management and ensure compliance with the regulation. It is therefore expected that fund distributors, transfer agents and asset managers will have to appoint data protection officers and enhance the necessary tools to record and store client information properly. In this context, the clarification of the roles of data controller and data processor will also become a topic of intense discussion for the parties involved.

In case of non-compliance, GDPR imposes steep fines (from 10 to 20 million or 2% to 4% of annual worldwide turnover).

Compliance with GDPR implies a comprehensive analysis to locate personal data in asset manager and transfer agent systems and may require certain expenses to make sure that this data is processed in accordance with the regulation. Sign-off from customers is also required if providers are using their personal data for other purposes, such as data analytics, in order to avoid substantial fines from regulators.

Brand establishment

Due to the B2B2C model, retail investors have been exposed to, and are familiar with, big banking group names but less with those of independent asset managers.

In the light of the impact of MiFID II on the distribution value chain, some asset managers, mainly independent ones, are trying to make themselves better known in the retail space. They use targeted advertisements in locations such as airports, ski resorts, the underground or on social media.

The cost of acquiring a retail client in the investment space is quite high and needs compensation by high levels of AuM. As an example, we see slow AuM progression for newly launched robo-advisors.

For independent asset managers, selling directly to end investors without going through a distribution network is not a straightforward task.

Robo-advisors

Robo-advisors can be defined as online platforms providing algorithm-driven asset allocation and financial planning services.

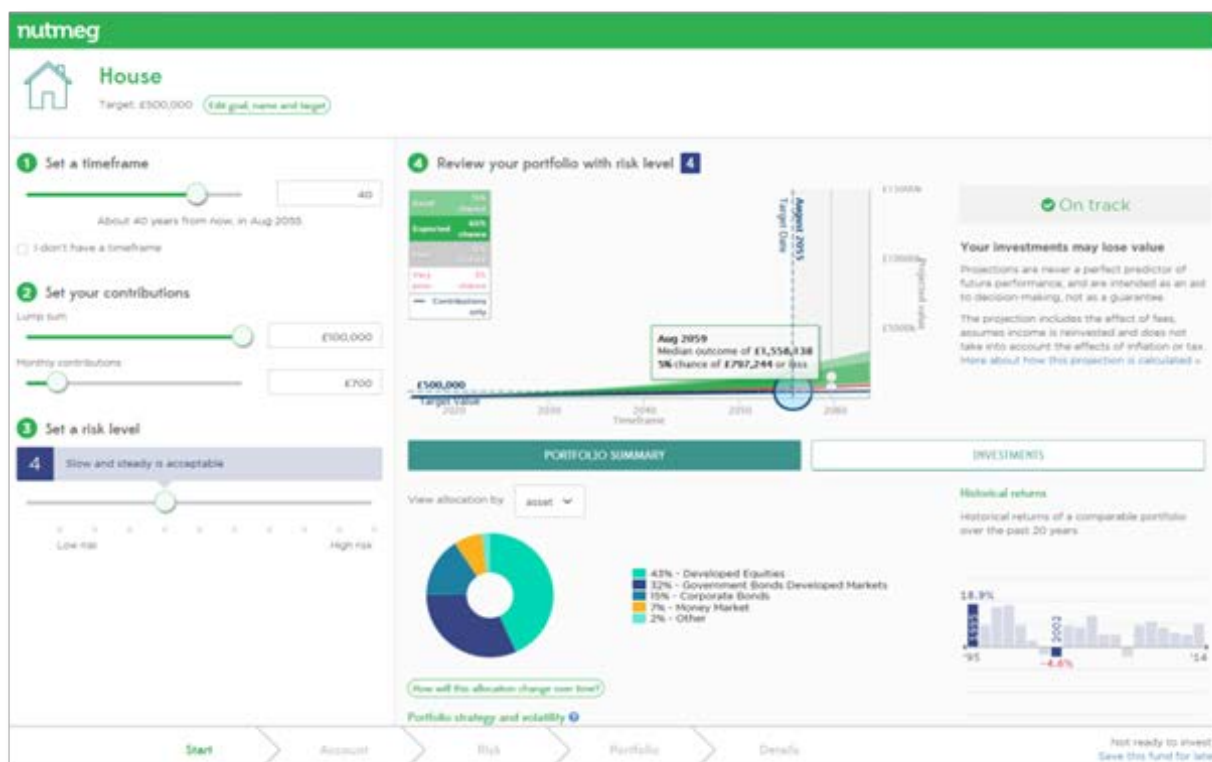
Investors provide identification and personal information online, as well as their financial situation, investment goals and horizon. This allows the platform to perform basic AML/KYC checks and to define the investor's risk profile.

In some cases, robo-advisors can aggregate accounts by gathering information on customers' cash and securities holdings from different websites and present information to end users in a consolidated format. In that way, investors gain an insightful holistic view of their wealth. More importantly, it allows the robo-advisor to consider the current wealth situation when performing asset allocation and to further diversify risk. Robo-advisors differ in terms of algorithmic structures, investment strategies and trading practices. Algorithms can build simple portfolios or complex multi-strategy structures that analyse a plethora of instruments and scenarios in order to put together and suggest a portfolio based on holdings, risk tolerance and investment horizon. During the onboarding process, investors respond to questions which feed the algorithmic model which then provides tailor-made solutions in limited time and with lower costs.

Another significant advantage of robo-advisors is the ability to interact with the platform 24/7, allowing investors to access and retrieve important financial information as well as enhance their financial knowledge with the available material. Many platforms provide extensive market information.

Some robo-advisors have a D2C approach. Others have chosen a B2B strategy, providing robo-advice tools that can be used, in a white-labelled solution, by established advisors and financial institutions for their client pool.

Example of robo-advisor interface



Source: Nutmeg

Digital investing

Benefits

Robo-advisors offer considerable advantages in comparison to traditional advisory services:

- Democratisation of advice for investors lacking sufficient capital to benefit from private banking services or a dedicated financial advisor
- Dynamic portfolio allocation based on market circumstances
- Increased portfolio diversification thanks to the use of funds, mostly ETFs
- Customer experience enhancement through web and mobile applications

Different types of solutions

Robo-advisor models may vary between:

- **Investment advice only**, where firms provide asset allocation models and a selection of securities, primarily ETFs, that best match the investor's risk preference, time horizon and goals
- **Diversified ETFs portfolios only**, including periodic, but limited, portfolio rebalancing

Almost all robo-advisors propose to wrap portfolio management in a tax-friendly envelope (e.g. ISA in the UK, PEA or *assurance vie* in France).

