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Reconnecting the Customer— Estimation of benefits

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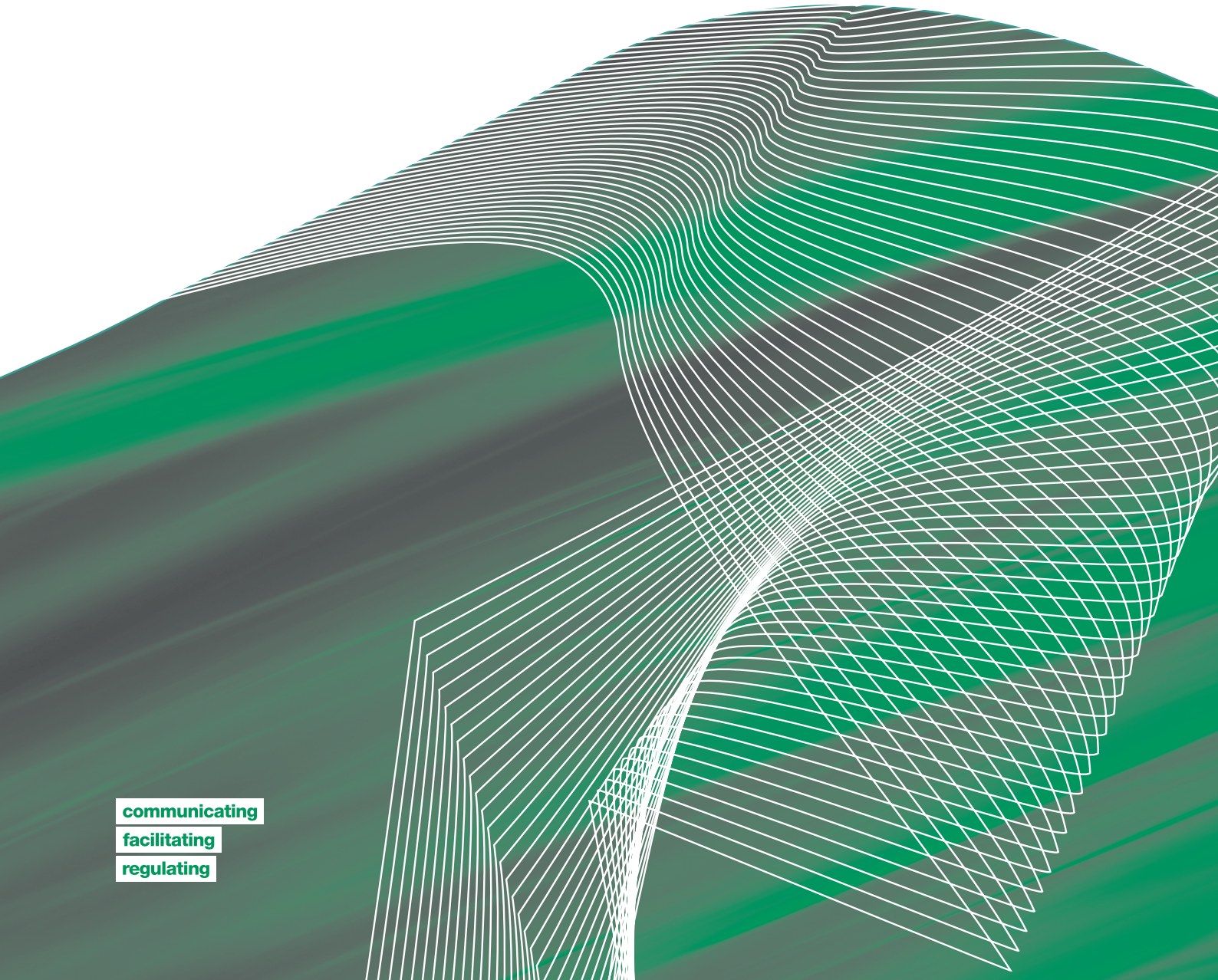

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Executive summary

It is widely acknowledged that there have been significant improvements in telecommunications customer service and consumer outcomes in recent years, reflecting outcomes from the Australian Communications and Media Authority's *Reconnecting the Customer* (RTC) public inquiry in 2010–11; the development, registration and implementation of a substantially revised Telecommunications Consumer Protection (TCP) Code; and subsequent changes to industry behaviour.

Since the RTC public inquiry and the implementation of a revised TCP Code, the Australian Communications and Media Authority (the ACMA) has undertaken a number of studies to track and test the ongoing effectiveness of the interventions that arose from the RTC inquiry and TCP Code. These have included:

- monitoring of industry compliance with the revised TCP Code
- monitoring consumer complaints and complaints-handling outcomes
- tracking studies of consumer attitudes and behaviours that have assessed the effectiveness and satisfaction with various RTC interventions, including changes to customer service, product information, handling of unexpectedly high bills, and the use of spend management tools and alerts.

To complement these studies, the ACMA undertook a benefits assessment to provide a further perspective on the assessment of the RTC inquiry outcomes, including the TCP Code interventions. This paper reports on the results of that benefits assessment.

A key finding from this benefits assessment is that **Australian consumers have benefited in the order of at least $545 million each year** since registration of the revised TCP Code in September 2012.

These benefits have been estimated based on the cost impacts on consumers and industry operators of reduced complaints, consumers choosing plans more appropriate for their consumption behaviour, and reductions in unexpectedly high bills.

Much of the consumer benefit identified in this report involves economic transfers from industry to consumers. This is because mitigating the wrong contract problem[1] and unexpectedly higher bills has reduced customer spend, which is lost revenue to industry operators.

There are however, a number of likely additional effects beneficial for both consumers and industry that have not been quantified in this report. For example, improved consumer outcomes generally enhance consumer confidence and industry goodwill and promote more business activity. Better quality and timelier product information also helps the market function better and promotes competition, benefiting society more broadly.

In addition, a reduction in the size of the unexpectedly higher bills problem is also likely to reduce the amount of 'bad debt' written off by telecommunications companies,

[1] The wrong contract problem relates to consumers entering contracts with large service allowances that do not suit their consumption patterns.

and also reduce the amount damages and costs associated with credit default suffered by consumers who face unexpectedly high bills.

