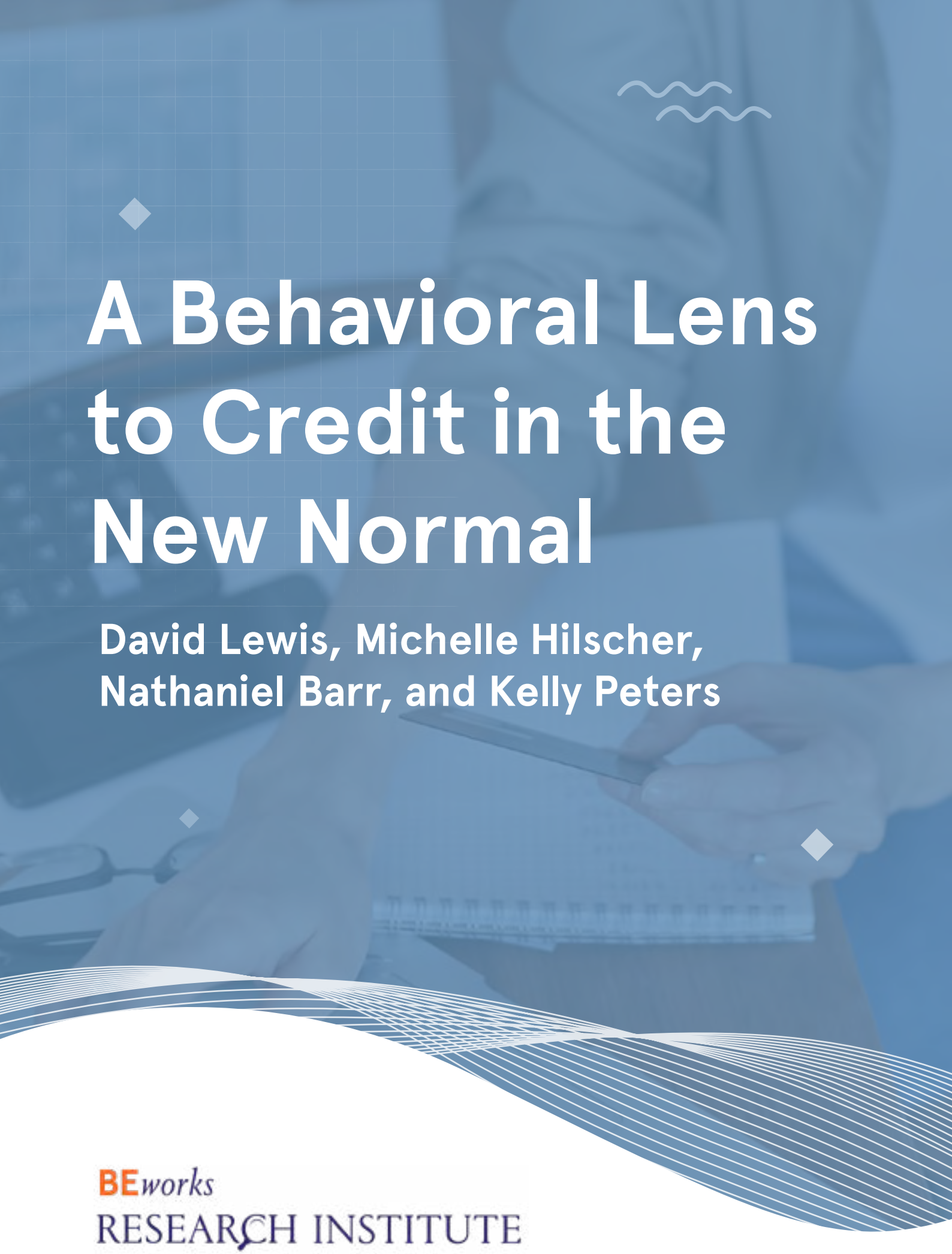

A Behavioral Lens to Credit in the New Normal

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Borrowing, spending, and saving in the COVID-19 era – top 5 trends and challenges to watch

The COVID-19 pandemic as impacted all aspects of our lives. Extensive damage to businesses, households, and society are now becoming apparent. These changes have created a discontinuity we will call the "new normal". One interesting aspect of it is the impact on how and why consumers use credit.

Many of the changes we are seeing are not obvious. According to the Financial Health Network[1], macro-level measures of household debt and savings appear to show that consumer financial well-being has improved. Nonetheless, 67% of Americans are still not financially healthy, which implies that such statistics obscure what is really happening to sub-segments of the population. The Bank of Canada[2] reported in May 2021, over one year into the pandemic, that 1/3 of Canadians are unemployed or underemployed. In what has been dubbed a K-shaped recovery and what the IMF in the 2021 World Economic Outlook has called "divergent recoveries[3]," some segments of the population are saving more and borrowing less but a sizeable segment is reliant on government COVID-19 support payments and struggling financially. Many of them are turning to credit.

> "We believe this change in saving and borrowing patterns matters, since many of the pre-COVID-19 assumptions regarding credit are no longer valid. In the new normal, financial institutions need to re-evaluate risk. Policy makers need to focus on solutions for accelerating income inequality and declining financial well-being. And consumers need to carefully consider the benefits and costs of credit. Understanding current conditions and anticipating the post-COVID-19 aftermath is critical.

Why traditional economics cannot help us

A traditional economics approach assumes that people are calculating, analytical, goal-oriented, consistent, even predictable, and make decisions that would result in the best possible outcome for themselves. But based on decades of research and countless examples of people's seemingly illogical decisions (e.g., joining a gym and never going), we know the hyperrational account of human beings does not capture the reality.

Behavioral Economics (BE) offers a tool to consider the social, cultural, psychological, and emotional factors that influence people's attitudes and beliefs, and ultimately their decisions and behaviors. Rather than assuming people are rational, BE assumes that people try to be rational but are constrained by their finite cognitive capacity[4]. An inevitable consequence of this is that we routinely make use of non-conscious mental shortcuts[5] (also known as heuristics) that considerably simplify our decision-making[6]. For non-consequential decisions, the simplification is welcome, but can also make us vulnerable to biased and boundedly rational decisions[7]. As well as heuristics, our decisions come to be influenced by a multitude of factors: from our emotional state (e.g. we are less likely to wait for a big reward when feeling depressed[8] to something as irrelevant as the order in which information is presented (e.g. we are much more likely to order to item closer to the top of a menu[9], no matter what they are). These biases are so large and predictable, that our behavior is predictably irrational[10]. In light of this, let's examine the top 5 challenges and trends that are coming to characterize financial decision-making in the pandemic era.

What consumers and lenders can learn from the scarcity mindset?

A BE perspective on COVID-19 reveals that consumers are likely to be experiencing a scarcity mindset due to perceived shortage of financial and other resources (including social connection) that are in short supply due to COVID-19. And research[11] can help us understand the cognitive, attitudinal, and behavioral changes that are evident in people experiencing this state.

When attention is absorbed by concerns over rent, food, and basic needs, thoughts of the future are forgotten. This context sheds some light on the phenomenon of borrowing with payday loans or credit cards to meet immediate needs regardless of the future cost and potential downward spiral of borrowing. Scarcity also leads to a general preference for smaller, sooner rewards over larger, later rewards. This means individuals experiencing scarcity-related distress are more prone to focusing on immediate gratification and discretionary spending while failing to calculate the long-term costs and increasing debt. A credit score might be sacrificed in exchange for buying something pleasant rather than making a credit card payment.

Problematically, we know that, even when people have the best of intentions to economize and pay off expensive credit card debt, they are overconfident[12] in their ability to reduce future spending and increase future income. For consumers, the long-term implications are worsening financial health. For lenders, the implications are that many assumptions regarding creditworthiness may be less true during times of perceived scarcity, requiring a re-evaluation of risk in granting credit. Key risks for lenders to be aware of are that consumers may be hungrier for credit than they normally would be and may even be accumulating "Buy Now Pay Later" (BNPL) loans that will not show up in traditional credit reports.

Buy Now Pay Later - a double-edged sword for consumers and lenders alike

BNPL – a credit product which has grown during the pandemic - offers a means of making payments both in bricks and mortar shops and on-line, but also an easy means to finance purchases and pay them off over time.

The costs of BNPL vary, with some having no interest or fees if the balance is paid on time. Others have high fees and interest rates, particularly for those with lower credit quality who turn to BNPL because they can't qualify for a credit card. This particular segment is large, as 24% of US respondents in a recent study had below prime credit and 27% had more debt than they could manage.

