

Review

# Analyzing the Impacts of Financial Services Regulation to Make the Case That Buy-Now-Pay-Later Regulation Is Failing

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**Abstract:** Fee-based Buy-Now-Pay-Later services (BNPL) are becoming widely adopted in many developed countries, including Australia. Across a variety of regulatory approaches there appears to be relatively minimal regulatory coverage of fee-based BNPL. This review applies a results-oriented, behaviourally informed market failure approach to assess the regulatory outcomes of fee-based BNPL. The review makes the case that the impacts of the regulation of fee-based BNPL in Australia demonstrate multiple forms of regulatory failure. The regulatory failure is particularly due to regulatory capture at a broad level and especially in terms of a lack of consumer protections. Consumers may particularly need consideration and protection because understanding the increasing complexity and financial knowledge at the heart of many fintech services is beyond the capability or responsibility of the consumer. Incorporating social and consumer considerations into analyses of regulatory structures can enable analyses of the regulation of fintech and move financial services regulation toward providing more socially useful and sustainable financial services. In the future, a behaviourally informed approach to the regulation of fintech may be beneficial and enhance sustainability.

**Keywords:** buy-now-pay-later; fintech; regulatory failure; regulation; consumer behaviour



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## 1. Introduction

The second machine age, identified as beginning around 1982, created a wave of digital disruption across many industries [1]. This disruption was largely a consequence of the miniaturization of computing, in both size and cost, enabling businesses to leverage computational power to increase business efficiency. The finance industry is particularly affected by digitization because it is a largely quantitative information-based industry, albeit exposed to Moravec's paradox [2,3]. That is, financial calculations are often solved more efficiently by algorithms than humans, although the more nuanced ethical imperatives continue to pose challenges for algorithms. Innovation is further driven by improvements in other technologies, including two at the heart of financial services—data processing and telecommunications [4]. Therefore, the second machine age has created an expanding market supply of algorithmic financial products that require comparatively less human involvement to deliver approximately the same functions to clients. The financial companies that choose to embrace such technology as an integral part of their service or product offering are often referred to as “fintech” companies.

After conducting a systematic review of fintech literature, Milian et al. [5] defined a fintech company as “an innovative company active in the financial industry making use of the availability of communication, the ubiquity of the internet, and the automated processing of information” (p. 18). After reviewing 200 articles containing the word fintech, Schueffel [6] offers an even broader definition: “fintech is a new financial industry that applies technology to improve financial activities” (p. 45). These definitions capture a wide array of financial products and services. However, as technology evolves, certain forms of digitization become the norm and lose their innovative characteristics. For example, in 1983, the Bank of Scotland allowed clients to connect to the internet using their TVs and

telephones to pay bills and transfer money. At that time, the Bank of Scotland may well have been classified as a fintech company, or at least providing a fintech service, under such definitions. Of course, today almost all banks use the internet to communicate with clients and most are not considered fintech companies. Therefore, it seems the term fintech is better applied to products and services at certain stages in a technological evolution than to companies themselves.

Across many parts of the world, in both established and emerging economies, technology in finance has been revolutionizing the interface between industry, community, and consumers in financial services, with innovation continuing to grow rapidly in recent years. With the opportunities of innovation in this lucrative market comes threats, including of consumer harm and unconscionable conduct in an industry where regulation may not keep pace with innovation. Since 2016, innovation in financial services that enables streamlined consumer spending through innovative payment methods has come under increased scrutiny by financial regulators. However, regulators have come under pressure to intervene sooner in areas where consumer take-up of fintech focused on consumer spending has been very rapid, particularly when the emerging financial services have been designed with features that knowingly or accidentally circumvent current consumer protections for credit provision.

Such unfettered approaches to fintech regulation are concerning because history shows that unfettered markets often lead to disastrous social and economic consequences, leading to calls that markets often require government interventions and regulations [7]. Regulations can enhance markets and protect consumers [7]. The outcomes of regulation can be used to assess the efficacy of regulation [8]. Further, evaluating regulation should consider consumer behaviours where such behaviourally informed assessment of regulation takes into account behavioural insights and economic insights about markets [9].

This paper will review a behaviourally informed analysis of regulation for a recent fintech offering, buy now, pay later (BNPL) financial services. The review begins by considering the forms of BNPL financial services, explores the regulatory approaches in countries that have led the take-up of BNPL. Then after setting that context, the review builds an argument that the rapidly growing BNPL consumer payment arrangements, which typically fall out of scope of existing consumer credit protection laws, suffer from regulatory failure and pose a substantial and growing threat of consumer harm. The emerging evidence of consumer detriment in such a rapidly growing fintech offering could reach a point of unrecoverable consumer harm for vulnerable consumer segments unless regulators are able to pre-emptively curb such growing, and arguably foreseeable, consumer detriment.

## 2. Traditional vs. Fee-Based BNPL Schemes

BNPL schemes are offered in several forms; however, in their simplest form it is an agreement between the consumer and lender for the provision of credit to the consumer to purchase goods or services, with the debt being paid off later by the consumer. BNPL schemes can be distinguished from a lay-by agreement where instead a deposit is made to the merchant, who provides the goods or services to the consumer once the full amount is paid. Therefore, a lay-by agreement has no provision of credit; rather, the consumer is purchasing a simple option-to-buy contract from the merchant.

A common type of BNPL scheme is the credit card with a promotional interest-free period in which a consumer enters a credit agreement with a third-party creditor, often at the point of sale, although they can also take the form of a simple loan agreement. The consumer buys the good or service from the merchant with borrowed money and fulfils their contractual obligations (i.e., pays the debt) to the creditor later. In this article, we refer to these types of BNPL schemes as traditional BNPL schemes. These schemes have existed for decades, although they are increasingly taking on a more digital form. For example, a credit card with a promotional period may be accessible as a smartphone application instead of a plastic card.

On the other hand, it is only relatively recently that BNPL schemes of a similar but not identical form have become increasingly popular. These newer types of BNPL schemes are agreements between the consumer and a third party, whereby the third party purchases the credit sale from the merchant and contractually binds the consumer to pay the third party the amount of the sale, usually in instalments. These arrangements are similar to the long-standing methodology of “factoring of receivables financing” [10,11]. Phelps [12] defines “factoring” as an agreement under which the factor (the financier), assumes the credit and collection function of its client, purchasing their receivables as they arise without recourse for credit losses.

