



Using Tax Refunds for Debt Repayment

A STUDY WITH COMMONWEALTH BANK OF AUSTRALIA

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The Financial Health Leaders program is generously funded by MetLife Foundation. Learn about joining the Leaders program at finhealthnetwork.org/what-we-do/membership/financial-health-leaders-program.

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FINANCIAL HEALTH COMPONENT



AT A GLANCE

INNOVATION

Conducted in partnership with Commonwealth Bank of Australia, this Financial Health Leaders Lab study examines the impacts of **digital initiatives like pre-commitment messaging, mobile reminders, and simplified payment tools** on debt repayment during tax refund season.

IMPACT

01

Customers who received reminders were more likely to make payments within two days than those who didn't, and their payments were larger on average.

02

However, in the following months, customers who made payments appeared to increase credit card spending, resulting in larger credit card balances.

03

Pre-commitment messages produced no measurable impact on repayment behavior.

APPLICATIONS

01

Encourage customers with trouble managing debt to seize opportunities and take action quickly. This study showed planning ahead was less effective than in-the-moment intervention.

02

Provide ongoing support for customers taking a step toward financial health. Reinforcement can help customers stay on track toward their financial health goals.

03

Measure financial health over time to gain a true picture of impact. A continuous practice of measurement uncovers changes over time and provides information for ongoing improvement.

\$3,200

Avg. Australian credit card debt

\$2,500

Avg. Australian tax refund

+2.7 percentage points

More customers who made a debt payment within two days of receiving their refund when reminded

+\$25

Larger average payment from those who received reminders

SECTION 1

Innovation: Paying Down Debt with Tax Refunds

Consumers around the world struggle to manage debt. In Australia, 19% have difficulty managing credit card debt,¹ while 29% of people in the U.S. describe their debt as “unmanageable,” according to the 2019 U.S. Financial Health Pulse[®] Survey.²



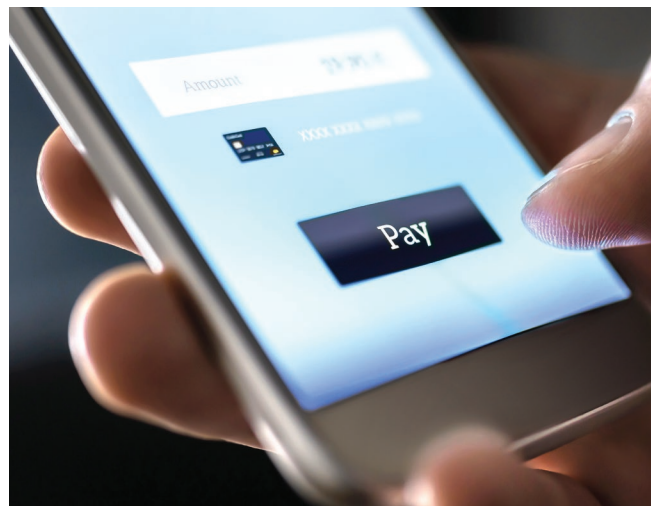
Commonwealth Bank of Australia

Through the Financial Health Leaders Lab, Commonwealth Bank of Australia (“CommBank”), Australia’s largest bank, launched an effort to help its customers pay down their debt with tax refunds at the beginning of the Australian tax filing season in June of 2019.

For most Australians, tax time provides a significant windfall — on average, a \$2,500 tax refund.³ This refund can be an opportunity for people to reduce their debt balances significantly, as the average Australian also holds approximately \$3,200 in credit card debt.⁴

In this study, CommBank wanted to test mobile app messaging as a way to prompt customers to consider using their tax refunds to pay down debt at two points in time: at the beginning of the tax filing season, and again when customers received their refunds. The bank anticipated this could improve customer financial health by reducing debt costs and increasing credit scores, while also reducing the bank’s loan impairment expense.

“For most Australians, tax time provides a significant windfall — on average, a \$2,500 tax refund. This refund can be an opportunity for people to reduce their debt balances significantly, as the average Australian also holds approximately \$3,200 in credit card debt.”



¹ Report 580: Credit card lending in Australia, Australian Securities & Investments Commission, 2018.

² U.S. Financial Health Pulse: 2019 Trends Report, Financial Health Network, 2019.

³ Taxation Statistics 2017-2018: Individuals - Table 1, Australian Taxation Office, Retrieved from: <https://data.gov.au/data/dataset/taxation-statistics-2017-18/resource/de2ebe4a-b17f-491e-931a-a820fa97fee8>.