The dark side of BNPL is that the convenience and payment deferral come at a cost – especially for some segments of the population. For "bad credit" customers, the cost can be as high as 400% annualized. Worse yet, BNPL is perhaps uniquely well-placed to enable people to pursue the purely hedonistic and short-term oriented desires that go hand-in-hand with a scarcity mindset. For example, Cardify[13], a payments research firm, found in a recent survey that two-thirds of respondents reported spending on items they would not otherwise have purchased if BNPL was not available.

Lenders need to be aware of this lurking risk, since many BNPL providers do not report their loans to credit bureaus. Furthermore, consumers need to be aware of the temptations and consider long-term costs and consequences before taking advantage of the convenience BNPL offers.

The surprising risks of personal finance apps, savings defaults, and compartmentalization

Some assistance for managing one's debt may be available from technology in the form of personal finance apps which support a number of financial behaviors, from borrowing and managing credit ratings, to on-line banking, fraud prevention, saving, investing, and financial planning. Computer and mobile device apps focused on personal finance have proven popular and represent a $7.5B market globally[14].

These capabilities for helping people manage their personal finances are important. People's financial well-being is critical and has been found to be a key predictor of their overall well-being[15], comparable in impact to the effect of job satisfaction, relationship satisfaction, and physical health combined. Unfortunately, this form of well-being is in increasing danger.

> The Financial Health Network[16] reports that **two thirds** of the people in America are merely coping or are financially vulnerable with the challenges of spending less than their income, paying bills on time, saving for short-term emergencies, saving for the long-term, managing their debt, and maintaining a good credit

While there are fintech apps that can help with each of these challenges, they inevitably exclude many of the groups in the highest need. Lower income households may have less access to devices and apps. Furthermore, many low-to-moderate income households are over 50 and have lower usage of Fintech.

Besides raising questions of access, behavioral science also suggests that there may be other challenges. With apps for every aspect of financial life, there is a risk of excessive compartmentalization. BEworks' research on financial planning has identified this phenomenon by the hallmark of biased attention that shifts people's focus to one aspect of their financial life at the expense of others. For instance, saving more is counterproductive if expensive credit card debt remains unpaid. Yet people show a preference for keeping some savings regardless.

The potential traps associated with such illogical mental accounting and compartmentalization loom even larger as a result of personal finance app use, since an app that focuses on saving may lead users to neglect managing their borrowing to the detriment of overall financial health.

Another potential downside of personal finance apps is the licensing effect. Similar to people joining a gym and feeling they have made progress just by joining even if they rarely go, people may download an app but never benefit from it because they fail to change their behavior to save more, spend less, and use credit wisely. One example is credit card transaction round-up. An app can automatically round up credit card transactions and shift the round-up amount to savings. This tiny amount is good but can't really impact savings if the licensing effect means that the round-up is the only saving behavior and other spending behaviors do not change.

Other issues can emerge when personal finance apps try to leverage BE insights using defaults - e.g., by automatically transferring a monthly set amount to savings. This can create some positive change but can also make people excessively passive and inept at responding to dynamic changes in their income and other conditions. Consumers need to be aware of these traps and actively consider the impact of all of their behaviors on their financial well-being.

> "Computer and mobile device apps focused on personal finance have proven popular and represent a **$7.5B market globally**
>
> (Financial Research Intellect 2021)

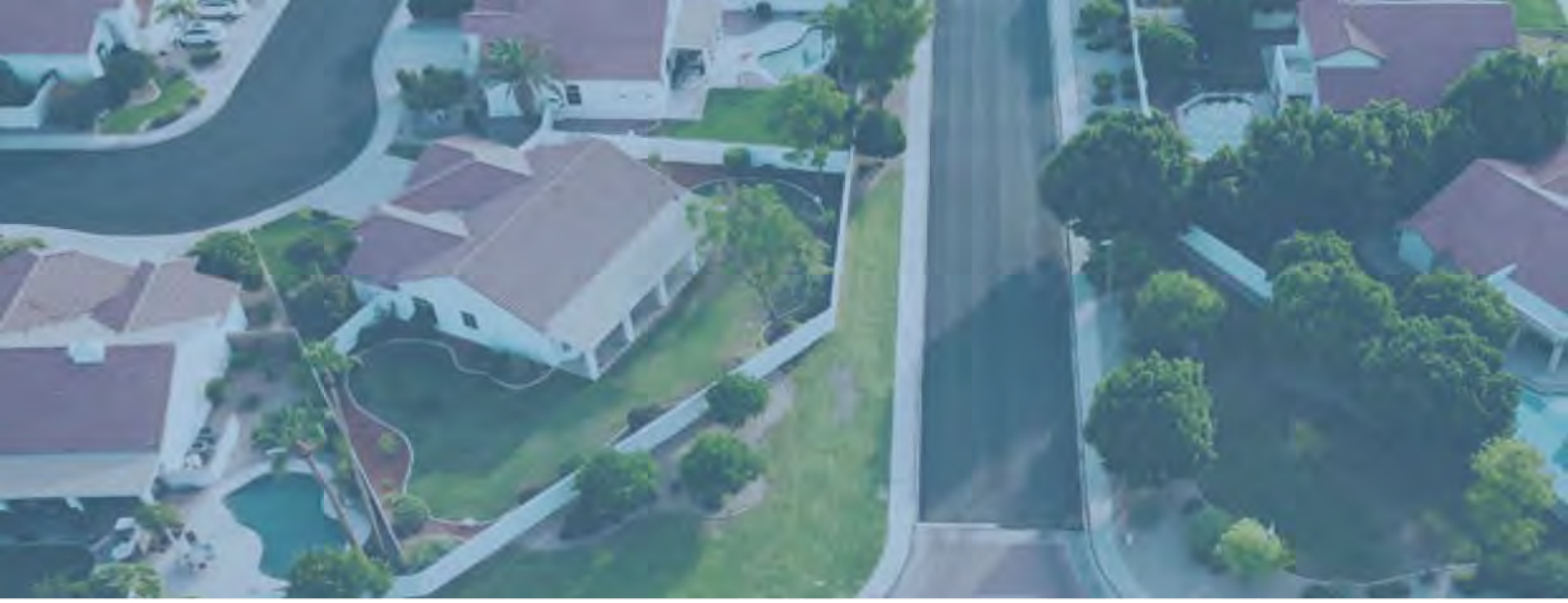
The intangibility of credit and our spending blindness

Money is increasingly intangible as we spend more with cards, mobile payments, BNPL, and online transfers. Payments Canada reports that, between 2014 and 2019, cash transactions declined 38% while electronic forms of payment grew to account for 81.6% of all payments in Canada in 2019.

The growth of e-commerce during COVID-19 lockdowns appears to be accelerating this trend. Online money transfer provider PayPal processed around 35 percent more payments than in the same period in 2020.

The rational economic perspective would have us believe that this is not an issue: after all, money is fungible and paying by cash or electronic means has the same cost. But behavioral economics research[17] shows that people experience a pain of paying that subtracts from the pleasure of consuming[18]. Taking tangible money out of your wallet potently couples that pain to your purchasing decision, while paying with a card or a click on BNPL uncouples the two factors and enables the pleasure of your purchase to exceed the pain. All of this means that our consumption habits can fundamentally change depending on how we 'give away' our money.

As more transactions become intangible, we are more likely to over-spend on unnecessary items and hedonistic experiences. Financial well-being becomes the victim. Consumers in a scarcity mindset, already overly focused on the short term and current rewards over future costs, are particularly vulnerable to this bias.



Real estate prices

House prices have been rising in many countries over the past 5 years and longer, but this trend has accelerated with the COVID-19 pandemic.

Price appreciation may be driven by a desire for more space, as homes have also become offices for people working from home. There also seems to be a trend[19] to move out of dense urban areas to areas with a lower population density. The outflow is sufficiently large that it is causing lower rental rates[20] in many urban cores.

Another driver of home price appreciation is the low interest rates maintained by central banks to support economies during COVID-19, but these low rates are also causing what the IMF[21] refers to as excessive risk taking and stretched valuations. The Bank of Canada notes that household mortgage debt is rising and now over 20% of housing demand is driven by investor speculation. Low interest rates intended to support post-COVID-19 recovery are clearly causing unintended consequences and creating asset bubbles that introduce new risks.

One BE insight referred to as the Dunning-Kruger effect describes how people over-estimate their knowledge and capabilities and do so even more when they have limited knowledge. People may overestimate their understanding of the complex calculation regarding the relative costs and benefits of renting versus buying. People think of rent going to someone else and being wasted but they neglect to consider that mortgage interest is also similarly going to someone else. They also neglect to consider factors such as the potential returns on alternative investments for the equity in their home, real estate transaction costs, how long they plan to stay, taxes, insurance, and maintenance.

In the long run, the cost of renting versus buying should be equal as people switch to the cheaper option; for example, driving down home prices and driving up rental prices. But representativeness bias, where people assume current conditions will continue uninterrupted in the future, optimism, and fear of missing out are creating a home ownership hysteria and a real estate market bubble.

