BE CAREFUL WHAT YOU WISH FOR: THE SPECTACULAR RISE OF FINTECH

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INTRODUCTION[1]

‚Fintech', short for financial technology, represents one of the most important technological innovations to have emerged in the last thirty or so years. Defined as 'Computer programs and other technology used to support or enable banking and financial services',[2] in its most basic form (which this article focuses on) fintech involves a greatly enhanced ability to transact financial services via a computer or mobile phone, making it easier, cheaper and quicker to access a loan, make a savings deposit, transfer money, and pay for goods and services.

Fintech has created enormous excitement in the international development community. This is principally because it is widely thought capable of finally achieving one of the international development community's long-held strategic goals – ‚full' financial inclusion. This is defined by the World Bank as a situation where „Individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way."[3] Fintech will essentially complete the drive towards financial inclusion begun by the now largely discredited ‚bricks and mortar' global microfinance industry in the 1990s.[4] It is widely expected to be a game-changer in terms of improving the lives of the global poor (see McKinsey Global Institute 2016; CGAP 2017; United Nations 2018; UNSGSA et al. 2018). Since the early 2010s many western governments and their bilateral development agencies, particularly the US government, have been aggressively promoting fintech in the Global South. These government-led efforts have been supported by the wider international development community, as well as by the leading international Non-Governmental Organisations dedicated to promoting fintech solutions to global poverty, most notably the Gates Foundation. A handful of core financial, technology and digital payments corporations, as well as the large number of new start-up fintechs backed by venture capitalists, have between them pumped very significant financial resources into establishing, merging and buying up fintech operations on the ground. It quickly became clear that this dedicated group of fintech protagonists – described by Gabor and Brooks (2017) as the ‚fintech-philanthropy-development (FPD) complex' – was going to stop at nothing to ensure that the fintech model was embedded into the lives of the poor everywhere, whether the poor wanted it or not.

Most recently, an unexpected factor provided a massive boost to the global fintech sector: the global COVID-19 pandemic that began in late 2019. Handling cash money and trips to ‚bricks and mortar' financial institutions were early on deemed as likely ways of spreading COVID-19. Prompted by many key individuals and institutions within the ‚fintech-philanthropy-development' complex, governments were encouraged to act. Fintech was thereafter strongly encouraged, if not enforced. This led to a major and irreversible switch from cash money over to fintech applications, such as payment cards, in order to try to contain the spread of COVID-19. Further encouragement to make the switch to fintech was provided by some fintechs who agreed to drop their fees for the duration of the COVID-19 crisis.

Several key benefits of fintech are mooted. Accessing credit is now expected to become easier, quicker and cheaper. So too will accessing financial support from friends and relatives in distant parts through one's mobile phone. Fintech also ensures that savings are easier to accumulate and access, which gradually reduces household vulnerability and promote resilience. Paying for goods and services and receiving payments (grants, salaries, etc) need no longer involve cash money but can be done electronically, greatly reducing transaction costs as well as avoiding all the complications of storage and safety in countries where such issues are often complicated.

However, all that glitters is not gold. While fintech undoubtedly holds out the *promise* of a variety of important gains that might positively impact the global poor, achieving this outcome in reality is not a sure thing. Indeed, the emerging evidence shows that the privately owned and minimally regulated global fintech industry has already begun to deepen the many problems and dilemmas faced by the global poor. Going forward, the likelihood is that much more damage may be inflicted in the Global South.

WHERE IT ALL BEGAN

It is widely accepted that the pioneer of the global fintech revolution is the now iconic M-Pesa, Kenya's agent-assisted, mobile-phone-based, person-to-person payment and money transfer system. M-Pesa's origin lies with a project funded by the United Kingdom's Department for International Development (DFID). With an award of 1 million £ to the giant UK multinational Vodafone, a mobile phone technology platform was developed upon which to deliver financial services in East Africa. Under its parent company, Safaricom, M-Pesa was formally launched in March 2007. It was originally expected to specialise in providing microcredit, with clients taking out and then repaying a microcredit through their mobile phone. However, the initial practice soon showed that most clients were more interested in the transfer of money. This service then became the focus of M-Pesa's activity. M-Pesa today operates through a network of private self-employed agents that allow clients to deposit cash into their accounts and withdraw or transfer it whenever they need to. Crucially, by changing cash into 'e-balances', it is possible to send cash to another account via SMS. M-Pesa proved not just that the novel technology deployed was reliable and could work in the field, but that it was also popular among the poor. Compared to the antiquated financial systems in use before, the ease, speed and lower cost of fintech-enabled financial services had obvious appeal.

Importantly, however, M-Pesa also appeared to be providing a major boost to the local economy. Chief among those extensively reporting this unexpected development were the US-based economists William Jack and Tavneet Suri, who argued that M-Pesa money transfers from friends and relatives, as well as microloans secured from M-Pesa's partner institution within Safaricom, M-Shwari, led to more efficient labour market outcomes. Principally, this took the form of recipients enabled to move out of petty agriculture in order to take up an opportunity in simple retail or trade offering a marginally higher income. In an article published in the prestigious journal Science in 2016 Jack and Suri condensed the full set of development benefits they had supposedly located into one telling sentence: „(A)ccess to the Kenyan mobile money system M-PESA increased per capita consumption levels and lifted 194,000 households, or 2 % of Kenyan households, out of poverty" (Suri/Jack 2016: 1288). The international development community was bedazzled. Thereafter almost every major publication promoting the fintech movement opened with some version of this ‚killer' sentence (for example, United Nations 2018: 81). Fintech was now very clearly cemented into place as a major new development policy.

