

Should Australia become a cashless society?

What they said...

'An environment in which we are asked to sanitise our hands in every shop is obviously not conducive to handling cash'

Alan Shields, Chief Operating Officer at business intelligence firm RFI Group

'As payments move online, there would be an increased risk of crimes such as identity theft, account takeover, fraudulent transactions, and data breaches'

Dr Richard Harmon, managing director of financial services at data cloud firm Cloudera

The issue at a glance

On November 18, 2021, ABC News televised a statement from the Reserve Bank of Australia that large numbers of Australians have begun hoarding cash, in part as a response to the uncertainties of the global pandemic and in part because it has been predicted that Australia is likely to have become a largely cashless society by 2031. <https://www.abc.net.au/news/2021-11-18/rba-hoarders-record-amount-cash-covid-pandemic/100628486> Some predictions have set the date of that development as early as 2024.

<https://www.news.com.au/finance/money/australia-to-be-completely-cashless-society-by-2024/news-story/fdb6ca0a4502f7378931cfefe94c0712>

There is an accelerating trend toward the use of cashless transactions in most if not all areas of Australian life. <https://www.news.com.au/finance/money/australia-to-be-completely-cashless-in-a-decade-experts-predict-according-to-survey/news-story/fb5a4b8613093084ba2578cb0a9771a5>

This trend is being welcomed by many Australians. <https://www.capterra.com.au/blog/1653/australians-say-ready-become-cashless-society> At the same time this hoarding behaviour suggests there are many who still value physical cash and who do not trust the prospect of a completely or largely cashless society. Some social commentators claim there is a need for thoughtful debate on the advantages and disadvantages of the move toward cashlessness across the world.

https://www.cashless-economy.com/The-debate_r6.html

Background information

Definition of a “cashless society” <https://www.definitions.net/definition/cashless+society>

A “cashless society” describes an economic state (usually a country) in which financial transactions are not conducted with money in the form of physical banknotes or coins, but through the transfer of digital information (usually an electronic representation of money) between buyers and sellers or other parties.

Cashless societies have existed from the time human societies first came into existence, based on barter (the swapping of goods or services) and other methods of exchange. Cashless transactions have also become possible in modern times using digital currencies such as bitcoin. However, the most common understanding of the term "cashless society" is one where cash is replaced by its digital equivalent - in other words, legal tender (money) exists, is recorded, and is exchanged only in electronic digital form.

The term is sometimes understood to refer to a society in which all physical currency has been removed from circulation and only electronic funds transfers are able to occur. Another

understanding of the term is that it refers to a society in which, though virtually all financial transactions are conducted electronically, physical cash is still available.

The concept of a cashless society has been discussed widely in recent times, particularly because the world is experiencing a rapid and increasing use of digital methods of recording, managing, and exchanging money in commerce, investment and daily life in many parts of the world, and transactions which would historically have been undertaken with cash are often now undertaken electronically.

Some countries now set limits on transactions and transaction values for which non-electronic payment may be legally used. For example, in Australia, an attempt was recently made to limit transactions for which cash could be used to those under the value of \$10,000.

<https://www.ldb.com.au/business-advisory/law-to-ban-cash-purchases-over-10000-axed/>

Types of cashless payments <https://www.digipay.guru/blog/towards-a-cashless-society-major-benefits/>

There are many ways in which a user can make payments without cash.

Banking cards

Banking cards like debit and credit cards are one of the most used cashless payment methods across the world. A debit card is a payment card that deducts money directly from a consumer's checking or savings account. A credit card allows cardholders to borrow funds with which to pay for goods and services with merchants that accept cards for payment. Credit cards impose the condition that cardholders pay back the borrowed money, plus any applicable interest, as well as any additional agreed-upon charges.

These cards can also be integrated with other digital platforms. For example, users can store their card information in mobile wallets or digital payment apps to make cashless payment. Moreover, banking cards can be also used in online purchases, PoS (point of sale) machines, online transactions, etc.

Digital wallets

These are mobile applications which allow the user to send, receive, and store money. Users can add or store money in their mobile wallets by linking to their bank accounts. Users can also send money to friends, relatives, or any other person by entering phone number, email ID, unique ID, or scanning a QR code. Users can also make payments to merchants and pay various utility bills like water bill, electricity bill, mobile recharge, and many more directly from the mobile wallet app.

QR Codes

QR stands for Quick Response. This is a two-dimensional code that has a pattern of black squares which are arranged on a square grid. QR codes are read by imaging devices such as smartphone cameras. QR codes are widely used for making cashless payments in which a user scans the QR code of the merchant service to complete the transaction.

Some of the countries closest to going cashless <https://corepay.net/articles/cashless-countries/Sweden>

With a date set in 2023 to go completely cashless, Sweden is arguably the closest country to achieve this. It is currently not uncommon to see signs that say “No Cash Accepted” in various shops in Sweden. A recent study from the European Payments Council showed that

cash transactions accounted for only 1% of Sweden's GDP in 2019 with cash withdrawals steadily declining by about 10% a year.