In Europe, several platforms have been developed to offer instrument order reception and transmission in relation to one or more financial instruments, order execution on behalf of clients, portfolio management and investment advice. Robo-advice is expected to facilitate the commercialisation of the D2C model which will cater to cross-border and middle- or low-wealth investors, thanks to the availability of low-minimum and low-cost portfolios.

Robo-advisors have the potential to provide customised tools to retail and institutional investors as well as other professional investment advisors. They can radically reduce portfolio management costs by employing automated investment strategies eliminating biases of human behaviour. Digital advisors will be able to attract additional investors in different jurisdictions thus increasing the AuM.

Robo-advisors have already been in the market for a few years, but their usage by both emerging and well-established asset managers is expected to increase in the future. Their adoption will cause a major shift in the commercial strategy, allowing market players to offer more refined investment services at lower costs.

Challenges for robo-advisors

Robo-advisors are helping to drive down operating costs in the industry. At the same time, they have to integrate their digital interfaces and allocation engines to legacy account management and operating systems.

It is challenging for robo-advisors to find providers that offer cost-effective solutions. In other European countries, providers offer services to robo-advisors at low cost. In Luxembourg, asset servicers that usually perform this type of function do not tend to robo-advisors as their cost structure is not adapted to high volumes of retail accounts.

E-distribution of funds

Existing solutions

E-distribution or the sales of fund shares online is already in place at most retail banks via their online banking interfaces. Investor guidance and online advice is however generally limited.

This lack of information and advice creates impediments to entry and keeps banking clients away from investment funds.

New concepts

In recent years, some asset managers have started to sell their products directly to investors in the UK, the Netherlands, Germany and Italy.

They are offering more comprehensive products and goal-based investing, catering mainly to retail investors who may be confused by the variety of investment products and simply want to achieve a financial goal for a future transaction (e.g. buy a car, pay for college fees, buy a house) or retirement.

Online platforms have emerged to provide comprehensive investment solution with investment funds.

These platforms are becoming particularly popular in the UK, as they offer understandable investment solutions at lower costs.

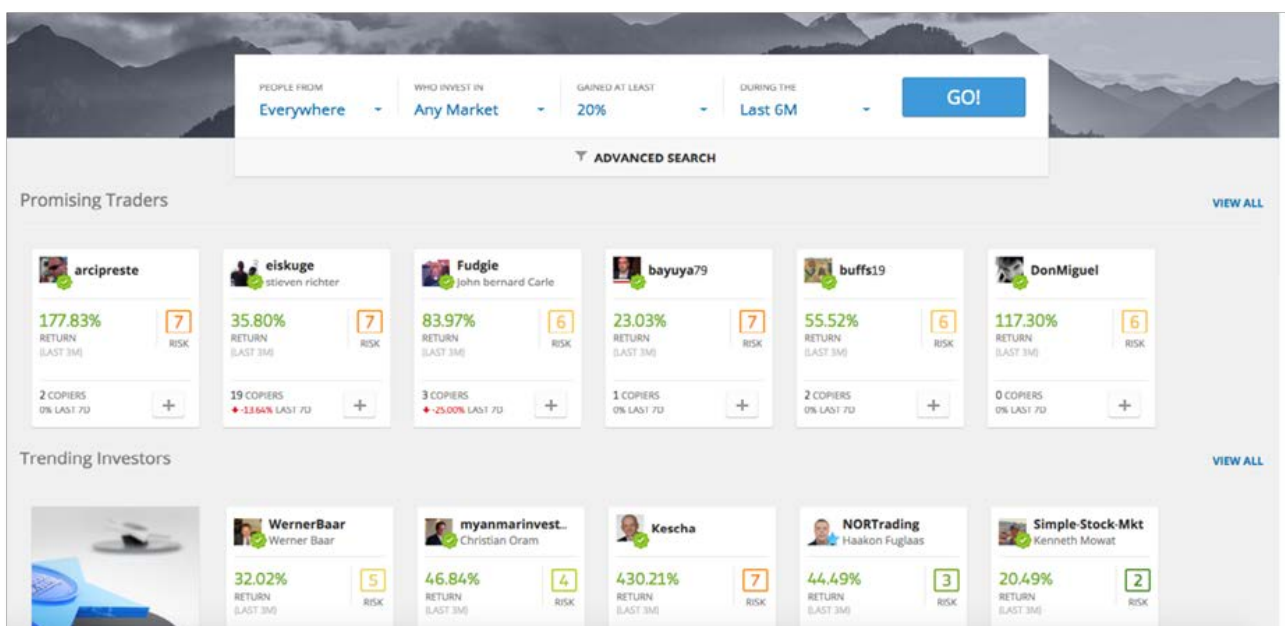
Their success is also explained by the access they offer, from a single point of entry, to a great variety of products. They also offer a digital overview of investors' portfolios.

Social trading

Social trading is based on the combination of social media and trading. Investors are able to follow star traders and automatically replicate their investment decisions in their own portfolio, which could be seen as discretionary portfolio management.

Social trading create concerns in terms of investor protection. Unlike in the case of regulated funds, investors have no guarantees in terms of risk management and asset allocation, leaving them exposed to uncontrolled risks with potential loss of capital. Investors may become disillusioned and stay away from investing in the future.

Example of social trading interface



Source: eToro

Overview

Digitalisation in financial services and specifically in the asset management industry is driven by a mix of factors such as margin pressure and the need to lower costs, changes in consumer behaviour and expectations, technological breakthroughs and the regulatory framework.

Millennials as investors

Millennials are defined as the individuals born between 1980 and 2000. This generation is widely characterised by high education, entrepreneurial spirit, affinity with technology and reliance on social media and personal experience. Millennials generally appear to show greater concern for impact investing such as financial inclusion, climate or green funds.

Taking these factors into consideration, asset managers must transform their business strategies in order to attract the wealth which will be passed on to these new generations. Digitalisation is necessary to adapt to the habits of millennial investors. In that respect, many banks and asset managers try to establish a simplified and interactive mobile end user experience when it comes to portfolio management.

Transparency regarding fees and offered investment instruments along with the availability of informative financial material have also become a major priority for financial services providers. Account management and marketing activities by asset managers and banks in social media is growing as millennials spend more and more time using these, but they tend to be poorly executed, due to a lack of understanding of the target market.

Investment management and pension fund schemes will have to intensify the adaptation to digital trends in order to reach these investors. This includes the creation of products reflecting the tastes and attitudes of millennials with priority in digital investment, placing greater emphasis on simplicity and convenience of services. In the same spirit, the fund distribution business will have to enter the digital era by evolving the distribution models in order to provide investors with cutting-edge services of high quality and at low cost, and consequently maintain high levels of trust and confidence in their business.