This report has benefited from a methodological peer review from economics consultants, Frontier Economics. The peer review report is found in Appendix B.

research**acma**

The ACMA's research program—research**acma**—underpins the ACMA's work and decisions as an evidence-informed regulator. It contributes to the ACMA's strategic policy development, regulatory reviews and investigations, and helps staff better understand the agency's role in fulfilling its strategic intent to make media and communications work for all Australians.

research**acma** has five broad areas of interest:

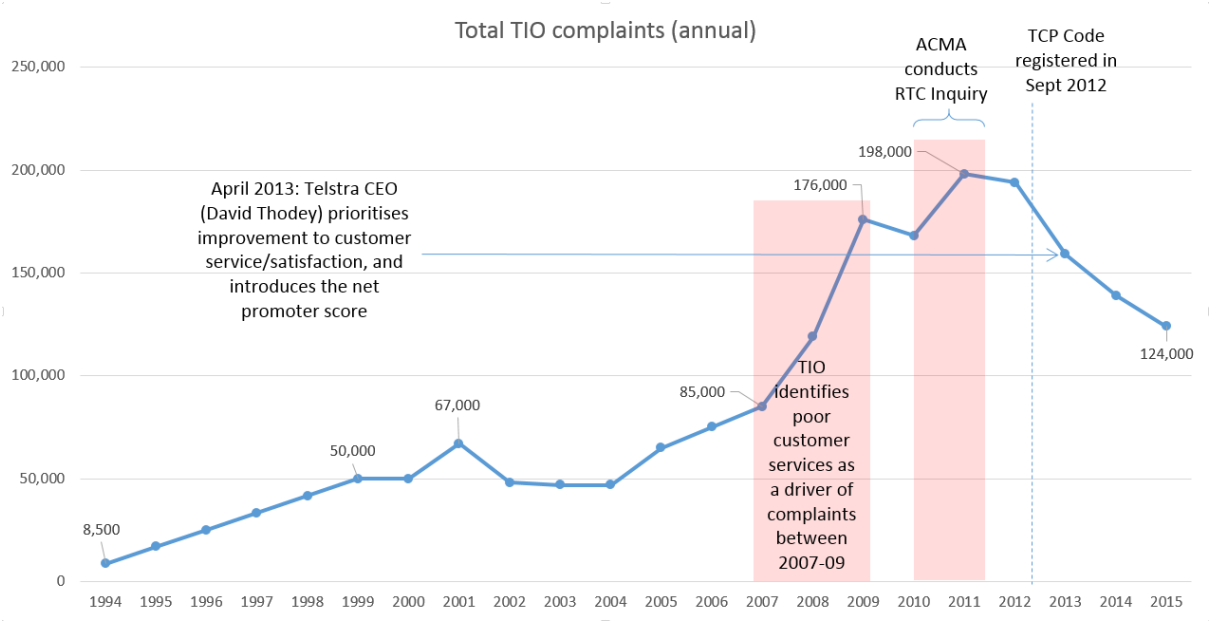
- market developments
- media content and culture
- social and economic participation
- citizen and consumer safeguards
- regulatory best practice and development.

This research contributes to the ACMA's *citizen and consumer safeguards* and *regulatory best practice and development* research themes.

The *Reconnecting the Customer* inquiry

In April 2010, against the backdrop of record levels of consumer complaints to the TIO (see Figure 1), the ACMA launched a public inquiry to examine customer service and complaints-handling practices in the telecommunications industry.[2]

Figure 1: Trend in complaints to the TIO*



**Data points are for the financial years*

Source: TIO, The History of the TIO, www.tio.com.au/__data/assets/pdf_file/0010/169768/TIO-20th-Anniversary-Timeline.pdf , plus ACMA annotation.

The RTC inquiry provided a vital opportunity to secure improved consumer outcomes. The ACMA conducted extensive research and public consultation with industry, consumers and other regulators to identify and address both the immediate issues, as well as the expected transition to the future service environment.

The ACMA examined four core issues in the inquiry:

1. Are there systemic problems in the Australian telecommunications sector in the way it deals with its customers?
2. If there are problems, what are the causes?
3. What are the potential solutions to any problems?
4. What is the best strategy for addressing customer care issues in the converging communications environment?

[2] The TIO's *connect.resolve* campaign (running from November 2008 to June 2009) put the spotlight on poor customer service and complaints-handling in the telecommunications industry and initiated the momentum for the RTC inquiry. Throughout the campaign, the TIO worked with service providers and industry to address these types of complaints.

The inquiry made a number of findings:

- All of the evidence available to the ACMA's inquiry indicated that consumer complaint levels in the Australian telecommunications industry were far too high and that poor customer care (both directly and indirectly) drove many consumers to complain. Poor performance in these areas imposes real and significant costs on consumers.
- The level of complaints on a per service basis was significantly higher in Australia compared with other countries.
- In contrast to their dissatisfaction with customer service, consumers were generally satisfied with the quality and service reliability of the communications services themselves. They were (and are) increasingly demanding faster services with more functionality and greater capacity and, for the most part, industry was (and is) meeting those demands.

To address these issues, the RTC inquiry proposed a number of solutions, including:

- advertisements to include standardised charges and volumetric information that would allow consumers to make effective comparisons between different products
- a prohibition on the use of specific and like terms in advertising known to confuse consumers
- suppliers to provide a two-page critical information summary (CIS) document to consumers before a sale
- suppliers to report on customer service and complaints-handling metrics and publish a customer service charter
- suppliers to implement expenditure management tools with notifications at mandated levels of usage
- suppliers to adopt benchmark standards for complaints-handling.

These proposals were based on insights about three key customer care matters that drive complaints:

- the quality of information available to consumers in advertisements and representations made at the point of sale, both about products and service providers
- unexpectedly high bills—many consumers do not have a good understanding of how charges accumulate during a billing cycle
- failure to resolve issues in a timely manner and difficulty accessing complaints-handling processes add to consumer dissatisfaction.

In developing its final proposals, the ACMA took into account submissions received from interested parties, input from consumer and industry representatives, and advice from industry consultants about some of the proposals for change. That input was useful in helping the ACMA refine its views and formulate its final proposals for change, and to ensure the effectiveness of the inquiry's outcomes.

The final RTC inquiry report detailing the ACMA's findings and proposed recommendations is available on the ACMA website.[3]

[3] *Reconnecting the Customer—final public inquiry report*, September 2011, www.acma.gov.au/Industry/Telco/Reconnecting-the-customer/Public-inquiry/final-report-reconnecting-the-customer-acma.

Revised Telecommunications Consumer Protection Code

Concurrent with the RTC inquiry, the telecommunications industry—via the primary industry association, Communications Alliance (CA)[4]—was revising the Telecommunications Consumer Protection Code (TCP Code), which outlines the rules for industry conduct.

The RTC inquiry influenced the new provisions drafted into the revised TCP Code, with CA adopting 95 per cent of the RTC inquiry recommendations. The Code was formally registered by the ACMA in September 2012.

[4] The Communications Alliance is the primary telecommunications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage service providers (CSPs) and internet service providers (ISPs).

Consumer outcomes since the inquiry

Since the RTC inquiry and the introduction of the revised TCP Code in 2012, the ACMA has periodically tested the effectiveness of the RTC inquiry outcomes including various TCP Code measures.

These assessments have complemented the ACMA's ongoing monitoring of industry compliance with the TCP Code and monitoring of consumer service outcomes, including compliance levels.

One aspect of this ongoing evaluation has involved an assessment of consumer experiences and outcomes since the regulatory changes. To date, the ACMA has conducted two consumer surveys including:

1. ***Reconnecting the Customer: Tracking consumer outcomes*** **survey (April–May 2013)**[5]

In February 2013, the ACMA commissioned Newspoll to undertake a national study of 1,939 adults to assist the ACMA to evaluate the effectiveness of the changes to the TCP Code and other outcomes of the RTC inquiry. The primary research objective was to establish a base line in the ACMA's understanding of the impact of changes to the TCP Code on key aspects of the telecommunications customer experience, with a research approach that enables tracking over time. The survey was conducted in April–May 2013.