Unfortunately, the global financial crisis demonstrated that housing could drop in value even faster than it rises, leaving many to abandon their homes along with their mortgages. Having leverage in the form of a mortgage means that the decline in value could easily exceed the entire down payment and all of the equity in the home. But that was over a decade ago and memories seem to be short.

The growth in real estate prices sees crucial ties with the aforementioned k-shaped recovery and growing income inequality. While some people splurge on property speculation and see their financial assets rise in value, members of lower income segments lacking financial assets are seeing home affordability disappear. Home buyers need to consider the risks as well as all of the costs and benefits. Lenders and policy makers need to address emergent risks in the new normal.

Conclusions – in the new normal, our traditional assumptions are seriously outdated

Credit in the new normal reflects changes in how and why we use credit. These changes create new risks and challenges. We need to go beyond traditional economic statistics and perspectives and leverage the insights of BE to understand why these changes are occurring before we can propose solutions.

Lenders need to be aware that assumptions in credit risk models need to be re-evaluated. Policy makers need to address excessive risk-taking for some and the changes that make it more difficult to establish a pathway to financial well-being for the financially vulnerable. Consumers need to understand the risks to their financial well-being in the new normal. By recognizing the changed conditions and consciously considering how the new normal may be affecting decisions and behavior, we can enhance our financial and overall well-being.

1. How the Scarcity Mindset changes people's financial decision-making and what to do about it

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How the Scarcity Mindset changes people's decision-making and what to do about it.

COVID-19 has not affected all segments of the economy equally. In what is being referred to as a K-shaped recovery, some sectors, such as technology are thriving while many small businesses, cyclical industries, the hospitality sector, and most service businesses have struggled. Many front-line service workers have lost their jobs or had their hours drastically cut. The Bank of Canada[22] reported in May 2021, over one year into the pandemic, that 1/3 of Canadians are unemployed or underemployed.

Discussing the K-shaped recovery, the IMF, in the 2021 World Economic Outlook, refers to divergent recoveries[23], some segments of the population are saving more and borrowing less but a sizeable segment is reliant on government COVID-19 support payments and struggling financially. The result is financial hardship and scarcity. The effects go beyond the obvious financial worries and can affect how people perceive information and make decisions.

Understanding the Scarcity Mindset

Research[24] has described the cognitive, attitudinal, and behavioral changes that are evident in people experiencing perceived scarcity. There are observable differences between people who are coping with a scarcity of resources versus those who are not. These differences are described as a 'scarcity mindset'.

These changes can explain some of the behaviors seen in people whose resources have been negatively affected by COVID-19. This can be a scarcity of time, calories, money, or even normal social interaction. One effect is increased attention to immediate needs and neglecting future concerns. Immediate concerns for basic needs displace long term planning and consideration of consequences.

The constant worry over scarcity also seems to draw down our ability to think and reason. People experiencing scarcity showed worsened performance[25] on challenging cognitive tasks and diminished control over thoughts and behavior.

Constantly competing for resources also seems to encourage prioritizing personal gain[26] over prosocial behaviors and this might explain challenges with encouraging people to follow pro-social behaviors such as social distancing and mask wearing. Finally, scarcity mindset is also associated with cognitive tunneling[27] where the focus is so narrowed on immediate resource needs, that resources and solutions that could help are actually overlooked.

In one BEworks project, the government was offering subsidized electricity end energy efficient home upgrades (e.g., insulation, weather stripping, LED light bulbs, etc.) to help those coping with limited financial resources, but eligible customers overlooked the opportunity for what was essentially free money received over the course of the future and did not apply.

Under scarcity, people's preferences switch to immediate pleasure[28] regardless of future pain. The effects are that people focus on immediate gratification, hedonism, and discretionary spending while increasing debt because they do not calculate the costs properly or because they ignore the future obligation.

In the extreme, payday loans keep food on the table, but less extreme examples can be spending on small pleasures and ignoring mounting debt. Optimism bias leads people to rationalize that they will save more next month and reduce their debt.

Unfortunately, research[29] demonstrates it is a false hope and future savings[30] do not materialize. Scarcity mindset induces other boundedly rational behaviors. People may have the capacity to pay back debt, they may even cut back on discretionary spending, but instead of paying the full credit card balance off, they pay the minimum because they would rather have cash sitting in their account. Having cash available may be reassuring when resources seem scarce but paying high interest on credit card debt while earning nothing on cash in a bank account is financially costly.

For consumers, the implications are worsening financial health.

For lenders, the implications are that many assumptions regarding creditworthiness may be less true during times of perceived scarcity and lenders should re-evaluate credit granting.

Applying Behavioral Economics to Help Consumers Experiencing a Scarcity Mindset

A first line of defense that can help consumers who are experiencing a scarcity mindset is to simplify their choice architecture by reducing both the amount and complexity of information that is considered for a decision. This increases the chance that consumers will be able to find and make use of essential details, despite being in a frame of mind that exerts a bandwidth tax[31] on decision-making.

One aspect of scarcity mindset is sensitivity to trade-offs and fear of hidden costs, including time investments that they may be called upon to make. Anticipated hassle costs can loom large enough that they stand in the way of consumers taking advantage of supports that exist to help them, such as professional financial advice or credit counseling.

To encourage consumers to connect with supports that are accessible to them, it is crucial to address any over-estimates consumers may have made about the time needed to get started.

It may also be helpful to identify immediate tangible benefits that consumers will achieve within a short span of time of seeking support.

In research completed by BEworks investigating why households suffering under the burden of high energy costs do not take advantage of energy cost-savings programs, we found that interventions need to consider the scarcity mindset[32] of those they are meant to help.

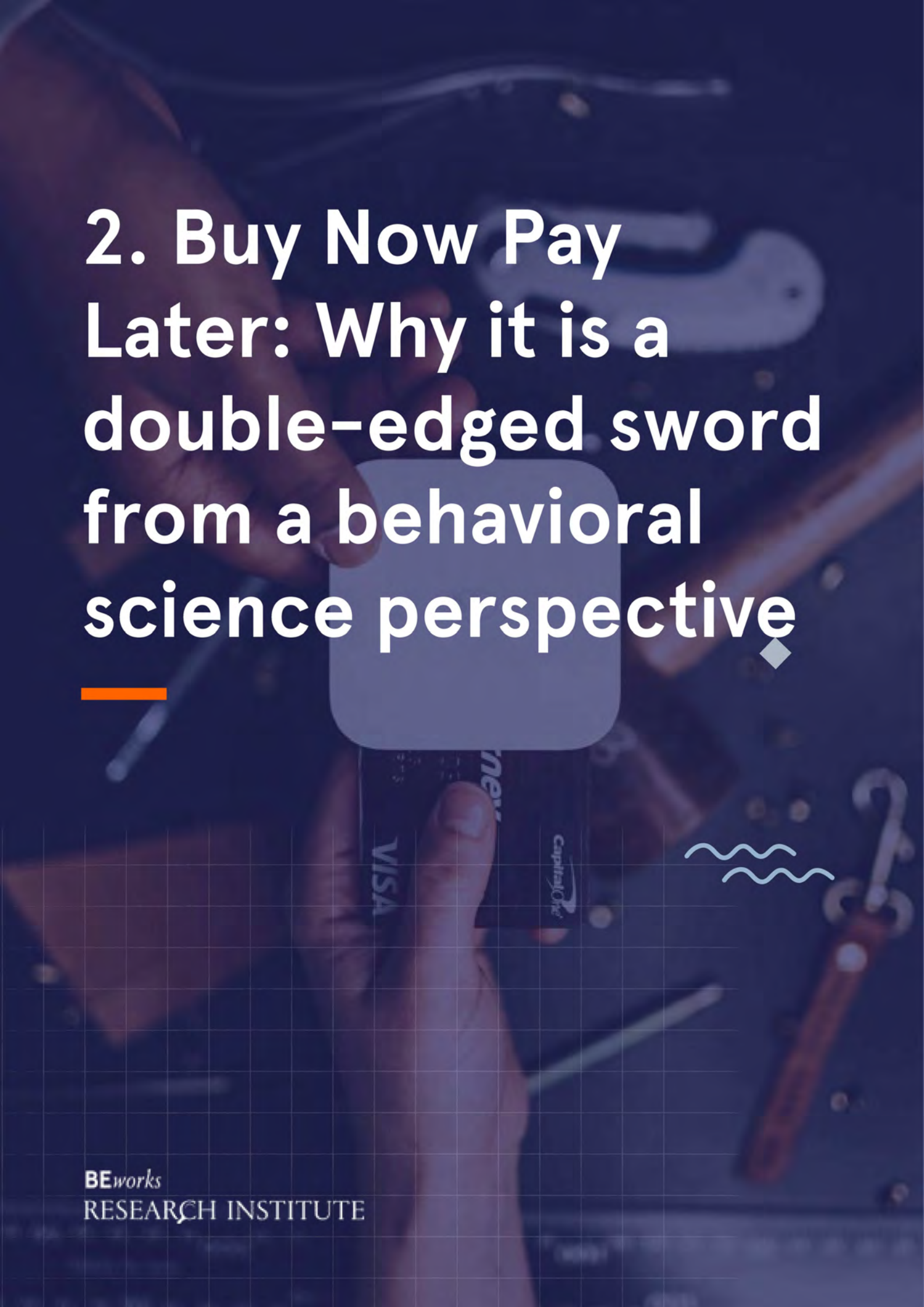
We determined that consumers were not only uncertain about the time and effort required to participate in a program that can deliver energy cost-savings through free upgrades that make for a more efficient home, but they also failed to be enticed through typical incentives-based appeals highlighting how much money they could save over time.