Traditional asset managers must adapt their businesses to reflect the technology-orientated preferences of their client base. If they do not manage the digital shift, technology firms could easily capitalise on their own client data base powered by strong distribution channels, and therefore expand their existing network by cross-selling financial products to their clients.

With the rise of digitalisation, consumer habits change fundamentally. Asset managers must get to know their clients better. Investment digitalisation and new technological solutions (such as APIs introduced by PSD2) will become the great enablers to enhance client knowledge.

Technological innovations

In the last five years, new technologies have emerged, promising to change the paradigm in terms of operations and client management. In this section, we describe these technologies from a theoretical point of view. Their applications to the asset management sector are described in chapter 5.

Distributed ledger technologies

DLTs allow for the synchronisation of a common register or repository of information in real time. This is achieved through decentralisation, where entries are verified in an immutable manner and based on mutual consent, thanks to cryptographically secure protocols.

Transactions are validated and ordered into blocks (“blockchain”). Once a block is full, a new block is created.

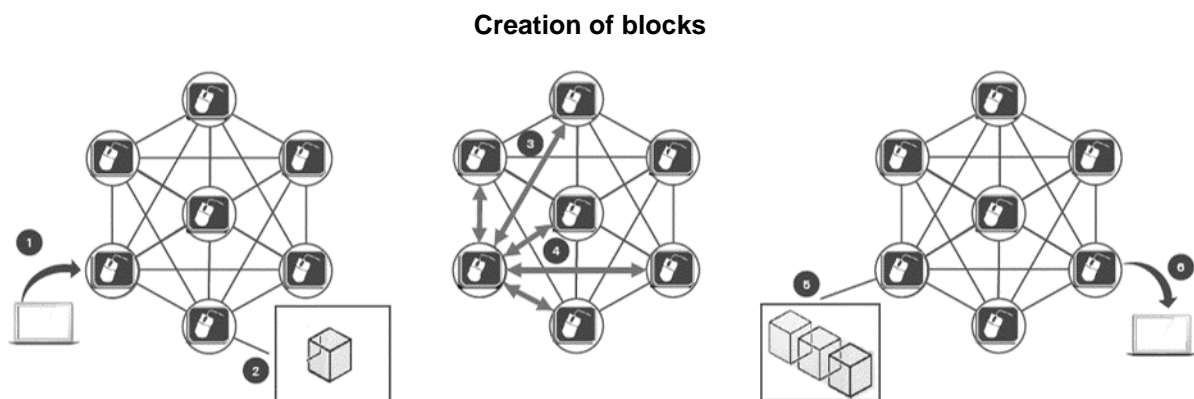
Factors driving digitisation

Blockchain addresses the problem of trust between organisations by providing independent validation through a tamper-resistant, peer-distributed ledger, thus eliminating the need for offline reconciliation.

Blockchain systems may prove far cheaper than existing platforms because they remove an entire technical layer of authentication.

DLT benefits include:

- Distribution of a “single source of truth” between network participants, which allows for real-time synchronisation and decreases the need for reconciliation
- Immutable recording, making it irreversible
- Data signed by cryptographic techniques
- Reduced risk, complexity and increased efficiency by securely automated cross-organisation transactions
- Creation of an audit trail and simplified compliance and audit checks



Source: KPMG

A node is generally defined as a point of connection within a network. Each actor within a specific value chain (e.g. fund distribution) can host a node, which can receive, create, store or send information along different routes, much like a database, through the distributed network described above.

Beyond the distributed aspect, the DLT can also use smart contracts. Smart contracts are not to be mistaken for legal contracts accepted by courts and law enforcement. A smart contract is a coded contract on top of a blockchain which contains a set of rules under which the involved parties agree to interact with each other. If and when the predefined rules are met (usually at contract initiation), the agreement is automatically enforced. The smart contract code facilitates, verifies, and enforces the negotiation or performance of an agreement or transaction. It is the simplest form of decentralised automation.

A distributed ledger can be either public or private, depending on the counterparties' access requirements. Due to the benefits of blockchain, the financial industry is actively looking into its application in payments, operations management, trade finance, insurance, etc. The technology has attracted enormous interest from financial institutions and venture capitalists.

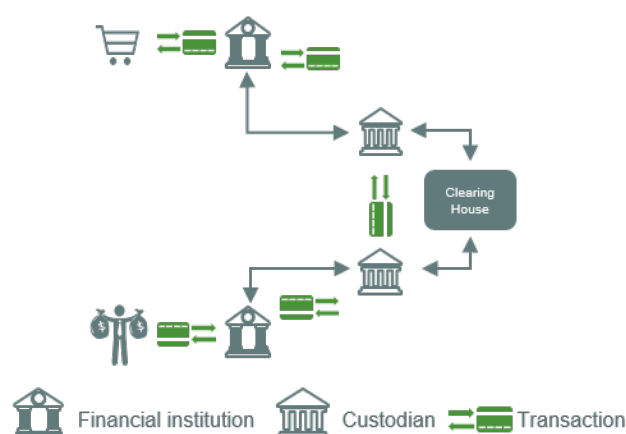
Factors driving digitisation

Illustration of DLT benefits for the financial services industry

Transfers – today

The current traditional ledger structure relies on third custody parties responsible for asset transfers:

- Legacy infrastructure
- Slow clearing and settlement T+n
- Labour-intensive
- Prone to errors



Transfers – with DLT

The transfer of the asset ownership is carried out by the blockchain network:

- Shared infrastructure
- Decentralised ledger
- Automated processing
- Cryptographically secured



Source: KPMG

Automation and machine learning

Artificial intelligence (AI) is the ability of a computer system powered by algorithms to perform tasks commonly performed by humans. The term is applied to systems endowed with the intellectual processes characteristic of humans, such as the ability to reason and learn from past experience.

This field of technology is essential in response to the challenges resulting from costly and time-consuming repetitive operational tasks that need carrying out in the financial sector, but also more complex tasks such as financial modeling and legal analysis.

Due to the emergence of such technologies and the interchange between them, organisations are experiencing a profound change. Robotic process automation (RPA) and machine learning will enable the next wave of business transformation.

RPA is defined as the application of technology that enables computer software to partially or fully replicate human activity which is manual, repetitive and rule-based. RPA allows a company to map out a business process and assign a “robot” software to manage the execution of that process. RPA can “sit on top of” a company’s IT infrastructure, i.e. the technology can be implemented without altering the existing infrastructure or any applications.

