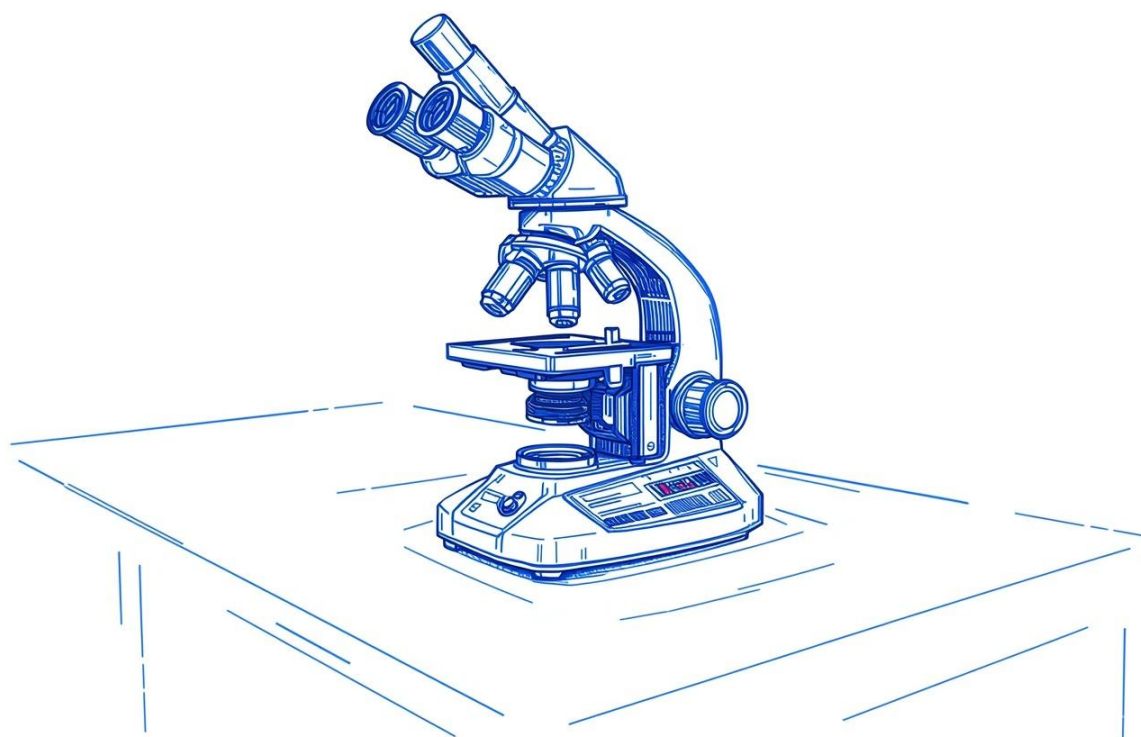




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Research Note Series



Everything Changes: The Future Of Consumer
Financial Services
April 2026

1 Executive Summary

This research note explores a simple but far reaching thesis

The injection of mechanical intelligence between retail customers and financial service providers changes everything.

What we present is a thought piece. The thoughts it lays out will be of interest to technologists, business executives and portfolio managers.

2 Scope

The financial services sector is huge. It embraces banks, brokers, non-bank lenders, insurers and a legion of specialty service providers. In the US the sector is steadily about 15% of market capitalization (about \$12 Trillion at present.) But every country has its banks and most do not have a high tech sector, so globally financial services accounts for about 25% of world market capitalization (about \$25 Trillion.) But these figures understate true importance. As financial intermediaries, financial service firms are strong issuers of bonds. Adding bond and equity capital together would raise these figures substantially. This is the total sector of course. The consumer side of the business is probably half of the total.

The human side of the business also is huge. Globally there are several billion customers. In developed economies perhaps 97% of the population is a customer of this sector. The employee population also is large - at about 9 million in the US alone. That is about 5.5% of the civilian workforce. Most jobs are fairly low level (e.g. bank teller and clerical.) But there is also a large executive component at perhaps 1 million persons. This represents about 6% of professional and executive employment overall.

Historically financial services has been a slow moving industry. Banking dates back to the Middle Ages and some of its current practices would have been immediately understood by a banker from say 1300. Insurance is more recent - having developed in its modern form between 1688 and 1900. And of course electronic money transfer is an invention which has been emerging since Western Union introduced wire transfer in 1871. Even in its adoption of technology, financial services is famously conservative. Signals intelligence was the first and for a long time the dominant user of mainframes. But the last mainframe will undoubtedly still be running in a bank somewhere as the generation that invented the internet passes away.

So when we say “everything changes” for this sector we announce an earthquake such as is seen but rarely in a lifetime. Such events are easily misunderstood and underestimated. So some care in thinking things through is worthwhile.