Since their temporal focus was immediate, future benefits were of little value.

We found that consumers were more apt to be moved to action when their attention was focused on immediate, tangible benefits of the free upgrades that would help to make their day-to-day lives more comfortable (e.g., a quieter furnace, a warmer home, brighter LED lights, etc.) even while the longer-term benefits of program participation, in the form of energy savings, take time to materialize.

In another example, encouraging credit card borrowers to pay off small purchases makes improvement tangible and creates a rewarding perception of progress.

Given that there is often a long runway to many credit journeys, behavior change efforts need to make use of a combination of interventions – some that clarify the decision, and others that reward and reinforce small steps in a meaningful way.



2. Buy Now Pay Later: Why it is a double-edged sword from a behavioral science perspective

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Consumer loans for major purchases have been widely available since the last century. Consumers turned to credit to make large purchases that they could pay off over time. A later innovation was credit cards, first issued in 1958. Credit cards became a convenient form of payment relative to carrying cash but also made it even more convenient to finance purchases.

Most recently, "Buy Now Pay Later" (BNPL) has extended this trend as a means of making payments both in bricks and mortar shops and on-line but also as an easy means to finance purchases and pay them off over time. Unlike consumer installment loans from banks and unlike credit cards, **BNPL is a consumer installment loan originated at the point of sale while making a purchase.**

The sector is growing with big players such as PayPal but many innovative and nimble small players entering the sector. The volumes are large and growing[33] as well with over 50 million transactions a year by US consumers and with the average transaction increasing from $400 in 2019 to $480 in 2020, the volume is now over $24 billion in the US alone.

Similar to credit cards, for some BNPL offers, there is no interest as long as the balance is paid on time while other BNPL offers have high fees and interest rates, particularly for those with lower credit quality.

The seamless integration with many retailers and e-commerce sites makes BNPL as simple as a few clicks and far more convenient than a traditional consumer loan. Interestingly, while consumer loans historically have been used for larger purchases such as furniture, appliances, and automobiles, BNPL is also targeted at everyday purchases such as clothing and cosmetics. Unlike credit cards, BNPL do not offer rewards, such as cash back or travel miles, when making a purchase.

BNPL has appeal for clients at the limit of their credit cards who still want to make a purchase on-line or in a store. The BNPL option is also offered with no credit check in advance for "bad credit" customers making it available to people who do not qualify for a credit card or who have had their card canceled due to failure to make payments but who still want to shop on-line. The segment is large with 24% of the US respondents in a recent study[34] having below prime credit and 27% having more debt than they can manage.

The dark side of BNPL is that the convenience and payment deferral come at a cost. For "bad credit" customers, the cost can be as high as 400% annualized. As well, there is a danger since the ease of use can lead consumers to over-extend themselves. Sometimes large purchases are a necessity and deferring payments is the only means of purchase but there can be a real cost.

Still, BNPL is proving quite popular even without rewards such as travel or cash back. For those with limited credit or no credit, the appeal is obvious. Other consumers may find appeal since they anticipate that they will fail to act in a financially responsible manner and pay down the debt in the future, so they choose instead to have a forced repayment schedule, knowing the exact rate, exact fees, and a pre-determined repayment schedule. It is as if they are anticipating being boundedly rational and want BNPL to force discipline on them.

Consumers perceive value in segregating a single purchase and establishing a specific payment schedule to pay off the debt. Encouraging consumers to focus on repayment by purchase[35] has been shown to increase the likelihood that purchases are paid off rather than lingering on a credit card with only minimum payments and the resulting high interest changes.

Consumers may fully intend to pay off the debt quickly, but research shows that the best of intentions are often not realized. People are often overly optimistic[36] regarding their plans and ability to pay down debt and they assume they will save more and spend less[37] in the future and yet that often does not happen.

Another explanation might be that these decisions are purely hedonistic pleasure seeking and ignore the cost.

For example, Cardify[38], a payments research firm, found in a recent survey that two-third of respondents reported spending on items they would not otherwise have purchased if BNPL was not available.

Perhaps people are buying small pleasures and ignoring the full cost. Another possible explanation for the popularity of BNPL is that scarcity mindset is influencing the decisions. The preference for seeking immediate benefits while ignoring the future cost, or being less capable of calculating the future cost, can explain the popularity.

> "The fact that 43 percent of BNPL users are late on a payment, and therefore incur interest charges or fees demonstrates the reality.

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Applying Behavioral Economics to Enhance Decision-Making about Buy Now, Pay Later Products

For lenders, understanding the decision-making of BNPL customers can help identify and quantify risks. Consumers may be seeking and using debt differently post COVID-19 and, since most BNPL is not reported on credit bureaus, this can mean the difference between having a consumer who pays back gradually over time, and a consumer who defaults, thereby falling into collection.

Insights are also available when drawing from research into the trade-off thinking of consumers. A robust bias called atypicality neglect[40] explains that consumers often mis-predict their future expenses – they forget about the miscellaneous spending events that they have every week, or they think of them as atypical even though these types of expenses crop up every week - a home repair or a vet appointment.

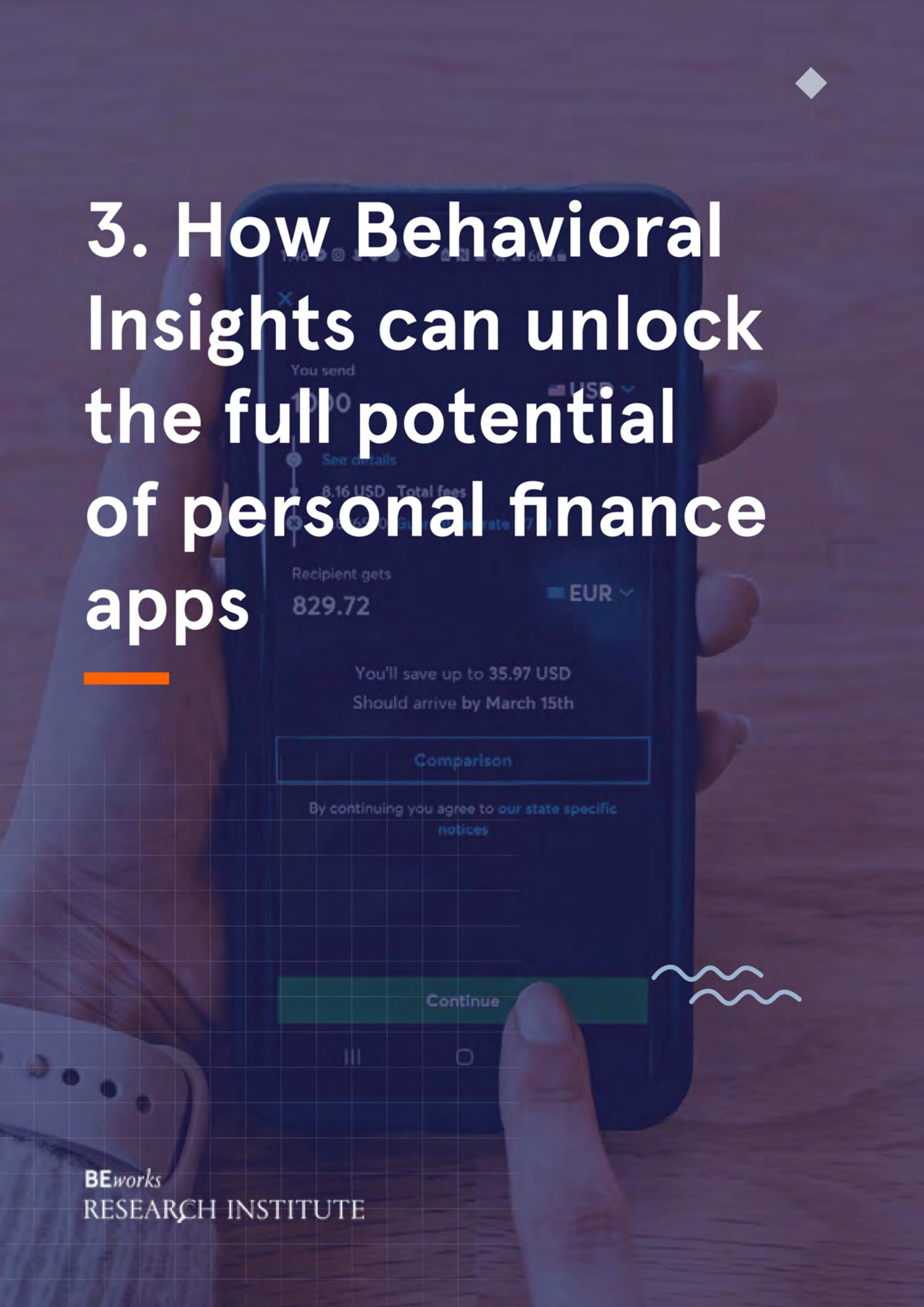
People anchor their spending estimates on the routine spending events that are easiest to remember – such as groceries and gas. This ultimately leads consumers to underestimate their ability to make future payments. Prompting consumers to reflect on the miscellaneous life events that lead to overspending can recalibrate consumers' decision-making so that they accurately predict their repayment capacity.