Machine learning is an AI technology allowing programmes to learn without prior configuration.

It is the science of discovering patterns and making predictions based on a data set, using statistics, patterns recognition and predictive analysis.

Chatbots, which typically use text-based live chat as an interface to carry out tasks for customers on behalf of the business, are emerging as an inexpensive way to introduce AI in the financial industry.

A chatbot uses the principles of machine learning to improve its performance.

Factors driving digitisation

The chatbot is trained to translate the input data into a desired output value. When considering this data, it forms and executes a decision model. In order to develop, the programme needs data to analyse for “training purposes”.

Machine learning is the technology which enables the full potential of big data, and big data is the essence of machine learning.

APIs

An API is a standardised means of communication between two applications. It acts as a gateway into a software programme, allowing other programmes to interact with it, without the need for a developer to share its entire code.

In the financial industry, it can be used to connect banking systems with new applications. PSD2 requires that banks and payment institutions provide standard API.

Scenarios for API data exchanges include:

- Account creation for individuals or companies
- Compliance (account or identification verification)
- Cash transfers, in- and outflows, cash disbursements and collections
- Account inquiries (account balance, transactions history, transactions by category)
- Compliance and customer support tools (report lost, stolen card)

APIs have the potential to replace current financial communication systems and increase the information that can be transferred across the stakeholders value chain.

Data storage in a cloud

Cloud services can help companies reduce investment in IT infrastructure and speed up the development of new IT-based services. Rather than owning their own computing infrastructure or data centres, financial institutions and related parties can rent access to anything from applications to storage from a cloud service provider.

The main benefit of cloud technology is that firms can avoid the upfront cost and complexity of owning and maintaining their own IT infrastructure by using a third-party cloud service. More precisely, use of a cloud makes it much easier to manage and analyse big data.

Cloud services providers on the other hand can benefit from significant economies of scale by delivering the same service to a wide range of customers.

Some cloud providers have developed platforms combining storage services with data treatment and analytics capabilities (unstructured data integration, machine learning and data and analytics) and/or dedicated to DLT applications. In addition, these platforms offer some security and encryption services. Their use could boost the adoption of machine learning, DLT and other new technologies as it limits the efforts of integration into legacy systems.

The CSSF has issued a circular (17/654) on IT outsourcing relying on a cloud computing infrastructure in 2017. It contains clear guidelines and requirements on the different roles involved, governance, IT security, business continuity and regulator authorisation.

Data and analytics

Data and analytics refers to the statistical real-time study of a large amount of data. Data are extracted and categorised to identify patterns and construct narratives around the data.

The analysis makes use of new technologies: powerful computational systems programmed with sophisticated algorithms have been developed and will enable asset managers to profile their clients' behaviour better, allowing for tailor-made products, and to adapt the whole chain of services to their clients' needs.

Factors driving digitisation

For example, a management company can collect data related to user preferences, product interests and segments according to specific criteria such as demographics, age or gender. The analysis can reveal key user and customer trends, refine the bid proposed to the client in terms of asset allocation, and define the client's risk profile in line with regulations.

Regulatory opportunity

The Capital markets union (CMU) and digital transformation are two topics on which the European Commission is currently working. The CMU project aims at fostering sustainable economic growth by creating deeper and more integrated capital markets, removing barriers to the free flow of capital in Europe, including for cross-border investments. The European Commission is also driving the creation of new digital services with regulations such as PSD2. Some regulations, such as MiFID II, can represent challenges and opportunities for asset managers at the same time.

MiFID II

MiFID II has been the most discussed and most challenging regulatory topic in the industry over the past years.

Despite the current challenges, it may also have long-term benefits and force the industry to reinvent its relationship with investors.

The ban or reduction of inducements that it introduced is likely to have two main consequences:

- On the one hand, it will close the open architecture model with distributors promoting in-house products. Asset managers with no captive distribution network must find a new distribution channel to final investors, such as direct digital distribution or with robo-advisor solutions. In the long term, this could spur innovation in the digital fund distribution space.
- It will require distributors to justify perceived inducements. In the long term, it can incentivise distribution to offer more value to final investors. In this context, asset managers have an opportunity to collaborate more with their distribution network to help them achieve this goal.

On the other hand, MiFID II requires asset managers to get to know their end clients better. These regulatory requirements can be seen as an opportunity to incentivise fund managers to collect more information on end investors and make their register transparent, identifying ultimate beneficiary owners.

As soon as the industry is able to achieve such transparency, data analytics and artificial intelligence mechanisms can be used to analyse trends in their clients' investment decisions, which can provide useful insights into the marketability of products.

Lastly, in its bid for cost transparency, MiFID II will shed light on the current fee structure in the industry. Asset managers will likely be obliged to revise current fee practices, as transparency will lead to increased price competition and pressure from investors to justify value, especially in the current environment where passive funds are increasingly popular.

Ultimately, fee transparency could reinforce trust between asset managers and their final clients.

PSD2

The first Payment Services Directive was adopted by the EU in 2007, aiming at establishing payment service rules, simplifying payment processing, promoting competition by opening payments to new entrants and foster market efficiency and innovation. PSD2 will now play its own role in the digital transformation of the financial services.