While consumers are generally happy, those struggling financially or technologically continue to rely on cash. Recent reports show that mobile payments are accelerating very sharply in Sweden. One of the main reasons for this is that Swedes are tech-savvy. For example, Swish, which is a mobile app, had over 7.8 million users in July of 2020 and performs close to 50 million transactions a month.

Finland

Finland has a smaller population of around 5.5 million. Finland is not taking as aggressive measures as Sweden in going towards a fully digital economy, however, it is reported that Finland is currently more capable of going fully cashless this moment. Finland currently ranks second to just Ireland in terms of frequency of use of cards, and fifth in e-commerce spending, and second in smartphone penetration.

China

The growth in China's electronic payments is very significant, given its massive population size. Like other countries that have been aiming towards going cashless, China has shown a rapid adoption of mobile payments. Currently, one of the most popular ways to pay by phone is through QR code scanning. China is the biggest eCommerce market in the world, with annual online sales of \$672 billion and an annual growth rate of 27.3 percent.

South Korea

South Korea is currently more cashless than China, however, there are far fewer people. South Korea already has most of the infrastructure in place nationwide to go cashless. It was reported that roughly 6 percent of South Korea's GDP being eCommerce spending and more than 100 transactions on every credit card per year.

Internet information

On December 30, 2021, Cashless Economy, a site that gives information and opinion on the international trend toward cashlessness published an article titled 'Cash or Cashless: A short 2021 assessment' which gives an overview of the trend toward cashlessness around the world and outlines some of the advantages and disadvantages of the issue. The site's overall position favours continued access to cash.

The full text can be accessed at https://www.cashless-economy.com/Cash-or-Cashless-A-short-2021-Assessment_a528.html

On December 26, 2021, ABC News published a report titled 'COVID-19 is speeding up Australia's shift towards a cashless future'. The report details Australia's rapid shift toward cashless transactions and examines the advantages and disadvantages of the move.

The full text can be accessed at <https://www.abc.net.au/news/2021-12-26/cashless-society-economy-australia-covid/100725728>

On December 21, 2021, Insider published an article titled 'Money can be filthy — here's how to protect yourself from getting sick'. The article details the health risks associated with handling cash and suggests how these might be reduced.

The full text of this article can be accessed at <https://www.insider.com/does-money-carry-germs>

On November 17, 2021, ABC News published a report titled 'RBA says cash hoarders stashed record amounts during pandemic'. The report details the increasing tendency among Australians to hoard cash, apparently intensified by the COVID pandemic.

The full text of the article can be accessed at <https://www.abc.net.au/news/2021-11-18/rba-hoarders-record-amount-cash-covid-pandemic/100628486>

On November 16, 2021, The Australian Financial Review published an article titled 'Australians hoard \$75b of cash in large notes'. The report details the increasing tendency among Australians to hoard cash among people who want to store their wealth in paper money, rather than put it in a commercial bank, according to the Reserve Bank.

The full text of the article can be accessed at <https://www.afr.com/companies/financial-services/australians-hoard-75b-of-cash-as-value-surges-20211116-p5997t>

On October 4, 2021, news.com.au published a report titled 'Australia to be completely cashless in a decade, experts predict, according to survey' which details recent findings that Australia is likely to become fully cashless by 2031.

The full text can be accessed at <https://www.news.com.au/finance/money/australia-to-be-completely-cashless-in-a-decade-experts-predict-according-to-survey/news-story/fb5a4b8613093084ba2578cb0a9771a5>

On August 25, 2021, The Edinburgh News published an opinion piece by Steve Cardownie titled 'Cashless society has major benefits, but we can't ignore concerns about the power it hands to financial institutions.' The comment outlines the benefits of cashless transactions and then warns of the increased power they give financial institutions.

The full text can be accessed at <https://www.edinburghnews.scotsman.com/cashless-society-has-major-benefits-but-we-cant-ignore-concerns-about-the-power-it-hands-to-financial-institutions-steve-cardownie-3358031>

On March 5, 2021, news.com.au published a report titled 'Australia to be completely cashless society by 2024'. The report details the latest annual Global Payments Report by fintech company FIS, which predicts Australia will be mostly cashless within a few years, with the research projecting only around 2 per cent of transactions in Australia will be cash by 2024.

The full text of the article can be accessed at <https://www.news.com.au/finance/money/australia-to-be-completely-cashless-society-by-2024/news-story/fdb6ca0a4502f7378931cfefe94c0712>

On December 24, 2020, Digipay.guru a technology company producing fund transfer platforms published an information and opinion piece titled 'Moving towards a cashless society: Types and major benefits.'

The article gives an overview of a variety of ways of electronically transferring funds and then outlines some of the major advantages of digital transactions.

The full text can be accessed at <https://www.digipay.guru/blog/towards-a-cashless-society-major-benefits/>

On November 3, 2020, China Daily published an opinion piece by Rish Tandapany titled 'Is a cashless society possible for everyone?'

The opinion piece, while acknowledging many of the advantages of a cashless society argues that it would exclude significant sectors of society.'