In many cases of BNPL arrangements, consumer payments carry no interest, but instead the consumer incurs fees in addition to the sale amount or if they miss a payment. The third party providing this type of BNPL scheme, as explored later in this article, is not often considered to be providing credit to the consumer. We refer to these types of BNPL schemes as fee-based BNPL schemes. Notably, these schemes are mostly delivered by fintech companies according to the definitions provided earlier. This article largely focuses on fee-based BNPL schemes; however, given the relative novelty of such schemes, we also draw on research relating to traditional BNPL schemes.

In Australia, there has been rapid growth of fee-based BNPL schemes since 2016, with the total amount of credit extended under such schemes doubling from the 2017–18 financial year to the 2018–19 financial year [13]. The growth of fee-based BNPL coincides with decreasing demand for other consumer credit products (traditional BNPL schemes). As of June 2019, there were more than 6.1 million active fee-based BNPL accounts in Australia, representing up to 30 percent of the Australian adult population, with transactions and late payment fees mainly being paid by people aged 18–34 years [13]. The number of transactions increased 90 percent to 32 million in the 2018–19 financial year, and total revenue across six of the main BNPL providers rose 50 percent to \$398 million in the 2018–19 financial year [13]. The size and growth of fee-based BNPL schemes shows that they are a product line that has a presence in financial services; but, how are fee-based BNPL schemes being regulated? To address that question, we first provide some context about the general approaches to regulation.

### 3. Three Approaches to Financial Services Regulation

With this rapid growth of fee-based BNPL schemes, at least in Australia, we now consider the broader issue of regulation. Financial services regulation should at the very least (a) ensure the stability of the financial system and (b) protect consumers, noting that these two objectives are not exactly parallel to notions of prudential supervision and conduct of business regulation [14]. Three main approaches to financial regulation organization are: institutional, functional, and integrated [15].

Under the institutional approach the supervisory regime is determined by the main line of business conducted by the firm and focuses on the soundness and safety of institutions [16]. The typical arrangement often has different supervisors for each of banking, insurance, and trading markets/securities with each supervisor developing their own techniques and practices that often end up resulting in degrees of inconsistency across fields with differing regulations for similar activities [15].

The functional approach groups similar activities, as a function, and the regulation focuses on how a firm conducts its business and how it behaves toward customers, irrespective of the type of organization conducting that business [16]. The functional approach structures supervision along the functions, or line of the objectives pursued, and thus the potential conflict for different goals, such as between prudential and conduct of business supervision, is made explicit and structurally embedded [15]. Under the functional approach, organizations pursuing the same business should abide by the same rules. The classic functional approach is embodied in the “twin peaks” system raised in the seminal work of Taylor [14] and others, where each peak refers to the objectives of financial stability and consumer protection, often seen to correspond to wholesale versus retail activity [15].

Within the functional approach, there could be more peaks/objectives, with arguments for as many as 10 objectives, although the resulting large number of regulators may be unworkable [15].

One of the key weaknesses of the functional approach, particularly for BNPL—the focus of this analysis—is the risk of regulatory capture. Institutional and functional supervisors, often having close contact with the industry, are at risk of being convinced to protect a specific business sector. Similarly, businesses may play off regulators against each other. A potential result of such activities is that some of the resulting regulation may be formed based on intellectual capture that privileges well-resourced interests resulting in collusion between powerful actors and institutionalized rent-seeking [17]. Conversely, a larger supervisor may be less dependent on and more distant from the supervised entities and therefore less prone to capture [15].

Consequently, the third main approach to regulation is the integrated approach. Arguably, key drivers pushing some regulatory systems toward an integrated approach are the difficulties that the institutional approach has with the blurring of lines between traditional financial services activities, such as through the creation of financial conglomerates or the creation of intermediate products (where financial conglomerates are those firms active in several financial markets). These trends in the reality of the market have led to opportunities for regulatory arbitrage. The crux of regulatory arbitrage is how, particularly under an institutional regime, products with identical financial characteristics can be offered to the public under considerably different legal and regulatory regimes and be subject to different safeguards [15].

An integrated approach, with all supervisory functions concentrated in a single entity, may be able to lessen the likelihood of regulatory arbitrage and other weaknesses of the institutional and functional approaches. A single regulator might be more efficient due to shared resources and, in particular, shared information technology systems and support services [16]. A single regulatory entity may also provide economies of scale and scope, especially with respect to the recruitment of staff with appropriate skills and qualifications [16]. However, the integrated approach is not necessarily the pinnacle or best of the regulatory approaches. For example, while the functional distinction between product lines may be eroding in industrial economies, those changes may not be the case in all economies and for many countries there may remain major differences between banks, securities firms, and insurance companies for the foreseeable future [16]. Further, there are profound differences between prudential and conduct-of-business regulation that would make it difficult to combine two such different cultures within one organization [14]. Similarly, for the integrated approach to work well, all of the relevant regulations may need to be detailed and integrated, not just the organizations (building from [15]). Consequently, the movement toward regulatory integration may be a journey that is still ongoing.

#### **4. BNPL Regulation around the World—The Broader Context of Comparison**

To surface some ideas of the options for regulating fee-based BNPL, we briefly overview the regulations various countries have been applying. The brief summaries below are not meant to be comprehensive, nor absolutely up to date, but rather to show the nature of options being considered around the world and to suggest some patterns occurring in the regulation of fee-based BNPL.

##### *4.1. United Kingdom*

In the UK, the twin peaks model was adopted in 2013 and consists of two primary bodies; the Prudential Regulation Authority (PRA) and the Financial Conduct Authority (FCA), each charged with their duties of financial stability and consumer protection respectively. Since the global financial crisis (GFC), banking regulation in the UK has generally moved from its previous “light touch” approach toward a much tighter approach [18,19]. Traditional BNPL schemes are regulated under both authorities. More recently, the FCA recommended a series of measures aimed at BNPL schemes that require those schemes to

provide better information to consumers and not charge backdated interest on repayments made in promotional periods [20]. However, these measures are largely inapplicable to the fee-based schemes that do not charge interest. These fee-based schemes are often heavily promoted to consumers, but also to merchants who are faced with the proposition that failing to offer BNPL schemes to their customers will result in losing a competitive disadvantage [21], and as such, these schemes are rapidly rising in popularity [22]. The lack of aforementioned regulatory oversight has been acknowledged by the FCA who stated that these schemes are “exempt from regulation because they are interest and charge free, and are repayable in no more than a year through 12 or fewer instalments” [23] (p. 20). However, the FCA has announced a review into the unsecured credit market that is expected to address how these providers are, or are failing to be, regulated [24]. On the consumer side, there is a further concern that BNPL terms require standardization to prevent confusion regarding costs [25]. On the merchant side, there are concerns over the risk quality of BNPL offerings and whether the sustainability of the companies offering such schemes will be impacted in less benign credit environments [26]. All in all, newer BNPL schemes in the UK remain largely unregulated with insufficient demand from proponents of increased regulatory oversight. Nonetheless, the upcoming FCA review may go some way to addressing the lack of regulation of these schemes.