Consumers can also benefit by reducing present bias that favors current rewards at the expense of future financial well-being. Our future self who must repay the debt is psychologically and temporally distant. We have an empathy gap[41] and care more about our current selves than our future selves.

A BEworks project for a global bank helped consumers save more by thinking of themselves in the future and thereby making their future self less temporally and psychologically distant. By imagining our future self[42], we are more likely to act in a way the helps the future self as well as the present self.

Pre-committing, before going shopping, to think about the future consequences of borrowing and spending, can help consumers make decisions that advance their financial well-being.

3. How Behavioral Insights can unlock the full potential of personal finance apps



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Computer and mobile device apps focused on personal finance have proven popular[43] and represent a $7.5B market globally. Often referred to as fintech, there are computer and mobile device applications for on-line banking, fraud prevention, saving, borrowing, managing credit, investing, buying insurance, and financial planning.

The benefits include, convenience, accessibility, ability to compare options, better recordkeeping, increased financial literacy, and the ability to create and follow a financial plan. These capabilities are important.

> Two thirds of the people in America are merely coping or are financially vulnerable[44] with challenges of spending less than their income, paying bills on time, saving for short term emergencies, saving for the long-term, managing their debt, and maintaining a good credit score.

There are fintech apps that can help with all of these challenges.

The fintech market is large and growing but many groups may be excluded. Lower income households may have less access to devices and apps. As well, many low to moderate income households are over 50 and have lower usage[45] of Fintech. A behavioral economics perspective suggests that there are other challenges in addition to access. With apps for every aspect of personal finances, there is a risk of compartmentalization. All aspects of personal finance are interconnected. With each app focusing only on one aspect (saving or borrowing or investing or credit score, etc.) it is easy to fall into a trap of compartmentalized thinking and focusing on once aspect to the detriment of others.

BEworks' research on financial planning[46] has identified this compartmentalization as a major contributor to the implementation gap whereby clients do not fall through on the recommendations contained in their financial plan.

This implementation gap is rooted in the way that clients think about their finances, in a compartmentalized way, when they start the financial planning journey. Clients often seek support for one area of their financial lives (e.g., opening up an education savings plan or seeking help with debt management) without connecting these behaviors to other financial behaviors. Ultimately this results in clients receiving a financial plan that is comprehensive and asks them to act on a number of fronts; not something that they expected they would need to do to address the main priority they had in mind.

In the area of credit management, consumers' attention may not be what it ought to be, simply because they are focused on other aspects of their finances such as saving. Yet, saving more while costly debt remains unpaid is not real progress.

> Licensing effect[47] is another concern. In simple terms, licensing effect describes increased self-image and confidence occurring after doing something positive that makes it more likely to feel less guilt or remorse from subsequently doing something that would be viewed as negative. For example, people are more likely to eat an indulgent meal after exercising, thus negating the benefits of exercise.

In the context of personal finances, simply downloading the app may license subsequent self-defeating financial decisions such as borrowing to splurge on an unnecessary purchase.

What BEworks refers to as the 'say-do gap' is also certainly operative. In a study[48] on attendees of a retirement planning seminar, 100% of attendees who were not enrolled in their company 401K said that they planned to enroll and yet only 14% did what they said they were going to do. Perhaps it was licensing effect, since they felt good about going to the seminar but maybe procrastination, motivation to seek additional information, ambivalence, uncertainty, or other factors prevented action, but the important change in behavior did not occur. Fintech apps may change people's intentions but changing behavior is much more difficult.

The educational aspect of fintech apps is overstated as well. Apps can help people learn what they should do and should not do but similar to financial literacy[49], training may increase knowledge at least temporarily, but it fails to achieve the important behavior change.

A small amount of knowledge may also create overconfidence[50] since there is often a gap between what we think we know and what we actually know. In complex, risky consequential, financial decisions, many know only enough to be dangerous.

Saving apps may help in a small way. There are apps that will round-up debit card and credit card purchases and transfer the round-up amount to savings. The default amount however will likely be tiny and will have limited long-term impact.

As well, we know from behavioral economics research that people tend to stick with the default[51] and become passive. As a result, they may no longer actively consider whether they are saving enough over time and fail to change their behavior as their income or expenses change.

Lessons from Behavioral Science Applied to FinTech

To overcome compartmentalization, apps should use whole-unit framing to humbly remind users that while their focus is often only on a specific part of financial well-being, there is a larger whole to be aware of and to care for.

Stressing the importance of all aspects (i.e., spending less than income, paying bills on time, having a short-term emergency fund, saving for long-term goals, managing debt, and maintaining a good credit score) are all part of the journey to financial well-being.

Care must be taken to maintain the perception of progress on each stage of the journey to help users build and maintain feelings of agency and self-efficacy. Opportunities for cross-collaboration between apps can enhance the value proposition of each and also ensure better outcomes.

Licensing is not a conscious decision. We do not explicitly tell ourselves that one good deed allows a bad, but we behave as if it does. Addressing the temptation directly can be sufficient to make the reasoning explicit and allow us to see the flaw in our thinking. It also helps to re-frame what we view as good financial behaviors instead as necessary financial behaviors. The result may be that our efforts are not later sabotaged.

Personal finance apps are a land of promise, though they also run the risk of overloading consumers with more choices and decision difficulty than is needed or prudent. The result is often a say-do gap with inaction and decision avoidance[52] due to deferring a decision, being biased towards the status quo, being biased towards doing nothing, or simply overcoming inertia to get started.

The conventional view is that offering consumers a wealth of options for customizing an app is what will "hook" them and drive long-term use. Yet, evidence suggests that technology adoption may actually be promoted best by prioritizing a smaller set of features and making the experience as user-friendly and reinforcing as possible. By reinforcing, we mean connected to personal goals and capable of helping consumers to see that they are making progress.

Overconfidence often results from people's subjective knowledge (what they think they know) exceeding their objective knowledge (what they actually know). In one BEworks live experiment with a room full of retirement benefits consultants, simply having them answer ten fairly simple questions to test their actual knowledge resulted in them making a more realistic assessment of their expertise and reducing their overconfidence.

Apps can gamify learning and the process allows users to realistically assess what they know privately and in a non-threatening environment. They may then be more likely to seek and follow advice.

There may also be too much reliance on defaults that allow users to become passive rather than active participants. Defaults may reduce choice complexity but to balance the desire to give choice without overloading consumers, a strategy called enhanced active choice[53] may be called upon to help consumers actively shape their in-app experience so that it will support their long-term goals.

For example, imagine an app that consumers download in order to help them build healthy credit behaviors. One default that might be important to put into place would be SMS notifications that the consumer will automatically receive after they make a purchase with their credit card. This notification would serve to trigger the pain of paying[54], in other words, making it salient to customers how much money they just spent.

This combats the often-intangible nature of spending with credit cards that leads to overspending. This type of default message could help to decrease overspending, though it is an aversive type of notification that consumers might not "opt into" receiving.

Enhanced active choice can be leveraged by telling consumers that this type of notification is a default feature of the app and inviting them to customize some element of the notification, for instance the type of behavior change they would like this notification to help them with – does the consumer want to use these notifications to drive down their spending on coffee, or to reduce large sum expenditures on their card?