The full text can be accessed at <https://www.chinadaily.com.cn/a/202011/03/WS5fa0f5c9a31024ad0ba82cc3.html>

On October 21, 2020, The Lumberjack (North Arizona University's student newspaper) published an opinion piece titled 'A cashless society promotes classism' which argues that removing the ability to use physical cash discriminates against the poor and the homeless. The full text of the article can be accessed at https://www.jackcentral.org/opinion/a-cashless-society-promotes-classism/article_f81d0d3c-13dc-11eb-87e9-6f568a3e5a49.html

On August 3, 2020, The Huffington Post published an opinion piece by Casey Bond titled 'Why the Idea of a "Cashless Society" is so Dangerous'. The comment outlines some of the advantages of cashlessness and then highlights its disadvantages. The full text can be accessed at https://www.huffpost.com/entry/cashless-society-dangers-racist_1_5f234e95c5b68fbfc880de22

On January 7, 2020, The World Economic Forum published an opinion piece titled 'The benefits of a cashless society'. The article outlines some of the key advantages to be gained from cashlessness. The full text can be accessed at <https://www.weforum.org/agenda/2020/01/benefits-cashless-society-mobile-payments/>

On March 21, 2019, The Conversation published a comment by Steve Worthington, Adjunct Professor, Swinburne University of Technology, titled 'Depending on who you are, the benefits of a cashless society are overrated'. The article considers some of the disadvantages that not being able to readily access or use cash presents for some sets of people. The full text can be accessed at <https://theconversation.com/depending-on-who-you-are-the-benefits-of-a-cashless-society-are-overrated-113268>

On April 29, 2014, the Akron Beacon Journal published an opinion by Cass R Sunstein titled 'Debit cards reduce cash and crime' which gives an overview of research conducted by the University of Missouri which demonstrated the increased use of electronic fund transfer by welfare recipients led to reduced cash being carried and a drop in crime rates. The full text can be accessed at <https://www.beaconjournal.com/story/opinion/columns/2014/04/29/cass-r-sunstein-debit-cards/10690119007/>

Arguments in favour of a cashless society

1. Cashless transactions are more convenient for most consumers and sellers
Those who argue in favour of a cashless society stress the convenience that digital transactions provide for both consumers and those who supply goods and services. Digital transactions are generally far easier for a consumer to complete. Indonesia's Permatbank presents the benefits of cashless transactions to its customers in this way: 'Using a cashless system to make payment transactions will certainly be more convenient because it is more efficient and faster. You do not need to prepare cash or wait for change when making payments. You can immediately leave after making a payment transaction... You will not experience less or more change because the amount of money paid through the cashless application is in accordance with the nominal payment you must pay. You also do not need to worry if your money is lost like when you carry cash in your wallet. This is because the balance in your cashless application has a security system that uses a password when using it...

You can make payments anywhere...[including] online shopping. You do not need to come to an ATM or bank when making a payment. You can do it anywhere and anytime by using the cashless application on your smartphone.'

<https://www.permatabank.com/en/article/keuntungan-menerapkan-gaya-hidup-cashless-yang-harus-kamu-ketahui>

The attitudes reflected in this Indonesian promotion were also displayed by many of those surveyed by the completely digital Australian bank, ME Bank. According to research conducted by ME Bank and released on August 16, 2021, more than a third (35 percent) of Australians would be happy to go cashless by 2022 and a quarter (25 percent) typically hold small amounts of unspent cash in their wallets for between one and three months. The primary reasons offered by those surveyed for not carrying cash were the inconvenience of having to withdraw cash; disliking having to carry a wallet and concern about losing the cash. These perceived advantages all stress the inconvenience for the consumer of cash transactions relative to digital transactions.

<https://www.mebank.com.au/news/one-third-of-australians-happy-to-go-cashless/>

Proponents of a cashless society also stress the convenience value of digital transactions for businesses. In August 2019 the Federal Reserve Bank of San Francisco (FRBSF) published the results of their study into why cashless businesses were spreading rapidly across the United States. The FRBSF noted the reduced cost for businesses of cashless transactions. They stated, 'Small- and medium-sized businesses are reported to pay tens of billions of dollars annually on cash handling expenses. Eliminating cash payments eliminates the costs associated with handling and transporting cash. Cashless businesses no longer need to pay banks fees to deposit and process cash and coin, nor do they need to pay for armored carriers to transport money to and from the bank. Additionally, these businesses no longer need to pay for employees to count and manage register balances throughout the day.'

<https://www.frbsf.org/cash/publications/fed-notes/2019/august/cash-me-if-you-can-impacts-of-cashless-businesses-on-retailers-consumers-cash-use/>

The FRBSF also noted that businesses preferred the greater speed of digital transactions. It stated, 'Counting cash can take time, both for the customer and the employee. Several businesses that have gone cashless have cited benefits like faster transactions and increased store throughput. Atlanta's Mercedes-Benz Stadium found that its transition to exclusively card and mobile payment transactions not only reduced end-of-day reconciliation time but also resulted in quicker transaction times and lower wait times for customers. Salad chains Tender Greens and Sweetgreen found similar benefits from going cashless: Tender Greens estimates that cash transactions are four to five seconds slower than card transactions, and Sweetgreen found that its cashless locations processed 5 to 15 percent more transactions per hour. Particularly in high-volume businesses, these faster transaction times can translate to increased customer satisfaction, fewer opportunities for error in making change, and increased revenue.'