#### 4.2. Canada

In Canada, the twin peaks model has been adopted in a similar form to the UK. The two primary regulatory bodies charged with financial stability and consumer protection are The Office of the Superintendent of Financial Institutions and the Financial Consumer Agency of Canada (FCAC). Banking regulation in Canada is robust and the simplicity of the twin peaks model was largely responsible for the stability Canada experienced in the GFC compared to the neighbouring United States [27]. Other research has found that Canadian banks tend to be well-capitalized throughout both recessions and expansions [28]. There is also evidence to suggest that Canadian banks might further benefit from diversifying into non-traditional banking activities (i.e., non-interest income) [29]. Although BNPL schemes were not considered, it is plausible that such schemes would also fall under the “fee-earning” activities of non-traditional banking. However, despite the comparatively robust regulatory framework in Canada, new fee-based BNPL schemes in the market remain largely unregulated. For example, in offering guidance to consumers about BNPL schemes, the FCAC does not offer any advice concerning those schemes that are not personal loans or credit cards [30]. Such schemes operate in a regulatory blind spot in Canada; however, unlike the UK, there is currently no concrete prospect of increased scrutiny.

#### 4.3. New Zealand

New Zealand has also adopted twin peaks regulation of its finance and banking industry, with market conduct and prudential regulation administered by independent bodies. The market conduct regulator of capital markets and financial services is the Financial Markets Authority New Zealand (FMA), along with frontline supervisors. The Reserve Bank of New Zealand (RBNZ) is the prudential regulator of the banking, insurance, and non-bank deposit taker sectors, setting prudential standards and overseeing compliance with these standards [31]. However, New Zealand’s Financial Markets Conduct Act 2013 (FMC Act) and financial markets regulatory system excludes regulation of credit contracts. Therefore, BNPL providers are not regulated as part of New Zealand’s twin peaks model.

The New Zealand Credit Contracts and Consumer Finance Act 2003 sets the rules for businesses that lend money or provide finance to consumers—for example a cash loan, a home loan or a credit card. However, the New Zealand Credit Contracts and Consumer Finance Act 2003 does not cover BNPL. A possible avenue for review is that New Zealand’s Council of Financial Regulators (CoFR) was established to foster high-level cooperation and information sharing between the FMA, RBNZ, the New Zealand Treasury, and the New Zealand Ministry of Business, Innovation and Employment. The CoFR is intended to be a

forum to consider and address any financial markets regulatory issues, risks, or gaps that arise or are being monitored, including a risk register that helps CoFR and core agencies to prioritize and monitor action on prudential, conduct, and regulatory framework risks.

#### 4.4. Germany

Banking regulation throughout Europe is diverse, which is partly attributable to different law traditions, geography, and culture [32–34]. As of 2019, Germany held 25.63 percent of 5981 credit institutions in Europe [35]. The banking regulation model in Germany has been described as “a multi-regulatory framework with strong corporatist elements and with explicit deposit insurance” [36] (p. 203). Germany has a strong publicly-owned banking sector and, compared to regulation in the UK, is considered to be more risk-averse [37]. Germany also has a notably large fintech market with around EUR 17 billion in transactions processed through a fintech platform in 2017 [38]. However, despite the rise of fintech platforms in the region, fee-based BNPL platforms have largely escaped regulatory scrutiny. Again, the lack of scrutiny is mostly due to legal definitions that fail to consider the different attributes of BNPL schemes and have not yet tested whether a BNPL company is defined as a “credit institution” under the German Banking Act. Engaging in a “lending business,” which is considered a credit institution activity, is defined as “the granting of money loans and acceptance credits” (Section 1 [39]). Therefore, although BNPL companies are not explicitly exempt (Section 2 [39]), if a BNPL company was considered to be engaged in a lending business, it would require at least a limited license under the Banking Act. The existing regulatory climate therefore provides an opportunity for new BNPL companies to build a market under scarce oversight and expand into traditional lending activities with appropriate licensing later, with one report coining the phrase “Launch Now Comply Later” [40] (p. 25). A nearby precedent for the use of this path was taken by the fintech startup Klarna, when in 2017 it was granted a full banking license in Sweden after operating for several years [41].

#### 4.5. United States of America (US)

In the US, the twin peaks model has not been adopted, although it has been considered [42]. Without the simplicity of a federally mandated regulatory system, there is comparatively more complexity regarding the inter-operation of federal and state laws regulating BNPL schemes than other G20 countries [43]. Furthermore, the US has historically taken a private interest micro-prudential approach to regulation although, since the GFC, it has shifted toward a public interest macro-prudential focus more in line with other economically advanced countries [44]. Therefore, both state and federal laws are potentially applicable to BNPL schemes.

Under federal legislation, a company offering a BNPL scheme that either doesn't charge interest or does so requiring payments in less than four instalments will not be considered as a “creditor” [45,46]. However, at a state level, particularly in California, three cases against BNPL providers held that BNPL schemes *are* providing loans, and although not defined as creditors under the Truth in Lending Act for example, nonetheless require a valid state issued license to carry on such practices.

The first of the three cases was *The Commissioner of Business Oversight v Sezzle Inc.* that concerned whether Sezzle was making loans to Californians without the appropriate license. Sezzle provides consumers with the ability to pay for products or services across four fortnightly repayments after their purchase. Sezzle contended that it was not making loans to consumers but instead purchasing credit sale contracts (which are not subject to Californian loan laws) from merchants. In rejecting this argument, applying mostly common law precedent, the Department of Business Oversight (DBO) found that Sezzle went beyond merely purchasing credit sales contracts, as demonstrated by their active role as a third-party in the transaction—for example, by marketing to consumers before the point of sale. Therefore, the DBO concluded that when considering the substance of the BNPL transaction, it should be considered a loan irrespective of its form. The case of Sezzle

is important not just because it became a precedent for cases involving two other BNPL providers soon after, but because it serves as an example of a court looking to the substance of a BNPL scheme, not just the form it takes (which is often exempt from regulation) [47]. However, other states are yet to examine the substance of BNPL schemes in the same manner as California, although considering the increasing popularity of BNPL there may be more legal challenges forthcoming [48,49].