2. **Spend management tools and alerts survey (Feb 2015)**[6]

In February 2015, the ACMA commissioned a second Newspoll Survey (1,735 adults, with 1,020 being post-paid mobile phone bill payers, who were the groups of interest) to track outcomes of the RTC inquiry on priority issues. This survey focussed on the use and usefulness of spend management tools and alerts for post-paid mobile phone users, and the customers' experience with unexpectedly high bills.

The main findings are summarised in Table 1 below.

[5] The survey was conducted in April–May 2013, and the report published in 2014, www.acma.gov.au/theACMA/Library/researchacma/Research-reports/consumer-research-into-telco-reforms

[6] The survey was conducted in February 2015, and the report *Spend management tools and alerts survey–Tracking consumer outcomes of the Reconnecting the Customer inquiry* published in September 2015, www.acma.gov.au/theACMA/spend-management-tools-and-alerts.

Table 1: Summary of consumer survey results

	Reconnecting the Customer: Tracking consumer outcomes **survey (April–May 2013)**	**Spend management tools and alerts survey (Feb 2015)**
Customer service	Seven in ten customers (72 per cent) who had an interaction with their service provider in the last six months were satisfied with their provider's customer service in relation to this most recent issue.	Not part of the 2015 study.
Product information and comparing offers	One third of customers in market (purchasers or considerers) had seen or received a CIS and 82 per cent of them found it useful. Seven in 10 active participants (either purchasers or considerers) thought that it was easy to compare offers, and three in 10 consider that it was easier (compared to 12 months ago) to evaluate or compare telecommunications products and offers.	Not part of the 2015 study.
Unexpectedly high bills	One third of Australian post-paid bill payers (33 per cent) had received a bill higher than expected for one of their post-paid telecommunications products in the last 12 months. The top three tools that have the highest reported level of usefulness are SMS alerts when using a certain amount of pre-paid credit, provider warnings before using more expensive services, and an app on people's phone to check their usage (each three rated at 92 or 93 per cent usefulness by those who have used them).	The rate of those receiving an unexpectedly high bill in the last 12 months has fallen from 33 per cent to 27 per cent. The average amount of the high bills has also declined.
Spend management tools	The spend management tools that have the highest reported level of use are SMS alerts (58 per cent of customers) followed by having broadband speed reduce when data limits are reached (52 per cent of internet users).	High rates of using tools, alerts and other strategies to manage usage and spend. 81 per cent are using some kind of spend management tool or alert, made up of 54 per cent reporting that they have used an 'active tool'[7] and 27 per cent have used/received a 'passive tool/alert'.[8] Those using tools have an average use of four tools. High levels of usefulness of tools reported.

[7] Those that involve customers taking some action to seek out information (for example, checking usage on a provider's website).

[8] Requires no action on the part of the customer (for example, a mandatory alert being sent when a certain proportion of plan or data allowance has been used).

Benefits assessment

To complement these studies, the ACMA undertook a benefits assessment to provide an additional method of analysis to test the effectiveness of the RTC inquiry outcomes, including the TCP Code interventions.

The benefits assessment involved estimating the value of three main types of consumer benefits:

1. measuring the costs associated with complaints and estimating cost reduction as a result of falling complaints subsequent to the RTC inquiry
2. estimating the $-savings that consumers make by selecting plans that are better suited to their consumption levels, that is, plans that are not too big
3. Estimating $-savings that consumers make as a result of less severe unexpectedly high bills.

Key findings

The ACMA estimates annual benefits to Australian consumers in the order of $545 million since the TCP Code was revised in September 2012. See Table 2 below for the breakdown.

Table 2: Estimated benefits to consumers from the RTC inquiry and the revised TCP Code

Type of benefit	Estimated annual saving since September 2012
Savings to consumers due to fall in TIO complaints	$3,779,259
Savings from a reduction in the 'wrong contract' problem for post-paid mobile services (18yo+)	$92,094,125
Savings from fewer unexpectedly high bills for post-paid mobile services (18yo+)	$449,469,632
Total	**$545,343,016**

It should be noted that the $545 million estimated benefits to consumers involve substantial economic *transfers* from industry to consumers. This is because mitigating the wrong contract problem and unexpectedly higher bills has reduced customer spend, which is lost revenue to industry.

However, the lost revenue to industry may be overstated because a portion of consumer debts incurred from unexpectedly high bills are unrecoverable and written off as bad debt. For example, it was reported in August 2010[9] that wireless broadband-related unexpectedly high bills cost Telstra as much as $90 million in the 2010 financial year due to the company having to waive fees or write off debts owed by customers who refused to pay their bills. 'We have had an increase in bad debt as customers' expectation of what they purchase and what they get isn't quite right', former Telstra CEO David Thodey said. 'We have seen some bill shock[10] through

[9] www.computerworld.com.au/article/356745/bill_shock_cost_telstra_up_90_million/
[10] Some industry participants refer to unexpectedly high bills as 'bill shock'.

larger wireless data costs, and people say, 'hey, what's going on here?' So a lot of work to do in that area.'[11]

From this perspective, mitigation of this issue is beneficial for both consumers and industry. One positive indication of Telstra's progress in this area is that its provision for doubtful debts has steadily decreased since the revised TCP Code was registered.[12]

The regulatory interventions are also likely to facilitate other flow-on benefits, which have not been quantified. For example, the implementation of these consumer protection provisions has supplied the market with better quality and timelier product information, enabling consumers to make more efficient decisions. Better information from expenditure management tools is likely to enhance consumer confidence and industry goodwill, and promote more business activity.

Furthermore, the $545 million in annual consumer savings is likely to be spent elsewhere, delivering benefits to other areas of the economy.

Each of these three types of benefits is discussed further in the following sections. The benefits assessments were peer reviewed by Frontier Economics, with a copy of that review at Appendix B.

Savings to consumers from falls in complaints

Consumers incur costs when making complaints, for example, the time cost of complaining and resolving issues with their CSPs or escalating their issues to the TIO.

Consumer time savings with TIO

If consumers are unable to resolve their complaints with their CSPs, they then may escalate their complaint to an external dispute resolution body, typically the TIO. The ACMA has estimated annual savings for consumers from reduced new complaints to the TIO to be in the order of **$1.9 million each year** since the TCP Code came into effect. This estimate is based on data showing that complaints to the TIO have fallen materially since the registration of the TCP Code in September 2012, saving time costs for consumers. The full calculations, data and assumptions are in Appendix A.

Consumer time savings with CSPs

If consumers have a complaint, they normally try to resolve their complaint with their CSP in the first instance. In its analysis, the ACMA has assumed that on average consumers spend the same amount of time trying to resolve their complaint with their CSP as they would in escalating their complaints to the TIO. Consequently, the ACMA has estimated that the annual savings for consumers associated with time dealing with complaints *before* they are escalated to the TIO, is in the order of at least **$1.9 million each year**. Of course, the number of complaints to CSPs is likely to be many times larger than those escalated to the TIO, since many issues will be addressed by CSPs in the first instance. The ACMA does not have data on the total number of complaints and thus can only estimate the savings on this subset of complaints, and has taken a conservative view.

