

## Insight

# Commit to quit

## Control the devil in your future

Smoking is in the news again as the government considers how it will meet its target of achieving a smoke-free nation by 2025. Plain packaging is being seriously considered,<sup>1</sup> and a recent Ministry of Health discussion, based on NZIER modelling, estimated the increases in cigarette taxes that would be required to achieve the target at an eye watering \$100 per pack.<sup>2</sup> Thanks to nicotine, smoking is simply a hard habit to break. Nicotine replacement therapy (i.e. nicotine patches) is effective but expensive, while quitting 'cold turkey' tends to have a success rate below three percent.<sup>3</sup>



A new tool, commitment contracts, pioneered by behavioural economists, could help smokers quit and help the government to reach its target of being a smoke-free nation by 2025. Commitment contracts are a novel concept that add incentives to help you achieve a personal goal. The idea is that rather than the government designing the incentive (such as higher excise taxes to raise cigarette prices) you design it yourself. For example, you might propose a \$1,000 incentive to ensure you quit smoking over the next three months. If you successfully quit, you get your money back; fail and your cash is lost.

<sup>1</sup> Martin Johnston, 'Push for Plain Packet Cigarettes', *NZ Herald*, April 19, 2012, [http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=10800094](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10800094).

<sup>2</sup> Stacy Kirk, 'Smokefree Plan: \$100 Cigarette Packs', *Stuff.co.nz*, April 23, 2012, <http://www.stuff.co.nz/national/health/6789819/Black-market-warning-over-100-smokes>.

<sup>3</sup> Based on personal correspondence with Dr. Hayden McRobbie, December 9<sup>th</sup>, 2010.

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### *Smokers want to quit but most attempts are unsuccessful*

Most smokers know that smoking is bad for them. Indeed, most smokers overestimate the risks to their health, which suggests that lack of information is not the reason people continue to smoke.<sup>4</sup> Ministry of Health statistics show that over 60% of New Zealand smokers have attempted to quit in the last 5 years. Four out of five New Zealand smokers say they would not smoke if they had their life over again.<sup>5</sup>

It seems the majority of smokers know smoking is bad for them and would like to quit. Why then are successful quit rates so low? Smokers point to the addictive nature of nicotine. To quit, you need to fight the addiction, stop smoking, and then get up the next day and do it all over again. The problem facing addicts is how to avoid cigarettes after their initial motivation to quit begins to wane. How can they ensure that they will not relapse at their weakest moment? This problem will be familiar to most people because it applies to all manner of chemically and behaviourally addictive goods: alcohol, chocolate, and others.

### *Committing to quitting*

A commitment contract is one answer to the problem. It allows you to design the incentive required to ensure your future self will remain smoke-free. For example, why not give your future self a big incentive to follow your instructions by putting some cash at stake. If you staked a few thousand dollars on quitting smoking then it might make your future-self hesitate when being tempted to light up after a tough day at work.

That has been the approach championed by some innovative start-ups such as stickK<sup>6</sup>, founded by the Yale economist Dean Karlan. The idea is to provide a neutral enforcer to take the bet and pay you back your money only if you fulfil the terms of the contract; you choose how much is at stake and whether to commit. Anybody can take out a stickK contract on almost anything, but the application of commitment contracts to smoking cessation are particularly interesting.

First, commitment contracts allow a smoker to help themselves to give up, rather than attempting to force them to quit. That means the smoker is motivated to work with the device, rather than rebelling against a mechanism that is imposed upon them from above. Motivation means that it is more likely to be effective.

Secondly, commitment contracts allow smokers to set a huge cost on a cigarette for themselves without affecting the price to others. They can set themselves an effective price of \$100 per pack, or more, without increasing the price that other people face. Thus, the mechanism can be tailored to the particular circumstances of each smoker, without imposing costs on others, of different means and desires.

Finally, the voluntary nature of the mechanism means that it can achieve high prices for those who want to quit without creating a black market in cigarettes.

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<sup>4</sup> W. Kip Viscusi and Jahn Karl Hakes, 'Risk Beliefs and Smoking Behavior', *Economic Inquiry* (2007), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=992355](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=992355).

<sup>5</sup> Ministry of Health 2010. Tobacco use in New Zealand. Key findings from the 2009 NZ Tobacco Use Survey. Wellington: Ministry of Health.

<sup>6</sup> [www.stickk.com](http://www.stickk.com)

### Helping smokers to help themselves

The idea of commitment contracts is well-regarded and has strong theoretical support. It has many advantages over traditional excise taxes, and has been endorsed by agencies such as the Australian Productivity Commission in the past.<sup>7</sup> All that remains is to determine whether it works for smokers in practice.

To road test the idea, Karlan and his co-authors offered commitment contracts to over 2,000 smokers in the Philippines.<sup>8</sup> Participants were offered the opportunity to voluntarily put a self-selected amount of money in an account every two weeks. At the end of six months the money was returned if they passed a blood test that showed them to have quit smoking, otherwise the money was donated to charity.

Of the people offered the contract, about 11 percent took it up. Over the six months they contributed cash to their account about equal to the amount they would have spent on cigarettes. The results after six months showed that people who took up the contracts were around 50% more likely to have quit than people who merely viewed pictures of cue cards showing the health consequences of smoking.

Those encouraging results indicate that commitment contracts can work in practice; the difficulty lies in getting people to participate. The authors report that some participants who wanted to quit in the more distant future decided not to take up the contract because the six-month timeframe did not suit them. That suggests participation in the scheme could be improved by allowing people to choose their own commitment period, rather than imposing it upon them.

### Complementing existing measures

If a mechanism such as commitment contracts were to be implemented in New Zealand to help problem smokers then how would it fit in to the existing raft of measures? It is not a replacement for existing programmes that help smokers quit: it complements them. While current programmes give smokers the means and support they require, commitment contracts give them the incentive to keep using them. Contracts are also a very cheap way to provide those incentives since the funding can be drawn from the money contributed by smokers who fail to quit.

In addition, commitment contracts capture an audience that is not receptive to other quitting devices: people who enjoy smoking now but wish to quit in a year or more. For them, nicotine replacement therapy and other treatments are superfluous. However, they may be concerned about their will to quit in future and be willing to implement a commitment contract now. Small monetary contributions over a longer period could add up to a significant incentive to quit when the commitment date finally rolled around.

Commitment contracts are a cheap mechanism to help smokers help themselves to quit. They have proven themselves in trials and are ready to graduate from the laboratory.

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<sup>7</sup> P. A. Messerlin, 'Regulating Culture: Has It "Gone with the Wind"?', *Australian National University and Australian Productivity Commission, Achieving Better Regulations of Services*. Canberra: Australian Productivity Commission (2000): 46.

<sup>8</sup> X. Giné, D. Karlan, and J. Zinman, 'Put Your Money Where Your Butt Is: a Commitment Contract for Smoking Cessation', *American Economic Journal: Applied Economics* 2, no. 4 (2010): 213–235.