However, there was another much less talked about factor that was important in casting M-Pesa as the world's role model fintech, and fintech itself as the next market-driven saviour of the global poor: the fact that M-Pesa began to generate quite healthy profits. For Vodafone, the majority shareholder in M-Pesa's parent company Safaricom, this was naturally a welcome development. Thanks to M-Pesa, Safaricom was soon East and Central Africa's most profitable company, way ahead of the region's banks and multinational corporations (Wafula 2016). But by the late 2010s, Safaricom was one of the most profitable companies in the world: in 2018-2019, for instance, its profit came in at a massive 620 million US $ rising in 2019-2020 to 747 million US $. Vodafone's entry into fintech thus turned out to be one of the most spectacularly successful moves in the history of corporate finance.

THE KEY UPLIFTING CLAIMS FOR FINTECH ARE ACTUALLY QUITE PROBLEMATIC

However, as a model of development and poverty reduction the serious limitations of fintech soon began to emerge into view. As Mader (2016) reports, many of the key claims made on behalf of the fintech model are simply not based on any firm empirical evidence, but are instead based on false assumptions and, often, mere wishful thinking. For instance, consider the widely assumed safety angle of fintech – that transacting with cash opens the individual up to the possibility of a robbery, whereas an electronic transaction is assumed to be perfectly safe. This has been gradually contradicted by the fact that fintech-based robberies (i.e., frauds) have been rising quite dramatically in many countries, not least in Africa (Jackson 2019). In fact, it seems that the anonymity and physical distance now being introduced into financial transactions creates a criminogenic environment for unethical and fraudulent activities to emerge. Already several of the largest fintech lending operations have been forced to close down on account of massive fraud by senior managers and investors, most spectacularly in fintech pioneering China (Ngai 2018).

A step down from outright criminality is the abuse of vulnerable clients through fintech applications, which has also been on the rise. In South Africa, for example, a major corporate abuse of fintech occurred in the case of the Net1 cash transfer program. This involved coercive cross-selling of inappropriate products to social grant recipients paid through a fintech application, including the over-selling of expensive microloans to clients using the social grants they were receiving as the required collateral (Torkelson 2020). Furthermore, the fact that power, telecom and internet outages are still commonplace in Africa (in Kenya for example, see Kimuyu 2018) and across India has meant that many poor individuals have encountered a previously unknown problem: being left with useless credit cards and no access to mobile phone accounts, and so without any means of financial support for days on end. Increasingly relying upon fintech applications that often do not function can thus involve quite serious risks and downsides for the poor.

It is also disconcerting to find that the hugely influential work of Suri and Jack (described above) actually contains many fundamental flaws. As detailed by Bateman/Duvendack/Loubere (2019a), Suri and Jack's analysis actually appears to misrepresent, and it certainly vastly over-states, the development impact of M-Pesa. One can only speculate as to how this regrettable situation arose. However, given that in practice the US-based impact evaluation community often deliberately biases studies and reports to fit in with the requirements of their funding bodies,[5] perhaps one reason is that Suri and Jack's work has been funded for many years by two of the world's most aggressive fintech advocacy bodies?[6]

WIDER LONG-TERM THREATS ARISING FROM FINTECH ALSO EMERGE

But more worrying than the increasingly disputed evidence used by advocates to promote the fintech model is that, by the mid-2010s, it began to become clear that several deeply problematic economic and social trajectories were beginning to completely over-turn the case for fintech as it is currently structured. At least three issues are important here.

THE FINTECH LENDING MODEL IS 'ANTI-DEVELOPMENTAL' FINANCING

In the last thirty or so years many economists have come around to accepting that an increased supply of finance to the enterprise sector is one of the key drivers of economic development and growth (for example, see King/Levine 1993). This so-called ‚finance leads' school of thought has influenced many governments and the international development community. The result is that policy measures to increase the supply of finance to the enterprise sector have taken centre-stage. Since the fintech lending model is seen as a quick and efficient way of increasing the volume of financial resources going into the enterprise sector,[7] the argument is made that this has the potential to encourage economic development and enhance growth rates. Thanks to fintech, the opportunity to start an enterprise will be open to more individuals in poverty, and so this will see a flourishing of entrepreneurship. Job and income creation among the global poor should increase markedly.

There are several important problems with this widely accepted argument, however. The most important problem is that economists within the ‚finance-leads' school of thought generally do not differentiate between the important types and sizes of enterprise benefitting from this additional financial support. This is an important omission because economic history demonstrates that sustainable economic development and growth are actually an increasing function of the proliferation of the most productive small and medium enterprises (SMEs), which are generally defined as those SMEs that can raise productivity through achieving minimum efficient scale, adopting new technologies, innovating, providing worker training, and ensuring a high degree of reinvestment of any surplus (for example, see Piore/Sabel 1984; Acs/Audretsch 1990; Best 1990). By the same token, it is recognised that informal microenterprises and self-employment ventures generally possess very little ability to raise productivity. While generally helping to insert even more (generally unnecessary) participants into important retail supply chains, thus diverting a tiny part of the value generated down to the very poorest, the deliberate proliferation of such unproductive enterprises will nevertheless have very little impact on development and growth.[8] Indeed, the expansion of these unproductive enterprises when financed by diverting financial support away from more productive SMEs, which is a growing trend in many parts of the world (see Bateman 2019a), has in many ways served to undermine local economic development and growth. The overall result of more financial support offered to informal microenterprises and less to formal SMEs is the creation of what might be termed an ‚anti-developmental' financial intermediation structure. Importantly, this is exactly the destructive system of lending that the global microfinance movement has constructed since the 1980s (Bateman 2010), notably in Latin America (Bateman 2013a; Pagés 2010) and, moreover, *it is what the fintech movement will effectively expand going forward.*