[11] www.computerworld.com.au/article/356745/bill_shock_cost_telstra_up_90_million/

[12] According to the Telstra annual reports, allowance for doubtful debts has consistently fallen from $230 million in 2011 to $113 million in 2015.

Savings from a reduction in the 'wrong contract' problem

The TCP Code Regulatory Impact Statement (RIS) (2012)[13] estimated that consumers incur about $1.5 billion per annum in costs as a result of their poor choice of product—the so called 'wrong contract' problem, where many consumers consistently under-utilise their plan/contract allowances/'included value' because they choose a plan that does not match their communications behaviour.[14]

The evidence from the two ACMA surveys cited previously suggests that as a result of the TCP Code provisions, consumers have been able to better understand and compare products, and supports the proposition that this has enabled consumers to make better product choices leading to a reduction of waste due to the wrong contract problem. Using this hypothesis, the ACMA estimates annual **consumer savings in the order of $92 million**. The full calculations, data and assumptions are in Appendix A.

Note that this savings estimate is conservative because it relates to mobile services only. The wrong contract problem also exists for other types of communications services for which savings analysis is yet to be undertaken.

Savings from reductions in unexpectedly high bills

Problems with unexpectedly high bills emerge for a number of reasons, including:

- lack of understanding of the charging arrangements for products at the time of purchase
- the complexity of charging and billing arrangements, advertising and product information material that does not enable consumers' full understanding of the costs of their ongoing use
- a lack of understanding especially of relatively new or occasionally used types of services (for example, video downloads, international roaming, how to switch over to Wi-Fi or to check that it is working)
- a lack of relevant and timely information to manage expenditure
- a general lack of financial literacy.

The primary tool introduced in the revised TCP Code directed at reducing unexpectedly high bills was spend management tools and alerts.[15] ACMA surveys on spend management tools and alerts show that many customers are using these spend management tools and finding them helpful. The majority are taking action based on information gained from the tools and alerts to manage their spending. For example, consumers shift between devices to manage their consumption and avoid high bills. They also modify their type of use of each device—for example, text or IM instead of call, turn off cellular data, or use a landline instead).

Consequently, consumers get fewer unexpectedly high bills, and when they do, they are less severe. The surveys show a reduction in the incidence of unexpectedly high bills for post-paid mobile phone services (down from 33 per cent in April–May 2013 to 27 per cent in February 2015), and a reduction in the severity of unexpectedly high

[13] Telecommunications Consumer Protections Code – Regulation Impact Statement – Australian Communications and Media Authority (http://ris.dpmc.gov.au/2012/07/18/tcp-code-ris/)

[14] The 'wrong contract' problem can also encapsulates systematic *overuse*, however, we account for this in the next section when we estimate the impact of unexpectedly high bills.

[15] Introduced in stages:
- usage alerts for fixed line broadband—introduced in September 2013
- usage alerts for voice/SMS and data—introduced for large suppliers in September 2013
- usage alerts for voice/SMS and data—introduced for smaller suppliers in September 2014.

bills (average difference between high versus normal bills has fallen from $158 to $125). The findings of the two surveys used to track consumer outcomes support the proposition that spend management tools have benefited consumers.

The ACMA estimates that the cost of unexpectedly high bills after the introduction of spend management tools and alerts has **fallen by about $449 million each year.** Supporting details on the data sets used, calculations and assumptions used is outlined in Appendix A.

As with the estimates for the wrong contract problem, the estimate for unexpectedly high bills is conservative because it is for mobile services only. Unexpectedly high bills are also experienced for other types of communications services and these are likely to also benefit from the revised TCP, however the ACMA has not estimated this because data is not readily available.

Savings to industry due to fewer complaints

Benefits to industry flowing from a reduction in complaints include:

- reduced payments to the TIO (charged on a per complaint basis)
- lower internal first-call resolution costs
- lower costs of resolving complaints following escalation to the TIO.

The ACMA has estimated annual savings to industry from reduced complaints is in the order of **$3.2 million each year** since the TCP Code came into effect. The full calculations, data and assumptions are in Appendix A.

Other factors have improved consumer outcomes

The RTC inquiry provided an important opportunity to secure improved consumer outcomes.

The ACMA worked with industry, consumers and other regulators to identify and address both the immediate issues, as well as the expected transition to the future service environment. But there have been additional factors that have contributed to enhancing consumer outcomes, including:

- **Industry initiatives**—the TCP Code mandated a number of consumer protections, but in many instances industry has responded more positively by introducing industry initiatives over and above the regulations in the code, or sooner than mandated. A more positive culture of customer care and competition has developed with industry introducing a number of initiatives aimed at enhancing consumer outcomes. Examples include:
  - **Cheaper and simplified international roaming plans**—introduced by all three mobile network carriers at around the same time as the introduction of the international mobile roaming standard in late 2013.
  - **Changes to excess data charges**—in addition to the new consumer protections under the revised TCP code, mobile service providers have changed the pricing structure for excess use charges, with some providers making it automatic, an opt-in, or an option to rollover to another plan or to buy extra credit/data packs at relatively low prices[16]:

[16] This has been particularly useful given that the advent of smartphones (and particularly with 4G/LTE smartphones) has resulted in increases the amount of data used and consequent increases in the risk and severity of unexpectedly high bills.

- In June 2013, Optus introduced its ‘my mobile broadband plans', which replaces per-megabyte excess data usage fees with a $10 per gigabyte of extra data that kicks in once a customer goes over their download limit.[17]
- At the beginning of 2014, Telstra cut its per-megabyte excess data usage fees by 70 per cent, then in May 2015, has matched Optus’ $10 per gigabyte of extra data pricing structure.
- VHA and Virgin also offer a pricing option of $10 per gigabyte of extra data.[18]

- **Introducing new methods of tracking use**—for example, apps and meters to show consumers how much of their allowance they have used.
- **Industry monitoring of consumer outcomes**—since the beginning of 2013, Communications Alliance has commissioned quarterly surveys to monitor customer satisfaction and to identify the key drivers of satisfaction.

- **Improvements to network performance**—the TIO identified VHA network problems as one of the drivers of peak TIO complaints in 2010–11. VHA publicly acknowledged the problems with its network and invested billions of dollars to improve network performance.[19] A trend in customer losses has reversed, with VHA gaining 90,000 net new customers in the second half of 2014.[20] The company has also seen a dramatically reduced number of complaints, with the TIO citing a 55 per cent reduction in complaints about VHA in the March 2015 quarter compared with the same time in 2014.[21] Overall TIO complaint issues about service faults (dropouts, equipment issues, poor mobile coverage, slow data speeds) have dropped back to typical levels. New TIO complaints about other carriers also fell, but not as dramatically as complaints about VHA.
- **The TIO’s connect.resolve campaign**—conducted between November 2008 and June 2009, this campaign put the spotlight on poor customer service and complaints-handling in the telecommunications industry and initiated the momentum for the RTC inquiry. Throughout the campaign, the TIO worked with service providers and industry to address complaints.
- **Consumer groups**—not for profit and commercial services offer advice about how to manage bills, plan tips and product/service comparisons (for example, ACCAN, Choice, Canstar Blue, Whistleout).