General benefits

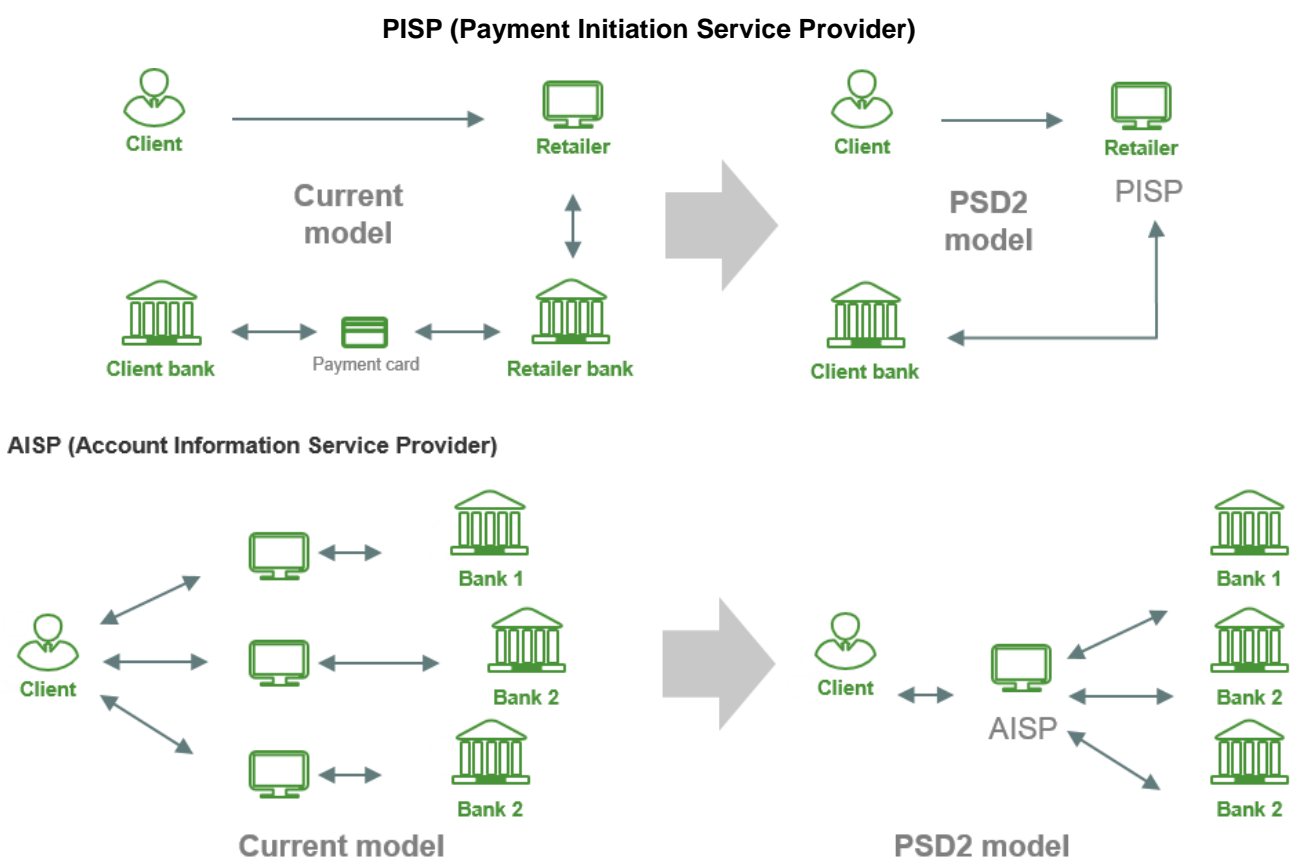
It is expected that PSD2 will further improve payment efficiency in the EU. PSD2 will enable bank customers to use third-party providers to manage their finances.

Factors driving digitisation

Licences

PSD2 introduces the following two new types of licences.

- Payment Initiation Service Provider (PISP) licence: A payment initiation service is defined as a service to initiate a payment order at the request of a payment service user (PSU) with respect to a payment account. Payment initiation services enable the PISP to inform a payee that the payment has been initiated.
- Account Information Service Provider (AISP) licence: AISPs are the service providers which have access to the account information of bank customers. It is an online service to provide consolidated information on one or more payment accounts.



Source: KPMG

PSD2 removes the monopoly that banks have on their client payment account and information. Banks will be obliged to provide third-party providers with access to their customers' accounts, likely mainly through open APIs.

APIs allow data transfer in real time. Aggregators will be able to get access to customers' transactional data via APIs which will be aggregated in one platform. This gives them the possibility to provide ex-ante recommendations based on customers' transactional behaviour which would otherwise only have been possible by purchasing that data.

Factors driving digitisation

Opportunities for asset managers

As a regulation impacting banks and payment providers, it will benefit asset managers wishing to develop a D2C solution.

Payments related to fund subscription and redemption will be performed utilising the PISP/AISP functionalities offered by PSD2. This will further reduce transactional costs for both end users and asset managers and eliminate complexities for asset managers and robo-advisors to offer solutions in fund distribution.

At the same time, PSD2 presents significant opportunities for banks and asset managers by facilitating and utilising access to raw data and banking and investment services. Such services could analyse a user's spending and investment behaviour and aggregate a user's account information from several banks into one. In particular, asset managers and distributors will be able to benefit from the real-time analysis of their investors' transactions and therefore offer tailor-made solutions according to their preferences. Data analytics related to fund transactions will offer food for thought for asset managers and fund distributors in their endeavour to enhance their services and improve processes.

User experience will be enhanced by offering clients the chance to connect to a single user-friendly interface, thus having a full interactive view of their investments and transactions in one place.

eIDAS Regulation

The electronic identification, authentication and trust services regulation eIDAS entered into force on 1 July 2016 and introduced standards for electronic identification and trust services for electronic transactions in the European market.

eIDAS regulates electronic transactions and has created standards for electronic signatures (e-signatures), giving them the same validity as paper-based signatures. The regulation has enhanced trust into electronic authentication among users and business parties.

Overview

“Digital”: not one technology

New technologies are disrupting the asset management industry and allow it to overcome current challenges and drive development of new services. Digital fund distribution is not based on one technology, but a mix of them that allows new set-ups of operational processes, supporting new types of services.

As an example, a DLT network processing fund orders only makes sense and offers significant benefits if it is combined with other technologies. These can be APIs that allow communication with legacy systems and instruct cash payments, digital user interfaces that allow investors to input orders and retrieve data on a real-time basis, RPA for repetitive processes that cannot be handled by DLT, or big data and DLT offering insight into investor behaviour.

Similarly, the fund distribution value chain needs to be digitalised from front to back office. Transforming only one component would significantly limit benefits or create additional layers of complexity.

Market infrastructure and “cost mutualisation”

In addition to the application of new technologies, the industry can improve its efficiency and cut costs by mutualising non-added value activities with a market infrastructure. Other jurisdictions have developed market infrastructures for the asset management industry. In the United States, DTCC/NSCC acts as a market infrastructure to process fund orders. In Singapore, the government has invested in a KYC hub in order to mutualise the AML/KYC checks.

In Luxembourg, the fund industry could develop market infrastructures around fund orders and AML/KYC processes, as explained later in this section.

Digital distribution allows to overcome current challenges while developing new services

Current challenges

- Need for cost reduction and improvement of the current operating model efficiency
- Improvement of investment customer journey
- Obtain transparency on final investors

New opportunities

- Develop a D2C offering and sell directly to final investors. This would allow to tap into unexplored client segments.
- Develop digital tools for distributors allowing asset managers to bind distributors to their business and help them justify their added value to final investors. These tools include functionalities such as digital onboarding modules, account management solutions, cash payment, product information, portfolio management and investor knowledge sharing.

