Technical Report

# BNPL Platforms: The Hype and the Reality

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## Introduction

In early August 2021, payments fintech *Square* announced its intention to acquire Buy Now, Pay Later (BNPL) firm, *Afterpay,* for A$39 billion (US$29b) in an all-stock transaction. The deal, which is expected to close in the first three months of next year, is the biggest ever merger and acquisition agreement in Australian history.

As part of the deal, Afterpay's two Australian founders will be paid $2.7 billion each in *Square* stocks for their own Afterpay shares, and will be able to offload these in the US or Australia.[2]

Well done, Nick Molnar and Anthony Eisen who founded Afterpay, headquartered in Sydney, Australia, in 2014.

*But do the numbers stack-up? Let us take a management accountant's numbers view.*

## The Strategy and Performance

In the 2020-2021 year, Afterpay, which attracted 13.1 million active customers, 80 per cent higher than a year ago, has been built on a simple model that allows customers to reschedule a relatively small purchase to an upfront payment and three fortnightly instalments.

*However, this tech company is still to make a profit.*

This is not unusual for hyped-up tech-stocks. *Amazon* took 12 years to turn in a profit. As of 2021 *Tesla, Airbnb* and *Uber* are still to be profitable in their core-businesses. The key figure that hedge funds and others are interested in is however, not profit, but the potential to scale-up the customer base to sell more products and services. They will figure-out how to monetise the customer-base to make a profit later, as *Facebook* did. Already we have some indication as to how *Square* hopes to monetise *Afterpay.*

Square CEO Jack Dorsey, in announcing the takeover said:[3]

*"Together, we can better connect our Cash App and Seller ecosystems to deliver even more compelling products and services for merchants and consumers."*

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[1] Institute of Certified Management Accountants.

[2] Denham Sadler (2021), "Afterpay's big acquisition a win for local tech sector", *Innovations*, 2 August. https://www.innovationaus.com/afterpays-big-acquisition-a-win-for-local-tech-sector/

[3] Ron Shevlin (2021), "Why Square Acquired Afterpay For $29 Billion: Merchant and CashApp User Acquisition", *Forbes*, August 2. https://www.forbes.com/sites/ronshevlin/2021/08/02/why-square-acquired-afterpay-for-29-billion-merchant-and-cashapp-user-acquisition/?sh=60df7095281d

It certainly cannot be the financial numbers or the Afterpay business model itself. After all, the key numbers are that whilst Revenue at A$417.2m was up 89% from year-earlier (A$220.3m); Pre-tax profit was a negative A$76.2m (vs. a negative A$35.8m am year earlier) and Net profit was a negative A$79.2m (vs. a negative A$31.6m), and there was no interim dividend.[4]

So clearly Afterpay is using a market-penetration model, i.e. pricing their service at a loss to capture market share. The theoretical underpinning of this pricing strategy is the *Profit Impact of Market Strategy (PIMS)* that hypothesises that high market share will ultimately lead to high profits.[5]

For Afterpay to generate the market share required to justify its a$39 billion price tag, it must deliver a truly compelling product and service for merchants and consumers, that is significantly different to its competitors. However, whilst there are many copy-cat BNPL platforms in the market, the biggest competition will come not from BNPLs but from Banks and Credit Card companies.

For the consumer, the supposed benefit of the Afterpay business model is that, unlike lay-by, they get the product straight away. This immediate access to the product is of course similar to a credit card purchase, so what's the difference?

*This article presents an argument that it is mostly illusionary, i.e., tech-hype.*

## The BNPL Business Model and the Sales Pitch

Before going into details as why we think its hype, let us consider the BNPL business model. At face value is it no different to a credit card. Consider a standard $100 purchase using either a credit card or a BNPL platform. The merchant receives approximately $96 from either payment method. The difference (given to entice retailers to sign-up) is that a BNPL platform settles the vendor business during the transaction whilst a credit card company settles the business usually on a monthly cycle. As such, most early customers were enticed to use Afterpay by the retailers themselves, who saw an advantage to push this platform over credit cards. Note that merchant settlement terms by credit cards could be settled more frequently than monthly depending on volume — with the discount rate covering the negative float consequences. Anyway, these vendor settlement transactions and timings have no consequence to the customer who buts the end product or service.

It is the *timing of the collection of the money* from the customer that leads to a perceived benefit for BNPL users. But is it that different?