[17] www.bit.com.au/News/345545,optus-slashes-excess-mobile-data-charges-to-curb-surprise-4g-bills.aspx

[18] accan.org.au/news-items/hot-issues/963-excess-data-charges

[19] www.smh.com.au/business/vodafone-australia-vows-to-reverse-vodafail-by-the-end-of-2015-20150330-1matfn.html

[20] www.zdnet.com/article/vodafone-stems-customer-bleeding-as-losses-deepen/

[21] Communications Day, 15 May 2015, ‘TIO data provides evidence of Vodafone turnaround’.

Conclusion

The ACMA surveys monitoring consumer outcomes have demonstrated improvements in telecommunications customer service and consumer outcomes in recent years, reflecting outcomes from the ACMA's *Reconnecting the Customer* (RTC) public inquiry in 2010–11; the development, registration and implementation of a substantially revised Telecommunications Consumer Protection Code; and subsequent changes to industry behaviour.

The benefits assessments in this report complement the ACMA's survey research and estimate that **Australian consumers have benefited in the order of at least $545 million each year** since registration of the revised Telecommunications Consumer Protection (TCP) Code in September 2012. These benefits have been estimated based on the cost impacts on consumers and industry operators of reduced complaints, consumers choosing plans more appropriate for their consumption behaviour, and reductions in unexpectedly high bills.

The ACMA intends to continue monitoring consumer outcomes as a way to test the appropriateness of regulatory settings. Future benefits assessments may expand on the scope to include other benefits such as the mitigation of the wrong contract problem, and bill shock for service types other than mobile, namely fixed internet and landline services.

Appendix A—Calculation, data and assumptions

Savings to consumers from fall in complaints

The ACMA has estimated annual savings for consumers from reduced new complaints to the TIO to be in the order of **$1.9 million each year** since the TCP Code came into effect.

Calculation, data and assumptions

- The average annual reduction in new TIO complaints for the two financial years following the registration of the code was 27,378.
  - TIO complaint data shows that new complaints to the TIO have fallen since the registration of the TCP Code in September 2012.
  - Complaints for the 2011–12 financial year (pre-TCP Code) were 193,702.
  - Complaints for the 2013–14 financial year (post-TCP Code) were 138,946.
- Average annual reduction in new complaints (adjusted for VHA): 19,165.
  - The ACMA cannot attribute the entire reduction in new TIO complaints to the ACMA's intervention because there are a number of factors influencing better consumer outcomes. A significant driver of complaints has been VHA's network problems, which it has worked hard to remedy. VHA's large network investments have helped it to significantly reduce complaints about it, and complaints overall. Consequently, the ACMA adjusts the average annual reduction in new TIO complaints downwards by 30 per cent, given VHA contributed to about 30 per cent of TIO complaints at the time of the inquiry.
- Complaint time with CSPs—the ACMA assumes that the average time customers spend on complaints to the TIO is 3.4 hours.
  - This is based on a 2010 TIO survey of complainants[22] that found 20 per cent had spent nine hours, and 40 per cent had spent three or more hours with their provider in seeking to resolve the complaint before contacting the TIO.
  - The ACMA assumes that the remaining 40 per cent spent about an hour with their provider to resolve the complaint before contacting the TIO.
- Multiplying 19,165 complaints by 3.4 hours represents a reduction of 65,160 complaint hours.
- The value of customer time—the ACMA assumes that customers complain in their spare time and so use the Office of Best Practice Regulation (OBPR) value of leisure time = $29 per hour.
- 65,160 complaint hours x $29 per hour = $1,889,630.

Savings from a reduction in the 'wrong contract' problem

ACMA consumer surveys suggest that consumers are better able to understand and compare products, enabling them to make better product choices and leading to a reduction of waste due to the wrong contract problem. The ACMA estimates **consumer savings in the order of $92 million** in 2013–14.

[22] TIO report, *Resilient Consumers*, August 2011, www.tio.com.au/__data/assets/pdf_file/0020/9434/Resilient-Consumers-Report-Aug-2011.pdf.

Calculation, data and assumptions

The wrong contract problem is inherently difficult to measure—we would need to show that there is an objectively better plan that the consumer could have chosen, that would have resulted in a cost saving without any reduction in the quality of service. The ACMA has not conducted this analysis, however, draws upon sophisticated statistical analysis and research conducted in the UK for its estimate of waste. The structure of mobile phone plans in Australian and the UK are similar and so the ACMA assumes that the bill wastage problem is similar.

- The ACMA estimates the hypothetical aggregate expected waste from the wrong contract problem for 2015 (without the TCP Code), by assuming that Australian consumers experience a similar amount of waste to that of the British (this is likely to be a conservative assumption, given the far lower rate of complaints made in the UK).
- This waste is calculated to be **$75 AUD** each year for post-paid Australian mobile subscribers aged 18 years and over (18yo+), based on the following information:
  - The average waste per consumer of £35 GBP for UK consumers in 2009–10 (TCP Code RIS Attachment A)
  - convert it to Australian dollars using a spot exchange rate of 0.516 GBP/AUD (xe.com, accessed on 15/4/15)
  - adjust for inflation for four years to 2013–14 at an average inflation rate of 2.5 per cent per year.
- The ACMA estimates that there are **12,278,792 post-paid mobile subscribers 18yo+ in 2013–14,** based on the following information:
  - population (18yo+) at 30 June 2014 = 18,204,287
  - 95 per cent of 18yo+ mobile subscribers have a mobile phone contract[23]
  - 71 per cent of mobile subscribers have a post-paid mobile phone contract so we apply this to all 18yo+ mobile subscribers.[24]
- Projected aggregate waste from wrong contract problem for 2013-14 = **$921 million.** This is the hypothetical/counterfactual 2013–14 contract waste scenario without the TCP Code.
  - multiplies the $75 AUD waste per person by the number of 18yo+ post-paid mobile subscribers in 2013–14 (12,278,792).
- The survey results cited above indicate that many consumers are aware of tools such as the CIS and find them useful. Furthermore, many find it easier to compare service offers. The ACMA posits that the better information is enabling consumers to make better, more informed purchase decisions.
- Consequently, the ACMA compares the counterfactual case ($921 million in contract waste) with a number of scenarios in which the TCP Code has had different impacts on consumers:
  - Scenario 1: TCP contract waste falls by five per cent—saving consumers **$46 million**.
  - Scenario 2: TCP contract waste falls by 10 per cent—saving consumers **$92 million**.
  - Scenario 3: TCP contract waste falls by 20 per cent—saving consumers **$184 million**.

[23] ACMA, *Reconnecting the Customer: Tracking consumer outcomes report*, April 2014, p. 20.

[24] ACMA, *Reconnecting the Customer: Tracking consumer outcomes* report, April 2014, p. 21.

