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MORE THAN JUST A ROBOT:

How humanizing robo-advisory can shape the future for retail investors

Robo-advisory as a means to activate money

The saving habits of Belgian households has pushed the financial institutions towards increased efforts in the field of online investment platforms. At the same time, several new technologies have disrupted the way portfolio managers make asset allocation decisions. We believe it will be crucial for banks to steadily apply some of this technological know-how to increase the service offering for their retail clients. At Sia Partners, we propose to our clients a hybrid robo-advisor model that allows banks to stay engaged with their clients and at the same time improve their industry 4.0 capabilities. Directly taking the leap to the robo-advisor 4.0 for the retail investor segment would most likely be nefarious for clients' trust and engagement. Instead our model allows for a smooth transition.

The challenge of turning savings into investments

Saving money has long been recognized as a national sport in Belgium, effectively resulting in large sums of cash waiting to be activated. This pressing matter was highlighted over the past months when suggestions have also come from political parties in favor of activating these passive funds. Recently, it was estimated that an impressive EUR 266Bn[1] is outstanding on saving accounts in Belgium. The increased volatility in financial markets at the end of 2018 and beginning of 2019 further supported this savings habit. Nonetheless, ever since the low yield environment in the aftermath of the financial crisis, Belgian households have steadily broken down on savings (Febelfin), resulting in a household saving rate (11,2%) right below the European average (12,1%) by the end of 2016.

Financial institutions have taken considerable effort to activate the money in an attempt to find new revenue streams. A large partition of these activated funds has gone directly to real estate investments, promising historically steady returns at economical rates. Especially in Belgium, the robustness of the housing market prices has notably upheld real estate investments. A secondary part of the activated funds has flowed to the previously shunned stock market, albeit very limited. Despite repeated expensive undertakings from banks to modernize and democratize their online investment platforms, the Belgian consumer remains a difficult one to convert. An unstable political environment, both on a national (e.g. speculation tax) and international level, combined with several unpredictable stock corrections even pushes the risk seeking investor back into his seat. Still, we believe financial institutions will have to continue their efforts to turn the conservative risk averse investor into one that is willing to invest. The adoption of new technologies to enhance the B2C investment environment will be essential for long-term growth.

Up until recently, traditional online brokers focused on two playing grounds to gain a competitive advantage, an exhaustive product offering and low transaction fees. We believe these elements have reached their competitive boundaries, necessitating a strategic shift towards new features. In order to bridge this gap, a shift towards increased (customer) service offering seems most befitting. Whereas customer service has been at the forefront of most industries, it has for long remained dismissed in the trading industry that has been predominantly focused on professional rather than retail investors. Following this trend, large investments in more attractive, accessible online investment platforms and mobile applications have allowed Joe Sixpack to make complex financial transactions with but a touch of a fingertip. Consequently, CIOs have been forced to develop and innovate in areas that were previously unknown to them. Even now, after more than a decade of mobile banking innovations, Belgian banks continue to display very large differences in their quality and breadth of offerings.

Over the same time span, multiple new technologies such as big data analytics, machine learning and artificial intelligence have made their entrance in nearly all banks. Collaborations with fintech providers and Belgian FSIs have resulted in tangible results,

Figure 1: Robo-Advisors are categorized in four levels of increasing technological advancement.

Robo-Advisor 1.0

Based on a client's risk profile assessment, long-term model portfolio's are proposed. The offered product set is narrow, and portfolio execution & rebalancing are done by the client.

Robo-Advisor 2.0

Portfolio execution & rebalancing are now part of the offering. An investment manager is actively involved and uses the robo-advisor's suggestions. The advisor is enhanced by the robot.

Robo-Advisor 3.0

Robo-advisors actively propose portfolio composition and rebalancing based on predefined investment rules. Portfolio managers oversee the process. The robot is enhanced by the advisor.

Robo-Advisor 4.0

The robo-advisor 4.0 is capable to work fully autonomously. Based on AI techniques, it is capable of defining and improving its set of investment rules. No human intervention is required.

Source: Sia Partners

along with the Belgian fintech industry developing at noteworthy speeds. However, the main developments reaching the public remain catered to payments and classical banking services. The actual public distribution of these consulting 4.0 enhanced services has been mostly restrained to internal use. Especially the technology behind robo-advisory still holds large incremental value to improve online trading platforms.