Most fintech lending bodies have to date explicitly increased lending to the ultra-unproductive informal individual microenterprise category. This is why fintech is sometimes referred to as ‚microcredit on steroids'. Other fintechs support unproductive enterprise activity through the money transfer services they offer allowing the poor to obtain cash quickly from friends and relatives in order to start and expand a new microenterprise. In both cases it is hoped that the poor will be transformed into successful individual entrepreneurs. But what mainly emerges is merely an extension of the destructive ‚churn' problem that was rife under the previous microfinance lending regime. This is where there is a high and growing rate of new microenterprise entry, but equally high rates of exit (business failure) and also high rates of displacement, where new microenterprises force similar incumbents out of the local market (Bateman 2019a).[9] As, for example, Nightingale and Coad (2014) point out, there is generally no real net sustainable increase in jobs and incomes as a result of churn, while the gradual decline in productivity, due to the reduced possibilities that ‚here today but gone tomorrow' enterprises might invest, diversify and grow, inevitably hinders the possibility of sustainable development and economic growth.

At least partly in recognition that even *more* lending to the informal microenterprise sector will prove unsustainable and might simply translate into higher client debt levels (see next point), many fintech advocates have placed more emphasis on the sector's lending to more productive formal SMEs, through such as crowd-funding and P-2-P (Peer-to-Peer) lending methodologies. This particular fintech lending model makes use of a novel range of technological fixes – algorithms, meta-data collection, machine learning, and social media use – that can identify those clients best able to repay any loan offered. It is generally of no interest *how* loans are eventually fully repaid, simply that they are. Repayment might mean obtaining funds from friends and relatives, or going into debt with other lenders, or selling assets. The fintech lending methodology also has little interest or ability to identify and provide ongoing support to enterprises that might be the best in terms of the long term growth and development of the local economy. It is, in other words, a short term ‚hands off' form of lending. The fintech lending methodology therefore represents a quite marked move away from previous forms of financial intermediation that were intrinsically linked to the achievement of sustainable economic development and sustainable economic growth.

To explain this point I refer to the decisive role that previous lending models have played in economic development. The growth of many of today's advanced economies from the late 1800s onwards was very much an outcome of an efficient form of ‚relationship banking' built on local knowledge, mutual obligation, trust and cooperation. Northern Italy's ‚economic miracle' after 1950, for example, centrally involved local private and cooperative banks opting to support only those businesses for which they knew markets existed, placed a high premium on training, were committed to a high level of reinvestment, paid decent wages, and had clear long-term growth prospects way beyond the loan repayment period. So effective was this lending model in underpinning the economic development of the region that Becattini (1990) codified it into a 'theory of the local bank'. A similar highly effective relationship banking model emerged in the Basque region of northern Spain (Bateman 2013b), and also in post-war West Germany (Harm 1992). Elsewhere in East Asia from the 1950s onwards, an efficient state-driven lending model played a decisive role in creating that region's ‚economic miracle' (Studwell 2013). This lending model was built on carefully identifying and supporting the most technologically advanced business projects, very often with subsidised loans extended on the basis of performance targets, enabling start-up, expansion, diversification and growth through to maturity. Post-war Japan rebuilt with the help of its sophisticated national and local state and cooperative funding bodies, a structure later copied by South Korea and, to an extent, Taiwan. The spectacular success of China and Vietnam in recent years simply cannot be explained without reference to their highly effective ‚developmental' state lending models introduced at both national and local levels.

In almost every respect, the fintech lending model diverges from the ‚best practices' identified in the above lending models. Consider, for example, the well-known fact that clustering and agglomeration economies are crucial to achieving sustainable local economic success (see Hirschman 1958). Fintechs financing enterprises in distant parts of the world are prone to shy away from identifying and then patiently supporting those enterprises involved in building horizontal and vertical inter-connections because they are likely to be slower in reaching break-even point (partly because of higher levels of spending on equipment, training, learning, etc.) and so they are much riskier clients to take on. Fintech lenders are also prone to 'herd instincts' (Caglayan/Talavera/Zhang 2019). If the algorithm used in the lending process selects a certain sector or enterprise as a good candidate for a loan, other fintech lenders around the world using the same or similar algorithms will come to the same conclusion, and all will rush in to lend to the same sectors or enterprises ignorant of the decisions of others. This will very likely precipitate an over-supply problem. By the same token, certain business sectors could be forced to go without loans – to go 'cold turkey' – if other geographical areas or business sectors at any point in time offer more profit and/or less risk. The immediacy and flexibility of the fintech lending process is widely advertised as one of its biggest advantages, but it also represents a very serious risk to local economies desperate for a long-term source of affordable long-term (‚patient') capital with which to underpin sustainable enterprise development.

