Would you take out a loan for a pair of jeans?

Jocelyn Vera Zorn is not eager to talk about the loan she took out to buy the pants. “It’s kind of embarrassing,” she grimaces.

Really, she just wanted the pants: a special-edition pair of Imogene + Willie jeans in a vintage wash with a frayed raw hem that cost around $200.

“I don’t usually shop like that. I don’t usually buy new things, period” — but the pants were on sale, and she liked them, and “they were kind of an impulse buy,” facilitated by a new kind of point-of-sale personal loan from a company called Affirm.

Co-founded by former PayPal chief technology officer Max Levchin, Affirm promises a clear-cut, premium consumer credit experience. Since its start in 2012, the company has partnered with more than 1,000 retailers across a variety of categories to make more than 1 million loans with simple interest and predictable pay schedules. The installment loans, made at 10–30 percent annual percentage rates, or APR, and averaging $750 according to the company, are offered for everything from mattresses and plane tickets to motorized skateboards and coding classes to $500 boots and $200 limited-edition denim.

Backed by more than half a billion dollars in investments and debt, Affirm is hardly at the radical fringe of consumer finance. It’s been dubbed “the credit card killer.”

For merchants, Affirm provides exceptional benefits, increasing average order values across the board; perhaps not surprisingly, people will shop more, and more often, when they don’t immediately feel the costs. And for many customers, including Jocelyn, the predictable, convenient payments are

worth the higher interest rates.

Affirm claims to be a more transparent and honest, if not cheaper, line of credit for the underserved. Using internal, proprietary data science and artificial intelligence, the company says it approves 126 percent more borrowers than traditional lenders, based on soft credit pulls and an opaque mosaic of consumer information.

Critics say Affirm promotes the worst consumer behavior: carrying high-cost debt for unnecessary goods. Affirm loans don't just allow but entice you to buy something you can't afford in one lump sum. But the loans aren't Affirm's real product – they're a means to building and perfecting a new underwriting system to determine consumer creditworthiness, powered by machine learning and your personal data.

"Our goal is to be the app on your home screen for all of your financial needs," says co-founder Max Levchin. "We are starting by reinventing credit because we believe it is fundamentally broken."

It may still be outmatched by legacy financial companies and big tech firms getting into the payments business, but Affirm seems to mark a new age in the messy business of consumer finance – one where you too might choose to take out a high-cost pants loan.



Over the last century in America, each new small-scale consumer debt product has weathered waves of adoption, regulation, and easing, dictated by the larger economic and political patterns of the country. But arguably no consumer

device has proven quite as disruptive as the credit card.



After the most recent recession, Congress gained the rare courage to regulate at least some financial institutions and products. The CARD Act, passed in 2009, was the most significant legislation in decades to rein in fee-happy, high-interest credit cards. The CARD Act also barred companies from soliciting new customers on college campuses, which helped decrease the number of young people in possession of plastic.

For the most part, though, banks and credit cards are regulated not at the federal level but by state usury laws, which limit the amount of interest a lender can charge based on where that lender is incorporated, not where customers live and spend. Which is to say, they are hardly regulated at all, as corporations simply locate in places with corporate-friendly laws. In 2010, South Dakota–based First Premier Bank made waves for charging between 59.9 and 79.9 percent APR on a

MasterCard with a $300 limit. The card had nearly 300,000 active users in 2011.

Credit issuers rely on just a few large credit bureaus to find the best borrowers – generally people who will pay their debts, but not too quickly. The standard FICO model that grades consumer creditworthiness is often criticized for including factors that don't necessarily predict a consumer's behavior, like a late bill payment from five years ago, or hefty student loans. In 2015, 31 states won a settlement that limited how credit agencies could collect and report consumer medical debt. In 2017, more new rules stripped negative tax lien and civil judgment from consumer credit reports.

Since then, the average FICO score has risen, but many consumers have still been left behind. While more than two-thirds of Americans own at least one credit card, 20 percent are considered subprime, with a FICO score of 600 or below. Another 10 percent are on the bubble.



The ethics of lending to the subprime are not particularly clear. Thanks to FICO’s market dominance, a subprime consumer may have the ability to repay a loan, but be denied based on financial mistakes he or she made several years in the past. Without access to traditional methods of capital, the subprime are relegated to high-cost tools and services. This is the reluctant, conditional argument in favor of payday lenders, which make money available to people who would otherwise have nowhere else to go, even when they charge on average more than 300 percent APR for small personal loans. And with nearly 50 percent of Americans without $400 to cover an emergency expense, the implication is that these loans cover the necessities: rent, utilities, groceries.