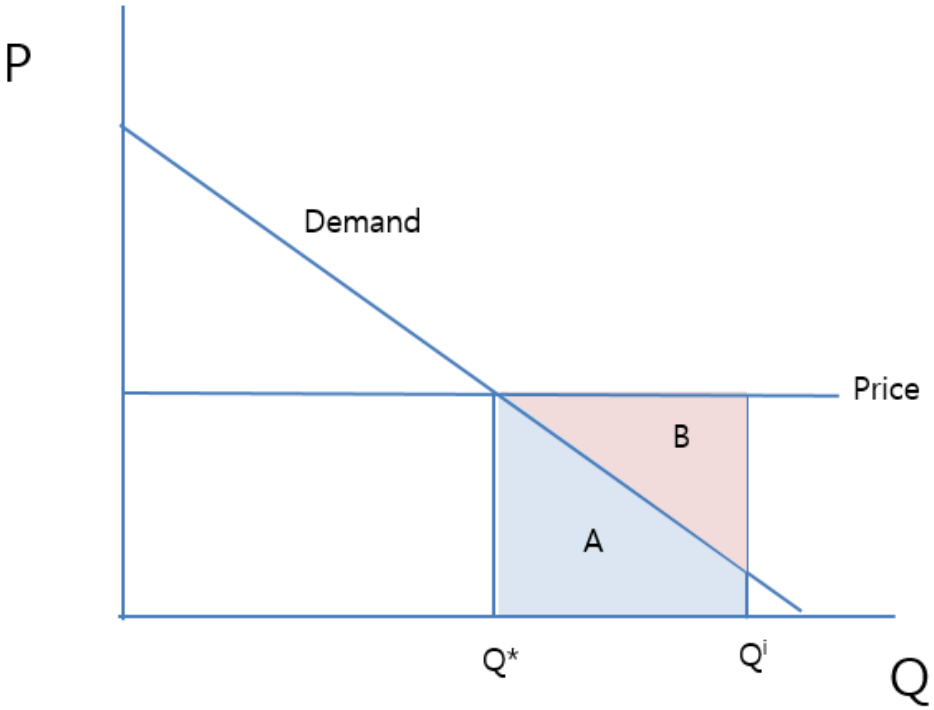
- The ACMA considers Scenario 2 as a reasonable scenario because:
  - 37 per cent of survey respondents were 'purchasers' where they had changed some aspect of their plan (changed provider, changed their plan or took up a new service, or a combination of those—*Reconnecting the Customer: Tracking consumer outcomes* survey (May 2013).
  - Approximately 25 per cent of new purchasers choose suitable plans.
    - This is inferred from the results of the *Reconnecting the Customer: Tracking consumer outcomes* survey (May 2013), demonstrating that 32 per cent of customers had seen or received a CIS and 82 per cent of them found it useful.
  - If 25 per cent of new purchasers (37 per cent) choose suitable plans and eliminate this waste, then aggregate waste falls by approximately 10 per cent.

Savings from reductions in unexpectedly high bills

The ACMA estimates that the cost of unexpectedly high bills after the introduction of usage alerts has **fallen by about $449 million each year.**

The costs of unexpectedly high bills can be conceptualised using a supply/demand diagram (see Figure 2 below). The downward sloping demand 'curve' represents the prices that a consumer is willing to pay for different quantities, Q, of the product (for example, call minutes, or data downloads). The supply is horizontal at a constant price, P.

Figure 2: Cost of unexpectedly high bills



Ideally, consumers would consume the amount Q* where their willingness to pay (shown by the demand curve) for the last unit is equal to the price. However, because consumers have difficulty understanding the amount they consume, they often consume more than ideal, for example, to Q^i. The area B then represents losses to

consumers for consuming more than their optimum level (because they are charged a price higher than they are willing to pay for the extra consumption).

Spend management tools help consumers consume at or near their ideal levels, Q*, thus saving consumers the losses associated with overconsumption, the area B.

Calculations, data and assumptions:

- Using the statistics from Table 3 and other relevant statistics, the ACMA estimates that the aggregate annual cost to consumers of unexpectedly high bills before the implementation of mandated expenditure management tools was in the order of $1.5 billion, compared with $1 billion after the tools were mandated.
- Consequently, the estimated savings to consumer is around $499 million.

Table 3: Statistics for unexpectedly high bills for mobiles before and after the introduction of usage alerts

	Before mandated expenditure management tools[25]	After mandated expenditure management tools[26]
Incidence of unexpectedly high bills for post-paid mobile phone service (per cent of 18yo+)	33 per cent	27 per cent
Average difference between high vs. normal bills	$158	$125
Average unexpectedly high bill amount (month)	$248	$202
Average normal bill	$90	$77
Average occurrence of unexpectedly high bills in the last year	2.4	2.5

- The estimated annual cost to consumers of unexpectedly high bills *before* mandated expenditure management tools of $1,508,242,744 is derived as follows:
  - Population (18yo+) with a post-paid mobile phone account (12,052,828) x incidence of unexpectedly high bills (33 per cent of pop) x average difference between unexpectedly high bills and normal bills ($158) x average occurrence of bill shock in the last year (2.4 times per year):
    - the ACMA estimates that the population (18yo+) with a post-paid mobile phone = 12,052,828
      - the Australian population 18yo+ in May 2013 was 17,869,279 (source: Australian Bureau of Statistics[27])

[25] *Reconnecting the Customer: Tracking consumer outcomes* survey (April-May 2013), www.acma.gov.au/theACMA/Library/researchacma/Research-reports/consumer-research-into-telco-reforms.

[26] *Spend management tools and alerts survey–Tracking consumer outcomes of the Reconnecting the Customer inquiry*, Sept 2015, www.acma.gov.au/theACMA/spend-management-tools-and-alerts.

[27] Estimated using ABS Australian Demographic Statistics (Sep 2014 – reference 31010DO002_201409) + the rates of change from the ABS population clock, www.abs.gov.au/AUSSTATS/abs@.nsf/Web+Pages/Population+Clock?opendocument.

- per cent of population (number of 18yo+) with mobile phone = 95 per cent (source: ACMA survey, *Reconnecting the Customer: Tracking consumer outcomes* (April–May 2013)
- per cent of population (18yo+) bill payers that have a post-paid account = 71 per cent (source: ACMA survey, *Reconnecting the Customer: Tracking consumer outcomes* (April–May 2013)
- 17,869,279 18yo+ x 95 per cent x 71 per cent = 12,052,828.

- The estimated annual cost to consumers of unexpectedly high bills *after* mandated expenditure management tools of $1,008,832,042 is derived as follows:
  - population (18yo+) with a post-paid mobile phone account (11,956,528) x incidence of unexpectedly high bills (27 per cent of pop) x average difference between unexpectedly high bills and normal bills ($125) x average occurrence of bill shock in the last year (2.5 times per year):
    - the ACMA estimates that the population (18yo+) with a post-paid mobile phone = 11,956,528
      - the Australian population 18yo+ in May 2013 was 18,397,489 (source: Australian Bureau of Statistics[28])
      - per cent of population (number of 18yo+) with mobile phone = 97 per cent (source: ACMA survey, Spend management tools and alerts (Feb 2015))
      - per cent of population (18yo+) bill payers that have a post-paid account = 67 per cent (source: ACMA survey, Spend management tools and alerts (Feb 2015))
      - 18,397,489 18yo+ x 97 per cent x 67 per cent = 11,956,528.
- The difference between estimated consumer waste before and after the introduction of mandated spend management tools and alerts = $499,410,702 ($1,508,242,744 – $1,008,832,042).
- However, this figure is also adjusted downwards by 10 per cent to account for the positive impact of non-ACMA factors in reducing unexpectedly high bills. The adjustment factor of 10 per cent is an assumption.
  - The adjustment also accounts for the potential effect that consumer learning might have had in the absence of mandated protections to address bill shock. It might also be expected that the incidence of bill shock would fall over time as consumers learn to mitigate unexpectedly higher bills, perhaps with the aid of consumer groups and other services offering advice about how to manage bills, plan tips and comparisons (for example, ACCAN[29], Choice[30], Canstar Blue[31], Whistleout[32]). This type of learning can be inferred from evidence in the UK that shows unexpectedly high bills have fallen without mandatory industry rules and industry/third-party tools to manage bills. Ofcom data shows that unexpectedly high bills fell in the years between 2012 and 2014:

[28] Estimated using ABS Australian Demographic Statistics (Sep 2014 – reference 31010DO002_201409) + the rates of change from the ABS population clock, www.abs.gov.au/AUSSTATS/abs@.nsf/Web+Pages/Population+Clock?opendocument.