In contradistinction to the highly efficient ‚relationship' and ‚developmental' lending models successfully used in many parts of post-war western Europe and East Asia, the fintech lending model is likely to be an ineffective lending model in development terms. It manifestly succeeds on behalf of its narrow coterie of owners and investors, but fails on behalf of the community at large. In development economics the term for such an ineffective institution is ‚cathedral in the desert': fintechs are likely to be ‚cathedrals in the desert'.

This is not to say, however, that fintech cannot radically improve other more developmental forms of lending that actually strengthen the community into the longer term by helping to expand, technologically upgrade and diversify its economic structure. For example, saver and community-owned financial cooperatives and credit unions are already exploring fintech applications in order to improve their service offer to members wishing to establish or expand their enterprise. Fintech will also be extremely useful to local state and community development banks geared up to identifying and lending to local enterprises with the best potential of developing the local economy, and thereafter tracking their progress. In particular, the traditionally higher operating costs of such democratic community-based financial institutions can be reduced significantly by adopting fintech applications.

FINTECH WILL INEVITABLY EXTEND INDIVIDUAL OVER-INDEBTEDNESS

The key initial attribute of fintech was that it greatly promoted financial inclusion, making it so much easier for the poor to access credit. However, not least from the experience of the sub-prime crisis that emerged in the US to precipitate the global financial crisis of 2008, we now know more than ever that increasing access to finance is not always a positive development in the longer-term for those in conditions of economic vulnerability. In particular, the fintech sector and its financial investors have refused to date to accept the uncomfortable fact that a dangerous level of individual over-indebtedness had already been created in many emerging economies, and that the fintech sector can, and very clearly is, exacerbating this problem into dangerously uncharted territory.

The foundations of the general over-indebtedness problems that exist today in the Global South can be traced back to the over-supply of microcredit by profit-maximising microcredit ‚bricks and mortar' institutions in the years after around 2000 (Bateman 2010; Guérin/Morvant-Roux/Villarreal 2013; Guérin/Labie/Servet 2015) It is actually a *defining* characteristic of the deregulated market-driven local financial systems that have emerged in the Global South in recent years in that they are virtually all intimately associated with reckless lending, defined as the situation where a lender pumps out as many loans as possible, with limited reserves, without any serious regard for the quality of the loans advanced, and with little interest in the eventual consequences of client over-indebtedness. As Black (2005) famously showed, reckless lending is intimately linked to the rapid growth of the supply of credit demanded by a lending institution in order to bulk up profits, thereby to enrich the CEO, senior management, and core shareholders and investors.

The problem here is that it is only too likely that this already serious over-indebtedness trajectory situation in the Global South is going to be made even worse thanks to the arrival of the fintech model, an innovative lending model that routinely advertises itself as capable of providing credit 'at the touch of a few buttons'. Indeed, a fintech lender is often locked into the need to grow without limit or concern for the wider consequences on individual clients even more than is the conventional 'bricks and mortar' microcredit institution. This is because, first, the new generation of fintech investors and venture capitalists typically wish to cash-out within a short five-year period. Second, rapid growth is imperative in order to generate the high dividends and capital appreciation demanded by CEOs and senior management because they are often paid in shares and share options rather than cash, and they naturally wish to maximise their cash earnings and extract them as quickly as possible.

One of the key initial factors behind over-indebtedness in the microfinance sector was that it arose as a result of a failed effort to escape poverty through one's own microenterprise (Bateman 2010). As referred to above, the typical scenario around microenterprise development is not widespread success; it is that the vast majority of attempts to establish a functioning microenterprise actually fail outright, or else fail to generate an income commensurate with survival. Either way, the result is often a plunge into deeper debt, typically in an attempt to rescue the business. As even World Bank economists now finally concede (see McKenzie/Paffhausen 2017), the ‚intentional ignorance' of those refusing to register this important downside led to a far more favourable view of the impact of all microenterprise development and microfinance programs than was warranted by the reality,[10] and this ‚intentional ignorance' continues today. Fintechs and their supporters in the international development community proudly advertise the number of new start microenterprises they help into existence. Because investors do not need such information, however, they generally fail to give any account of what happened to these new starts even just a year or so later. Moreover, when it began to become clear to many in poverty that the opportunity to establish their own individual microenterprise was markedly shrinking because local markets were becoming saturated, the poor began to turn to accessing credit simply to fund needed consumption spending. The result is that financial inclusion is today generally not a way for the global poor to escape poverty through individual entrepreneurship, but merely to better cope with the consequences of being trapped in poverty (Collins et al. 2009).