We accept the inevitability and the usefulness of some debt, and of some people making some money from servicing it. Perhaps it was only a matter of time until American late capitalism was forced to grapple with the mechanisms and ethics of an installment loan product extended purely for the purchase of a pair of pants.





Affirm wasn’t originally built for pants loans, or at least that’s not the founding folklore: Peter Thiel was tired of driving a carless Max Levchin around after they’d sold PayPal, the story goes, but Levchin couldn’t qualify for financing on his own. Despite being a prominent member of the PayPal mafia, he’d made common 20-something credit mistakes, and had the bad FICO score to prove it.

Nathan Gettings, one of Thiel’s co-founders at the secretive data analysis and services company Palantir, went on to co-found Affirm with Levchin and former CTO Jeffrey Kaditz. Founders Fund, which Thiel co-organized, led Affirm’s $100 million Series D funding round in April 2016, which valued the company at $700 million.

“The core thesis behind Affirm is that there’s a large segment of Americans who don’t have access to fair and transparent

credit, and there's a large part of the population that's mispriced because of the outdated FICO score and the existing credit system," says Affirm's chief of staff and head of international expansion Ryan Metcalf.

Affirm's original flagship consumer product is a new user experience for an old idea: the short-term installment loan, made at the point of sale in partnership with retailers. Where other installment services such as Bread, Splitit, and Partial.ly work with existing lines of credit and point-of-sale services to create predictable installments for shoppers, Affirm services its own loans but it does not originate them. Affirm may look and act much like a lender, but it's really an asset-backed securitizer; its loans are made by partner Cross River Bank in New Jersey, then Affirm buys the loans back and holds the risk itself. Cross River originates loans for more than a dozen other online lending platforms. In November 2016, it raised $28 million to invest in more support for its financial technology, or fintech, partners and grow its own stable of payment products.

While Affirm offers a variable APR between 10 and 30 percent, the upper limit allowed in New Jersey, Levchin and Metcalf are loudly opposed to what they consider Affirm's predatory competition.

"You need not look any further than the fact that credit card companies made more profit in fees last year than in interest income," says Levchin.

"We did not want to be associated with payday lenders or subprime lenders. We think high-fee credit cards are egregious," Metcalf tells me. "We realized early on we weren't going to become the most profitable bank in the world – if and when we become a bank."

Affirm's interest is simple, not compounding, and the added fees are nonexistent. Still, the company's brand of "ethical

lending” and “honest finance” features a median APR of 19 percent, which hovers between the national credit card average and the national credit-card-for-bad-credit average. For someone with other options, using Affirm is a choice that carries a higher price tag along with greater convenience and clarity. “Our challenge is we’re not a bank,” says Metcalf. “We don’t have the lower cost of capital, so we can’t compete on price. We have to compete on user experience.”

It’s a cost that Affirm does not hide, and one some consumers seem happy to pay. Affirm customers have an average of 2.2 loans with the company, while some shoppers have upward of 50 at a time.

“It almost feels like an innovation, but it’s not, or it shouldn’t be,” says Tracy DiNunzio, founder and CEO of longtime Affirm partner Tradesy. “The big Affirm innovation is that you can understand your repayment terms.”

The far bigger, high-stakes Affirm innovation is its proprietary consumer risk-assessment scoring, or underwriting system. Without the fees that make upward of half of some credit card companies’ revenue streams, Affirm has to make up ground with volume. The company proudly lends to consumers who the larger market and traditional credit reporting standards would define as subprime, but its default rate is “well below the industry average,” says Metcalf. Affirm is heavily incentivized to find those good customers, bad FICO score or not. And it does so by compiling a broader, more complex, and ever-shifting set of details about every loan applicant.

“The secret sauce for the company is the underwriting,” says Jeremy Liew, who led Lightspeed Venture’s Series A investment in Affirm in 2014. “The point-of-sale lending at e-commerce is simply their first application of their underwriting model.”

In October, Affirm took its first big step away from a merchant-specific model with a new app that allows consumers

to take out loans good for purchases at any retailer — a new opportunity for swift and wide-scale growth, and millions more loans across every retail category.

“You’re buying a thing, and you’re paying a fee to spread it out. Our responsibility is to make sure you have the ability and intent to pay it back in full,” says Metcalf. “At the end of the day, if you do that, it doesn’t matter what you’re buying.”