Using the $100 purchase example above, having paid the retailer $96, Afterpay will collect the $100 in four instalments of $25 from the customer (the first instalment is collected upfront on purchase date itself for new customers). It is the $4 difference that is supposedly how Afterpay makes its money, and it is essentially the interest the company charges (around 4.17%).[6]

Whilst the customer has an interest free credit free period of a minimum of about 28-days when using a credit card (depending on date of purchase this can be as high as 56 days); Afterpay collects their dues in four equal fortnightly instalments (i.e. the first upfront and the last in 42 days) without

[4] James Eyers (2021), "Afterpay takes on the big banks", *Australian Financial Review*, Feb 25. https://www.afr.com/companies/financial-services/afterpay-sales-up-as-it-raises-1-25b-to-buy-out-matrix-20210225-p575mj

[5] Buzzell, R. and Gale, B. (1987) The PIMS Principles: Linking Strategy to Performance, *Free Press*, New York.

[6] Saurav Dutta (2017) "Explainer: How lending start-ups like Afterpay make their money", *The Conversation*, December 7. https://theconversation.com/explainer-how-lending-startups-like-afterpay-make-their-money-86477

any additional charges to the customer. Depending on the level of membership in the Afterpay loyalty program, there could be no payment up front on eligible orders, which can extend the credit period to 56 days. It appears quite straightforward, and there is not a whole lot of differences to buying with a low-interest credit card—*if you make payments in a timely fashion.* This is the key. BNPL's like Afterpay have built this illusion that if you cannot pay on time, it is much cheaper to pay a capped 'Late Fee' to it (maximum of $68) than pay exorbitant credit card interest fees.

*In this article we will test this illusion and see if it holds up in reality.*

First the big illusion, that its capped 'Late Fees' are cheaper than accumulating credit card interest.

As discussed above, an Afterpay customer has to pay off their purchases in 4 instalments—usually fortnightly—and if they miss a payment, they get charged a $10 overdue fee. This sounds cheaper than paying with credit card interest, but the devil is in the fine print. According Afterpay's *Terms and Conditions*, if the original order value is below A$40 a maximum of one $10 'Late Fee' may be applied on the balance 3 fortnightly instalments totalling $30 (i.e., a 33% surcharge). If the original order value is between $40 and $272 the aggregate sum of the late fees applied in relation to the order will not exceed 25% of the original order value, i.e., a maximum of $68. This maximum late fees of $68 is maintained for original order values above $272. As Afterpay's maximum purchase limit per transaction is A$1,500 (with an outstanding account limit of $2,000), this is a 6% surcharge on the total of the balance 3 instalments.

As the first instalment is required upfront, a $40 purchase will have 3 outstanding payments totalling $30 over 42 days; whilst a $1,500 maximum purchase will have 3 outstanding payments totalling $1,125 over 42 days.

This is where it gets interesting. A percentage surcharge is *not the same* as an annual effective interest rate (EIR) that a credit card company charges. The EIR for a surcharge (i.e., EIR of the Late Fee) is in fact calculated as follows:

*EIR of Surcharge p.a. = (C/(1-C)) x (365/N))*

*Where:*

C= Percentage surcharge

N= Number of days in default

For example, let us take a $40 purchase with the first instalment upfront. Assume that the balance 3 instalments totalling $30 are defaulted for the maximum period of 42 days, i.e., the customer does not pay any of the balance 3 equal fortnightly instalments. Then, the customer is expected to pay the $30 plus a maximum $10 late fee (i.e. a 33% surcharge). Using the above equation this works out to an Effective Interest Rate of 435% that you are paying Afterpay as a surcharge for keeping their $30 for 42 days!!! This is outrageously greater than any credit card interest rates which average at approximately 20% per annum.[7]

If one takes the maximum $1,500 with the first instalment upfront, and the balance 3 instalments totalling $1,125 are defaulted for the maximum period of 42 days defaulted for a maximum period of 42 days, then the customer is expected to pay the $1,125 plus a maximum $68 late fee (i.e., a 6% surcharge). Using the above equation this works out to an EIR of 56%. Whilst clearly, the larger the

[7] According to the Reserve Bank of Australia, the average standard credit card rate is 19.94%. https://www.finder.com.au/credit-cards/credit-card-statistics

individual transaction is, the lower is the surcharge EIR, even on a maximum purchase it is still higher than any credit card interest rate. In fact, reports from Afterpay state that they make 20% of their income from late fees.