By giving consumers some choice within a mostly fixed choice architecture, the motivation becomes internalized rather than being an external control. It is possible to preserve feelings of autonomy, self-determination[55], and motivation, while also introducing aspects of the journey that consumers might not have selected for themselves.


CREDIT CARD

4. How the intangibility of credit changes the way we spend money

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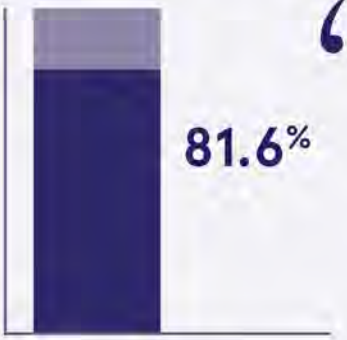
The COVID-19 pandemic has accelerated the trend toward electronic payments. With lockdowns, many physical locations were no longer open. Deciding whether to pay for a restaurant meal with cash or a card is replaced by food delivery ordered online. Even easier than reaching into your pocket, pulling out your cash, counting it, and seeing a dwindling supply of cash remaining, intangible electronic payments occur with a finger tap. Money is increasingly intangible as we spend more with cards, mobile payments, BNPL and e-transfers and as we buy more products and services online.



> Payments Canada[56] reports that, between 2014 and 2019, cash transactions declined 38% while electronic forms of payment grew to account for 81.6% of all payments in Canada in 2019.

Volumes are growing. In the first quarter of 2021, online money transfer provider PayPal[57] processed 50 percent more payments globally than in the same period in 2020. The trends are accelerating with 18% of global retail sales being e-commerce based and the proportion is expected to grow to over 21%[58] in 2024.

One might question whether there is any difference between physical cash payments and intangible electronic payments. The rational economic lens considers money fungible. One form has the exact same value as any other form. Viewed through a behavioral economics lens however, not all forms of payment have the same value. Even with physical currency, one dollar does not equal one dollar. The physical appearance[59] of a bill affects its value and two bills of exactly the same denomination, where one looks newer than the other, have different perceived values. Fungibility is also violated with credit cards. Research[60] demonstrates that when consumers have multiple credit cards and are contemplating a purchase, they will select a card with a lower outstanding balance rather than a lower rate. This preserves the perception of available credit, but it exposes the consumer to higher interest rates. Similarly, when paying off credit cards, consumers demonstrate debt account aversion and will favor paying off a single card, if possible, rather than allocating the funds to the card with the highest interest rate. Illusion of progress describes the feeling of making progress by eliminating one card even though the rational perspective would identify that the overall interest cost is higher. We know that none of these behaviors are rational, but they reflect actual behavior.

When money becomes intangible, other effects emerge. Taking money out of your wallet and handing it over gives us a tangible notice that we are parting with our money and depleting our wealth. Referred to as the pain of paying[61], we consider the pain of paying against the anticipated pleasure of our purchase. When we believe the pleasure will exceed the pain, we proceed. When the payment is electronic, the tangibility is eliminated, and the pain is therefore reduced, making us more likely to spend. As well, the immediacy[62] of the pain of paying with cash is contrasted with the delay when paying electronically (debit card, credit card, BNPL, etc.) where the payment is visible later when we check our account with debit or occurs in the future with credit. This delay leads to temporal discounting whereby a dollar in the future is worth less than a dollar today. As well, with credit cards the purchase will be merged with multiple other purchases on a monthly bill, so the pain of paying is unlinked from the purchase. The result is that we are more likely to spend. This effect is compounded even further for those in a scarcity mindset who are biased to focus on short term current rewards and ignore future costs.

COVID-19 has forced people to do more shopping on-line as physical locations have been shuttered in lockdowns. As a result, even people who would prefer to pay with physical currency have been forced to use intangible payment methods. The shift towards intangible payments will likely be permanent as more people are now comfortable with something they were forced into. Reducing the pain of paying will make it more likely that we spend less wisely. It also makes it more likely that people will use credit unwisely to the detriment of their financial well-being. Consumers need to be aware of the increased risks as do lenders.

Making the Invisible Visible Using Behavioral Economics

Debit cards are a convenient means of making payments. One recent trend that can help make debit card spending more tangible is electronic transaction notification. While introduced as a security measure to ensure that account holders are notified of debit card transactions, the notification at the time of payment is a reminder of wealth depletion and may help moderate spending. The same is true for transaction notification on credit cards.

Credit cards are also useful means for transacting. As well, credit cards offer payment deferral on purchases that sometimes must be financed over time. Sometimes borrowing is irresponsible as consumers are too present focused or they may significantly underestimate[63] the cost of credit card debt. Other times, consumers explicitly value making a purchase and paying over time despite the additional cost. Lenders prefer manageable risks in their card portfolios. Borrowers have an interest is using credit cards wisely if they are to maintain or enhance their financial well-being.

> "People are motivated to feel like they have checked something off their list, and so we can make use of this natural motivator to help people build and maintain better credit behaviors.

It is difficult for consumers to keep track of the purchases they have made, and how this relates to an overall balance owing. If the balance owing is high, it may even feel like an insurmountable debt where repayment is "a drop in the bucket". Research[64] shows that if an overall balance is "chunked" into individual payments (e.g., $1,000 owing = $600 on a new bike, $200 on some new shoes, and $200 on groceries) that the amount repaid will be greater because consumers are more motivated to pay off "all of something" than "a part of something".

While all types of debt could benefit from this strategy, we know that debt aversion[65] is greater for some types of debt and that some types of debt are more visible than others. This means that making certain types of debt more visible and using this chunking strategy may be particularly useful. In fact, consumers are more likely to pay off debts accrued on "transient expenses" such as groceries, hotel accommodations, restaurant meals, and gas, than on "durable expenses" such as a television that takes longer to pay off. There is a perhaps unsurprising reason for this – people clear debt so they can feel freed up for future spending. Because people are less likely to imagine future spending on something like another television, they feel less motivated to "clear debt" to make way for more spending in these categories. They can also anticipate future pleasure from the television that they can balance against repayment in the future.

Assisting borrowers with mental accounting[66], and presenting information in a form that is consistent with how borrowers conceptualize their transactions, will increase the likelihood that borrowers are able to manage credit responsibly. Debt account aversion[67] describes people's preference to eliminate debt accounts. They have a natural inclination to pay off cards if they can. The goal-gradient hypothesis[68] describes the increase in motivation we feel when we believe the goal is closer and more attainable. Sometimes, the number of debts or the total amount may leave consumers feeling helpless and therefore demotivated. Showing categories for chunking, providing information that makes progress seem possible, and rewarding that progress over time, will help lenders manage credit card portfolio risk. As well, consumers will be better equipped to use credit cards responsibly and maintain payments to lenders thus benefitting the lenders while also enhancing their financial well-being.

5. How Behavioral Biases Influence the Housing Market

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Residential real estate prices have been moving upwards[69], particularly in the past five years, but COVID-19 has accelerated the trend. Termed **the great reshuffling**[70], there also seems to be a trend to move out of dense urban areas to areas with a lower population density. The pandemic has made many people less comfortable in crowded spaces. As well, with most people spending much more time at home, and with many needing to trade-up and find more space for a home office, the trend is understandable. With outflows from cities, rents are dropping[71] in many urban cores.

One driver of home price appreciation is the low interest rates maintained by central banks to support economies during COVID-19, but these low rates are also causing what the IMF refers to as excessive risk taking and stretched valuations[72]. The Bank of Canada[73] notes that household mortgage debt is rising, mortgage credit quality is declining due to over-extended buyers with high loan to value and high loan to income ratios, and now over 20% of housing demand is driven by investor speculation. The structure of the real estate industry often reinforces the speculative bubble with blind bids, no price discovery, and commission-driven agents manipulating the sales process to create bidding wars. That type of behaviour is now illegal in the investment industry. The Bank of Canada has developed a behavior model, the House Price Exuberance Indicator, identifying extrapolative price expectations[74] where expectations of price increases lead to speculative buying and the price appreciation becomes a self-fulfilling prophecy driving yet more speculation. In the short term, housing supply cannot respond quickly to the demand. Similar patterns are seen globally. In the US, purchases of second homes[75] reached 14% of all home purchases and has doubled in a year. The concern globally is that the extrapolative price expectations are setting up a bubble that will eventually burst. Despite massive deficits driven by an accommodative monetary policy, including stimulus payments to consumers, inflation has been unexpectedly tame. But a rise in inflation expectations would trigger a re-pricing downwards.

The rational economic perspective identifies excessive risk but can't explain the behavior. A behavioral economics lens identifies numerous drivers of the behavior. For example, the Dunning-Kruger effect[76] describes how people over-estimate their knowledge and capabilities and tend to overestimate even more when they have less knowledge. People may overestimate their understanding of the complex calculations regarding real estate. Mortgage costs and rental expenses must be subtracted from rental income and this amount is often negative. Even with all cash transactions, people are poor at calculating their expected return on investment properties.