How robo-advisory enables large opportunities for retail investors

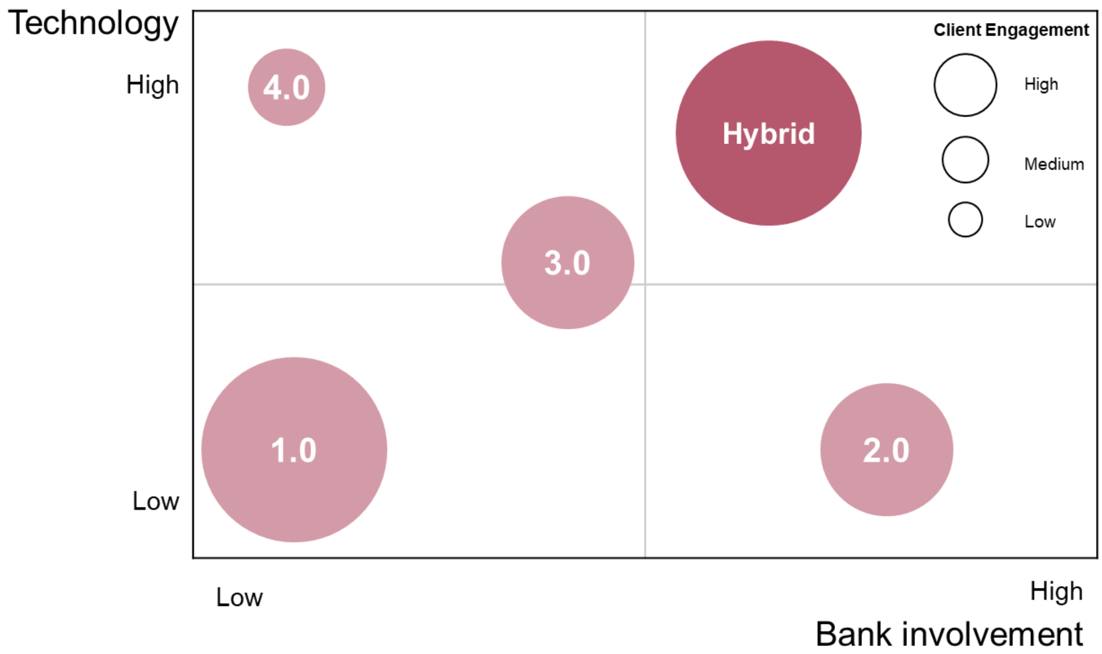
In the following section, we address robo-advisory and its high potential value when it comes to differentiation on a customer service level.

The topic of robo-advisory is well documented, MiFID II regulated, and mainly refers to the use of machine learning techniques to suggest optimal portfolio composition and restructuring. The attractive idea of using industry 4.0 techniques to generate alpha was welcomed in the financial services industry and has since known rapid growth. Moreover, robo-advised funds have gained traction among the general public due to their low costs and ability to bypass human bias, resulting in several billions of AuM[2] currently managed by algorithms. Service providers such as Betterment LLC allow clients to define their risk profile and interests and will provide them with a suggested portfolio that has been computer generated. Most of these robo-advisors apply a standard set of investment rules to generate optimal portfolios, such as the textbook mean-variance criterion.

Generally speaking, we categorize robo-advisors in four distinct levels of technological advancement (Figure 1). The robo-advisor 3.0, which is able to automize a large part of the asset allocation process is currently responsible for the the majority of robo-advisors when ranked by AuM. The epitome of robo-advisory would be a robo-advisor 4.0 capable of actively defining its own investment rules and strategies and is able to execute the investments completely automatically, effectively bypassing the core services offered by portfolio managers. While we foresee that some professional traders will move towards this advisor 4.0, it remains more challenging to achieve the same adoption rates with retail traders.

This categorization of robo-advisors exemplifies the trade-off that needs to be made between the complexity of the technology and the remaining bank (human) involvement. In Figure 2, we visualized the different levels of robo-advisors on these two main axes. For a more holistic

Figure 2: Different levels of robo-advisors impact three main fronts: technology, bank involvement, and client engagement.



approach, we believed it was appropriate to add client engagement as a third fundamental pillar. Client engagement indicates the level to which the clients can actively participate in allocating assets in their own portfolio. We emphasize that active participation in portfolio management from the client's side is essential to the process of trust building and should be regarded as additional service offering. More specifically, for those clients who wish to use an online investment platform, there remains a desire to be involved in the asset allocation process.