<https://www.frbsf.org/cash/publications/fed-notes/2019/august/cash-me-if-you-can-impacts-of-cashless-businesses-on-retailers-consumers-cash-use/>

It has also been noted that the convenience of online shopping has increased customers' desire to have easy access to a digital payment method. In an article published in Forbes on October 20, 2021, Luigi Wewege stated, 'The internet became more accessible to a broader range of people beginning in the early '90s, and merchants understood the need to make it easy to pay for purchases made online... Today, apps make it possible to pay for goods using everything from virtual credit and debit cards to reading physical cards.'

<https://www.forbes.com/sites/forbesfinancecouncil/2021/10/20/the-rise-and-future-of-contactless-and-cashless-payment-options/?sh=342d9eac3f30>

2. Cashless transactions reduce the opportunity for physical theft

Those who support cashless economies note that reducing the availability of physical cash reduces the opportunity for it to be stolen from either consumers or businesses.

The reduced risk of having money stolen comes largely from the fact that physical funds, once stolen, cannot be easily recovered. However, access to digital cash can be blocked if a card or other accessing device is stolen. A 2021 Indian information site on cashless payments stressed the security that cards allow consumers in the event of theft. The site states, 'If stolen, it is easy to block a credit card or mobile wallet remotely, but it's impossible to get your cash back.' <https://economictimes.indiatimes.com/here-are-the-advantages-of-cashless-payments-and-the-pitfalls-you-should-beware-of/tomorrowmakersshow/55956343.cms> A 2014 study using data from the World Bank's Payments Systems Worldwide Database found that where there was widespread use of electronic point of sale devices there was a statistically significant reduction in the crimes of robbery and burglary.

https://uncw.edu/soccrm/programs/pridemoire_roche_rogers_cashlessness_jq_2018.pdf

Automatic Teller Machines (ATMs) have been identified as locations where people are particularly liable to be robbed. A publication released by Arizona State University in 2001 found that most of these robberies are committed by a lone offender—using some type of weapon—against a lone victim. Most occur at night, with the highest risk between midnight and 4 am. About 15 percent of victims are injured. Most involve robbing people of cash after they have made a withdrawal. The average loss is between \$100 and \$200. The Arizona State University study concludes 'Street robbers are notoriously difficult to deter. They require relatively small amounts of cash to justify their risk, they have a lot of crime opportunities, they want cash immediately, and street robbery does not require much skill or planning.' <https://popcenter.asu.edu/content/robbery-automated-teller-machines-0> Observations such as these highlight that the risk of being robbed would decline if consumers did not have to withdraw physical cash to pay for the goods and services they wish to buy.

It has also been noted that cash payments put the wellbeing of workers who handle or transport cash at risk. Work Safe Australia recognises the problems associated with handling and transporting cash. They state, 'Health and safety hazards associated with handling and transporting cash can arise from manual tasks, worker fatigue, remote or isolated work and violence from robberies and armed hold-ups. Small and medium sized businesses are often the target of robberies because they usually have less security in place compared to banks. Service stations, chemists and liquor stores are often targeted but people walking retail takings to the bank and even schools are also at risk. Workers can be killed or suffer serious injuries from weapons or physical assault. They may also suffer stress-related injuries.' <https://www.safeworkaustralia.gov.au/system/files/documents/1702/guide-handling-transporting-cash-may-2013.pdf>

It has further been noted that using physical cash puts travellers, especially those travelling overseas, at particular risk of being robbed. The travel advisory magazine Suitcase has noted, 'It won't come as a surprise for travellers that, in many countries, the tourist can be the target for pickpockets and conmen. Having something traceable, redeemable and block-able like a bank card can be better when it comes to protecting our money. Meanwhile, advances in face, voice and fingerprint technologies allow for transactions to arguably be more secure. Some banks and cards even offer special insurance policies for travelling which may cover issues with luggage, trip cancellations and accidents as well as rewards for spending - an added bonus.' <https://suitcasemag.com/articles/is-cashless-travel-the-future-of-tourism>

Similarly, not holding cash on a business premises advantages the business owner as it removes the risk of physical theft. The Federal Reserve Bank of San Francisco has noted, 'Not having cash on store premises... reduces opportunities for both internal and external robberies. Internally, businesses face a constant battle with employee theft, or "shrinkage."' The 2015 Retail Fraud Survey estimates that U.S. retailers lose \$60 billion per year to shrinkage, though cash is just a portion of this loss, and the National Retail Federation's 2018 Security Survey estimates the average dollar loss per dishonest employee to be \$1,203. Externally, cash-intensive businesses can be targets for robberies. Nearly a quarter of U.S. robberies (26 percent) took place at some type of retailer—either a gas station, convenience store, or other commercial residence. When businesses forego cash on their premises, there may be fewer opportunities and incentives for internal and external theft.'