It was almost inevitable, therefore, that the rise of fintech would greatly exacerbate an already deteriorating situation. Predictably, major increases in over-indebtedness first emerged in the ‚home of fintech' – Kenya. From around 2017 onwards it became clear that the fintech sector was playing the lead role in piloting Kenya's poorest into simply astonishing levels of over-indebtedness. When the Governor of the Central Bank begins to refer to fintechs as „loan sharks on steroids" (see Malingha 2019) it is clear that there is a problem. This ‚problem' began, of course, with M-Pesa, especially through the M-Shwari microcredit arm that operates within the Safaricom group. Referring to M-Shwari, Gordon and Lyon (2017) pointed out the obvious danger; "If you have an M-PESA account, a phone and, in some cases, an active Facebook account, you're only a few taps away from securing an instant loan ranging from $5–$500." Donovan and Park (2019) graphically detail the extent of huge over-indebtedness created by M-Pesa and other fintechs nurtured in what they call Kenya's ‚Silicon Savannah'. One of the very worst dimensions of this problem was the rapid rise in gambling by the young, which many now call an ‚epidemic' (Odundo Owuor 2018), the principal cause of which is the willingness of fintechs to push through microloans to the young entirely irrespective of the outcome.[11] Even worse, fintechs arriving on the market a little later have had no qualms whatsoever about entering what, by the mid-2010s, was an already disfunctional market. Hoping simply to capture their own share of the spoils, their attitude tended to be that other fintechs need to restrict *their* lending, but they will not agree to restrict their *own* lending as they desperately need to ‚reach scale', and so also profitability, as quickly as possible. The venture capitalist institutions that back these new entrants are similarly unconcerned.[12]

In other countries, this situation is being repeated. In Cambodia, for instance, the population is already over-indebted more than anywhere else on the planet (Bateman 2019b), yet several new fintechs have been able to raise investor funds specifically on the basis of their promise to ‚increase the supply of microcredit very quickly' (Kimsong 2018). In South Africa a massive over-indebtedness crisis has arisen in the poorest black communities thanks to the ease of access to credit made possible by payment cards and mobile phones. This has played a major role in South Africa now being designated as the world's most indebted country (Bateman 2019c). Elsewhere in Africa equally worrying levels of individual over-indebtedness and other problems have been registered (see Izaguirre/Kaffenberger/Mazer 2018).

As even major advocates of fintech, such as the World Bank's CGAP arm (see Mazer/McKee 2017), accept, providing as much credit as desired is the fintech industry's strategic advantage, but it was always going to make the over-indebtedness situation inherited from the ‚bricks and mortar' microfinance model considerably worse.

FINTECH IS A FORM OF DIGITAL EXTRACTIVISM

The final problem with the fintech model is an old one. In a very real sense, fintech represents a new form of colonial-style extractivism – we can call it ‚digital extractivism' – the aim of which is to appropriate as much value as possible from the billions of tiny financial transactions of the poor. Fintech is thus only a little different from the ‚extractivist' models practised during the colonial era that relied on the mining of physical materials (gold, silver, coal, diamonds, platinum) and control of agricultural commodities (cocoa, coffee, spices), and which allowed colonial elites to brutally extract significant wealth from a colonised country's natural resources. Fintech may not involve old style colonial authorities or the exploitation of physical raw materials under appalling labour conditions, but it can nevertheless be just as exploitative to ‚mine' the petty financial transactions of the poor. It is therefore entirely possible that the new era of ‚digital extractivism' ushered in by the fintech model could play a decisive colonial-style role in helping to generate a significant outflow of wealth that, once again, helps to *under-develop* the Global South.

Indeed, one can argue that this negative scenario is already becoming a reality in many countries. Nearly 45 % of Kenya's GDP is processed through the infrastructure of M-Pesa, including the tiny financial transactions of the very poorest. This represents the mother lode upon which M-Pesa's parent company, Safaricom, has been able to ‚digitally mine' a quite astonishing financial bounty. Even worse, the bulk of Safaricom's profits have to date been immediately converted into dividends and sent on to its major equity holder Vodafone (which today owns a 40 % majority stake in Safaricom through its Kenyan subsidiary) and to its minor equity holders that own 25 % of the equity (mainly held in tax avoidance jurisdictions).[13] This majority foreign ownership structure has resulted in very valuable aggregate demand and potential investment capital being lost to the country. Of course, as other emerging countries have shown,[14] this financial bounty could have been creatively used instead to directly develop the Kenyan economy.

The structure and motivations of the emerging fintech sector elsewhere in the Global South are broadly in line with the pioneering experience of free market-oriented Kenya. From the early 2010s onwards, governments and the corporate sectors in the wealthiest countries took the view that fintech was likely to be a hugely profitable new global industry, and they needed to join forces in order to dominate this sector if at all possible. Numerous measures were taken to facilitate this. Corporate ‚astro-turf' lobbying groups were set up, such as the Better than Cash Alliance,[15] operating under a declared mission to ‚help the poor' but with an all-too obvious hidden mission to push for the eradication of cash in the Global South, leaving the field clear for western financial and digital payment corporations to move in. Already many of the best new start fintech ventures in the Global South are being bought up by the two huge US-based digital payment corporations, Visa and Mastercard, whose aim is clearly to solidify their control over local financial networks and to try to ensure that all financial transactions go through their own fintech structures (for the example of Africa, see Adeshokan 2019). The fintech sector that is emerging in the Global South will therefore most likely be dominated by the major western corporations, backed up by their own governments eager to see profits repatriated to home-base.