⁴ Economic Insights: Average credit card debt hits a 5-year high, Commonwealth Bank of Australia, 2018.

Pre-commitment Before Tax Filing

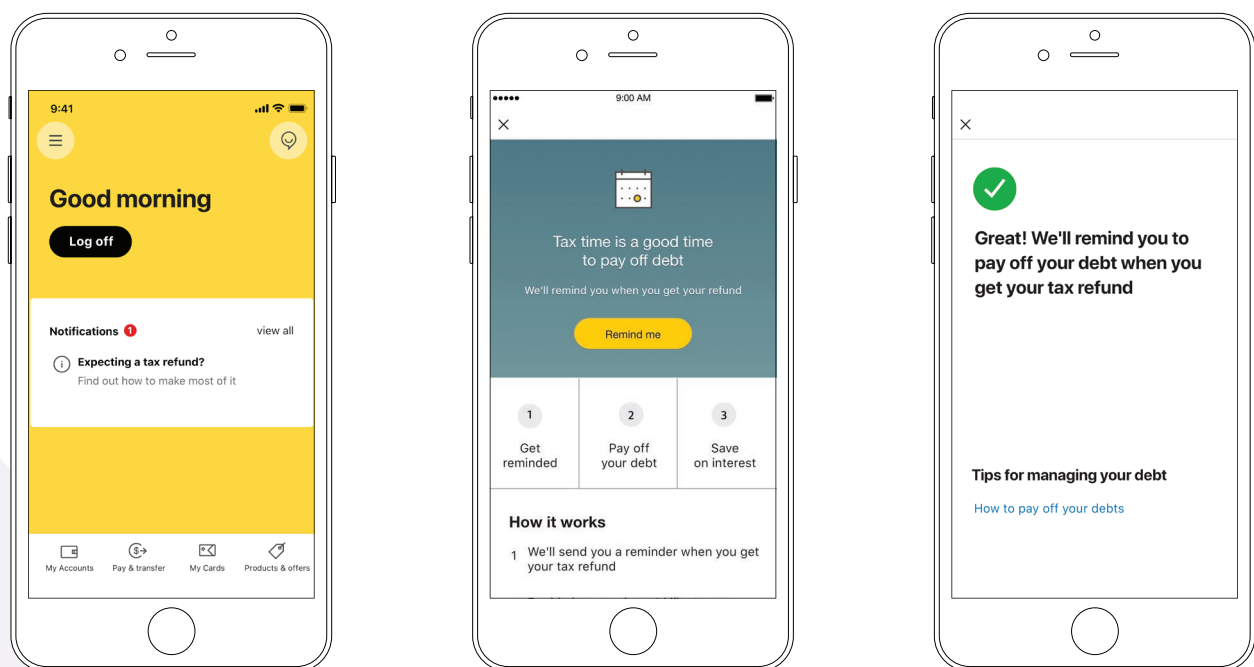
CommBank's messaging to customers in debt at the beginning of the tax filing season leverages the concept of **pre-commitment**. Companies such as Digit and H&R Block have used this strategy successfully to encourage consumers to precommit their tax refunds to building savings.^{5,6}

These campaigns suggest consumers commit to saving their tax refunds well before they've received them, which feels easier than making that commitment when they have the money in hand. Once this pre-commitment is made, it creates a soft commitment that helps consumers to follow through on their intentions.⁷

CommBank previously tested pre-commitment during the 2018 tax season, encouraging its customers to save a portion of their refunds both before and immediately after receiving the refund. Both CommBank and Digit found that earlier messages were more effective than in-the-moment messages for encouraging customers to save.⁸ In 2019, CommBank expanded upon this initiative by applying what it had learned about tax-time savings to tax-time debt repayment.

The bank implemented the innovation by displaying prompts to selected customers within its mobile app that explained the benefits of using their tax refunds to pay down high-interest debt (see Figure 1).⁹ The pre-tax season message allowed customers to opt into a reminder to use their refund to pay down debt, creating a soft commitment to follow through.

Figure 1. Pre-Tax-Season Mobile App Messaging About Debt Repayment



⁵ *Increasing Savings at Tax-Time (Digit)*, Center for Advanced Hindsight, 2017.

⁶ Mohin Banker, Cheryl Cooper, Heidi Johnson and Melissa Knoll, *Planning for tax-time savings*, Consumer Financial Protection Bureau: Washington, D.C., 2019.