> The average home in Toronto in 2006 cost $366,962 and accumulated in value to $1,140,000 in 2021. The returns seem impressive. Many would say their gain is 311% ($1,140,000/$366,962) and they might compare this to gains in the stock market. But the net gain on the original price is actually 211%.

Adding back the original purchase of 100% leads to the gross price of 311%. The appropriate figure to compare to alternative investments is the net gain of 211%, not the gross of 311%. As well, people find it difficult to calculate the compound annual return. The naïve estimate of the annual return over 15 years would be 14% annually (211%/15). This however ignores the impact of annual compounding. The actual annual compound rate of return is 7.8%. People also ignore real estate transaction costs, sales taxes, property taxes, and maintenance which alone is 1% per year[77]. Subtracting just annual maintenance leaves a net annualized return of 6.8%. This is still impressive but far less than the rough estimate people rely on for this complex, risky, consequential decision. In comparison to an alternative investment, the S&P 500 index, which returned 10.6% annualized over the same period, housing as an investment yielded 3.8% less per year. In absolute, this doesn't seem like much, but it again ignores the effects of compounding. For an average 35-year-old home buyer purchasing an investment property with cash, the incremental return from the index would mean a level of wealth over three times higher at age 65. People need homes but they also need to stop looking at housing speculation as the no-risk, no-fail, best-ever investment strategy.

Even an economic comparison of renting versus owning is a complex problem. Once again, people fail to consider real estate transaction costs, property taxes, insurance, maintenance, mortgage interest, and the opportunity costs of foregone income on alternative investments as costs of home ownership when considering renting versus buying. Rent is often considered wasted money since it goes to someone else, but we forget that mortgage interest goes to the bank so economically, there is no difference. People also argue that buying is better than renting because they are paying down their principal and building equity. Renters however can also build equity monthly by taking the difference in what they would pay on a mortgage and the lower amount they pay on rent and investing in alternatives like a stock market index fund but with higher returns as demonstrated above. In the long run, owning a home and renting the same home should have similar economic cost. As rents decline, it becomes economically more attractive to sell the home, invest the capital in an alternative investment with higher returns, and rent similar accommodations instead. This will eventually drive rents up and home prices down to restore equilibrium. In Canada, the last decline in real home prices lasted over a decade between 1989 and 2000. Ownership has been more expensive than renting since Q2 2006 and homes are now 78% above their rental value[78]. After 21 years, the risk of a correction is only growing.

Social proof[79]describes our tendency to attend to and mimic the attitudes, opinions, and behaviors of others. We can even do so when the evidence we see clearly demonstrates that those opinions are incorrect. In a famous set of experiments dating back to 1955 and replicated countless times, the Asch Conformity Experiments[80] showed that an individual would follow the majority opinion of a group of people judging something as objectively verifiable as which of three lines on a piece of paper is longer. Even when presented with the contradictory evidence in black and white, people would accept the opinion of the majority. People may be able to calculate the correct effective return on housing speculation but, with the majority holding a different but incorrect opinion, they dismiss their own conclusions as somehow incorrect.

A related behavioral economics perspective suggests that the appreciation in house prices is a speculative bubble. Referred to as the herding effect[81] in financial markets, this is also called the bandwagon effect. When careful analysis is replaced by decision-making based purely on following the actions of others, the metaphor of a herd of animals, perhaps lemmings, rather than intelligent humans seems appropriate. Technical analysis, which identifies trends in markets and exploits the trend may become a self-fulfilling prophecy (at least in the short term) when the trend is extrapolated ever upwards. It is a curious coincidence that the speculative bubble in tulip bulbs in 1637, in what is now the Netherlands, also occurred during a pandemic. The recent GameStop[82] bubble, where the share price was driven far above its intrinsic value, is an example of boundedly rational financial decision-making with very real costs.

Behavioral economics also identifies fear of missing out[83] (FOMO) as a factor in home speculation. We have an apprehension to losing out on rewards that others are experiencing. With social media more pervasive, we are increasingly aware of the behavior of others. Stories of apparently easy riskless profit from buying and flipping real estate creates FOMO. Realtors have some great social media sites with beautiful homes and claims of easy profits. Prospect theory[84] describes our aversion to losses and demonstrates that, paradoxically, we will in fact take risks to avoid losses. Rather than lose out on these apparent riskless profits, people are motivated to risk their wealth in real estate.

But the real risk may be underappreciated. Representativeness heuristic[85], describes our tendency to extrapolate current conditions forward without anticipating future events that may alter the trend. We ignore the base rate, in this case the historical incidence of real estate corrections. The focusing illusion[86] has us attending solely to the trend in home prices; we become mesmerized by the trend. We ignore the underlying psychological drivers and all of the other macroeconomic factors that affect home prices. The rhetorical question, "What could go wrong?" comes to mind.

Countering the behavioral economics perspective, the greater fool[87] theory suggests that the speculator may be rational. They may be fully aware that they are apparently being a fool by purchasing an asset at a price far above its intrinsic value, but they expect a greater fool to buy it from them for an even more inflated price. In an empirical study, the greater fool theory explained the stock market bubbles and subsequent crashes in the stock market in China in 2007 and 2015. The lesser fool ignores the risk of not finding the greater fool in time. Like a pyramid scheme or a game of musical chairs, somebody loses when the music stops and we only know that it will stop, not when.

Helping People Get Real about Real Estate Using Behavioral Economics

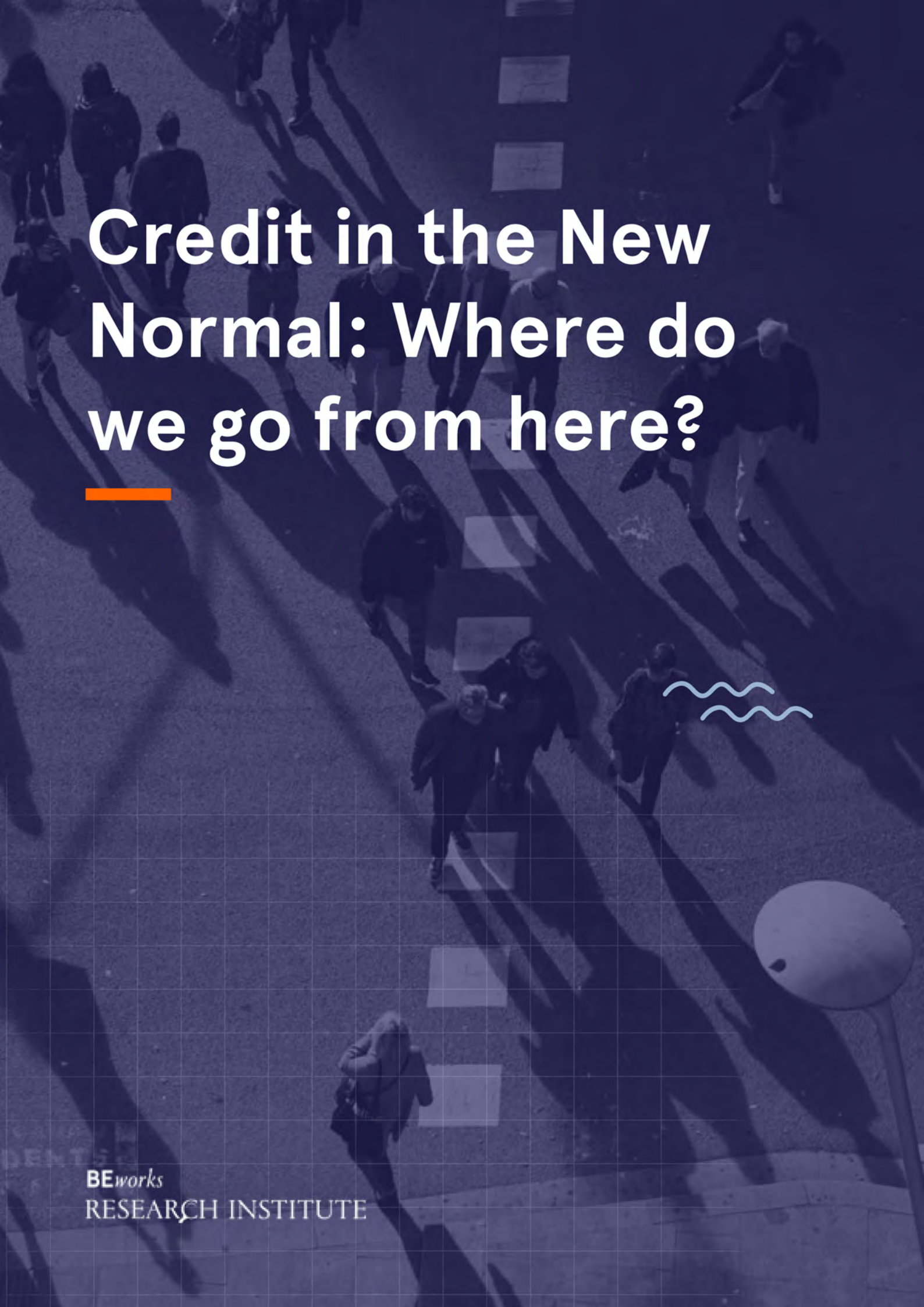
Much of the appreciation in real estate can be traced to heuristics and biases rather than sound investment fundamentals. Countering these is important to protect lenders, investors, and renters alike. But the task is not always simple. Helping people realize they know less than they think they do is difficult to accomplish without generating resentment and a wounded ego. One way to reduce the Dunning-Kruger effect is to encourage people to test their knowledge in private. Numerous helpful calculators are available on-line (e.g., rent or buy, home mortgage affordability, return on real estate investment, etc.). Independently completing these types of calculations and then comparing the results to on-line calculators will illustrate the complexity and allow a personal reassessment of expertise; but in private. A more realistic assessment of knowledge and a feeling of accomplishment and learning may then replace the illusion of expertise.