Examining in depth the example of the ‚demonetisation' experiment that took place in India in 2016, Haering (2017a, 2017b) shows how this is being facilitated in practice today. Haering shows that the origins of India's ‚demonetisation' drive lie with the Gates Foundation, which began promoting this goal as far back as 2012. India was seen by the Gates Foundation as an unrivalled opportunity for it to promote its self-appointed mission to eradicate cash in the Global South, thereby to force the global poor to rely on fintech solutions whether they wanted them or not. Pointedly, the Gates Foundation was joined in its efforts in India by the US government's aid assistance arm, USAID, which, especially under the current Trump Presidency, is increasingly openly promoting the interests of US-based corporations as a development policy *for the US economy*.[16] As everywhere else where fintech is gaining a foothold, the ‚demonetisation' mission in India was conducted under various development-oriented pretexts, such as ‚promoting financial inclusion' and ‚helping to reduce fraud'. However, alongside the Gates Foundation's narrow fetish in seeing all poverty and development problems having a technological solution, the key underlying reason for ‚demonetisation' in

India was commercial – to assist US-based financial institutions, such as CitiGroup, and the leading fintechs, Visa and Mastercard, to enter and begin to dominate India's potentially hugely lucrative market for digital cash transactions. This important example is a serious warning that ,digital extractivist' goals are not simply a theoretical abstraction or even a ,conspiracy theory', as some might wish to claim, but are being demonstrably pursued on the ground (see also Gabor/Brooks 2017).

Not unlike in the case of the microfinance model, subject both to commercial profit-maximising interests and the national strategic development goals of the most powerful developed countries, the fintech model has already begun to shed its developmental roots. It has morphed into a uniquely effective tool with which narrow corporate and state interests are increasingly cooperating in order to penetrate and control the local financial systems in the Global South, the better to facilitate the deeper and more sustained exploitation of the populations involved.

CONCLUSION

This brief article challenges the emerging narrative that the fintech revolution currently underway will generate significant positive gains for the global poor. While there is no doubt that fintech can help to liberate the global poor in many important economic and social dimensions if organised, operated and regulated properly, it must be recognised that fintech also possesses the power to impoverish and exploit the global poor. The gains accruing to the poor so far as a result of the fintech model, especially in terms of payments services and easier access to credit, are indeed real. But the nearer the fintech industry comes to reaching significant scale and captures large numbers of clients with no easy way out of the fintech ,net' if they want one, we find that these initial gains are increasingly being swamped by the significant longer-term downsides to the fintech model I have raised. To the extent that the fintech movement therefore succeeds in its assigned objective of replacing conventional 'bricks and mortar' financial models and institutions, including achieving its overarching ambition to eradicate cash in the Global South, there is a very real risk that the fintech model will leave the global poor in an even worse situation overall.

References

Acs, Zoltan/Audretsch, David (1990): Innovation and small firms. Cambridge, MA.

Adeshokan, Oluwatosin (2019): VISA and Mastercard in scramble for Africa's payment ecosystem. In: The Africa Report, November 12.

Bateman, Milford (2019a): Impacts of the Microcredit Model: Does Theory Reflect Actual Practice? In: Bateman/Blankenburg/Kozul-Wright (2019).

Bateman, Milford (2019b): Cambodia: the next domino to fall? In: Bateman/Blankenburg/Kozul-Wright (2019).

Bateman, Milford (2019c): Microcredit as post-apartheid South Africa's own US-style sub-prime crisis. In: Bateman/Blankenburg/Kozul-Wright (2019).

Bateman, Milford (2018): Fintech as a destructive force in the field of local economic development, Paper presented at the Second International Conference SINCERE, 'Socio-economic effects of digital transformation', University of Dubrovnik, Croatia, October 25-27.

Bateman, Milford (2013a): The age of microfinance: Destroying Latin American economies from the bottom up. ÖFSE Working Papers No. 39. Vienna.

Bateman, Milford (2013b): Financing local economic development: in search of the optimal local financial system. In: ÖFSE (ed.): Österreichische Entwicklungspolitik, Analysen, Berichte: Informationen mit dem Schwerpunktthema "Private Sector Development – Ein neuer Businessplan für Entwicklung?". Wien, 43-52.

Bateman, Milford (2013c): The Art of Pointless and Misleading Microcredit Impact Evaluations. In: Governance across borders, May 29. https://governancexborders.com/2013/05/29/the-art-of-pointless-and-misleading-microcredit-impact-evaluations/ (03.11.2020).

Bateman, Milford (2010): Why doesn't microfinance work? The destructive rise of Local Neoliberalism. London.

Bateman, Milford/Blankenburg, Stephanie/Kozul-Wright, Richard (eds.) (2019): The rise and fall of global microcredit: Development, debt and disillusion. London.

Bateman, Milford/Duvendack, Maren/Loubere, Nicholas (2019a): Is fin-tech the new panacea for poverty alleviation and local development? Contesting Suri and Jack's M-Pesa findings published in Science. In: Review of African Political Economy, 46(161).

Bateman, Milford/Duvendack, Maren/Loubere, Nicholas (2019b): Another False Messiah: The Rise and Rise of Fin-tech in Africa. In: The Elephant, June 11. https://www.theelephant.info/features/2019/06/11/another-false-messiah-the-rise-and-rise-of-fin-tech-in-africa/ (03.11.2020).

Becattini, Giacomo (1990): The Marshallian Industrial District as a socio-economic notion'. In: Pyke, Frank/Becattini, Giacomo/Sengenberger, Werner (eds.): Industrial Districts and Inter-Firm Cooperation in Italy. Geneva.

Bédécarrats, Florent/Guérin, Isabelle/Roubaud, François (2019): Microcredit RCTs in Development: Miracle or Mirage? DIAL Working Paper, DT/2019-13.

Best, Michael (1990): The New Competition: Institutions of Industrial Restructuring. Cambridge.