3 Setting

When we speak of mechanical intelligence being injected into the process let us be clear on what we envision. We are thinking of a piece of software which directly serves consumers, is paid by them and is not controlled by a financial service provider. This software embeds intelligence about what pertains to consumer finance. So it is a narrow, specialized but deep intelligence. Implementation of the software probably involves LLM components, but it also includes plenty of standard computer technologies as well. It is what the software does that matters, not how it is built.

Fundamentally the software bridges the world of customer intentions to the set of transactions through which the industry organizes its services. Let us illustrate that by an example. The user intends to buy a house and will require a mortgage. A long line of atomic transactions are required to execute this intention. The putative borrower must assemble financial disclosures, shop for a provider, pre-qualify for the mortgage, get a property appraisal and title report, take his finances and the subject property through underwriting, secure and notarize loan documents. The whole process is labor intensive, error prone and subject to layers of review to capture those errors. Now inject mechanical intelligence into the picture. The customer's incentive is to offload as much work as possible to the software. The provider's preference is to work with the software because that produces a cheaper less error prone process that raises profits. The only part of the process the end customer is essential for is final notarization. As a result, the software takes over nearly the entire process from the client side. On the provider end the process is probably already existing on the provider's system as a man-in-the-loop process. Automating away as much of the man's role as possible is the obvious cost incentive - a process already underway with the introduction of AI to the back office.

So instead of a process involving people talking with one another by telephone, email and in-person visits, we now have a process in which computers communicate with one another. That communication takes place over APIs - in essence tightly structured digital messages. Those APIs already exist. In most of the finance industry client-server applications have been deployed. The client is a piece of software running on the customer's device - often running within the local internet browser. The server is a high capacity program running on the provider's devices and capable of simultaneously serving multiple clients. The client software talks to the server

software over an API. Today the dominant API technology is REST which provides a high capability very well understood communication protocol. The messages which flow back and forth are currently firm specific and only documented some of the time. But developing these elements into a full publicly published API is just man weeks of work. Standardizing message structure across firms is a totally typical industry standards setting project. It takes months to do, but when the will is there it need not take years. In fact large categories of transactions already have such standards set.

The key point to extract from this is that injection of machine intelligence and adaptation of business processes can be largely complete within 5 years. By implication it is underway currently with first visibility likely in a twelve month time frame. So we are discussing current reality not a distant future.

4 Front Office Consequences

The most obvious consequence is in the front office. You are no longer marketing and selling to people. You are marketing and selling to the mechanical intelligence. That intelligence has a very different set of preferences.

1. It knows what it knows and will not look at something it does not understand. This means it wants to work with a standard set of products. Tweaking product features and gimmicks is the way to drive your purchaser away.
2. But if a product truly adds unique value it has a chance to be added to the standard set. If that occurs then selling that product move from an impossible problem to a solved problem. This makes product design into a bit of a black art, but a highly lucrative art.
3. The mechanical intelligence is very bottom line focused. Mechanical intelligence are very confident they understand numbers and they naturally focus on price. They demand price transparency. They cannot be fooled by funny ways of quoting prices. And inevitably they will share their price discovery with one another. Firms will have to live with their pricing structure being out in the public domain. The old games of feeling out what the customer can pay, of hiding full cost and of distracting the purchaser with bargains (introductory pricing, "toasters", etc) are headed into the twilight of history.
4. For high value items (e.g. mortgages) mechanical intelligence may engage in a multi-step purchasing process. For instance they could start with a message

to providers along the lines of “Please quote a 800,000 conventional purchase money mortgage in this zip code for a couple with 300,000 in household income and strong credit.” That message would potentially go out to 30 vendors. After narrowing the field to 4 vendors more specific information might be provided e.g. “Seeking 25 year conventional purchase money mortgage for 780,000. Husband 35 earns about 180,000 with 720 credit rating. Wife earns 120,000 with no credit history.” This perhaps narrows the field to 2 and next a complete borrower statement goes out with a request for a hard quote good for ten days. The reason for this process is to preserve client privacy while getting the best price given all the circumstances. Those are enduring considerations which will not change due to technology evolution. In fact, as technology marches forward preserving privacy gets harder and so the selective progressive disclosure process gets more valuable.

5. To make a few obvious remarks: the mechanical intelligence does not watch television, purchase based on the convenience of the vendor’s parking lot or have a preference for providers that can source all needed services.