Therefore, the ‘free of interest’ spruiking by the BNPL platforms like Afterpay is an illusion that has been sold to the consumer using less threatening jargon such as ‘late fees’, and ‘dollar caps’ rather than ‘interest rates’ and ‘percentages’.

This can also be seen in the following table which shows the comparison in dollar amounts, if After pay is paid 2-months (60 days) after the due date of the final instalment vs. using a credit card for the purchase with a similar overdue period. This comparison assumes an interest free period of 28 days from the start of the month immediately following a purchase date when using a credit card and a 20% annual credit card interest fee:

**Afterpay vs. Credit Cards; Actual Dollar Late Charges**

| Product/Service Purchase Date | Purchase Price | Settlement Date (2 Months After Last Due Date) | Afterpay Days Late | Credit Card Days Late | Capped Afterpay Late Fee in $ | Max Credit Card Charges in $ |
|---|---|---|---|---|---|---|
| Start of Month 1 | $ 40 | Middle of Month 4 | 102 | 60 | $ 10.00 | $ 1.32 |
| Middle of Month 1 | $ 40 | End of Month 4 | 102 | 60 | $ 10.00 | $ 1.32 |
| End of Month 1 | $ 40 | Middle of Month 5 | 102 | 75 | $ 10.00 | $ 1.64 |
| Start of Month 1 | $ 100 | Middle of Month 4 | 102 | 60 | $ 25.00 | $ 3.29 |
| Middle of Month 1 | $ 100 | End of Month 4 | 102 | 60 | $ 25.00 | $ 3.29 |
| End of Month 1 | $ 100 | Middle of Month 5 | 102 | 75 | $ 25.00 | $ 4.11 |
| Start of Month 1 | $1,500 | Middle of Month 4 | 102 | 60 | $ 68.00 | $ 49.32 |
| Middle of Month 1 | $1,500 | End of Month 4 | 102 | 60 | $ 68.00 | $ 49.32 |
| End of Month 1 | $1,500 | Middle of Month 5 | 102 | 75 | $ 68.00 | $ 61.64 |

Thus, even with a 2-month delay in settlement, paying the credit card interest is cheaper.

One must then ask if Afterpay is significantly more expensive than credit cards, is there any other benefit for consumers in using BNPL payment platforms?

Let us look at the other benefits that are often quoted.

***Convenience — No Credit Checks.***

There is no doubt that Afterpay is easy to sign onto; and as it does not run a credit check when one signs up, it may appeal to buyers who have had credit issues in the past. This is another clever illusion, as the *only* way to pay the quarterly instalments to Afterpay is via credit and debit cards from Amex, Mastercard, and Visa which were issued in customer’s own country of residence. Afterpay does not accept payments by BPAY, Bank Transfer or Pre-Paid cards.

In effect, by linking their payment platform to a credit card, Afterpay is effectively using the credit card company’s credit check on the customer!

***Capped Late Payments***

We have already discussed the Effective Interest rate of the surcharges. However, if a payment (either on time or late) can be made only via a credit card, then effectively the customer’s liability is transferred to his/her credit card. This then would incur the high credit card interest rates anyway. So, all Afterpay is offering is a very short window of time before the cost of the purchase hits the customer's credit card!

Take for example the following scenario.

*On the first of a month, Bob purchases a sound system for $400. He settles his $100 upfront fee using his credit card. But now, his credit card has a liability of $100, which he must settle in approximately 56 days (end of the next month) or incur credit card interest. The purchase timing is such that he pays his first quarterly payment of $100 in a fortnight using his credit card. This must be settled with the credit card company in 42 days to avoid credit card interest. He pays his second $100 instalment, charging it to his credit card, the next fortnight, i.e., at the end of the month. This must be settled with the credit card company in 28 days. His third and final instalment that is charged to his credit card in the middle of month 2, and he has 42 days to settle at the end of month 3. If he does not pay his full credit-card bill at the end of each month that it is due, he will have a credit card liability on which he must pay interest.*

The capping of late payments is, therefore, an illusion.

This small window of time before one's purchase hits one's credit card may provide a small buffer to counter moves by retailers who often "pass-on" the merchant fee of around 2% of purchase price to those using a credit card for their purchases. By using Afterpay, this charge may be avoided. The credit card companies have been banned from trying to stop this practice by retailers, but the regulators have turned a blind eye to BNPLs like Afterpay stopping retailers from doing the same. It will not be long however, before credit card companies wake-up to this and charge a 'merchant fee' from Afterpay, for using its services!