<https://www.frbsf.org/cash/publications/fed-notes/2019/august/cash-me-if-you-can-impacts-of-cashless-businesses-on-retailers-consumers-cash-use/> The West Australian Police actually advise businesses to reduce or remove their reliance on physical cash. In an advice publication to businesses they state, 'Have no cash kept on site. Post signs such as 'no cash/no drugs kept on premises.'

<https://www.police.wa.gov.au/~media/Files/CED/Publications/Business-Beat/Business-Beat.pdf?la=en>

3. Cashless transactions would reduce the black economy and increase government revenue by reducing tax avoidance

Supporters of Australia becoming a cashless society claim that this would help to reduce the number of people who avoid paying tax. They argue that paying taxes is important because it enables our state and federal governments to supply the services on which we all rely and that avoiding paying tax harms all Australians.

The 'black economy' is made up of a section of society which does not pay tax on the products they sell or income tax on the money they receive for their labour. Members of the black economy also include those who buy goods and services cash-in-hand and do not pay goods and services tax. Australia's 'black economy' amounts to nearly \$50 billion a year, according to a Federal Government taskforce 2018 estimate.

<https://law.unimelb.edu.au/alumni/mls-news/issue-20-november-2018/putting-an-end-to-the-black-economy> To have a significant proportion of a country's financial capital tied up in the 'black economy' can be very harmful. Investopedia notes, 'The portion of a country's income tied to black money affects the economic growth of the country. Black money causes financial leakage, as unreported income that is not taxed causes the government to lose revenue. In addition, these funds rarely enter the banking system. As a result, it can be more difficult for legitimate small businesses and entrepreneurs to obtain loans...

These unreported earnings cannot be included in a country's gross national product (GNP) or gross domestic product (GDP). Thus, a nation's estimates of savings, consumption, and other macroeconomic variables would be misleading. These inaccuracies adversely affect planning and policymaking.' <https://www.investopedia.com/terms/b/black-money.asp>

Cash transactions assist the black economy because they can occur without any record. This allows the non-payment of tax or in some cases legitimate worker entitlements to be hidden. For this reason, the 'black economy' is sometimes referred to as the 'shadow' or 'hidden' economy. In an article published on June 5, 2020, Crikey quoted tax expert Professor Miranda Stewart, who stated, 'Cash is difficult to trace, so there's no record of a cash transaction unless that record is made through other systems. Clearly that's attractive for people who want to avoid not just the tax system but may want to avoid social security

income declarations.’ <https://www.crikey.com.au/2020/06/05/a-cashless-world-would-make-life-harder-for-tax-dodgers-and-criminals/> The Indian government has explained its preference for a digitalised system of exchange as a means of tackling the black economy. It has stated, ‘Digital recording of financial transactions...helps authorities to monitor and check the movement of money. Digitalisation of financial transactions ties and records every transaction in the name of an individual and thus helps the authorities to track and verify the transactions in future.’ <https://lms.indianeconomy.net/news/digitalization-and-black-money/> In an international study published in August 2019, Friedrich Schneider of Johannes Kepler University estimated that restrictions on the use of cash could reduce the black economy, including tax avoidance, by up to 20 percent. <https://www.suerf.org/policynotes/6951/restricting-or-abolishing-cash-an-effective-instrument-for-eliminating-the-shadow-economy-corruption-and-terrorism>

The use of cash can also allow wage and entitlement theft from vulnerable low-income workers forced to accept cash-in-hand payments. Rather than increasing these workers earnings by having them avoid tax, these cash payments can be under award and not include important entitlements. The accounting firm Acuity has noted, ‘Many people see such cash-in-hand activity as a victimless crime, but it starves countries of tax revenue and, because it is done off the books, can exploit workers by paying them below-award wages with no superannuation or other protections. In May 2019, Industry Super Australia reported that 2.85 million Australians missed out on \$5.94 billion in super entitlements in the 2016-17 financial year. High-risk sectors for this “off the books” activity include building (especially home repairs and renovations), couriers, cleaners and food businesses.’ <https://www.acuitymag.com/business/losing-money-to-the-black-economy>

4. Cashless transactions reduce the opportunity to fund terrorism and for criminals to launder money

Those who support the development of a cashless society in Australia note that this would reduce opportunities for terrorist funding and money laundering. Money laundering is currently a major problem worldwide. Investopedia defines money laundering as ‘the illegal process of making large amounts of money generated by a criminal activity, such as drug trafficking or terrorist funding, appear to have come from a legitimate source. The money from the criminal activity is considered dirty, and the process “launders” it to make it look clean.’ <https://www.investopedia.com/terms/m/moneylaundering.asp> Crimes such as drug importation, fraud, people trafficking, migrant smuggling, corruption and theft generate large amounts of money, usually in cash. Money laundering takes the proceeds of such crimes and conceals their illegal origin.

This process typically involves three steps: placement, layering, and integration. Placement secretly injects the “dirty money” into the legitimate financial system. Layering conceals the source of the money through a series of transactions and bookkeeping tricks. In the final step, integration, the now-laundered money is withdrawn from the legitimate account to be used for whatever purposes the criminals have in mind for it.