These are major changes in market structure. It can be summarized by saying consumer behavior becomes much more similar to business purchaser behavior than it is at present. Old ways of adding value in the marketing and sales process will not work. Skill sets based on those practices will lose value. Internal efficiency supporting being the low cost provider will be the dominant success factor. Knock on effects include less mass media advertising, less work for advertising agencies, less need for physical offices anchoring suburban malls. Inevitably also it will mean a great deal of industry consolidation as firms which fail to achieve efficient internal operations get absorbed by those that do. For investment managers the likely observation will be a splitting of industry groups into a high efficiency high p/e group and a lower efficiency lower p/e group. This could prove a value trap for investors unaware of the change in industry structure. The splitting of firm groups may be mirrored in a splitting of career trajectories. Individuals well positioned for change may find their careers progress effortlessly to better results than they had expected. But poorly positioned individuals could find themselves faced with early retirement or significant mid-career retooling. The presence of this turmoil in the industry is likely to effect credit ratings of all industry staff as lenders can not assess how well or badly positioned any one individual may be.

5 Back Office Consequences

Next let us consider what change looks like in the back office. Work is presently laid out in assembly line fashion with a product (e.g. a loan) moving down the line. There is probably no re-engineering of the line itself which takes place. Rather there is heavy automation of each stage. Human involvement becomes limited to oversight. There are basically three roles. First, monitoring the process as a whole. Second, intervening to fix breaks. Third, final quality control. In early days of automation quality control may look at all product. In more mature operations quality control becomes based on statistical sampling and exception filtering. This will be a somewhat different discipline from today's concept of a loan officer although the economic value add remains the same (namely killing bad loans.) Subtracting people from the process cuts cost and allows the firm to move more quickly. These are the basic steps which raise efficiency and permit absorption of flow from less efficient firms acquired. As head count drops there are multiple knock on effects in terms of reduced compliance, HR and employee training costs. Ultimately this adds up to less need for executive co-ordination. In addition visibility into highly automated pipelines probably increases, which in turn permits better hedging of work-in-progress.

This vision should inform current process automation work. First, it should be seen as critical to firm survival. Second, it should build in people only where they add enduring essential value. Third, the process should be maximally instrumented to permit higher order optimizations to be carried out. Fourth, implementers need to be careful about assuming how much flow needs to be supported by the system. The best approach is a process which works well at multiple flow levels.

External investors will be able to track progress along the rising efficiency curve by relating head count and operating cost to supported flow size. Firms exhibiting rapid sustained improvement will likely be the future consolidators. However, it will be important to distinguish such firms from those who try to look efficient by engaging in big layoffs without actually possessing strong internal operations. Those will be the firms likely to be consolidated away.

Many financial service firms today are conglomerates of many different businesses. Inevitably some business units will adapt adroitly while others will not. A vigorous investment banking activity is likely as conglomerates shuffle their portfolios of operating units.

6 Environmental Consequences

We have noted that mechanical intelligences will share data among themselves to gain market power. In an effort to please their masters, they will probably also collect significant end customer experience data and analyze it. This may be of particular importance in fields such as insurance claim processing. Much more so than human customers, mechanical intelligences will be quick to spot shoddy claim processing behavior. Getting a poor reputation with mechanical intelligences will be a good way to get ones firm blacklisted. And it probably will not survive long enough to repair its reputation.

With customer ability to police providers improving, there may be a diminishing need for government policing of the market. Instead government activity should focus on empowering the mechanical intelligences to do the policing work (e.g. by voiding contract language which aims to prevent the mechanical intelligences from pooling their experience data.)

7 Broadest Consequences

We have described a challenging environment for providers. A sector characterized by stability is about to go on a technology fueled roller coaster. Successful firms may win very big, while unsuccessful firms will disappear. Overall sector profitability should increase but be very unevenly distributed. This is an interesting sector for fundamentalist active managers to track closely. By contrast, quantitative managers may need to be conscious of stale information in their databases.

For customers a better future should result. Costs will come down and service quality will improve. Day to day burden will be diminished. As customers become less personally involved with the industry it will probably become even more opaque to them. Ultimately the financial service industry will end up in a situation much like the water company - absolutely essential to modern life but enjoying zero mind share, awareness or understanding among those served.

An interesting question is how much these changes will support market expansion. We think there are probably new services which can be developed and delivered at engaging price points. Better hedging of risks is a likely area for such innovation. There probably still remain valid opportunities for further credit extension. We think distribution question will change greatly and so the process of innovation should change and perhaps quicken.

Interesting times lie just ahead.

8 About the Author

Nicolo G. Torre, Phd CFA is a quantitative investment manager. He has made important contributions to algorithmic trading, risk management, government finance, and retail investing. Most recently he has been leading the firm Lloyd Tevis Investments which is the first firm to apply AI to personal wealth management. It is the first example of the class of mechanical intelligences discussed in this paper and an understanding of its possibilities is what informs the wider discussion here.