The notes above about the regulation of BNPL in selected countries around the world show that while some countries (e.g., Germany, and some states in the US) are starting to consider fee-based BNPL as credit, most of the above jurisdictions are not applying stricter regulations such as the application of credit considerations. Similarly, despite the alleged effectiveness of the functionalist Twin Peaks approach, none of the Twin Peaks countries are yet increasing regulatory intervention, although several have planned reviews of BNPL practices and impacts on consumers. To inform any such reviews of BNPL regulation, they may need to broaden their scope to maintain their relevance for that form of fintech. The analysis below seeks to suggest issues to consider in such reviews, especially consumer issues, by using Australia as an example case.

### 5. The Specific Context: BNPL Regulation in Australia

In analysing the Australian case regarding the regulation of BNPL, this paper first overviews the Australian regulatory environment. The following section then begins to evaluate those regulations from the minimal perspective of avoiding market failure.

Australia was a pioneer of the twin peaks model of financial regulation [50], although one of the stimuli for the changes leading to the current financial services regulatory system in Australia, the Wallis report, proposed four regulators [51]. Each resulting institution is argued to focus exclusively on a particular failure: the Australian Prudential Regulation Authority (APRA)—asymmetric information, the Australian Securities and Investment Commission (ASIC)—consumer protection, the Australian Competition and Consumer Commission (ACCC)—competition weaknesses, and the Reserve Bank of Australia—system stability [16]. The twin peaks nomenclature reflects a focus on prudential supervision for banks and insurance companies in the hands of one institution (APRA) and securities markets supervision in the hands of another (ASIC), both agencies being organized at the federal level but without involvement of the central bank [15]. Functional models such as the Twin Peaks model may have some anomalies and illogical ties, but appear to have fewer than the alternatives [14,52]. More broadly, there is no perfect regulatory structure and making a regulatory structure work is largely about identifying the structure's strengths and weaknesses and implementing solutions to address those weaknesses [53].

Fee-based BNPL providers in Australia are generally considered not to be regulated under one of the peaks, namely the National Consumer Credit Protection Act 2009 (National Credit Act). However, BNPL arrangements are regulated as credit under the Australian Securities and Investments Commission Act 2001 (ASIC Act) and are therefore subject to ASIC's product intervention power outlined in Pt 7.9A of the Corporations Act 2001 (Cth) (the Act) which was inserted by the Treasury Laws Amendment (Design and Distribution Obligations and Product Intervention Powers) Act 2019 (Cth) and commenced on 6 April 2019. Thus, ASIC's product intervention power is new and there has been a lag in applying the intervention power in relation to the rapidly growing BNPL market. Further, the benchmarks established in the enactment of the intervention power in terms of the extent of "significant consumer detriment" needed to trigger intervention by ASIC will be a critical signal to BNPL providers and other new product developers in terms of compliance obligations.

The Act also establishes that the extent of ASIC's power reaches beyond product design to include product distribution and related conduct. The application of the design and distribution obligations to financial product providers has been delayed until late 2021 or later, but when they come into effect these new regulatory powers, which focus on

consumer outcomes and harms, may play an important role in promoting good consumer outcomes to BNPL providers.

Another regulator in Australia related to BNPL is the Reserve Bank of Australia (RBA). In a December 2020 report the RBA determined that merchants cannot pass on the BNPL fee (or surcharge) to customers, which they are able to do for credit card fees, noting however that the decision may need to be reviewed in future. Consequently, one of the risks that BNPL introduces is not just from the customers defaulting on their loans, but with merchants not able to pass on the surcharge of BNPL providers to individual consumers. That cost is passed on to *all* consumers whether they use BNPL or not [54]. If regulatory provision does not enable a more transparent provision of BNPL services, it may be that consumer action regarding BNPL charges may be an alternative disruptor.

To assess those weaknesses and suggest solutions to Australia's Twin Peaks model, this article will review some of the key market failures arising from new fintech, particularly the case of fee-based BNPL schemes. The theoretical underpinning for public intervention is based on the need to correct market imperfections and unfair distribution of resources [55]. The regulatory system can be assessed by evaluating the degree of mismatch between regulatory structure and market reality [14]. Evaluating the regulation of the financial system can thus be considered as an important operationalization of public control over regulation [55]—in this case, the regulation of the financial services industry.

Given the above regulatory context in Australia, how can we evaluate the effectiveness of those regulations for the BNPL form of fintech? To begin, the regulations can be evaluated in terms of their outcomes and resulting behaviour.

## **6. Evaluating Regulation in Terms of Results and Behaviour: At a Minimum Avoid Market Failure**

There has been a growing recognition that consumers are fallible in systematic and important ways and that firms have incentives to exploit these shortcomings, particularly in financial services [9]. Thus, financial services regulation should at a minimum (a) ensure the stability of the financial system and (b) protect consumers [14]. That is, the regulation of financial services can be justified on the basis of market failure and government failure [4], sometimes referred to as a market failure approach to regulation assessment and reform [7].

The efficacy of regulation can be assessed in terms of the outcomes of regulations. Evaluating the outcomes taking in to account the regulations' limitations and implementation is considered a necessity for well-designed regulations [7]. Such a results-oriented assessment identifies important hazards and risks (that may need to be the subject of new regulation) or patterns of non-compliance (that may indicate the need to amend existing regulations) [8]. Furthermore, evaluating regulation should consider the nature of human behaviour, as well as how firms may respond to the consumers' behaviours and to the structure of regulation [9]. That is, this paper will apply a behaviourally-informed approach to regulation analysis that examines market failures.

Academically, there are six seminal forms of regulatory failure, of which three appear to be particularly problematic for BNPL. The first form of failure is regulatory capture. The other two key failures impacting BNPL consumers can be considered in general terms, as well as specifically in terms of asymmetric information and the consumer not knowing what is best for themselves.