⁷ See Jeremy Burke, Jill Luoto and Francisco Perez-Arce, *Soft versus Hard Commitments: A Test on Savings Behaviors*, Journal of Consumer Affairs, 2017, 52(3): 733-745 for another approach to creating a "soft commitment" that leads to increases in savings.

⁸ *Increasing Savings at Tax-Time (Digit)*, Center for Advanced Hindsight, 2017.

⁹ See Approach, below, for details on customers who received the tax-time messaging.

Simplifying Payments with Tax Refunds

CommBank also reached out to customers once they received their tax refund and guided customers through the steps to make a payment toward their debt. This component of the innovation supported debt management in two ways, by **providing a reminder and a simplified process to take action**.

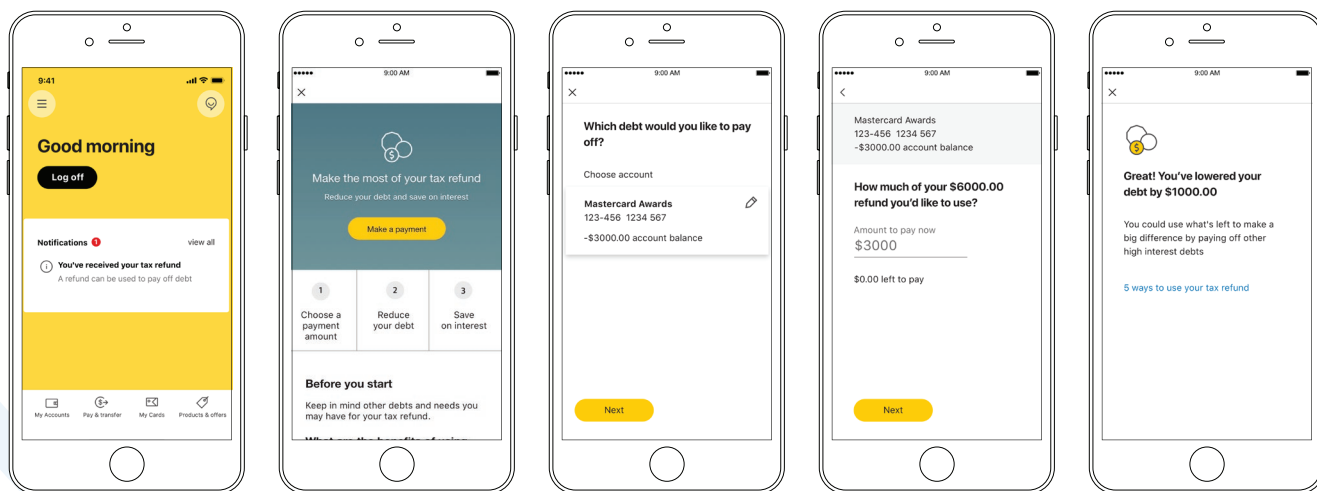
CommBank took into account the principle of **limited attention**, which may prevent people from taking action toward goals like debt reduction. Reminders can overcome limited attention by increasing the salience of the goal. This approach has already been effective in encouraging people to save.¹⁰ In a study with Intuit, a simple prompt increased the number of low-income tax filers who saved a portion of their tax refunds.¹¹

Minor amounts of **friction in the user experience**, such as filling out a form, can also prevent people from taking action on goals.¹² Simplifying the process of making a debt payment can increase the number of people who follow through.

The post-refund reminder message aimed to overcome limited attention and reduce friction by engaging eligible customers with a simplified debt repayment tool (shown in Figure 2) shortly after a tax refund was deposited into their account.

This notification provided a reminder of the customer's opportunity to save, and connected customers to a debt repayment tool that simplified the steps to make a payment. The customer could use the tool to choose a CommBank debt account and amount to pay toward the debt. This repayment tool was carefully designed to guide customers toward better outcomes without infringing on their ability to make their own choices.

Figure 2. Post-Refund Mobile App Messaging About Debt Repayment



¹⁰ Dean Karlan, Margaret McConnell, Sendhil Mullainathan and Jonathan Zinman, *Getting to the Top of Mind: How Reminders Increase Saving*, Management Science, 2016, 62(12): 3393-3672.

¹¹ Michal Grinstein-Weiss, Blair D. Russell, William G. Gale, Clinton Key and Dan Ariely, *Behavioral Interventions to Increase Tax-Time Saving: Evidence from a National Randomized Trial*, Journal of Consumer Affairs, 2016, 51(1): 3-26.