Fashion is Affirm’s third biggest category, behind homewares and travel, and clearly the company’s most vexing. The optics simply are not super-great.

“Apparel is really the only criticism we get. Like, oh my God, you’re financing a pair of shoes,” says Metcalf. “We’ve had this debate internally. We’ve had this issue with sneakers — $300, $500 sneakers — people have reactions to borrowing money for that kind of thing.”

Unlike a house, an average pair of pants loses most of its value once it’s purchased, and even more once it’s used. Unlike a car, its central utility is largely up for debate; it cannot transport you to work or to school, though it may well be of good use when you arrive. And unlike either of those things, it is not presumed to be a large investment purchase to begin with.

Betabrand chief marketing officer Aaron Magness tells me he wasn’t sure about offering Affirm on his company’s relatively affordable items. “The pants are $78, and the payments are $9 a month. To me, that feels kind of weird,” he says. “Should

you really be placing an order for a $100 pair of pants if you need to break it into a payment plan?”

For Magness and Betabrand, that worry turned out to be unfounded. Affirm shoppers on Betabrand were of no lesser means or FICO score than non-Affirm shoppers; they were just choosing to spend this way, ordering several pieces at once.

Affirm’s fashion retail partners tell the same story over and over again: “surprising,” “extraordinary,” “overperformed from Day 1,” “I couldn’t believe it.”

Rebecca Minkoff began accepting Affirm in April. “We’ll do seven figures in volume with Affirm this year,” says Uri Minkoff, creative director for the brand. “That’s just blown us away.”

Affirm is not just meeting a demand, but creating one, encouraging shoppers to buy and spend more. Affirm claims an average 75 percent boost in order values across all its merchant partners. Affirm is clearly not just facilitating purchases that would have otherwise happened through other means of credit. Four retailers I spoke with reported significantly higher sales, and more frequent purchases, with Affirm customers.

“It’s kind of the point of credit,” says Metcalf. “It gives you access to things you couldn’t afford on a cash basis. It doesn’t mean you can’t really afford it.”

Affirm has also shifted consumer behavior in other ways: The short-term retail loans have helped to create a new kind of fashion economy. “We call it cyclical commerce. It’s a new rental marketplace,” says Metcalf.

Just as “the sharing economy” has proliferated in other sectors over the last 10 years, the idea of renting a dress has become as normal as hailing an Uber to go on a grocery run, or subscribing to software you once would’ve purchased to

own. You can choose from hundreds of styles on , along with Style Lend, Amarium, , , the Ms. Collection, Parcel 22, and more — even good old Ann Taylor has launched a new rental service.

Just as rental services have grown, so has the market for used goods. Where your local Crossroads may be willfully capricious, dictated by the tastes of its particular staff, the wisdom of the crowded online resale market tends toward truer values and more efficient, personalized item sorting. Resale sites such as and deal largely in less expensive clothing and accessories, but Affirm partner merchants and specialize in the higher end. While a pair of $200 pants may not hold much of their value over one Affirm pay period, a designer bag will.

“Customers are leveraging credit with Affirm in order to access higher-quality fashion,” says Levchin.

It’s a dynamic that Tradesy’s Tracy DiNunzio saw from the start: customers financing a purchase of, say, a $2,000 Chanel bag, using it for a few months, then selling it back, paying down their loan, and buying something new — all without ever extending themselves for the full price of the item. She sees it in part as a reaction to fast fashion.

“The combination of the Affirm credit and resale is just really powerful. It lets women shop for a constantly updating wardrobe without laying out very much cash at all,” says DiNunzio. “You still get the frequency, you have new things all the time, but you’re putting products back into the market when you’re done with them.”

Uri Minkoff has seen this new dynamic in just the few months since partnering with Affirm. “For us, it spurs a customer who’s super—brand loyal. It lets her dollars go longer,” says Minkoff. “She’s buying and reselling our product three to four times a year. Now with Instagram, you don’t want to have the

same handbag in more than a couple pictures.”

We’re no longer paying for the ownership of things, but the temporary experience of ownership for short, discrete periods of time, a kind of access that comes at a fraction of the cost, even accounting for an interest up-charge.