The extent to which an individual consumer might need protection from these failings will vary by their degree of financial sophistication, the nature of the financial product under consideration, the proportion of an individual's capital being committed to the transaction, and the extent to which there is scope for repeat transactions, enabling the individual to gain in knowledge and experience [14]. Such failures can occur because of: (1) situations of market power brought about because of collusion, concentration, technological conditions or public regulatory conditions, (2) economies of scale, (3) externality (spill over) effects, as in the case of a bank failure generally affecting the confidence of savers in the entire banking system, (4) public good problems, where the marginal costs of a good to the next marginal customer may be low or zero, such as information developed



by a securities analyst for distribution to clients, (5) information asymmetries, between buyers and sellers of financial products, and (6) individuals who are unable to know their own best interest [4,55]. Avoiding these failures reflects an absolute minimum of an operating financial services regulatory regime. Regulatory support for green protocols and social and environmental responsibility policies have been making some progress in Latin America and would represent a proactive approach to fintech regulation [56]. But if the regulatory ecosystem itself is not operating well, it may be difficult to reliably progress to more sustainable goals.

The following sections provide data and summarize the effects of debt and BNPL products in Australia, both generally and for specific forms of failure. To conduct that analysis, the form of failure to do with situations of market power brought about because of collusion, concentration, technological conditions, or public regulatory conditions is covered first and then the failures associated more with the consumer side, both generally and then specifically in terms of asymmetric information and the consumers not knowing their own best interest.

### *6.1. Regulation Being Subject to Capture*

The GFC highlighted how regulatory responses in a crisis do not necessarily create systemic stability and that powerful financial actors have been able to intellectually and politically capture regulation in order to make profit [17]. Financial regulation can be said to be captured when a subset of actors, usually powerful elites, are able to strongly influence, if not determine, the regulations to which they may be subject [57]. More specifically, “strong” capture occurs when regulation, in law or application, is directed away from the public interest and toward the interest of the regulated industry [58].

Capture may be more likely in situations where the issues have low political salience, have a technical character (as most fintech does), and where there has been a relatively narrow supply of regulation [17]. In such situations, new products will often start off with a degree of self-regulation of their emerging market. Self-regulation may work when the participants possess approximately equal knowledge, information, and bargaining power, yet transactions involving a professional dealing with a retail client, almost by definition, do not meet these criteria [14]. Then, when the self-regulation structures are largely transmitted across to any later formal regulation, whether in the form of legislation or effect, capture is likely to have occurred [17]. Indicators of capture can be statutory, in terms of the legislation, or by agency, where the behaviour of the agencies could be argued to be supporting industry interest [58]. Both mechanisms of capture are likely to occur when industry-generated self-regulation is the basis of formal regulation. That is, the regulations cease to serve the wider public interest and instead systematically favour specific vested interests [57]. Another indicator of capture could be where a particular fintech product is not regulated by more comprehensive entities, such as credit regulation, where the agency or industry may claim that such regulation could impose significant regulatory costs [17]. Thus, BNPL appears to initially be captured through the agency of the regulators adopting the industry’s regulation and then statutory capture by both the resulting formal regulation and by the absence of stricter regulation such as credit regulation. Further, the adoption of the industry-generated regulation may also legitimize and mainstream the new product line, enabling the industry to grow faster.

To a limited degree, regulatory capture can unintentionally lead to some forms of fintech having at least a basic functional utility, such as the case where peer-to-peer (P2P) lending in the UK could be seen to link savers to productive investments [17]. P2P lending occurs when individuals post their borrowing needs and personal profiles on a P2P platform that is then viewed by individual and institutional investors. The investors may then choose to lend through the platform, where the platform may allow the consideration of personal “soft” information (e.g., demographics, context for the loan, investors’ values) [59]. The P2P product line went through a phase of self-regulation and then had the government essentially endorse and legitimize that regulation by formalizing it.

Such minimally “constructive” regulatory capture, as may be the case of P2P in the UK, could be the exception, and its impact will need to be weighed against the reputational value that such regulatory capture provides by legitimizing new forms of fintech. For example, a costly precedent of regulatory capture in California occurred during the 2001 Californian energy crisis, with evidence indicating that Enron played a significant role in manipulating electricity prices, in electricity markets essentially as a fintech, effectively taking advantage of the regulatory prioritization it held above the general public [60]. That is, more discussion needs to occur moving beyond the basic criteria often used by regulators to considerations of how financial services and fintech can be socially useful and that emphasizing social usefulness may be a step forward in thinking about financial services (building from [17]).

In considering BNPL in Australia, a concern is that ASIC has determined a path forward to include a voluntary code of conduct for BNPL providers, suggesting the industry is suited to largely “self-regulation.” The intention to adopt self-regulation follows the argument provided by the Australian Finance Industry Association, which is developing the voluntary code, to the 2020 Senate inquiry into financial technology that “even at the peak of financial hardship requests from consumers in March and April 2020, across the BNPL industry the percentage of customers approved for hardship was less than 1 per cent” [61] (p. 216). The draft voluntary Code of Conduct from BNPL providers in Australia received heavy criticism from ASIC in 2020 for its lack of consumer protection when compared to the National Credit Act. Yet in its November 2020 report, ASIC did not call for any immediate new regulation, instead still supporting self-regulation via the code of conduct being developed by the Australian Finance Industry Association, and the potential application of ASIC’s delayed design and distribution obligation and new product intervention power [61]. The lack of early intervention by ASIC also suggests a degree of regulatory capture by the BNPL providers. That is, as is typical of regulatory capture, the perspectives of the business community have been well represented, with little representation from others [7].

Of course, BNPL providers have incentives to expend resources defending their market power, along with that spent by smaller BNPL providers attempting to oust them, although those resources could be considered a form of social waste as they could instead be directed to more socially useful purposes [62,63]. Further, although outside of the scope of this article, a theoretical model such as developed by Sadik-Zada and Gatto [64] may be useful for a closer analysis of the incentive structures pertaining to fee-based BNPL schemes that partly drive their efforts.

Fintech companies, such as fee-based BNPL providers, could use their regulatory capture to promote green finance to a greater extent than traditional institutions [65] and this increased reliance on renewable energies could then positively impact sustainability [66], although they have yet to do so in Australia, with the exception of Brighte a BNPL that supports the purchase of solar panels. However, the most concerning aspects of regulatory failure regarding BNPL in Australia are in terms of the impact of BNPL and any resulting debt on consumers. In the short term, the delineation of the detrimental impacts on consumers may help to motivate ASIC to apply their product intervention power, but the specific forms of market failure are also concerning.