[29] The Australian Communications Consumer Action Network (ACCAN) is Australia's peak body for consumer representation in communications. They aim to empower consumers to make good choices about products and services.

[30] Choice are an Australian consumer advocacy group. They provide consumers with information about making good consumer decisions, as well as providing consumer warnings about misleading practices.

[31] Canstar blue rates products and services (including telecommunications) available in Australia with our customer satisfaction ratings. Consumers can use these ratings to compare providers and products.

[32] Whistleout provide online product comparisons for mobiles, broadband, tablets, and pay TV services.

Table 4: UK experience of unexpectedly high bills

	2012	2013	2014
Incidence of unexpectedly high bills	10%	9%	6%

Source: Ofcom, Incidence of unexpectedly high bills 2014 report, http://stakeholders.ofcom.org.uk/binaries/research/cross-media/bill-shock/1398439/Bill_shock_chart_pack.pdf

- It is reasonable to expect that this type of consumer learning would also occur in the Australian context in the absence of mandated spend management tools. For example, mobile phone users might use their data allowances very cautiously by turning off mobile data on their phones periodically, or they might use Wi-Fi more often.

- After the adjustment factor is applied, the estimated consumer savings attributable to the ACMA initiative is $449,469,632 (that is, the area A+B in Figure 3 decreased from about $1.5 billion to $1 billion).
- The net benefit to consumers (area B in Figure 3) is difficult to estimate because it requires knowledge of the demand curve in order to split A from B. The ACMA does not have this information, so B may be less than $449 million.
- That said, the area A (which represents the marginal benefits from consuming over and above the ideal level Q*) is likely to be small relative to B for a number of reasons. In Figure 3, price is shown as constant per unit, but pricing for additional usage often implies much higher per unit prices ('penalties'), which would increase the size of B relative to A. Furthermore, given the unexpected nature of these extra charges and the customer frustration associated with it, any consumer benefit (A) associated with extra consumption is likely to be relatively small. Thus, the estimated A+B is a reasonable approximation for the net benefit to consumers as a result of reducing unexpectedly high bills.

Savings to industry due to fewer complaints

The ACMA has estimated annual savings to industry from reduced complaints is in the order of **$3.2 million each year** since the TCP Code came into effect.

TIO fees

Under the TIO scheme, CSPs are required to pay fees to the TIO for each complaint referred. A reduction in complaints therefore reduces this direct cost to industry.

Calculation, data and assumptions:

- TIO complaint data shows that the number of new complaints to the TIO has fallen since the registration of the TCP Code in September 2012.
  - Complaints for the 2011–12 financial year (pre-TCP Code) numbered 193,702.
  - Complaints for the 2013–14 financial year (post-TCP Code) numbered 138,946.
- The average annual reduction in new TIO complaints for the two financial years following the registration of the code was 27,378.
- TIO fees charged to CSPs per level one complaint = $37. A Level 1 Complaint is referred to a contact nominated by the provider to give the provider another chance to resolve the complaint.
- Total TIO fee savings = **$1,012,986** (27,378 complaints x $37).

Cost of internal complaint resolution

CSPs incur costs when resolving complaints. When total complaints to CSPs fall, CSPs avoid these costs. The ACMA assumes these costs to be mostly staff time and costs, and estimates these costs to be in the order of $1,103,865 each year.

- The average annual reduction in new complaints to the TIO (adjusted for VHA's large impact on reductions in complaints) is 19,165 (see 'Savings to consumers from fall in complaints' in Appendix A). As customers must first complain to their CSP, there are at least this many complaints dealt with prior to escalation.
- Average cost to industry per complaint = $40.32.
  - The average cost to the telecommunications industry per complaint ranges between $18 and $37.50 in 2012 (source: TCP Code RIS, page 33).
  - These costs adjusted for average inflation of 2.5 per cent gives a new range of $19.35 to $40.32.
  - The ACMA uses $40.32 (i.e. the upper bound of range identified) because it is more consistent with the reported duration that customers spend resolving complaints with their CSPs (used in the 'Savings to consumers' calculations above—the average time that customers spend on complaints to the TIO is 3.4 hours, which is more consistent with a cost of $40.32, compared with $19.35).
- Cost of industry resolving complaints = **$1,103,865** (19,165 complaints x $40.32).

Cost of complaint resolution—post-TIO complaint escalation

Despite industry's best efforts to resolve complaints at the first instance, many complaints are not resolved satisfactorily and are escalated to the TIO. During this process, the CSP must continue to address these issues with the TIO.

The ACMA assumes that complaint handling processes and associated costs for complaints that have been escalated to the TIO are broadly similar to those for complaints resolved in the first instance (although escalated complaints may well be more resource intensive to resolve). Industry costs for dealing with TIO complaints are therefore estimated to be **$1,103,865**.

Appendix B—Frontier Economics peer review

The ACMA's benefits estimation for the Telecommunications Consumer Protection code

A PEER REVIEW PREPARED FOR THE ACMA

The ACMA has asked Frontier Economics to peer review its estimate of benefits from the implementation of the Telecommunications Consumer Protection (TCP) code. The TCP code was introduced in 2012, with elements being progressively introduced over the past few years.

For the purposes of the peer review, the ACMA supplied us with a (draft) written document outlining the methodology and results of the benefit estimations, and an Excel spreadsheet containing the benefit calculations. We have reviewed both the methodology and calculations in our peer review.

Overall, we conclude that the ACMA's estimates of the benefits of the TCP changes consumers are reasonable.

Some care would need to be taken before using these figures to support regulatory intervention, as some of the identified benefits may count as costs for industry.[i]

In the remainder of this note, we document our review and comment on particular inputs and assumptions.

Overview of benefit estimations

The ACMA seeks to estimate the benefits of different kinds of behavioural change resulting from the TCP code:

- Benefits from **fewer complaints**, with benefits accruing to both consumers and to industry (including through reductions in required TIO funding to resolve disputes)
- Benefits from **better matching of customer usage patterns with available mobile plans**, so that there is less 'wastage' by consumers in the sense of spending more than they need to
- Benefits from **reductions in unexpectedly high bills**, where consumers' lack of information hinders their ability to acquire the desired level of service (and particularly usage of data services)

The ACMA's analysis suggests that the aggregate benefits to Australian consumers are in the order of $545 million per year, with smaller benefits associated with reductions in consumer complaints and larger benefits associated with reductions in wastage from wrong contracts and from unexpectedly high bills.