<https://www.investopedia.com/terms/m/moneylaundering.asp>

According to the Australian Crime Commission, more and more organised crime groups in Australia are becoming involved in money laundering so they can enjoy their illicit profits or reinvest the proceeds of crime into other criminal activities with less risk of being detected. Estimating how much money is laundered globally or within any given country is difficult, as the process is covert and crosses national borders. However, the Australian Crime

Commission estimates that organised crime costs Australia from \$10 billion to \$15 billion per annum. AUSTRAC notes that that, by some estimates, more than \$1.5 trillion of illegal funds are laundered worldwide each year, \$200 billion of this in our region.

https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2011/November/Money_Laundering_in_Australia

Money laundering systems are particularly important to drug traffickers because these criminals deal almost exclusively in cash. Cash transactions have the advantages of being anonymous which is why many of those who purchase illegal drugs do so using cash. Both drug users and drug suppliers typically use cash to conduct their transactions. The large stocks of cash that drug deals accumulate must be transformed and made to appear legitimate. This involves fake companies that exist solely for the purpose of laundering money. They take in dirty money as 'payment' for supposed goods or services where no goods or services are supplied; they simply create the appearance of legitimate transactions through fake invoices and balance sheets. Launderers also sometimes place dirty money in otherwise legitimate businesses to clean it. They may use large businesses like brokerage firms or casinos that deal in so much money it is easy for the dirty currency to blend in, or they may use small, cash-intensive businesses like bars, car washes or clubs.

<https://money.howstuffworks.com/money-laundering.htm> Another frequently used method is through buying real estate. Criminals deposit cash below the AUD10,000 reporting threshold, often at different banks or bank branches, to avoid triggering threshold transaction reports to AUSTRAC. This method often involves high volumes of transactions to numerous accounts to avoid detection. The funds are then used to obtain bank cheques to buy real estate.

<https://www.austrac.gov.au/business/how-comply-guidance-and-resources/guidance-resources/strategic-analysis-brief-money-laundering-through-real-estate-2015#m4>

Money laundering by those involved in crime is a serious problem as it enables them to convert the proceeds of their crimes into financial resources that appear legitimate. Therefore, money laundering serves to encourage crime by making it more safely profitable.

Money laundering also plays a significant role in maintaining terror organisations. Most people who financially support terrorist organisations do not do so openly for fear of attracting criminal charges or other reprisals. They contribute the money in covert ways that allow them to fund terrorism while maintaining anonymity. Also, terrorists do not use credit cards and cheques to purchase the weapons, plane tickets and civilian assistance they need to carry out a plot. They launder the money so authorities cannot trace it back to them and prevent their planned attack. Such money laundering typically relies on converting physical cash into hidden terrorist support funds. Interrupting the laundering process can cut off funding and resources to terrorist groups. This is an argument made to support the development of cashless societies. <https://money.howstuffworks.com/money-laundering.htm>

5. Cashless transactions can help to reduce the spread of contagious diseases

Those who support Australia and other nations becoming cashless societies point to the advantages this would have in preventing disease transmission. The issue has become particularly important since the development of the coronavirus pandemic.

Numerous studies have demonstrated the capacity of notes and coins to spread diseases. An article published in The Scientific American on January 3, 2017, states, 'Fecal bacteria and other pathogens may have hitched a ride from someone's hands, nose or apron onto our cash. And yeast or mold might have taken hold, too. The result could be a durable risk to our health whenever our money changes hands.' <https://www.scientificamerican.com/article/dirty-money/> It has been noted that antibiotic-resistant bacteria such as methicillin-resistant

Staphylococcus aureus (MRSA), which can cause life-threatening blood infections, can survive on our currency. Other bacterial disease agents found on banknotes and coins include Escherichia coli (which can cause bloody diarrhea and sometimes even kidney failure or death) and Pseudomonas aeruginosa (which causes urinary tract and respiratory system infections). Studies of cash from around the world specifically point to high bacterial counts on money handled by food workers or on that of those who work within, visit or attend hospitals. It has also been discovered that banknotes can transmit viruses. Swiss researchers found in one 2008 study that flu viruses survive for a couple days on Swiss francs. The same study discovered that these viruses can survive for up to 17 days if accompanied by mucus. <https://www.scientificamerican.com/article/dirty-money/> An article published in Insider on December 21, 2021, gives further instances of the capacity of hard currency to spread disease. Charles Bailey, MD, medical director for infection prevention at Providence St. Joseph Health was quoted as saying, 'Money serves as a fomite, an inanimate vehicle by which pathogens can be spread.' One study found that physical currency changes hands at least 55 times a year, or more than once a week. This makes it an ideal fomite to spread disease. <https://www.insider.com/does-money-carry-germs> It has also been noted that some viruses can live on surfaces like plastic and fabric for over 72 hours. <https://www.insider.com/how-long-do-viruses-live-on-surfaces>