The hybrid-advisor as a true utility provider for the end-user

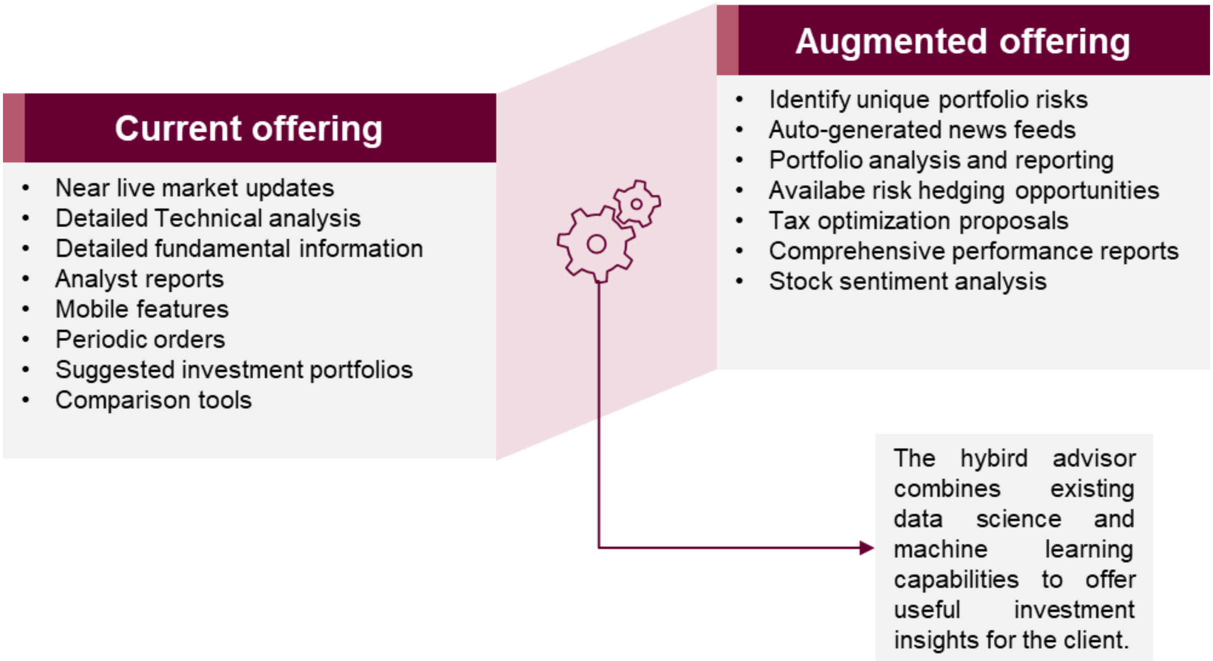
In order to better serve these clients, we propose a fifth level of robo-advisory that we defined as hybrid. Hybrid in the sense that the client is able to benefit from the state-of-the-art technology, whilst still maintaining high levels of autonomy. This bears some similarity to the relationship between the advisor and the robot in the 2.0 situation, but differs on several important aspects.

The current online investment platforms offer a limited set of tools for customers to utilize. Fundamental features that are offered are live market updates, technical analysis tools, and access to fundamental analysis reports. Most Belgian banks have now also moved to service offerings that allow their clients to make periodic investments at near-zero costs with no lower minimum amount to be invested. These periodic investments are then distributed over a predefined investment fund, or can be allocated to a limited number of ETFs or similar products. On the whole, the only elements that are present indicate that the Belgian banking sector has not moved beyond the robo-advisor 2.0 for their retail clients. The Hybrid model's aim is to take this current service offering and expand it in a way that is non-invasive for the customer.

The augmented robo-advisor can include a broad set of technologies. Therefore, we will list a number of examples. First, such a hybrid advisor would be able to identify unique portfolio risks in the client's personally picked portfolio. If the client has a disproportionately high level of its assets invested in a certain region, currency or industry this will be notified to the client. This also includes being able to more easily see correlations between all your assets, as well as changes in these correlations. Second, using these specific risk factors of the respective portfolio, news feeds can be altered to provide more interesting articles (e.g. interest rate changes for portfolio's with large exposures to interest sensitive assets such as bonds). A last example to highlight is the possibility to suggest tax optimization proposals. This can be particularly interesting for banks who wish to inform their clients of investment opportunities that benefit from the Belgian Tax Shelter.

A sustainable and efficient tool for the future

There are many different ways banks can offer robo-advisory services to their retail clients. The hybrid robo advisor we propose is a modular tool with low implementation costs as compared to fully autonomous AI driven bots. By providing the client with an interactive tool, banks can generate an augmented offering that will engage customers with new insights. These insights can range from identifying unique portfolio risks, to auto-generated news feeds and even stock sentiment analysis. As gist, the time has come for banks to revamp their offering towards retail investor



Our Sia Partners Brussels office is currently exploring further capabilities that may be added to the robo-advisory service offering. Furthermore, we are working on a proof of concept to help our clients identify their specific needs. This article is a first in a potential series of robo-advisory updates.

References

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[2] Assets under management

YOUR CONTACTS

ETIENNE RANWEZ

Manager
+ 32 478 562 757
etienne.ranwez@sia-partners.com

VIKTOR SMITS

Consultant
+ 32 483 508 890
viktor.smits@sia-partners.com

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