Black, William K. (2005): The Best Way to Rob a Bank is to Own One: How Corporate Executives and Politicians looted the S&L Industry. Austin, TX.

Caglayan, Mustafa/Talavera, Oleksandr/Zhang, Wei (2019): Herding behavior in P2P lending markets. BOFIT Discussion Papers 22.

CGAP (2017): Why Does M-PESA Lift Kenyans Out of Poverty? CGAP Blog, 18th January.

Collins, Daryl/Morduch, Jonathan/Rutherford, Stuart/Ruthven, Orlanda (2009): Portfolios of the Poor: How the World's Poor Live on $2 a Day. Princeton and Oxford.

Donovan, Kevin. P./Park, Emma (2019): Perpetual Debt in the Silicon Savannah. In: Boston Review, August 14th.

Duvendack, Maren/Maclean, Kate (2015): (Mis)use of evidence in microfinance programming in the global south: a critique. In: Journal of the Academy of Social Sciences, 10(2), 202-211.

Faux, Zeke (2020): Tech startups are flooding Kenya with apps offering high-interest loans. Bloomberg Businessweek, February 12th. https://www.bloomberg.com/news/features/2020-02-12/tech-startups-are-flooding-kenya-with-apps-offering-high-interest-loans?srnd=premium-africa&sref=0GcdEyL2 (03.11.2020).

Ford, E. (2020): 'Political vandalism': DfID and Foreign Office merger met with anger by UK charities. In: The Guardian, June 16.

Gabor, Daniela/Brooks, Sally (2017): The digital revolution in financial inclusion: international development in the fintech era. In: New Political Economy, 22(4), 423-436.

Gordon, Bennett/Lyon, Ben (2017): 4 Trends Driving a Looming Credit Crisis in East Africa. In: Medium, August 14.

Guérin, Isabelle/Labie, Marc/Servet, Jean-Michel (eds.) (2015): The crises of microcredit. London.

Guérin, Isabelle/Morvant-Roux, Solene/Villarreal, Magdalena (eds.) (2013): Microfinance, debt and over-indebtedness: juggling with money. London.

Haering, Norbert (2017a): A Well-Kept Open Secret: Washington Is Behind India's Brutal Experiment of Abolishing Most Cash. In: Zero Hedge, January 12.

Haering, Norbert (2017b): How India became Bill Gates' guinea pig: A conspiracy as recounted by the main actors. In: Money and More, February 21.

Harm, Christian (1992): The financing of small firms in Germany. World Bank Policy Research Working Paper no. 899. Washington D.C.

Hirschman, Albert (1958) The strategy of economic development. New Haven, CL.

Izaguirre, Juan Carlos/Kaffenberger, Michelle/Mazer, Rafe (2018): It's time to slow digital credit's growth in East Africa. CGAP Blog, September 25. https://www.cgap.org/blog/its-time-slow-digital-credits-growth-east-afric (03.11.2020).

Jackson, Stuart (2019): Is banking security in Africa holding fintech back? In: Finextra, July 11.

Kimsong, Kay (2018): How Wing introduced financial services to Cambodia's "unbanked" In: Khmer Times, October 3. https://www.khmertimeskh.com/538764/how-wing-introduced-financial-services-to-cambodias-unbanked/ (03.11.2020).

Kimuyu, Hilary (2018): Kenya: ICT Ministry Launches Investigations Into the Latest M-Pesa Outage. In: AllAfrica, December 9.

King, Robert G./Levine, Ross (1993): Finance and Growth: Schumpeter Might Be Right. In: Quarterly Journal of Economics, 108, 717-738.

Mader, Philip (2016): Card Crusaders, Cash Infidels and the Holy Grails of Digital Financial Inclusion. In: Behemoth, 9(2).

Malingha, David (2019): This Nobel Prize-Winning Idea Is Instead Piling Debt on Millions. In: Bloomberg, August 22.

Mazer, Rafe/McKee, Kate (2017): Consumer protection in digital credit. CGAP Blog, 15th August. http://www.cgap.org/publications/consumer-protection-digital-credit (03.11.2020).

McKenzie, David/Paffhausen, Anna (2017): Small firm death in developing countries. World Bank Policy Research Working Paper no. 8236. Washington D.C.

McKinsey Global Institute (2016): Digital finance for all: Powering inclusive growth in emerging economies. September.

Ngai, Joe (2018); What today's shake-out in China's peer-to-peer lending market means for fintech. In: McKinsey and Company, October 9. https://www.mckinsey.com/cn/our-insights/perspectives-on-china-blog/what-todays-shakeout-in-chinas-peer-to-peer-lending-market-means-for-fintech# (03.11.2020).

Nightingale, Paul/Coad, Alexander (2014): Muppets and gazelles: political and methodological biases in entrepreneurship research: In: Industrial and Corporate Change, 23(1), 113-143.

Odundo Owuor, Victor (2018): There's a Troubling Relationship Between the Rise in Online Betting and Mobile Money's Growth. In: Quartz Africa, April 25.

Pagés, Carmen (ed.) (2010): The Age of Productivity: Transforming Economies from the Bottom Up. Washington D.C.

Piore, Michael/Sabel, Charles (1984): The Second Industrial divide: Possibilities for Prosperity. New York.

Saith, Ashwani (1990): Comments. In: Stewart, Francis/Thomas, Henk/de Wilde, Ton (eds.): The Other Policy. London.