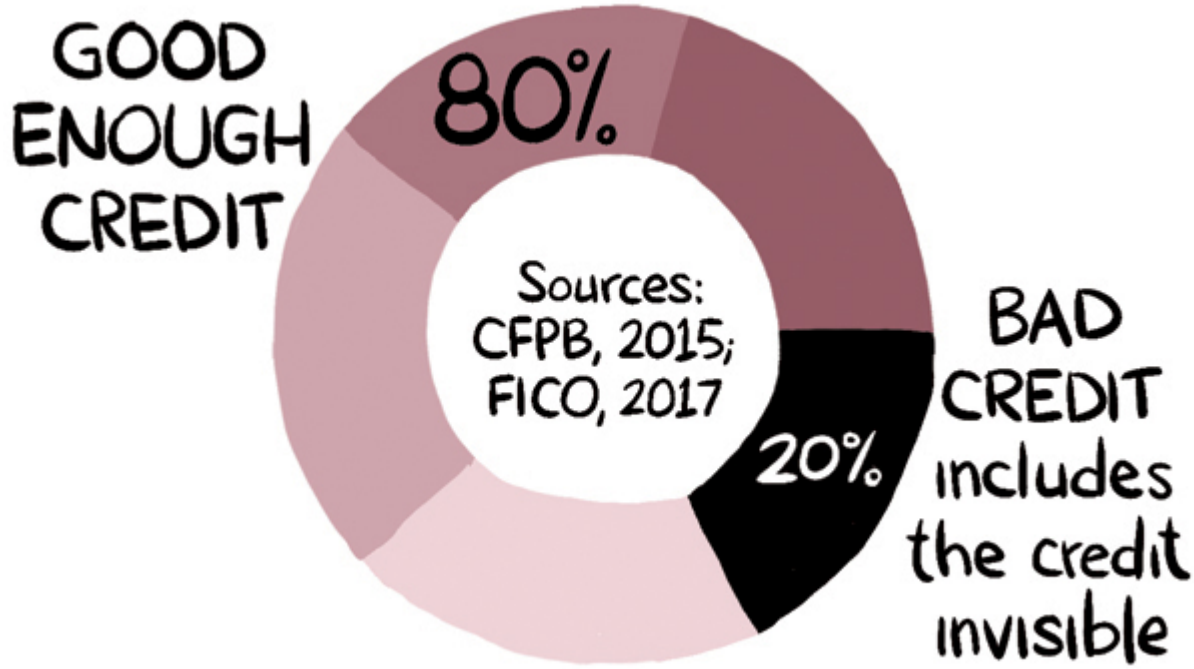
According to our depressed wages, it’s not that we would necessarily prefer to temporarily access things rather than own them – it’s just that we’re poor now.



Affirm is hardly alone in its bid for a piece of the consumer debt market; credit dysfunction has inspired an entire fledgling industry of potential solutions. But with Levchin’s PayPal pedigree and more than half a billion in funding, Affirm appears uniquely positioned to succeed in a crowded fintech space.

“Max was definitely a big factor in us deciding to invest in Affirm. But we also have long held the belief that underwriting was the perfect use case for machine learning,” says Lightspeed’s Liew. “We have invested in a number of other fintech companies based on this idea of machine learning–based underwriting and online distribution.”

While tens of millions of underserved consumers may be all but ignored by traditional financial services, fintech companies have realized the opportunity in so many Americans who are living, working, buying, and borrowing outside of traditional financial institutions: This as-of-yet overlooked customer base is a captive market opportunity. The fact that these consumers are currently relegated to predatory, subprime services only makes the potential disruption more palatable.



Lightspeed is also an investor in ZestFinance, which similarly uses machine learning to lend to the unbanked “who typically had to resort to payday lending,” says Liew. Dozens more fintech startups are jostling to control this emerging loan market, to create the best underwriting model based on

available consumer data, and to automate as much of the loan servicing as possible – while turning a profit, and keeping consumers satisfied.

Affirm's customer ratings are, by and large, very positive. It has a Net Promoter score of 82, compared with a financial services industry average under 50. Its Better Business Bureau customer reviews are 84 percent positive, with an A+ rating. In 2015, Max Levchin joined the advisory board of the Consumer Financial Protection Bureau, the government watchdog that collects and acts upon complaints against financial services and institutions. The CFPB has no complaints against Affirm in its public database.

However, in April, Affirm faced what appears to be its under the Fair Debt Collection Act. The main plaintiff in a potential class action alleges he'd never heard of Affirm before receiving an opaque debt collections letter saying he owed the company $141.18. He's suing Affirm along with debt collection agency Afni.