¹² Eric P. Bettinger, Bridget Terry Long, Philip Oreopoulos and Lisa Sanbonmatsu, *The Role of Application Assistance and Information in College Decisions: Results from the H&R Block FAFSA Experiment*, Quarterly Journal of Economics, 2012, 127(3): 1205-1242.

First, CommBank used **smart defaults** to determine which debt account would be displayed if the customer held multiple accounts (see the third image in Figure 2). Accounts with overdue repayments were prioritized first to minimize the time customers spent in arrears and to mitigate the impact to their credit history.

If no accounts were overdue, the account with the highest interest rate (usually credit cards) was prioritized to minimize interest charges incurred by the customer. Smart defaults are individualized, and therefore useful when decision-makers are facing different circumstances.¹³ By using known information about the customer's situation, CommBank was able to guide customers toward choices most likely to result in the best outcomes.

CommBank also pre-filled the repayment amount for customers (see the fourth image in Figure 2). Similar to the smart defaults used to pre-fill the account, the pre-filled payment amount depended on the customer's situation. If the selected account was in arrears, the amount was pre-filled to either the full overdue amount or the full tax refund amount (whichever was lower). Likewise, if the account was not in arrears, the amount was pre-filled to either the full balance owed or the full tax refund amount (whichever was lower). This pre-filled amount used the **anchoring effect** — the tendency for people's choices to be influenced by initially presented values¹⁴ — to encourage customers to make higher repayments. Despite the smart defaults, customers could use the tool to make a payment of any amount to any CommBank debt account.

“ By using known information about the customer's situation, CommBank was able to guide customers toward choices most likely to result in the best outcomes.



¹³ N.C. Smith, D.G. Goldstein, and E.J. Johnson, *Choice without awareness: Ethical and policy implications of defaults*, Journal of Public Policy & Marketing, 2013, 32(2): 159-172.

¹⁴ D. Kahneman and A. Tversky, *Judgment under uncertainty: Heuristics and Biases*, Science, 1974, 185(4157): 1124-1131.

SECTION 2

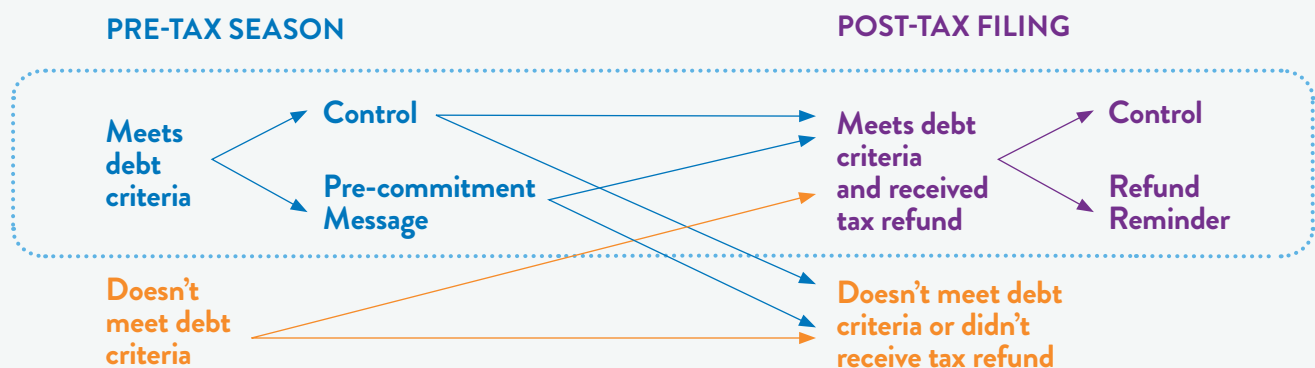
Approach: Testing Innovations During Tax Time

CommBank tested its innovations with approximately 250,000 customers that had debt balances of \$350 or more, and who had demonstrated challenges with managing their debt.¹⁵

The bank randomized whether customers received a pre-commitment message or no message at the beginning of the tax filing season. It then randomized whether customers received a post-refund reminder message, creating a control group for each stage.¹⁶ Customers in the study could receive either one, both, or neither of the messages. Approximately 95% of the customers eligible for the pre-commitment message received it, and 87% of the customers eligible for the reminder message received one.

The majority of customers in the study (70%) received only one of the messages, as some who received the pre-commitment message¹⁷ became ineligible for the refund reminder, and the refund reminder was sent to some customers who became eligible after the pre-commitment message. Figure 3 displays customers' eligibility and CommBank's randomization approach for the study.