## *6.2. Consumer Protection Failures: General Consumer Detriment, Asymmetric Information, and Not Knowing Own Best Interests*

Perhaps the main concern with BNPL products is the need to protect consumers, especially given the known ways in which consumers are likely to be fallible [67]. Consequently, we now move to focusing on the consumer side of market failure. At a general level, the Australian regulation should be taking effect, taking action, if there may be significant detriment to consumers caused by a financial product. But what is general detriment and what are examples of the general impact of debt and BNPL?

The benchmark for ASIC’s intervention powers of “significant consumer detriment” could be a critical signal to BNPL providers and other new fintech developers in terms of compliance obligations. The term “significant” is not defined in the Act and will depend

on individual circumstances of the matter [68]. Consumer research has found that the negative consequences for some BNPL users may be significant and went beyond missed or late payment fees. As a starting point, the November 2020 review of BNPL by ASIC [10] detailed that 20 percent of consumers say they had cut back on, or went without, essentials such as meals to make their payments on time, and 15 percent of consumers surveyed said they had taken out an additional loan. Half of the users having these impacts were aged between 19 and 29. Of the consumers who missed repayments, the other payments that were missed were household bills (44%), credit card payments (32%), and mortgage payments (22%) [13].

Despite these findings, ASIC concluded that there was not sufficient evidence of significant consumer detriment to trigger an intervention. Therefore, early indications are that the consumer detriment benchmarks in relation to BNPL arrangements are likely to be very high, with risk to the market and likely regulatory failure.

Test cases may yet enable ASIC to intervene. In the first use of the intervention power under Pt 7.9A of the Act, delivered by the Federal Court of Australia on 15 April 2020 regarding a payday lender, the Judge presiding concluded that ASIC's power is to be construed broadly, in that the financial product itself or its features do not need to cause the detriment and that the detriment can be caused indirectly by something extraneous to the product, such as the circumstances in which the product is made available [68].

Perhaps a key example of that flow-on impact is the link between BNPL usage and increased credit card debt. ASIC's analysis of users of BNPL shows negative consequences in terms of consistently higher interest charges on credit cards for users who link credit cards to their BNPL providers compared to credit card holders who do not use BNPL providers [13]. Similarly, the inter-relationships between BNPL and credit card debt is also highlighted by recent industry moves such as in the US where major banks such as CapitalOne have barred their users from transferring BNPL debts to them because the banks felt that BNPL transactions were too risky for customers and their banks [69]. Part of the concern of credit card providers about BNPL, which should also be a concern for the regulators, is the impact of indebtedness on consumers.

#### 6.2.1. General Consumer Considerations, Such as the Effects of Indebtedness on Consumers

The increasing credit card debt witnessed since the alleged "neoliberal turn" is partly attributable to the phenomenon of new consumerism in which consumers desire to possess more despite not earning more [70]. Instead of government taking on debt to stimulate the economy, a system of privatization that indebted low to middle income individuals arose and has been shown to be unsustainable [71]. By 2019 in Australia, credit card debt had increased about twenty-fold since the Reserve Bank of Australia started reporting outstanding credit card balances in 1985, reaching a total of \$50.5 billion [72]. In the case of BNPL services in 2018, over 60 percent of their users are aged 18–34, two in five BNPL users earned under \$40,000, 40 percent were students or worked part-time, and more than four in five consumers who used BNPL planned to do so again [73].

Bad debt rates in BNPL in Australia are four times higher than in Europe. European BNPL bad debts range from 0.2 to 0.35 percent of BNPL sales, whereas in Australia and New Zealand the range is 0.9 to 1.43 percent [37]. In comparison, across Australia's four major banks, bad debt expense in 2019 as a proportion of gross loans was 0.13 percent, a sizeable improvement on the historic average of 0.27 percent over the last 25 years [64]. For BNPL users in the US, a concern was that 450,000 or 9 percent of one of the BNPL providers' customers had defaulted between 2016 to 2019, which has major lifestyle issues for these young consumers in the US as their credit history will take seven years to clear, during which time they may be unable to access most lending products, including mobile phones, and may be unable to sign rental or car purchase agreements [74].

Although the increased debt has led to more consumption, it has come at the cost of the mental, and sometimes physical, wellbeing of many individuals. Such mental effects are often described by varying labels such as financial anxiety, financial security, peace of

mind, or financial satisfaction. These terms are sometimes measured using applicable scales incorporated in surveys or alternatively drawn out by a thematic analysis of interviews. In other cases, they are loosely bundled together, making them difficult to disentangle. There are also the more well-known psychological illnesses such as depression, anxiety, and stress, and although a specific term like “financial depression” is not yet common, depression can nonetheless still be correlated to a person’s financial affairs.

For example, Turunen and Hiilamo [75] found that unmet loan payments led to an increase in suicidal thoughts and depression, along with poorer subjective health assessments. O’Neill et al. [76] reported an improvement in perceived health when people paid down or reduced debt in a sample of 3121 people. Increased consumer debt leads to greater cognitive load, leading to compromised financial decision-making, with consumers tending to take more risks, ignoring opportunity costs, and investing fewer cognitive efforts in choice tasks [77]. Over-indebtedness also increased the likelihood of respondents reporting that they had either bad or very bad health in European households [78]. There is also evidence suggesting credit card debt is related to depression, anxiety, stress, or suicide ideation in Asia [79].

Furthermore, these mental effects also appear to be reaching particularly vulnerable segments of society—segments that are the main focus of BNPL usage. For example, young people are more likely to have credit card debt and possess higher levels of financial anxiety [80]. Young adults are a key group of consumers with higher levels of impulsive consumption that is enabled by BNPL and unsustainable [81]. Credit card revolvers, that is those who do not pay the remaining balance each month, are more likely to earn a low income and be less educated [82,83]. Credit card debt of at least \$1000 was associated with being overweight or obese, insufficient physical activity, excess television viewing, infrequent breakfast consumption, fast food consumption, unhealthy weight control, body dissatisfaction, binge drinking, substance use, and violence in a sample of 3206 college students [84]. Similarly, \$1000 credit card debt has been reported to increase psychological distress in young American adults [85]. Further, mobile phones are taking the place of credit cards themselves and this extra convenience can also induce consumers’ willingness to pay [86], which is especially topical for BNPL schemes that rely heavily on smartphone applications. These customer characteristics and relationships with ill health suggest likely problems with BNPL usage, as well as problems for those customers with BNPL and credit cards.