Lauren Leimbach, executive director of the nonprofit Community Financial Resources, questions the transparency on which Affirm so intently prides itself: Is the company providing a tool for the poor and underserved who don't even have $400 to cover an emergency, or an aspirational tool for people who want to buy $400 shoes on a whim?

"I just find it disingenuous that they try to code it like they're trying to serve the underserved. They should just be honest about what they're doing," says Leimbach, a former vice president at Providian Financial. "Millennials are like the temporary poor, because they're young. That's a different person than people who are struggling because they've fallen out of the middle class or they can't get out of the working class."

"I think that using machine learning for short-term credit is

a great application. It is possible to learn and iterate for complicated credit-scoring models that really take advantage of all of the available data," says Stanford University economist Susan Athey. "Having a better credit model can be a key strategic advantage, and since Affirm is the first firm offering exactly this type of loan, they can get out ahead of the competition with better models."

But the competition is fierce, and the market is moving far faster than regulators could possibly hope to. "There are no laws to protect you," laments Leimbach. "Consumers need to be advocating for more privacy rules around all this data, but in the meantime, companies looking to make decisions about lending money are going to try all these data elements to find what's predictive. It's rational."



Most of the negative consumer reviews Affirm receives through

Net Promoter and the BBB aren't reports of being mistreated by a predatory loan servicer, but of being declined for a loan. A significant portion come from former Affirm customers reporting that, after receiving and paying down one loan, they were denied for another.

"That just seems odd. Research shows that type of behavior is very predictive of future loan paying capability," says Leimbach. "As a former credit person, that seems to me that there's something wrong with their model."

Affirm might agree; the model, after all, is constantly in flux by design. "When you change the credit model, it changes the selection of consumers to take your loans," says Athey, "and every time you change, you then need to wait to learn whether the model really worked."

Affirm's long game is not in little interest margins on pants loans, however savvy those loans may be. A true return on the $520 million that firms have invested or loaned to Affirm as of October 2017 would be in the success of an underwriting algorithm that would surface more potential customers for credit — a risk-assessment tool that would compete with a highly centralized and criticized legacy credit bureau market that hasn't exactly proven to be very tech-savvy itself.

"Banks approach us for this all the time, asking whether they can purchase everything that we've built," says Metcalf. "The short answer is no. It's proprietary to us; it's building our company."

The long answer, though, is probably, eventually, yes. "I think there are great opportunities for us to leverage our own systems, perhaps in partnership with other companies, to improve our customers' lives," says Levchin.

Affirm is hardly alone in building and testing these tools, and FICO itself is expanding its machine learning operations in order to compete. Drawing upon a vast sea of information

presents opportunities for customers who've been denied other routes to credit. But predictive algorithms are also capable of becoming automated machines of discrimination despite well-meaning human inputs, purely based on the vast trove of available data and correlations between traits and behaviors. And proprietary, constantly-changing underwriting algorithms that might deem your creditworthiness based on your social media habits are not easily regulated by existing federal laws.

Other would-be Affirm borrowers said they were rejected, despite their good credit scores, because they had past misdemeanor convictions. "In February 2015 we started declining for fraud reasons, for what we considered faults of character," says Affirm's Metcalf. "In January of this year, we stopped. We don't decline based on criminal history anymore. We found there wasn't a significant correlation in repayments." Affirm doesn't release data on how many consumers it rejects, but says its notice letters meet Fair Credit Reporting Act requirements.

This is a perfectly legal example of a lender choosing not to lend to a potentially risky customer, in service of providing an ostensibly better product. But it also highlights an opportunity for a kind of discrimination once removed. If Affirm would reject all consumers with criminal convictions, it'd be rejecting far more people of color than whites — without actually discriminating against would-be borrowers based on their race.

Even the most well-trained algorithms have no inherent ethic, and have proven time and again to reflect and arguably amplify existing biases, if not provide for decisions that violate the law outright. "Even in situations where data miners are extremely careful, they can still effect discriminatory results with models that, quite unintentionally, pick out proxy variables for protected classes," write Solon Barocas and Andrew D. Selbst in the *California Law Review*. Offering

different rates or products to consumers in different zip codes is just one way firms can discriminate based on race without violating the letter of the law.

Levchin says Affirm is committed to maintaining full compliance with lending laws, and the company takes steps to protect its machines from learning to discriminate. “Our models use carefully designed, nonparametric statistical models. We have a clear understanding of the impact a variable has on the underwriting model’s prediction,” says Levchin. “We ensure that the candidate’s set of variables to be used for model training do not pose any concern with regards to potential discrimination.”