Figure 3. Study Design for Tax-Time Debt Repayment



Note: Customers included in the study are enclosed by the dotted line. Customers not included in the study are represented in orange. The customers that are in the pre-tax season portion of the study are in blue, and customers that are in the post-tax filing portion of the study are in purple.

¹⁵ Eligible debt products included credit cards, personal loans, and mortgages held with CommBank. Challenges with managing debt were identified in one of three ways: being in arrears, exiting collections within the previous 90 days, or holding a revolving credit card balance for the previous three months.

¹⁶ Despite the randomization, there were statistically significant differences between the customers in the treatment groups and the control groups. Customers receiving the pre-commitment message were younger and shorter-tenured with the bank, more likely to be female, lower in overall financial well-being, more likely to hold a savings account or personal loan, and less likely to hold a home loan than the control group. Customers receiving the refund reminder were younger and shorter-tenured with the bank, more likely to be female, lower in overall financial well-being,

less likely to hold a credit card or home loan, more likely to hold a personal loan, received higher tax refund amounts (when comparing medians, but not means), and had higher closing balances and made lower repayments (on their most recent credit card statement) than the control group. The impact analysis controls for these differences by including these characteristics as covariates.

¹⁷ Customers eligible for the pre-commitment message became ineligible for the refund reminder if they no longer qualified as having challenges with their debt under the criteria described in footnote 3, if they did not receive a tax refund, or if their tax refund was smaller than \$50. Customers became eligible for the refund reminder if they developed challenges with managing their debt after the pre-commitment message.

SECTION 3

Impact: For Some Customers, Reminders Spur Action

To analyze the results of this study, CommBank examined how three key customer metrics — engagement, debt repayment, and debt balances — were impacted by its pre-commitment messaging, refund reminder, and simplified payment tool.

To test its innovation with the Financial Health Leaders Lab, CommBank measured:

- Customer engagement with the in-app messages and debt payment tool to demonstrate whether using tax refunds for debt repayment resonated with its customers.
- Customer debt repayment behavior after each stage of the study to learn how the tax-time messaging program impacted their financial health. Specifically, it examined the percentage of customers that made a payment toward their debts shortly after receiving each message and the amounts paid toward their debts.
- The percentage of customers that missed a payment and their closing balances for the statement periods one month and three months after receiving their refunds.

There was strong engagement with the pre-commitment messages, with over 15% of customers choosing to view the landing page after receiving the message early in the tax season about using their tax refunds for debt repayment. In contrast, many digital campaigns see single-digit engagement rates. Close to one in five customers who saw the landing page went on to request a reminder about using their tax refund to pay down debt.

Fewer customers (about 7% of customers who viewed the message) engaged with the dashboard message that notified them of their tax refund and invited them to use it to pay down their debt by clicking through to the repayment tool. The message was delayed by a few days from the receipt of the refund for some customers, which may have made it less relevant. Overall, just under 0.1% of customers who received the refund message completed a debt payment using the tool.¹⁸

Pre-commitment Messages

To explore whether the pre-commitment message encouraged customers to take action on paying down their debt by increasing the salience of their debt, we examined debt repayment behaviors during the statement period following the pre-commitment message. The pre-commitment messages did not impact customers' likelihood of making a debt payment, the amount paid toward their debt, whether they missed their next payment, or their closing balances on their next statement.

CommBank also examined whether pre-commitment messages influenced debt repayment behavior after customers received their tax refunds. Unlike the trends companies have seen with pre-commitment messaging

¹⁸ Most customers made their credit card repayments outside of the repayment tool, instead using the existing repayment experiences within the app.

“ An additional 2.7% of customers made a debt payment within two days of receiving their tax refund, and their payments were \$25 larger on average than those made by control group customers who didn’t receive the refund reminders.

for tax refund savings, the pre-commitment messages did not appear to influence customers to repay debts with their tax refunds. However, this analysis is limited to the sample of customers who remained in debt at the time of their refund, which is a minority of those who received the pre-commitment message. During the time that elapsed between the pre-commitment message and the customers’ receipt of their refund, many of them may have been able to catch up on payments and resolve their debt, which would reduce the relevance of using a later tax refund for debt repayment. Customers remaining in debt at the time of their tax refund may have faced more significant hurdles to managing their debt and making additional payments, even with the additional income from a tax refund.