In Australia, there is also a problematic rise in older people seeking financial counselling services, particularly for help managing debts [87]. Moreover, simply possessing a common behavioural bias such as present bias is correlated to increased credit card debt [88]. These effects often lead individuals to seek financial counselling for assistance developing debt repayment plans and negotiating with creditors [89–91].

However, other research has argued that credit card debt can instead have a positive effect by helping young people develop their personal identity and achieve lifestyle goals [92]. Moreover, using credit cards can smooth life transitions and difficulties, which is convenient for affluent people who are less concerned by the debt itself [93]. There is also extant research on the link between credit use and spending behaviour. For example, the credit card effect, whereby consumers will spend more when exposed to certain spending stimuli [94–96], a similar effect to that found for over-consumption facilitated by BNPL [81].

Results such as those above are especially concerning when it is acknowledged that merchants and fintechs are likely to leverage those results and relationships to encourage *more* consumer spending, which can exacerbate consumer indebtedness and the associated problems mentioned above. Therefore, consumer indebtedness, such as that attributable to BNPL schemes, is often dichotomously interpreted as either positive or negative, depending on whether it is the merchant or consumer concerned. Credit card debt and fee-based BNPL debt are not synonymous, yet comparatively small debts, with or without payment

schedules, have adverse health effects on consumers, especially those consumers most likely to use BNPL.

The general, practical considerations for consumers in assessing regulatory failure include the direct and indirect effects of indebtedness summarized above. In terms of the more academic considerations of the consumer side of market failure, there are the problems of asymmetric information and when the consumer does not know their own best interests.

#### 6.2.2. Specific Academic Consumer Considerations: Asymmetric Information and Not Knowing Own Best Interests

Problems of asymmetric information arise when a party on one side of a transaction has relevant information that the other side does not have [4]. Asymmetric information can present fintech opportunities, as shown by arguments that the rise of microfinance is attributable to information asymmetry that excluded the poor from accessing fair credit—a phenomenon that has ancient origins [97]. But from a behaviourally informed regulation analysis perspective, the key concern is the presence of market failures having detrimental outcomes on consumers.

There are various forms of information asymmetry and particularly relevant are the hidden information problems, including the “lemons” problem of the buyers knowing less about the qualities of the seller’s product than does the seller and/or “hidden action” problems of the buyer of services knowing less about the agent’s actions than the agent [98]. In the hidden-knowledge problems, the agent has and uses information that the principal does not have, and the principal cannot check whether the agent has used that information in the way that best serves the principal’s interest [98]. Hidden action primarily concerns how the principal is unable to check on the effort of the agent. For example, a physician may choose actions affecting the welfare of the principal (the patient), where the basis of the relationship is the superior knowledge of the physician. Hence, the patient cannot check to see if the actions of the physician are as diligent as they could be [98].

With consumers in capitalist societies unable to avoid engaging in banking and financial services, consumers must be able to trust the provider of the financial services to have their best interests in mind in the design and delivery of the services. “If the knowledge is considered too complicated or specialist to communicate, then a sector needs to convince the public it is using that knowledge for the benefit of both individuals and the public more generally” [99] (p. 8).

The next academic form of consumer-oriented market failure particularly impacting the customer in the case of BNPL arises when the individual is unable to know their own best interests. Complete information may help to avoid asymmetric information problems, but will not prevent mistaken choices if the individuals do not know their own best interests and may not realize that they should be relying on agents [4]. With the level of knowledge and professional competence required to be successful in finance increasing exponentially, the finance sector cannot validly claim that financial literacy is the responsibility of the customer or client [99].

Both of the above consumer-oriented forms of market failure are exacerbated in the case of BNPL in Australia by a shortage of consumer advocates or financial counsellors who are finding that even though BNPL is a relatively new business model, it is appearing as an increasing component of financial counselling casework, with one survey finding 90 percent of financial counselling clients having BNPL debts [89]. Financial counsellors report that BNPL providers have poor comparative hardship responses (rated at 3.7 out of 10 with 1 being the lowest rating) compared to major banks (7.5 out of 10), non-major banks (5.8 out of 10), and even compared to debt collectors (5.3 out of 10) [100]. An expanded role and increased numbers of financial counsellors may be a quick, fill-in option for consumer advocacy agents in relation to BNPL in the absence of improved consumer protection through regulation, but remediation is usually worse than prevention.

For some fintech products, regulatory capture can be constructive, but in the case of BNPL, it appears to be toxic. Perhaps the main focus of the problems with BNPL are

regulatory failures impacting consumers. From the arguments above, it appears that for BNPL the Australian regulations do not make the minimum requirement of avoiding failure, especially for consumer-related market failures.

## 7. Discussion

There are a variety of financial services that may fall under the umbrella of being fintech and this paper focuses on BNPL. Some of the options being considered around the world for regulating BNPL range from considering the possibility of treating fee-based BNPL as credit, through to, particularly for some Twin Peaks systems, considering reviews of BNPL. Any such reviews may need to at the least assess the degree of any regulatory capture and the likely impacts on consumers and markets. Further, regulators may also want to consider regulations and actions occurring in other jurisdictions and assess whether such interventions may be useful in their own context (e.g., the interventions occurring in California [47]). In conducting any reviews of fintech regulation, regulators may also want to be proactive and incorporate regulations that facilitate sustainable financial services practices [56].

Across various forms of fintech, there have been arguments that regulatory capture may exist. For P2P in the UK, the regulatory capture may be (minimally) “constructive,” but any positive, constructive, impacts of that fintech may be due to the socially useful nature of the fintech rather than regulation [17] and may be the exception. In contrast, our argument above is that the regulatory capture occurring with BNPL in Australia is more the classically destructive form arising from typical regulatory failure and, when also considering the consumer impacts, is likely to be toxic.

The detrimental impacts of BNPL and indebtedness on many consumers are a large source of concerns regarding the impacts of BNPL, both generally and specifically in terms of asymmetric information and the consumer not knowing what is best for themselves. That is, the Australian regulations appear to not even make the minimum threshold of not having substantial market failures evident.

The emerging evidence of consumer detriment for such a rapidly growing fintech offering could generate widespread consumer harm for vulnerable consumer segments unless regulators change to curb such growing and foreseeable consumer detriment. In the immediate term, there is a sliver of hope that, after considering the impacts on relatively vulnerable consumers, ASIC may be motivated to apply their current powers, but the specific forms of market failure are also concerning. The design of policy interventions should make the negative impacts on consumers less likely [7], especially given the likelihood that firms may exploit the above failures [7,9].