Client onboarding and AML/KYC checks

Automated client onboarding

Providers have developed digital client onboarding solutions validated by European regulators to industrialise and digitalise the client onboarding process. These solutions were developed to respond to the demand from digital banks and e-commerce platforms to onboard large numbers of clients at low cost in a matter of minutes.

Developing digital fund distribution

Two main solutions currently exist on the market:

- Video onboarding: the client provides basic information through a mobile or web-based interface. In a subsequent video call, an operator asks them specific questions and asks to see the client's ID, including its security features (e.g. "watermarks", holographic or UV elements), made visible by tilting the document back and forth. During the conversation, investor details are screened automatically with the help of databases that allow checking them against sanctions lists. This onboarding process takes approx. 8 to 10 minutes.
- Picture onboarding: the client uses their smartphone to take and submit a picture of their ID. The system automatically extracts the information on the ID and runs it through the aforementioned type of database. The client then takes and submits a selfie, which is compared to the picture on the ID. The system is able to detect fake documents. While this process is faster – it takes approx. 2 minutes – it requires preliminary systems and controls to be in place in addition to detect medium- and high-risk customers who require additional checks, e.g. against lists of politically exposed persons (PEP) etc.

In both systems, clients with a low risk profile are automatically accepted. Medium- and high-risk individuals require further investigation and screening by the operator.

Illustration of video onboarding



Source: IDnow

Illustration of photo onboarding



Source: Mitek

Mutualisation of AML/KYC checks

The digitalisation of client onboarding through video conference or photo is a big step towards a better client experience and cost reduction. Yet the same person is checked several times by various entities. To avoid duplication of work, it is essential that financial services mutualise the cost of ID verification and AML compliance. Fundsquare estimated that the mutualisation of AML/KYC checks could reduce the cost incurred by distributors and funds by 89% (from 180 to 20 million EUR)⁷.

⁷ Fundsquare and Deloitte

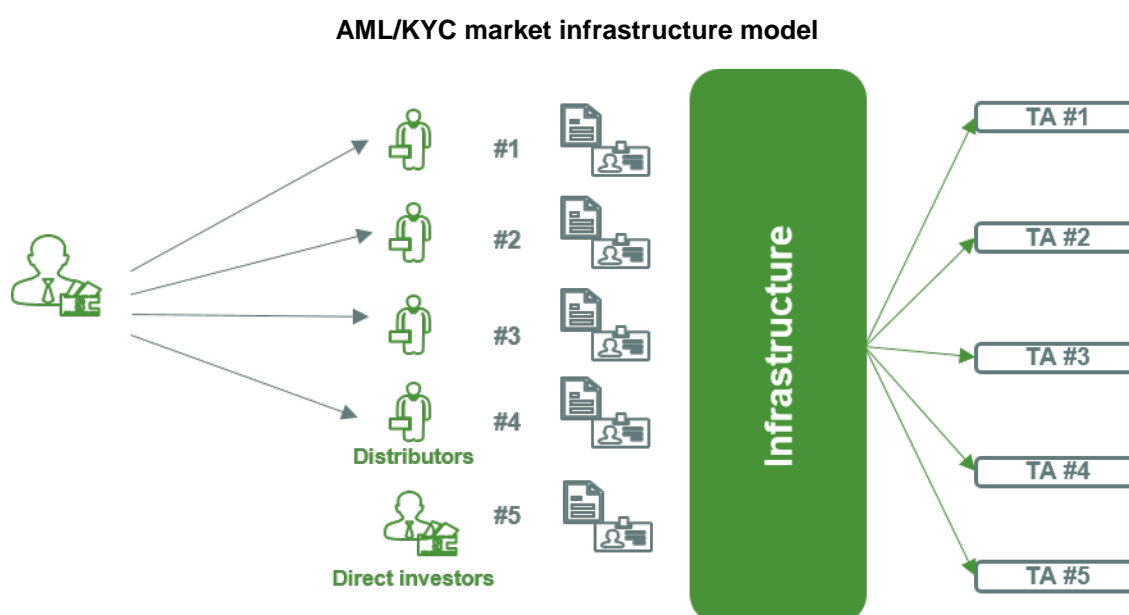
Developing digital fund distribution

Several providers are developing an AML repository where each investor goes through the onboarding checks only once and upon approval receives a digital ID. This will permit investors to use a single point of entry to a range of different financial service providers such as banks, insurance and asset management.

Where clients invest with different distributors this process could end duplication and save all parties a lot of time and resources. It can also be used with institutional investors and distributors.

This would make it much easier for all counterparties to share information. Digital identification has the potential to facilitate the development of digital account aggregation applications.

At the same time, data analytics and machine learning could analyse patterns and identify suspicious transactions, alerting the regulatory authorities in real time.



Source: KPMG

A shared AML/KYC repository would enable real-time access to up-to-date customer information for distributors and asset managers in a transparent and secure manner.

In this scenario, investors provide customer identification information via web or mobile application. A trusted party (asset manager, transfer agent or other third party) validates the information and a unique digital identity is issued.

Document verification could be performed on the basis of eIDAS, a set of interconnected national schemes for electronic identification (eID) that is currently being introduced. eIDAS is part of the European Commission's efforts to develop a digital single market. In practical terms, it allows EU citizens to use their national eID in other member states, removing administrative burdens. The use of the eIDAS network by financial institutions could further digitise the investor onboarding process and guarantee document authenticity. It could make the documentation verification step faster.

This document verification process and identity portability would not remove the need for a KYC information repository, as the verified identity is only one element of what financial institutions require, along the individual's sources of revenue, profession etc.

Developing digital fund distribution

Other external validation sources could be connected to the KYC blockchain platform through APIs, a managed services provider (trusted party) would administer platform governance and monitor the KYC technology platform.

Then, the trusted party would perform all necessary AML/KYC checks and confirm the creation of the account as well as compliance with the respective rules. Once the onboarding checks are completed, the investor would not have to repeat the process if they were to enter into an investment relationship with other counterparties, as long as these have access to the same pool of information. The immediate sharing of customer data with regulators would make the supervision of the financial sector more efficient.