Refund Reminders

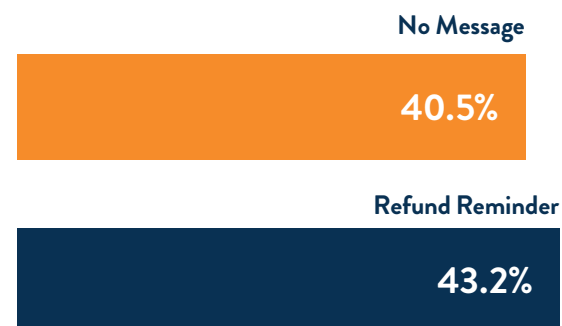
The refund reminders and debt repayment tool increased the likelihood of making a debt payment shortly after receiving a tax refund, as well as the average amount paid.¹⁹ An additional 2.7% of customers made a debt payment within two days of receiving their tax refund, and their payments

were \$25 larger on average than those made by control group customers who didn’t receive the refund reminders.²⁰

In the statement period following receipt of their tax refunds, the refund reminder reduced the share of customers that missed their credit card payments by 0.5 percentage points.²¹ However, the refund reminder did appear to increase credit card spending, leading to credit card balances that were \$37 higher one month after receiving the refund²² and \$75 higher three months later.²³

Figure 4. Percentage of Customers Making a Debt Payment After a Refund Reminder

An additional 2.7% of customers made a debt payment within 2 days.



¹⁹ Because some of the customers in the study at the time of the refund reminder had also received a pre-commitment message, we explored analyses of the impact of the refund reminder that controlled for receipt of a pre-commitment message. These alternative analyses yielded similar results.

²⁰ These effects are statistically significant at the 0.1% level ($p < 0.001$), despite the small number of customers who engaged with the refund reminders.

²¹ Statistically significant at 5% level ($p < 0.05$).

²² Statistically significant at 5% level ($p < 0.05$).

²³ Statistically significant at 0.1% level ($p < 0.001$).

The additional spending that drove higher balances for the refund reminder group may have represented a simple shift in spending from a non-CommBank credit card to CommBank, due to positive consumer sentiment as a result of CommBank's efforts to help its customers manage their debt. Alternatively, customers may have chosen to spend more because of a **moral licensing effect**, in which people engage in less desirable behaviors because of having done something they perceive as "good," such as using a tax refund to pay down debt.²⁴ Because we don't have information about spending on non-CommBank cards, we can't distinguish between a real increase in spending or a shift in which cards the customers chose to use.

Some of the customers in the study at the time of the refund reminder had also been eligible for the pre-commitment messages at the beginning of the tax season. For the subset of customers eligible for both stages of messaging, who experienced challenges with their debt throughout the tax season, the refund reminder did not appear to improve repayment behaviors. The positive impacts from the refund reminder described in this section occurred with a different set of customers who began to experience challenges with their debt soon before receiving their refund. This pattern of results indicates that **it's more effective to help consumers use tax refunds to pay down debt shortly after the first signs of financial trouble.**



²⁴ A. Merritt, D.A. Effron and B. Monin, *Moral self-licensing: When being good frees us to be bad*, Social and Personality Psychology Compass, 2010, 4/5: 344-357.

SECTION 4

Applications: Improve FinHealth with Well-Timed Reminders

Managing debt is a challenge for a significant number of people in both Australia and the U.S. Companies that seek to help their customers manage debt can draw the following lessons from CommBank's tax-time innovations:

01 Support customers who are having trouble managing debt to seize opportunities to take action quickly.

CommBank's refund reminder messages and debt repayment tool were most effective for customers that had encountered challenges more recently with managing their debt. Although customers were interested in using their tax refunds to pay down debt at the beginning of the tax filing season (indicated by a high degree of engagement with the pre-commitment messages), debt repayment may have been a lower priority by the time their refunds arrived.

Pre-commitment, which has been a powerful force for people to follow through on their goals to save, may not be equally effective for other aspects of financial health, such as managing debt. Instead, an intervention that helps customers to leverage an opportunity (such as a tax refund) soon after they begin to struggle with debt is a promising approach.

02 Provide ongoing support for customers taking a step toward financial health.

Several months after CommBank's refund reminder prompted customers to pay down their debts, credit card balances grew. Consider offering reminders or other interventions to help keep customers on track toward their financial health goals.

03 Measure financial health over time for the true picture of impact.

CommBank saw that the refund reminder encouraged its customers to pay more toward their debt, but it also increased their spending and credit card balances over the following months. By tracking financial health outcomes over a period of several months, CommBank was able to see a different, and more complete, story about the impact of its innovation. This information provides a critical input into iterative improvements to products and services. An ongoing practice of financial health measurement helps companies to identify opportunities to increase their impact on financial health.

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