Financial services and fintech products impacting consumers will remain an ongoing concern and therefore need vigilant regulation because a key characteristic of debt is that it is rigid, both directly and in terms of required payments. Debt is rigid in that it “is a fixed claim for repayment regardless of the value of the underlying asset” or the debtor’s circumstances [101] (p. 418). The rigidity of debt makes it dangerous, especially in declining economic situations. Perhaps the easiest case for demonstrating the rigidity of debt is the case of mortgages. If the value of a mortgaged house declines, any losses concentrate in the homeowners, potentially leading to financial ruin for entire families [102]. Debt rigidity may also occur in terms of any legal obligation for scheduled fixed payments from the debtor to the creditor regardless of the debtor’s circumstances or market conditions [101]. Further, as reviewed earlier, BNPL debt and payments particularly impact younger people and can have contagion effects to other forms of credit, as well as impact their wellbeing. The negative effects of unmanageable debt can include poverty, job loss, health problems, and family instability [103]. Any of these outcomes would be detrimental to the consumer and therefore regulatory interventions are likely to be required.

Aggregating the private impacts of excessive debt in a society can lead to systemic failures in national and global economies, as we have seen in the recent global financial crisis, with adverse effects falling disproportionately on persons of limited financial means [101],

the people who most needed protection. Consumer protection can occur via “general” regulatory action (e.g., by ensuring disclosure, fair contracts terms, best practices relating to disclosure and advertising) and/or defence of consumers’ interests, particularly through education and awareness (e.g., [104]) and where specific conflicts arise, through mediation [15]. Future regulation also may want to consider the connection between well-being and regulation, where the externalities of excessive debt should include social elements such as good health, adequate shelter, access to education, and a life free from undue anxiety and fear [103].

Addressing regulatory failures will not only occur through regulatory action or changes. Some elements or portions of the regulatory failures noted above may be addressed through “market” actions. For example, over time, markets may develop institutions and practices (e.g., information-generating entities, certifying agencies) that can ameliorate the problems of asymmetric information, although those activities may involve costs and imperfections that would not be present if the asymmetric information problem were absent [4].

But with the strong incentives for regulatory evasion and arbitrage, regulators should be both proactive and cautious [7]. More specifically, in addressing the market failure problem of individuals’ being unaware of their own best interests, regulation interventions may be best approached through, for example, mandated changes in production processes and/or product qualities or types [4]. Addressing the problems of incomplete information and asymmetric information would also use those interventions, but could also include information regulation where sellers attach specified types of information to the goods and services they sell [4].

Evidence of consumer detriment is already mounting across several countries. However, the consumer impact of BNPL also needs to take into account the opportunity cost of directing spending toward discretionary items such as shoes, clothing, and homewares through BNPL arrangements at the cost of a myriad of wealth accumulation strategies for consumers. BNPL providers market their arrangement to merchants, citing increased average sales, including of more expensive items, implying that the BNPL arrangement leads consumers to spend more on discretionary items over time with higher conversion rates at checkout and higher average orders [105]. As such, even for those BNPL users who make all of their payments on time, it may be at the cost of better targeted, more conscious consumerism coupled with wealth accumulation and investment strategies that could lead to a range of more favourable outcomes for consumers and the economy over the longer term.

## 8. Conclusions

This paper has reviewed the results of a behaviourally informed market failure approach to regulatory assessment for the specific fintech of fee-based BNPL, particularly in Australia. The review argues that fee-based BNPL in Australia is mostly characterized by the occurrence of destructive and toxic regulatory capture, along with the detrimental impacts of BNPL and indebtedness on consumers suggest that the Australian regulations do not even make the minimum threshold of not having substantial market failures evident. The ongoing reluctance to incorporate social utility into regulatory consideration is striking given the growth of these alternative forms of finance known as fintech [17]. Consideration of the social context and social consequences of financial services may encourage a richer conversation about financial services and the risks of fuelling the economy with debt-funded consumption [103].

Compelling arguments that the damage caused by events such as the GFC is evidence of the need to have greater social and intellectual heterogeneity in regulatory policy debates have grown and are questioning the social purpose of finance [57]. That is, financial services used to once be part of the social fabric, but by talking only to itself, finance has torn that fabric and now needs to rediscover their social usefulness [17].

There have been some moves to incorporate social considerations into financial services, such as the growth of “ethical banking,” which have been increasingly legitimized in regulation [106]. At the other extreme, micro-finance initiatives, especially in developing countries, may be a less mainstream example of financial services that have a social value that is growing in recognition [107]. To some extent such changes, although currently small, in the relatively mainstream financial services organizations are a recognition of financial services having a purpose of generating social value. In the fintech space, it could be argued that P2P lending may represent a form of consumer and small business finance that has some purposeful elements of social inclusion, although the social outcomes are still somewhat ambiguous [17].

Yet for an increasing number of BNPL users, and arguably for the financial services system itself, BNPL appears to be generating consumer detriment. A small portion of BNPL companies may be aiming to facilitate socially useful activities, such as the funding of solar panels, but most are not and instead are vehicles of over-consumption [81]. Similarly, forms of fintech have used regulatory failures in other markets, such as energy markets, to manipulate prices for their own benefit, at least temporarily and to the short and long-term detriment of society [60].

Regulations addressing the specific consumer failures noted above tend to require that “unsafe” products and services be banned from markets as a means of providing safety in a society with diverse decision-making capabilities [4]. So, it is in the interest of specific forms of fintech to consider appropriate regulation and reconnect to the social fabric by having social utility. In time, regulators may move beyond relatively reactive approaches to proactively regulating financial services and move on to adopt more sustainable practices that require financial services and fintech services to rethink their businesses and move ahead to more sustainable business models [56].

Fintech is a category of financial services, and if not appropriately regulated, may be associated with regulatory failure. Debt is rigid and can cause consumer harm. When aggregated, unmanageable debt can cause systemic damage. So for their own longevity, regulations should be in place and in effect that enable fintech to have social utility. Applying the calls of [17] to fintech, future research needs to develop systems to assess the social utility of a specific form of fintech in order to contribute to the social fabric and be socially sustainable. Behaviourally informed regulation, with constructive consideration of the nature of human behaviour [9] could lead to a new, more sustainability-enabling approach to financial services regulation.

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