The COVID pandemic has accelerated official and public concern about physical cash as a means of spreading infection. In 2020 public health experts around the world began to urge a shift towards cashless payments to help prevent the spread of coronavirus, while the World Health Organisation warned the virus can be transmitted via banknotes and coins. South Korea and China began large-scale operations burning and disinfecting currency and world-famous tourist attractions, including the Louvre in Paris, announced they would no longer accept cash payments. <https://www.theaustralian.com.au/science/cashless-payments-help-stop-spread-of-coronavirus/news-story/fd4bb0b9a934ce0ca722993710a17c4f> In Australia, the then president of the Australian Medical Association, Tony Bartone argued that our attitude to cash would need to change. He stated, 'Clearly, as the COVID-19 situation evolves, things we take for granted will be re-examined.' He further noted, 'Cashless options would potentially reduce the extent of possible transmission.' <https://www.theaustralian.com.au/science/cashless-payments-help-stop-spread-of-coronavirus/news-story/fd4bb0b9a934ce0ca722993710a17c4f> Professor Robert Breunig of the Crawford School of Public Policy has stated that concerns about Covid-19 had definitely hastened the use of digital payments in Australia. <https://www.perthnow.com.au/news/australia-to-be-completely-cashless-in-a-decade-experts-predict-according-to-survey-c-4146684> Alan Shields, Chief Operating Officer at business intelligence firm RFi Group, has noted, 'An environment in which we are asked to sanitise our hands in every shop is obviously not conducive to handling cash.' <https://www.9news.com.au/national/australia-cashless-society-cash-usage-plummets-during-covid19/8cb3f5ac-abb3-469b-a9a2-74185294b433> Australian banks have begun to assess the requirements for incinerating currency. An Australian Treasury spokesperson has indicated that the Treasury will continue to review the COVID-19 impacts, and that it was liaising with other departments and states. <https://www.theaustralian.com.au/science/cashless-payments-help-stop-spread-of-coronavirus/news-story/fd4bb0b9a934ce0ca722993710a17c4f>

Arguments against a cashless society

1. A cashless society would disadvantage key sections of the community

Those who argue against Australia becoming a cashless society claim that this development would seriously disadvantage key groups of people. Those who do not have reliable Internet

access, those who do not own a computer or a mobile phone, those who are not technologically proficient and those without bankcards would be among those who would find it extremely difficult to function financially in a cashless society.

There are a significant number of people around the world, even in highly developed societies, who do not have a bank account or a bankcard. In 2015, the Financial Inclusion Commission estimated nearly two million adults did not have a bank account in the United Kingdom. In the United States in 2017, 14.7 million adults (6.5 percent of the population) did not have a bank account. Some people with poor credit histories are unable to acquire a bankcard. <https://www.economicshelp.org/blog/164246/economics/pros-and-cons-of-a-cashless-society/>

Recent studies have indicated that the subset of people within advanced economies who would find it difficult to cope with the removal of cash was much larger than popularly thought. A report into the likely effects of a cashless society in the United Kingdom released in 2018 found 17 percent of adults or 8 million people would struggle. The report argued that the trend toward becoming a cashless society was being promoted without proper consideration for the situation of those who would find it very difficult to adapt to this change. This included the poor, those without easy access to ATMs, those who were isolated by language or culture, those with particular disabilities, and those without technological competence. <https://www.accesstocash.org.uk/media/1087/final-report-final-web.pdf> The report stated, 'For many people in the UK, using cash is not a matter of choice, but of necessity. Digital payment options just don't yet work for everyone... There is a risk that digital payments innovation could continue to focus predominantly on the 80 percent who are mainstream adopters, not the 20 percent with more challenging needs.' The report referred specifically to the situation in Sweden (which has moved faster toward becoming cashless than any other European economy). It stated, 'The Swedish government has recently agreed to "put the brakes on" their shift to cashlessness because they are leaving people behind and need time to plan how to include everyone.'

<https://www.accesstocash.org.uk/media/1087/final-report-final-web.pdf>

Niklas Arvidsson, an associate professor at Sweden's Royal Institute of Technology, noted that Sweden has found that some people have become economically disenfranchised because for whatever reason they have been unable to use the electronic systems and have had their situation compounded by banks removing ATMs and refusing to supply cash and retailers refusing to take cash. <https://www.abc.net.au/news/2020-06-09/australia-can-learn-from-swedens-move-to-a-cashless-society/12282764> A National Australia Bank (NAB) commentary published in July 2021 similarly noted the negative impact that a rapid move to a virtually cashless economy had had on different sections of Swedish society. The commentary notes, 'Communities with limited access to digital technologies or a reluctance to give up cash entirely, in particular the elderly, the disabled and those on low incomes, in rural areas or those experiencing domestic violence, were hard hit by the switch.' The consequences for those unable to adopt the new practices led to a significant Swedish about-face. At the start of 2021, the Swedish Government introduced legislation requiring banks to provide a minimal level of cash services, including access to ATMs – something that had become increasingly rare outside the country's major cities. <https://business.nab.com.au/is-it-time-to-prepare-for-a-cashless-australia-47593/>