But the rise of big, opaque, life-changing data analysis has concerned lawyers, technologists, and consumer advocates from the National Consumer Law Center to Obama’s White House for years.

“Credit-scoring tools that integrate thousands of data points, most of which are collected without consumer knowledge, create serious problems of transparency,” write Mikella Hurley and Julius Adebayo in the *Yale Journal of Law and Technology*. “These tools may furthermore obscure discriminatory and subjective lending policies behind a single ‘objective’ score.”

Ultimately the algorithms that could prove to be a force in favor of opening up credit opportunities to the underserved — for pants, or otherwise — have just as much capacity to become engines driving further inequity.



Almost a year since buying them and a few months since paying them off, Jocelyn Vera Zorn is still happy with her pants. “Every month when I got the payment alert I was like, ‘Yep, still wear the jeans all the time,’” she says, grinning. “Love ’em.”

For Zorn, an ideal Affirm world would be a kind of full-stack shopping credit experience.

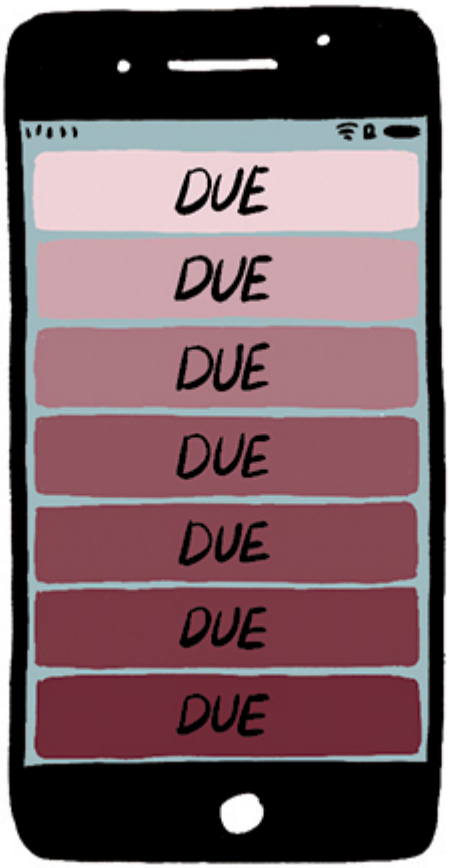
“I got so excited about the prospect of the loans, because it’s a little different from a credit card. It seems like a good way of budgeting, honing in on your clothing allowance,” she tells me. “Like, I could just have $150 worth of loan payments out each month. Clothing is something that I spend a lot of money on, so maybe if it was all on Affirm, I could regulate it.”

It’s not far from Affirm’s own plan for the company. In future updates, the Affirm app won’t just be a means to new loan products, but a holistic personal financial management tool designed to compete with existing services such as Mint. “Our whole proposition is: Trust us to help you manage your finances in an intuitive and automatic way,” says Metcalf. “It’ll have machine learning in the back end, connected to your bank accounts, to help you live within your means.” The app could then suggest whether you should pay in cash, or take out an Affirm loan with a 19 percent APR.

“Because we have designed our systems to understand our customers at an individual level, we are able to understand the personal needs of our customers in real time. As a result, we will have opportunities to help them in new, smart, and dynamic ways,” says Levchin. “We plan to have an active role in the new economy and reinventing credit is really just the beginning.”

Metcalf assures that “those pieces of our company won’t be profit centers.” But they will continue to feed Affirm’s

churning AI core with fresh private consumer detail, from your mortgage to your car to your pants payments.



Most of us are not super-savvy, constant shoppers with a revolving closet of designer items. Most clothing is not very expensive, and it depreciates almost immediately. Your second monthly Affirm payment could be more than your item is now worth. Sunk cost isn't something most of us consider when we buy a pair of pants, or a sweater, a pair of shoes, a bra. It's an act of ruthless economic disassociating that can suck the joy out of any small consumer indulgence. If you've ever experienced the profound debasement of attempting to resell your used clothing at a secondhand retailer, you've likely already had this brutal realization: It is nearly worthless.

And yet, we need pants. Sometimes we need nice ones for work, or a formal occasion — well-draped trousers in a classic, hip-skimming cut, an investment piece that we hope to wear for

seasons to come, but certainly can’t afford in one lump sum.

And sometimes — not often, ideally, but sometimes — we need special-edition vintage-wash jeans with a raw hem because, well, we just do.

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