Know your distributors (KYD)

Mutualisation of KYD checks

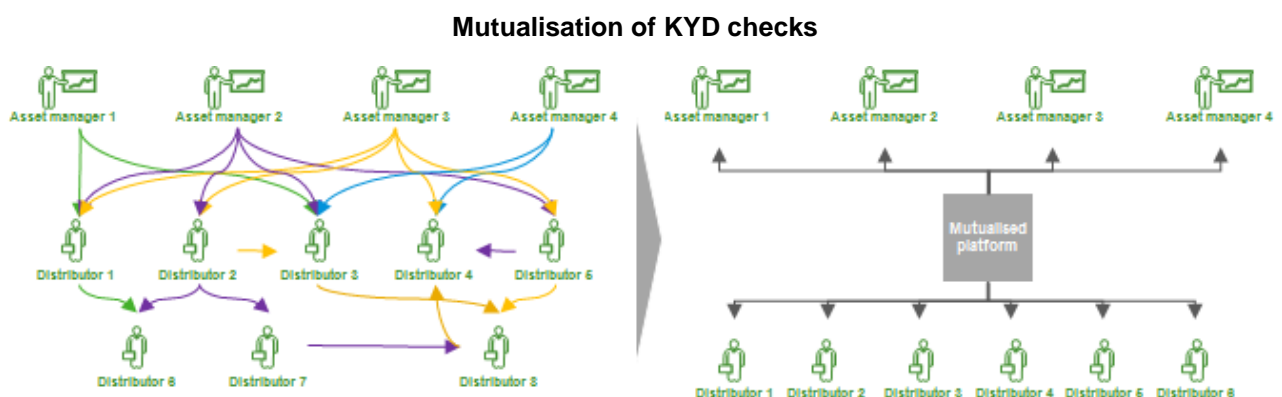
As is the case in the context of AML/KYC, providers have developed utility platforms aimed at mutualising information sharing between fund distributors and management companies in order to perform the necessary oversight of delegated functions.

Currently each management company is sending their own due diligence questionnaire (“DDQ”) to a large number of distributors in their network manually, via mass emailing.

The data collection and the analysis and treatment of the DDQs is a lengthy and tedious process for management companies that can take several months. Distributors are confronted with DDQs that are not standardized, although they attempt to capture the same information and the same risks.

Providers believe that DDQ questions can, and will sooner or later be, standardised. Distributors will answer standard questions one time for multiple management companies. Coupled with strong data analytics, automation and management reporting capabilities, the data collection process can be optimised, and a more robust oversight of distributors can be implemented.

This also provides a better experience for the distributors and can lead to additional business opportunities.



Source: ume solutions

Developing digital fund distribution

Investor risk definition and KYC

MiFID II investor questionnaire

In the context of MiFID II regulations, distributors must define the investor risk profile based on a series of questions. In addition, personal information is asked such as investor's revenue, total wealth, personal situation and job category.

The questionnaires used are typically long and not user-friendly.

Some providers have developed a digital questionnaire that gamifies the investor classification. The application guides the investor through a series of risk/reward scenarios, illustrated for clarity, reflecting real-life investment situations. The investor is then classified taking into consideration criteria such as risk appetite, loss aversion, optimism, pessimism, etc. Some providers take investor bias into consideration and include this in their profiling as well.

Knowing your investors better

Most retail clients have several bank or brokerage accounts. It is thus complex for a single institution to understand the investor's portfolio composition in its entirety and its exposition to asset types in real time. The opening of banking data required by PSD2 makes it possible for investors to aggregate all their accounts in a single place. This gives them a global view of their cash and securities accounts. An individual may also give a provider access to their banking data.

For asset managers, the opening of banking data represents a goldmine in terms of investor data. First, asset managers and distributors could have access to the investor's full portfolio and recommend investments based on their current portfolio. Second, it also gives them a real-time view on investor wealth whereas before it was static and declarative. This will allow asset managers and distributors to quickly detect income increases, i.e. surplus of cash that can be invested.

Example of a questionnaire using a real life situation



Source: Neurodecision

Developing digital fund distribution

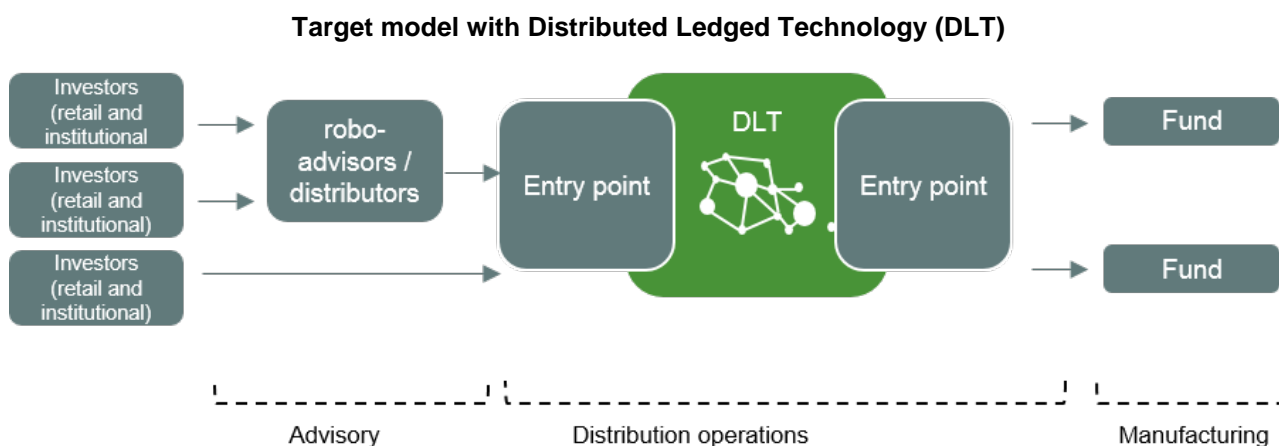
Account management and order processing

Digitisation in the European market infrastructure is already altering the fragmented and costly business model in security issuance, trading, settlement, custody and clearing. Regulatory initiatives such as TARGET2-Securities and CSDR aim to harmonise market infrastructure and the post-trade industry. Digital innovation can leverage off those initiatives and add significant benefits to this endeavour.

In the context of payment, clearing, and settlement, distributed ledger technology (DLT) enables entities, through the use of established procedures and protocols, to carry out transactions without necessarily relying on central authorities. Potential gains from the DLT usage in financial market infrastructure include the simplification of the settlement and respective reconciliation processes, the reduction of costs by streamlining back and middle office processes and the offer of a transparent record of transactions by verifying identity and validating transactions.

For the Luxembourg industry, which is an order collection and register management hub in Europe, the costs of these activities could be mutualised in a single market infrastructure. Transfer agents could then focus on other added value services not offered by such a platform.

DLT can be used to distribute the fund register amongst the value chain entities (such as the distributors, asset managers and other fund service providers) in a private network. The network can process orders from investors and distributors while automatically updating the fund register. Fund shares can be directly issued in the distributed ledger. The clearing and settlement of orders can be automatically triggered with an API that connects the platform with investor banks.