There is a small 'delayed payment' opportunity if the settlement is made using a debit card. But then the question arises as to if this small advantage of time is worth the hassles of dealing with settling 3 quarterly payments within 42 days on time on one debit card, or be subjected to bank overdraft fees.

Note also that despite the company saying there are no credit checks upon sign-up—which is true—the small print on Afterpay's terms and conditions clarifies that they may pass along your details to a third party who will put your account through an identity and payment-verification process.

***Better than Lay-by***

This has been another great illusion. Afterpay has been spruiked as a bigger and better version of Lay-by by vendors and the media, and a lot of Australian consumers have bought into the narrative. The sales pitch is that unlike lay-by, the customer gets the product straight away rather than having to pay it off before returning to the store to collect it. This is a great illusionist trick of *misdirection*. The comparison should not be between Lay-by and BNPL, but between Credit Cards and BNPL. In both of the latter payment methods, the customer takes away the product immediately after buying it.

Anyway, we have shown that ultimately, one's debt ends-up as a credit card liability.

***Lifestyle Choice for Millennials***

For years, millennials have associated credit cards with baby boomers and Generation X, so it could simply be that rebellious nature to forge their own path with a different purchasing model.

Millennials are also a digital-savvy bunch who are unafraid of trying new things, and they are often the first to use new technologies and apps — so long as they make their lives easier.

It is, therefore, no surprise then that Afterpay has seen rapid uptake in its services from the millennial market — it all comes down to embracing something new. In fact, co-founder and CEO Nick Molnar does not shy away from the fact that his company is trying to penetrate the Gen Y demographic.[8]

He even reveals the app was purposely built for millennials, saying, *"It's a customer-centric service for millennials that can help them spend responsibly and also help retailers sell more stuff."*

Unfortunately, being digital-savvy does not often equate to being financially savvy, as we have demonstrated above.

## The Benefits of Using Credit Cards

### *Convenience*

Many Afterpay members complain that for every transaction, no matter, how small or big, they get a minimum of 6 messages on their phones, one saying a fortnightly payment is due, and one confirming receipt of the payment. So, if one has 10 transactions per month, that is 60 messages! With a credit card, it is all recorded on one statement.

### *Rewards*

The most significant distinction between BNPL platforms and Credit cards — especially for budget-savvy customers who will pay their Afterpay fees on time — was in the past, the lack of rewards on offer.

Whereas consumers can shop around for credit cards that offer them rewards points, free flights, gift vouchers and so much more, Afterpay has only recently started a rewards system called 'Pulse' that rewards Afterpay users for spending responsibly. However, points are not given for every dollar spent, instead, on-time payments earn points, which in turn unlock tiers and corresponding benefits, such as not paying the first instalment upfront.

If you are a consumer who always stays on top of your repayments, we have already shown that the financial outcome of using Afterpay instead of a credit card is the same. However, the flexibility of points for dollars offered by credit card companies are significantly more rewarding!

Add to that the benefits of finding the perfect credit card with minimal or no annual fees plus rewards and free flights, and it becomes clear that Afterpay, while seen as useful by a tech-savvy but financially illiterate demographic, does not stand up against what the best credit cards on offer can give. Young folks use their rewards unlike older credit card holders.

### *Lifetime Relationship*

The value of the credit card, such as Amex is that it is not merely a transactional relationship. Cardmembers are a part of a lifetime relationship. As such, if something goes wrong the credit company operates as an advocate for the card member; e.g. returned goods, billing disputes, travel

[8] James Eyers (2021), "How Afterpay's Nick Molnar taps into Millennials' spending habits and wallets", Australian Financial Review, Apr 12. https://www.afr.com/work-and-careers/management/how-afterpays-nick-molnar-tapped-millennials-aversion-to-credit-20180213-h0w1dz

cancellations etc. Card member benefits such as buyers' assurance and purchase protection combined with rewards as a currency are tough to match.

## The Banking Royal Commission and the Growth of BNPL

Whilst the Banking Royal Commission in Australia[9], has put the brakes on a lot of corrupt practices of Banks, the inadvertent result is that traditional banks have grown risk-averse, whilst tech-savvy non-banks, often called 'shadow banks', are stepping up with a new wave of innovation in capital markets.[10]

The term 'shadow banking' applies to a range of financial institutions and activities; including long-established institutions like pension, insurance, private-equity and hedge funds, as well as newer ones, like exchange-traded fixed-income funds.

