The Economic Philosophy of Fintech

The good, The Bad and Socially Optimal Usage

In any financial transaction, there are three costs[[1]](#footnote-1) to consider:

1. Transaction or Administrative Costs
2. Lender’s Risk
3. Borrower’s Risk

A lending institution (bank here onwards) recovers all these costs from its borrowers, over and above its profit. In a composite from, this is expressed as the interests (and fees) charged by the bank on its lending activities. Of course there are two additional considerations:

1. Impact of inflation on lending institutions’ dynamic pricing[[2]](#footnote-2) of their products
2. The pricing activity on credit is based on a cost plus model (whereby the bank determines its cost, adds a profit margin and then charges the customer) or on a behaviour model (whereby the bank determines the individual customer’s ability to pay along with their creditworthiness to generate the final pricing) or a mix of both

The additional themes above are not being discussed in this short note.

The aim of fin-tech is to reduce one or all three of the above costs. The driving motive behind this could be one of the following, depending on which school of economics appeals to you:

1. Create a competitive advantage by reducing the final price put up to borrowers in order to capture a larger market share
2. Improve the institution’s profitability
3. Increase the customer base itself by lowering the cost barrier of entry, subject to risk appetite towards less creditworthy borrowers

We will look at the three aims in detail.

# TraNsaCtion and Administrative Costs

## The Good

If we forego the cyclical nature of destruction and reconstruction of capital (the generic side-effects of technology from an economic sense), the foremost aim of fin-tech is to reduce transaction costs. Some of the important components are as:

1. Labour Costs
2. Paperwork
3. Turnaround Time (The Contract)
4. Administrative Infrastructure

Fin-tech can help to reduce some or all of these costs in more ways than one.

## The Bad

One of the important themes in history about the economic impacts of technological change (and not necessarily progress) has been the displacement of labour, if not in obsoleting of the current skill sets then at the very least in compressing the demand for labour pertaining to a certain skillset. Fin-tech – though it promises much more – is fundamentally going to result in reduction of labour required to execute lending and borrowing contracts. Compressing labour costs involves broadly two aspects:

1. Firing: The current labour may not entirely be able to re-skill itself and maintaining legacy business during transition phase wouldn’t require too much of the old staff
2. Pushing wages of current labour to subsistence levels (Wage basket compression in real terms): This could be through a real or perceived threat of reserved army of labour[[3]](#footnote-3), for example

## Solution

Possible solutions, covering the entire spectrum of short to long run (short run: capital is fixed and immovable, mid run: capital is in transformation, long run: capital is as flexible as labour):

1. Wholesale pocket money (i.e. cash transfers or universal basic income)
2. Creating new kinds of jobs, either as an engineered outcome or as a side effect (this is what usually happens, despite every epoch in history seeming to be a fundamental break from this mechanism)
3. Give people token work (e.g. exer-cycling to generate electricity)
4. A combination of all of the above

# Lender’s Risk

Liquidity Risk essentially captures uncertainty of payment while judging a borrower’s creditworthiness. The role of fin-tech would be to reduce the asymmetry in information[[4]](#footnote-4) available about a borrower; thereby resulting in better separating equilibriums. The benefits, again, could be in terms of increased market share, lower product pricing, etc.

## The Good

1. The allocation of capital becomes more efficient. This is especially important in a highly volatile and credit sensitive sector like SME production.
2. Better allocation allows greater gestation periods for capital formation, as banks would be willing to open up credit lines for a longer horizon; and would also be more comfortable to partner in as equity holders in the SMEs they lend to
3. Better creditworthiness evaluation reduces the need of more worthy borrowers subsidising less worthy ones

## THE BAD

Competition to grab market share in a hypercompetitive micro-finance sector (which is where a large share of the current crop of fin-tech start-ups/SMEs have directed their efforts) could lead to cutting corners, in effect leading to increased lender’s risk on lending institutions’ books as companies lower charges to make their markets. To paraphrase Michael Burry, one must always be wary of free money.

## Solution

In a modern framework that draws heavily on Laissez faire way of working, stringent self-regulation and even stronger self-control by lending institutions is the most important solution. Especially in case of SME lenders, it must be remembered that ultimately the aim of SME lending is industrial capital formation and not quick profiteering. This is what the author would call the awareness of the larger picture. A more thorough determination of creditworthiness is a huge promise of fin-tech and subverting this would be a big mistake.

# Borrower’s Risk

In many ways drawing a distinction between lender’s risk and borrower’s risk is not necessary as it is only a matter of perspective: viewing risk from the perspective of the lender v/s that of the firm or the borrower. Borrower’s risk then can be observed in two categories:

1. Investment Goods Industry: A firm faces an uncertainty of their business prospects, especially in businesses with large capital investments on leverage; in many cases the non-physical capital formation activities like market making could be a cause for large initial outlay of finance
2. Consumption Goods Industry: High interest rates on borrowings create a barrier to accessing finance and not only lead to unnecessary rationing of credit but also loss of interest income. Lowered consumption leads to lower investment demand from the consumer goods manufacturing industry.

## The Good

1. Fin-tech and fin-tech led credit assessment methodologies can help reduce the overall interest rate barriers, especially for small loans.
2. There is also the added option of offering lower interest rates to more worthy borrowers; thereby creating a virtuous cycle of responsible borrowing.

## THE BAD

1. Increased push to consumption combined with cutting corners in assessment during market making activities is unsustainable (the troubles of overextended micro-lending institutions is a case in point)
2. Increased push to investment on leverage is unsustainable and the increased availability of liquidity under a transition to modern financial technology may provide a financial environment conducive to exactly that.

## SOLUTION

1. Self –control: By individuals, firms and fin-tech based lending institutions
2. Show people their consumption pattern in a negative light once they cross a certain threshold of responsible borrowing (or what you can call educational fin-tech)

# CONCLUSION

In any structural change in financial institutions, there comes a time when financial euphoria overcomes common sense and a sudden opportunity to quickly gratify current wants and desires may completely obviate rational financial behaviour. As people become more and more short-term in their economic behaviour, self-control will become scarce and caution will be thrown to the wind.

But this would be unfortunate because ultimately credit works on a human value – trust. Irresponsible behaviour on part of consumers, firms and fin-tech lenders will lead to erosion of this trust and a pessimistic lending environment while everyone forgets this breach of trust, should it happen. Therefore good fin-tech has three objectives:

1. Reduce overhead
2. Increase credit outreach through better information symmetry
3. Foster trust through checking behaviour patterns of both good but credit unworthy borrowers (those who are otherwise trustworthy borrowers but may become irresponsible under availability of easy money) and malicious borrowers (those with intent of fraud, i.e. better fraud detection)
4. Prioritising broad availability of credit across social categories over better profit margins; in the long run the increase in lending base itself should increase overall profitability

1. Cost could be expressed in terms of a numeraire absolute charge and/or a nominal interest rate or both [↑](#footnote-ref-1)
2. Pricing can mean both numeraire charges and interest rate charges [↑](#footnote-ref-2)
3. An example of this being experienced by the author currently is mid and high level management always using scare tactics to tell their employees to re-skill themselves in their spare time because AI will make their current jobs obsolete; Which is funny because one of the promising applications of AI is total replacement of mid to some parts of top level management. [↑](#footnote-ref-3)
4. http://www.economicsdiscussion.net/information-economics-2/pooling-and-separating-equilibrium-salesman-game-microeconomics/29032 [↑](#footnote-ref-4)