Estimation of benefits from fewer complaints

The ACMA's methodology is to estimate the reduction in complaints to the Telecommunications Industry Ombudsman (TIO) before and after the introduction of the TCP code. This reduction is converted into a dollar value which reflects the value of consumer and staff time saved. The benefits to consumers and to industry are estimated separately.

In our view, the method adopted is broadly an appropriate measure of benefits. Reductions in costs create more economic value – the difference between consumer willingness to pay and the costs of production.

On the specific estimation, we note that the estimates of complaint reduction should be built on a causal nexus between the introduction of the TCP code and reduced complaints. Ideally, this would involve:

- a good theoretical or principled argument that the TCP code would cause the identified effect (complaint reduction)
- an understanding of other factors that might explain the observed effect, and evidence or reasoning to explain why the TCP code effect is the more likely explanatory variable. This might be done, for example, by identifying whether the same kinds of results have been observed in similar markets but where the issues addressed in the TCP have not been resolved.

In our opinion, the ACMA does make out a credible case in principle that the TCP code may plausibly have caused a reduction in complaints.

The observation that there was, in fact, a reduction in complaints raises questions of attribution. Ideally, it would be good to see evidence that similar declines in complaints had not been experienced in other jurisdictions that were not subject to similar codes.

As the ACMA notes, some of the reduction in complaints may have been due to Vodafone correcting (perceived or actual) poor network performance through the years 2010-12. However, we also note that all three mobile operators experienced a reduction in complaints over the relevant period. This makes it more likely that the TCP code in fact was responsible for the falls in complaints.

Assuming that the attribution of reduced complaints to the TCP is reasonable, we consider the ACMA's estimation techniques and values chosen to be realistic.

Estimation of benefits from reductions in 'wrong contracts'

Consumers can choose plans that are inappropriate for how they use their phones. In some cases, there will be objectively better plans that could be chosen (i.e. less expenditure for the same amount of usage and quality).[ii] Reductions in this

'wastage' were identified as a major potential benefit from the TCP, which introduced requirements for clearer information for customers to improve their ability to make choices.

The estimation of benefits by the ACMA relies on estimating the change in the aggregate waste from consumers in spending more than they need to meet their usage requirements.

The reasoning for *why* the TCP may have had an impact on consumers' choices seems plausible.

Quantification of changes seems an inherently difficult thing to estimate. One would need to show that there is an objectively better plan that the consumer could have chosen that would have resulted in a cost saving without any reduction in the quality of service. For this reason, the ACMA relies on research initially conducted in the UK for its estimate of waste and transposes this to Australia. Given the difficulty of developing an estimate for Australia, the methodology applied appears reasonable.

The extent of reductions in wastage attributable to better information mandated by the TCP is also difficult to quantify.

The ACMA relies on survey information suggesting that around one-third of customers had seen a CIS and just under a third had thought the information made it easier to compare offers. This is not directly used in estimating benefits. Rather, the estimate of a 10 per cent saving in waste is based on customer contract turnover and the assuming that a proportion of those customers (1 in 4) are better informed and eliminate the waste as a result of the better information.

While the estimate is driven by an assumption, the analysis does indicate that the potential benefits from reductions in contract waste from consumers are large. Notably, the estimate only covers mobile services, with further gains that could be expected if the estimate was extended to fixed line and broadband purchases.

Estimation of benefits from reductions in unexpectedly high bills

A reduction in unexpectedly high (mobile phone) bills is the major source of (consumer) gain identified in the ACMA's analysis. It accounts for more than 80 per cent of the estimate benefits of the TCP.

The ACMA's basic proposition is that the measures implemented to prevent unexpectedly high bills, such as mandatory alerts and better transparency of billing information, should have reduced the *instance* and *magnitude* of unexpectedly high bills.

The ACMA's survey information indicates that:

- A third of consumers reported experiencing unexpected high bills within the previous 12 months in a 2013 survey.
- This reduced to 27 per cent in February 2015.
- The difference between the average unexpectedly high bill and average normal bill fell from $158/bill in 2013 to $125/bill in 2015.

The overall saving is the reduction in total unexpected bills – combining the effects of lower incidence, and each incident having a smaller impact.

In our opinion, these benefits are genuine but must be estimated and presented carefully. This is for three reasons:

- Declines in unexpectedly high bills might be explained by consumers 'learning' over time to avoid such high bills – even if there is no change in behaviour due to the TCP.
- Consumers derive benefits from additional usage, which reduces the *net* cost of unexpectedly high bills.[iii]
- A significant component of the savings experienced by consumers might well be transfers between mobile operators and consumers.[iv] Consumer benefits are experienced as losses by mobile operators.

None of these factors is easy to account for, although we suspect they are all important. We also note that (to counter the last two factors) we would expect that to the extent that the TCP has increased consumer confidence in the price and quality packages offered by mobile operators, they may have encouraged higher demand than otherwise.

Calculation issues

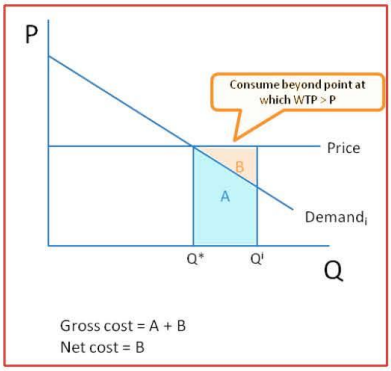
We have checked the calculations in the spreadsheets provided by the ACMA and confirm that they are accurate and consistent with the descriptions provided in the written materials.

Endnotes

[i] Such transfers are usually ignored in a formal cost benefit analysis.

[ii] It is also plausible that some consumers choose plans that appear inappropriate for their usage profile but are valued because they provide the security of avoiding unexpectedly high bills or because they offer other benefits, such as a more valued handset.

[iii] The 'loss' to consumers from unexpectedly high bills may be overstated, because it implies that consumers derive no benefit from the additional usage which the high bill has bought them. It seems likely that there is a net cost of the additional usage (the bill less consumer willingness-to-pay (WTP) for those units of usage), but that this would be lower than the gross cost which is represented by the bill (revenue). This may be illustrated using a simple diagram of a representative consumer. The representative consumer i has a downward-sloping demand for usage (of calls, data, etc.). This consumer might use 'too much' (Q^i rather than Q^*) because of uncertainty about the price of additional usage of the service above plan limits. But that would not imply that the benefits of the additional usage are zero; the net cost to consumers would be 'B', not the total size of the bill 'A + B'.



We also note this example as drawn may tend to underestimate the size of B relative to A. Although price is shown as constant per unit, pricing for additional usage often implies much higher per unit prices, which would increases the size of B relative to A.

[iv] Benefits relating to better contracting and reductions in high bills are a benefit to consumers, but may be a cost for mobile network operators. That is, there are potentially significant transfers rather than increases in economic value (which is measured by changes in costs and changes in willingness to pay).

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