Today applying for a credit card from a traditional bank is fraught with red tape in Australia. There are many stories of retired individuals having a spotless credit history, and a million dollars in savings, not being able to get a second credit card as they do not have a job. Self-employed individuals have also had their applications rejected. This has enabled BNPL platforms to grow by also targeting this market by offering the illusion of easy credit.

## Other Illusionary Financial Products

From Junk Bonds to Securitisation to Sub-prime mortgages, the finance industry regularly comes up with news ways to market the compound interest equations (one example shown earlier) in innovative ways. The BNPL platform is one of the latest of these, but certainly not the only one.

Greensill Capital, a large finance firm recently went into administration. Greensill bought invoices from companies' suppliers at a discount to their face value, and then made a profit when the invoice was eventually paid by companies in full. This was called *'Debtor-factoring'* in the 1980s but was re-branded as a more sexier *'supply-chain financing'* by the 2000s. The company bought receivables at discounted rates using a similar equation to the one given earlier. Effectively, it was a form of *securitised factoring*.

The company's business model was based on buying and selling invoices, mainly from risky companies that required insurance. It insured those receivables that were considered "higher risk (and higher return)". Receivables from investment grade obligors (which are less risky but have a lower return) were not usually sold with insurance. Some 90 per cent of Greensill Capital's annual revenues, which were $US420 million ($540 million) in 2019, came from insured receivables.[11]

Buying receivables – or invoices – from high-risk companies, which included junk-rated entities from within Indian entrepreneur Sanjeev Gupta's GFG Alliance steel and aluminium empire, was seen more profitable for Greensill than buying invoices from investment-grade companies with better credit ratings.

[9] Janek Ratnatunga (2018), "The Key Findings of Australian Banking Royal Commission Interim Report: A Summary and Critique", *On Target*, Oct. 1. https://cmaaustralia.edu.au/ontarget/the-key-findings-of-australian-banking-royal-commission-interim-report-a-summary-and-critique/

[10] Janek Ratnatunga (2020), "50 Shades of 'New Normal' (Part 2): The emergence of 'CRAZYNOMICS'", *On Target*, Aug 11. https://cmaaustralia.edu.au/ontarget/50-shades-of-new-normal-the-emergence-of-crazynomics-part-2/

[11] Jenny Wiggins, et.al., (2021), "Greensill income built on high risk", Australian Financial Review, March 17. https://www.afr.com/companies/financial-services/greensill-income-built-on-high-risk-20210317-p57bf4

*Tokio Marine*, whose subsidiary *Bond & Credit Company (BCC)* had insured some $US10.2 billion of Greensill securities over 11 policy documents, asked for $US2.5 billion in collateral to keep guaranteeing the securities and take on risk previously assumed by BCC's previous part-owner, the *Insurance Australia Group (IAG)*. However, the supply chain finance firm was unable to raise the cash.

With so much of Greensill's business linked to risky entities that needed insurance, the expiry of its insurance policies was fatal.

## Conclusion

To fight the downturn in spending during the Covid-19 pandemic, central banks slashed interest rates and launched quantitative easing (QE) (or printing money to buy bonds). Unfortunately, this money has not tricked down to those who need it. Instead, the money has gone into share markets which have surged globally, resulting the company valuations that have no semblance to reality. It has also gone into real estate as evidenced by the rapidly rising price of housing in many countries in the past 18 months. Tesla is now worth more than VW, Ford, GM and Hyundai combined, although their car manufacturing output is just quarter of just VW alone. Similarly, the Afterpay valuation of A$39 billion, has no bearing on financial reality.

One must concede that Afterpay did an excellent job in getting to scale ahead of the pack. However, the whole BNPL area is one where there is zero loyalty from either vendors or customers and in the end, it was going to be a game of which BNPL player offered the lowest cost to the vendor wins. The end-user customers are, as this article has demonstrated, often worse-off than if they used a credit card.

Therefore, the purchase of Afterpay only makes sense from a perspective of *Square* obtaining a data base of customer and seller ecosystems to deliver even more compelling (and often illusionary) products and services for merchants and consumers — with a new twist to the traditional compound interest equations.

Clearly today's valuations are based not on financial performance but on expected off-balance sheet potential, i.e. scaling and creating an eco-system. This requires connecting both the buyer and the seller to have enough hooks to influence behaviour and a lifestyle.

Credit card companies recognise this. The history of cardmembers and merchant interactions when combined with other demographics provide a wealth of monetizable information. Soon credit card companies will convert this to currency which cardmembers could own.