Studwell, Joe (2013): How Asia works: Success and failure in the world's most dynamic region. London.

Suri, Tavneet/Jack, William (2016): The Long-run Poverty and Gender Impacts of Mobile Money. In: Science, 354(6317), 1288-1292.

Torkelson, Erin (2020): Collateral damages: Cash transfer and debt transfer in South Africa. In: World Development, 126.

United Nations (2018): Financing for development: Progress and Prospects 2018 – Report of the Inter-agency Task Force on financing for development. New York.

UNSGSA/Better than Cash Alliance/UNCDF/World Bank (2018): Igniting SDG progress through digital financial inclusion. Washington D.C.

Wafula, Paul (2016): Safaricom: Kenya's most amazing money maker. In: The Standard, May 12. https://www.standardmedia.co.ke/article/2000201499/safaricom-kenya-s-most-amazing-money-maker (03.11.2020).

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1 This article draws on a paper delivered at the Second International Conference SINCERE, 'Socio-economic effects of digital transformation', University of Dubrovnik, Croatia, October 25-27 (see Bateman 2018).

2 See https://en.oxforddictionaries.com/definition/fintech

3 See https://www.worldbank.org/en/topic/financialinclusion

4 The microfinance model was gradually discredited as a result of its practical failure to address global poverty while, rather awkwardly for an intervention advertised as ‚helping the poor', often greatly enriching the narrow financial elite that happened to manage, own, invest in, and advise the microfinance industry (see Bateman 2010; Bateman/Blankenburg/Kozul-Wright 2019).

5 As Duvendack and Maclean (2015) have pointed out, it is widely documented that self-censorship of impact results is pervasive in much of the US academic economics and impact evaluation communities in order to produce findings that are comforting to elite donors.

6 Suri and Jack's work on M-Pesa was initially funded by UK government funded Financial Sector Deepening (FSD) Kenya organisation joined a little later by the US-based Gates Foundation, both of which are dedicated advocates of fintech.

7 For example, the McKinsey Global Institute (2016: 8) argues that the fintech industry "(C)ould increase the volume of loans extended to individuals and businesses by $2.1 trillion".

8 As one astute analyst pointedly remarked early on with regard to the Grameen Bank (Saith 1990: 287), "The Bank does not care how the poor use the money as long as it is repaid. Thus, most of the money goes into trade. So, instead of buying cigarettes from a shop, you can buy cigarettes from a little fellow sitting out on the street. This is good for the little fellow but does not increase GDP much. We would need a very complex model of how trade builds up, its investments and its reallocation to have any long-term impact on the development process".

9 This process should not be confused with Schumpeterian ‚creative destruction' which is a major cause of increased productivity. Job churn here involves merely one cafe or hairdresser or street trader replacing another one in the same street, which generally involves very little technology upgrading or increased productivity.

10 Importantly, McKenzie and Paffhausen (2017: 2) go on to point out that such ‚intentional ignorance' is also a stock in trade form of deception deployed by those promoting the supposedly more accurate Randomised Control Trial (RCT) impact evaluation methodology. For example, this ‚intentional ignorance' is a notable feature in the long-standing work of the 2019 Nobel Economics Prize winners Abhijit Banerjee and Esther Duflo (see Bateman 2013c; Bédécarrats/Guérin/Roubaud 2019).

11 At least partly as a result of the adverse publicity in Kenya created by the article by Bateman, Duvendack and Loubere (2019a) and subsequent invited follow up articles in the local Kenyan media (for example, Bateman/Duvendack/Loubere 2019b), the huge internet-based gambling industry in Kenya was effectively closed down during the summer of 2019. See ‚Kenya orders deportation of 17 foreign directors of betting firms', Reuters, July 17, 2019. https://af.reuters.com/article/topNews/idAFKCN1UC167-OZATP

12 A notable example is that of Tala established in Kenya in 2014. Tala jumped into an already crowded market for its ultra-high cost loans to the poor and, with nifty marketing and the backing of several venture capitalists providing up to 200 million US $, was able to achieve scale very quickly. Within a few years, however, the business press finally picked up on the extent of the damage Tala was specifically creating in the shape of massive individual over-indebtedness and destroyed families. Nonetheless, by 2019 Tala was approaching ‚unicorn' status (valued at 1 billion US $) and, in spite of the very bad press it has received, it has continued to attract additional funding from the likes of Pay-Pal to expand into many other countries (see Faux 2020).

13 The remaining 35 % of equity in Safaricom is held by the Kenyan government.

14 Thanks to the Chilean state's ownership of CODELCO, the world's largest copper producer and one of the most profitable facilities in the world, from the 1970s onwards it was able to direct a large percentage of its revenues into financing major clusters of new enterprises (farmed salmon, soft fruit, etc), as well as into key social programs. This massive state-directed effort using CODELCO's revenues played a quite decisive part in creating Latin America's most successful economy (see Bateman 2013a: 11).

15 The Better than Cash Alliance was set up in 2012 by the United Nations Capital Development Fund (UNCDF), the U.S. government through USAID, Visa, CitiGroup and the Gates Foundation as core members with the goal of eliminating cash in the Global South.

16 As this article was being prepared, the UK government announced that it was going to follow the US model and fold its own development arm, the Department for International Development back into the Foreign Office to be used in future as a way of, first and foremost, promoting the commercial interests of British business (see Ford 2020).