Helping people overcome the effects of herding, social proof, and conformity requires that we encourage them to actively seek contrarian opinions. Confirmation Bias[88] leads us to selectively attend to and believe information that confirms existing beliefs. Instead of reading real estate newsletters and browsing sites on real estate, often promoted by realtors listing properties and hoping to earn commissions, we should actively seek contrarian sites that discuss the risks of real estate to ensure that our opinions are balanced. We know that not everybody is investing their wealth in real estate. Communications strategies can overcome this perception through dynamic social norms. Communicate a balanced view, such as, "An increasing number of people are cautiously considering the high valuations in real estate right now..." along with the injunctive norm "...and you should too".

People experiencing FOMO are often in a charged emotional state and more likely to be basing opinions on emotions rather than facts and analysis. The bidding wars and limited time periods for offers are tactic realtors use to encourage emotional rather than rational decisions. That alone should make us wary. Setting up limits and pre-committing to abiding by the limits is important. For example, if a real estate investment offers an attractive return, but only if it can be purchased for less than $500,000, pre-commit to $500,000 as the maximum price. Otherwise, there will be regret when the emotions cool and the lower return on the higher price is calculated. For housing rather than investing, comparing the rental cost of similar properties and explicitly acknowledging that paying more every month to own a property than it would rent out for is an uneconomical prospect. If "ownership" has a utility value for a buyer, (e.g., It's worth up to $1,000 a month to own this property rather than rent it or a similar one), that amount should be explicitly factored into the decision. Committing in advance, before the emotions take charge of reason, can blunt the effects of FOMO.

Representativeness[89] heuristic loses its power when we acknowledge it and become aware that it can be affecting us. As with all heuristics, wariness and careful second thought allows us to modify our judgement. In general, heuristics can simplify decision-making and allow us to make the hundreds of decisions we make every day. It is important however, to recognize that heuristics have no place in complex, risky, consequential decisions. Choosing the wrong coffee will create transitory dissatisfaction. A real estate transaction can have life changing consequences. With focalism, focusing narrowly on the trend in real estate for example, can be countered by spending some effort to think of contrary outcomes. Literally asking, "What can go wrong?" leads us shift from an intuitive mode of thinking to an analytical mode and to consider other factors affecting the attractiveness of real estate.

The risk of following the greater fool theory is that it leads to buying an asset at a price above its fundamental value. As long as the greater fool does come along, the lesser fool can profit. This neglects the critical factors of timing and market intelligence. When real estate markets cool, it can be sudden and unexpected. Inventory grows and days on the market lengthen while prices soften and begin to slide. Once it is noticed, it is too late. A slide becomes a crash as speculators race for the exits. We also often forget that when there is a mortgage on a property, there is leverage. Leverage multiplies gains but also multiplies losses. The slide in value can erase all of the equity in the home and more leading t√o a loss of over 100% of the investment. Spending some time contemplating exist strategies is sobering. Spending some time considering how we can anticipate the market top before everyone else does and thinking about how long it would then take to sell the property, and whether you can walk away with some equity left is also sobering.



Credit in the New Normal: Where do we go from here?

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Credit in the New Normal describes changes in how and why we use credit. These changes create a new environment with new risks for the economy and society. We need to go beyond traditional economic statistics and perspectives to leverage the insights of behavioral economics and understand why these changes are occurring before we can propose solutions.

Research and observation show that financial decision-makers are boundedly rational. We rely on heuristics to allow us to make the many decisions we are confronted with daily. Many times, these heuristics serve us well or at least do not expose us to harm. For example, we may rely on the goldilocks heuristic[90] and automatically choose a medium drink over a small or large one without much thought. But for risky, complex, consequential financial decisions, heuristics leave us vulnerable to biases that can have negative consequences. We may use the 1/n heuristic[91] when selecting investments and choose to spread our selection over all of the available choices in a set of investments even though this naïve diversification strategy may not optimize diversification. In other circumstances, even when we are bypassing heuristics and striving to be calculating, analytical, goal-oriented, consistent, and predictable in our decision-making, we invariably fall prey to biases such as overconfidence[92], present bias[93], and atypicality neglect[94].

The COVID-19 pandemic has certainly not helped. As we illustrated in the Credit in the New Normal webinar, there are impacts caused by the Scarcity Mindset, the growth in usage of Buy Now Pay Later products, increasing use of narrowly focused Personal Finance Apps, the expanding Intangibility of Payments, and a boom in Real Estate Speculation. All of these factors are negatively impacting financial well-being which we know is the single most important determinant of overall financial well-being[95]. We believe that the changes and impacts will be enduring unless we deepen our understanding. These factors also have implications for financial institutions and the economy. Finally, in addition to the economic impacts, there are also broader social impacts that will concern policymakers.

Behavioral economics offers a diagnostic explanation of sub-optimal decision-making. Understanding why our decisions of may be flawed is a first step. Applying behavioral economics insights encourages consumers to engage in meta-cognition, or thinking about how we think, and this can improve decision-making.

Financial institutions can develop a new understanding of consumer behavior. Lenders need to be aware that assumptions in credit risk models need to be re-evaluated. Policy makers need to address excessive risk-taking for some and the changes that make it more difficult to establish a pathway to financial well-being for the financially vulnerable for others. Behavioral economics can assist in developing evidenced-based policies to help society and the economy adapt to the New Normal.

Unanswered Questions

There remain many unanswered questions. While the behavioral economics lens can illuminate the path forward, innovation and experimentation are required to develop and measure the effectiveness of new approaches to managing credit in the New Normal.

Important questions include:

- What proportion of our population is experiencing a scarcity mindset, and how do we identify consumers who need help given the present bias and tunneling that this mindset can bring about?
- Will scarcity mindset persist in intensity, or will the eventual cessation of the threat from COVID-19 reset our views?
- As Buy Now, Pay Later products become more common, what expenditures will customers still prefer to Buy and Pay for Now?
- What is the relative priority that consumers assign to credit and debt management behaviors compared to other key financial behaviors, and how can this be leveraged to develop an app to help with credit and debt management?
- Will the proliferation of specialized personal finance apps continue, will more holistic apps emerge and become popular, or will new means of managing personal finance through technology solutions take the fore?
- What makes payments more or less visible?
- Will the intangibility of payments continue to bias consumer decision making or will individuals adapt to this ephemeral reality?
- What is the difference, in terms of both mindset and behaviors, between cultures where home ownership is the norm and those where it is not?

- How will the emergent trends endure and how will they evolve?
- How can we moderate the current extrapolative price expectations and slow real estate speculation to allow a smooth transition to more realistic prices and support home affordability?
- Which of our current policies and strategies are highest in the priority list for alteration given the changes to how credit is perceived and used?
- How cognizant are consumers of the shifting credit landscape and how their individual behavior fits into the bigger picture?
- What strategies should financial institutions be taking to ensure that consumers can make credit decisions that enhance well-being?
- Can we incorporating behavioral indicators into credit adjudication and risk models to increase their effectiveness?
- How should policy makers construct regulatory frameworks that consider the dynamic changes in credit in the years to come?
- How can we immunize our economy against future global pandemics?

Applying a behavioral economics lens helps us to ask new questions about human behavior that have never been explored before. By working in partnership with financial institutions, policymakers, and other interested parties, the BEworks' Research Institute can help to shape a new perspective on Credit in the New Normal that is grounded in fundamental knowledge regarding financial decision-making and behaviour.

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