Source: Fundsquare, KPMG

To manage the cash, a process called tokenisation can be used, to reflect cash held at the bank on the platform. Cryptocurrencies are not used due to their volatility. The platform can be linked with the fund accountant that can publish the NAV, which triggers the valorisation of pending orders. At the same time, it creates cash instructions to the bank via API. A DLT-based network requires a layer of connectivity in order to receive orders under the current format. Reporting and data analytics modules can be plugged directly into the platform.

Developing digital fund distribution

Benefits of DLT for funds register and order management

Large numbers of accounts can be managed, with the end investors in the fund register. This provides asset managers with transparency on their end clients and the possibility to create tailored products for them. We particularly see this application inside distribution networks where distributors have more commercial incentives to work hand in hand with their in-house asset manager in the light of MiFID II.

The management of a high number of accounts and transactions is possible due to the automation of order processing thanks to smart contracts. In addition, the current labour-intensive reconciliations are not required anymore as one source of truth is shared across the value chain. Calastone estimated that the industry could save up to USD 2.6 billion as a result of blockchain technology.

Asset managers can follow fund cash flows in real time and better manage liquidity risk.

In addition, digital interfaces can be plugged directly into a DLT network with API. The whole operational value chain is digitalised from front to back office. This allows to collect a large number of small amounts in the retail space, making new business cases profitable such as the D2C or robo-advisor.

Adoption of DLT

The adoption of DLT by asset managers can be simplified by cloud platforms, as nodes can be stored in the cloud and do not have to be integrated into the legacy system.

Payments

In the e-commerce industry, the buying process is developed to have as few steps as possible. Digital solutions can apply such methodologies to improve customer experience during the payment process and maximise asset collection.

Currently, when opening an online account with a robo-advisor, investors must transfer the money manually, including references. Such process creates friction in the user experience and prevents investors from proceeding beyond the onboarding step.

With APIs, investors can give their asset manager (in the D2C scenario) or robo-advisor access to their accounts. The institution will collect the money from the investor account. In order to integrate a large number of bank APIs on a D2C platform, API connectors are being developed. Connecting to one API will then be sufficient as it is in turn connected to several banks. This decreases the API integration work on the asset manager side.

Payment by credit card is rarely used due to the charges involved. At least 1% of the invested amount would have to be borne by the asset manager or the investor.

Client support

Client support can be automated using a robotic chatbox, reducing the need for FTE. It is however important that a human advisor remains available to answer investors' questions where the D2C or robo-advisor scenario a robot reach their limits. The design of the client experience might limit the need for investors to have any interaction with an advisor. The e-commerce industry has understood this and is constantly working towards solutions that are self-explanatory and minimise the need for customer support.

Digital transformation and market infrastructure

Change is inevitable, and the asset management industry must embrace it in the form of digitisation.

A new generation of investors requires user-friendly and customised investment solutions, and digital investing solutions are emerging to answer this demand. Existing investors, familiar with digital solutions as a result of their use of computers, tablets and mobile phones, expect new tools that guide them in their investment decisions. The bar for user experience and service access has been raised.

Beyond the evolution of customer needs, the industry faces several challenges. Asset managers are under significant margin pressure as the level of fees has been decreasing while costs have remained stable or even increased.

Operations are mostly based on legacy systems and are costly and lengthy: intensive reconciliation efforts and manual tasks are required and it is difficult to integrate digital front-ends.

In addition, new regulations are increasing the cost of compliance. Some, like MiFID II, are real game changers for the industry and have led to impactful strategic choices for asset managers on how to sell their investment funds.

Digitisation promises to help firms reduce operational costs and develop leaner and more efficient processes that will ensure profitability within an environment of more competition and fee pressure.

The Luxembourg fund industry is well advised to continue its transformation into a digital fund hub, and to offer a modern digital infrastructure for end investors, both retail and institutional.

Asset servicers should consider “coopetition” – working together to mutualise commodity services in a market infrastructure to gain efficiency and reduce cost.

Conclusions and proposals

How to get there: new services



Distributed fund infrastructure

Mutualise the cost of order processing and register management with a market infrastructure based on the distributed ledger technology. By integrating other components, the whole order process can be managed: a digital investor interface plugged directly into the network, KYC checks performed via an AML repository and automatic cash clearing with API connection to existing banks.



Digital and mutualised AML checks

Digitise client onboarding and mutualise cost of AML/KYC checks with a KYC repository collection and ensure that investor and distributor documents are compliant and up to date. Allow asset managers to determine investors' and distributors' risk profiles based on reliable documents and their respective risk appetite.



Digital investor interfaces

Develop an order management interface targeted at end investors, with asset managers being able to brand and integrate them on their respective websites. Small distributors could also benefit from such tools with added value services offered by asset managers, such as product information and advice.



Data and analytics services

Develop the tools and the expertise to exploit the investor data that will eventually be available through the distributed market infrastructure and direct client interfaces.

glossary

AISP	Account Information Service Provider
AML/CFT	Anti-money laundering and combating the financing of terrorism
API	Application Programming Interface
AuM	Assets under management
B2B	Business-to-business
B2B2C	Business-to-business-to-consumer
CMU	Capital Markets Union
CSD	Central Securities Depository
CSDR	Central Securities Depositories Regulation
CSSF	<i>Commission de Surveillance du Secteur Financier</i>
D2C	Direct-to-consumer
DLT	Distributed ledger technology
eIDAS	Regulation (EU) No 910/2014 of 23 July 2014 on electronic identification, authentication and trust services for electronic transactions in the internal market
ETF	Exchange traded fund
FCPE	<i>Fonds commun de placement d'entreprise</i>
Financial Advisor	A professional who suggests and provides financial services to clients based on their financial situation
FTE	Full-time equivalent
GDPR	General Data Protection Regulation
IFA	Independent Financial Advisor
ISA	Individual Savings Account
KYC	Know-your-customer
MiFID II	Directive 2014/65/EU on Markets in Financial Instruments
NAV	Net asset value
PEA	<i>Plan d'épargne en actions</i>
PISP	Payment Initiation Service Provider
PSD2	Directive (EU) 2015/2366 on Payment Services
PSU	Payment Service User
RDR	Retail Distribution Review
Robo-advisor	A type of financial advisor that provides digital financial advice based on algorithms or other mathematical rules to automatically allocate, manage and optimise clients' assets
RPA	Robot process automation

SFTP	SSH File Transfer Protocol
SWIFT	Society for Worldwide Interbank Financial Telecommunications
TA	Transfer agent

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