Critics maintain that Australia needs to be cautious in its adoption of cashless services and should continue to make provision for those not ready or able to take up cashless payment provisions. Research from the Reserve Bank of Australia (RBA) shows that a quarter of

Australian consumers would face ‘major inconvenience’ if they could no longer use cash – and that frequent cash users were more likely to be older, have lower household income, live in regional areas and have limited internet access. <https://www.abc.net.au/news/2021-12-26/cashless-society-economy-australia-covid/100725728> Drawing on overseas experience, Dean Pearson, Head of Industry Analysis at NAB has warned, ‘Customers have an expectation they’ll be able to transact with you in multiple ways. So, for the time being, it makes sense to have the infrastructure in place to enable you to take both cash and cashless payments...For the foreseeable future, prudent business owners will continue to offer customers a choice of how to pay.’ <https://business.nab.com.au/is-it-time-to-prepare-for-a-cashless-australia-47593/>

2. A cashless society could encourage consumers to overspend and cause serious economic and psychological problems

Those who are critical of increasing our reliance on cash-free transactions claim that digital spending leads to reckless and excessive purchases. The result is often an increased level of personal and family debt, leading to major financial stress and increased psychological problems.

It is claimed that when people make electronic purchases, they have less sense of the reality of the outlay they are making. It is further claimed that without the exchange of physical cash for goods people tend to underestimate what they are spending. The tendency to spend more when making digital purchases is describes as the ‘cashless effect’. The Decision Lab as explained this phenomenon: ‘This effect occurs in any scenario where we use digital forms of payment instead of cash, which these days makes up most of our transactions. Unfortunately, whether it’s a big or small purchase, we are likely to spend more money when we don’t physically have to give it up.’ An example is used to explain why cashless transactions lead to greater expenditure. The Decision Lab article states, ‘Imagine you are at Best Buy, looking at an \$899 TV. It is very unlikely that you would decide to buy the TV if you had to pay for it in cash. For one, you would have to carry around a lot of money, which can be unsafe, and secondly, it would feel a lot harder to part ways with a wad of cash than to give someone your credit card. Secondly, you may not actually have \$899 saved up to use. But, if you can use a credit card, you don’t need to have that money immediately. So, you go ahead with the purchase.’ <https://thedecisionlab.com/biases/cashless-effect/> Parents have expressed a particular concern that digital spending makes it very difficult for younger people to appreciate the real cost of their purchases. MyState Bank’s General Manager for Digital and Marketing, Heather McGovern, has stated, ‘In Australia, we have had an extremely fast adoption of online technologies. However, the overwhelming feeling from parents is that as money becomes less tangible, there is a need to help children understand the value of money and spend responsibly.’ MyState’s research has indicated that 83 percent of parents are concerned their children are spending too easily. 65 percent are worried about easy access to buy now, pay later (BNPL) services being provided for young people, while 54 percent of parents believe their children are vulnerable to financial scams.

<https://www.savings.com.au/savings-accounts/parents-say-a-cashless-society-will-hurt-their-children-financially>

The overspending that often accompanies the use of debit cards can lead to significant debt problems. The Decision Lab states, ‘The cashless effect becomes a real problem when the individuals that are tempted to overspend do not have money. When individuals spend more because transactions are digital, they sometimes are unable to pay that money back. In America alone, consumer debt was close to 14-trillion in 2019.’

<https://thedecisionlab.com/biases/cashless-effect/> Critics of over-reliance on digital transactions have noted that Australia already has extremely high levels of household debt. A report published in The Guardian on January 2, 2021, stated, ‘The ratio of Australian household debt to net disposable income stands at 217 percent – meaning the average household owes twice what it makes in the year. Measured relative to GDP, the Bank of International Settlements puts Australian household debt at 119 percent – second only to the Swiss.’ <https://www.theguardian.com/australia-news/2021/jan/02/young-people-drowning-in-debt-dont-borrow-your-way-out-of-a-recession>

Studies in Australia and overseas have found that indebtedness can have serious effects on people’s emotional and physical wellbeing. A study by the United Kingdom Royal College of Psychiatrists has found that worry over debt can lead to sleeplessness, anxiety, depression, and drug abuse, and can damage education and work prospects and family and other personal relationships. <https://www.mentalhealth.org.uk/a-to-z/d/debt-and-mental-health> In some cases, indebtedness can be a significant factor prompting people to commit suicide. Sabrina Romanoff, a clinical psychologist, and professor at Yeshiva University in New York City, has noted, ‘Financial stress is a significant risk factor for suicide, particularly among people who are tasked with the role of “provider” or those who are responsible for preserving the lifestyle of those who depend upon them.’ A 2020 study published in The American Journal of Epidemiology showed financial hardship can make people up to 20 times more likely to attempt or complete an act of suicide. <https://www.health.com/money/financial-stress-suicide-risk>

3. A cashless society would erode consumer and citizen privacy

Those who are opposed to a cashless society argue that it is a threat to the privacy of consumers and citizens. They argue that cashless transactions currently enable sellers to track consumer behaviour making the consumer vulnerable to promotional schemes designed to shape what people buy. Opponents also argue that governments in the future may access this consumer information in ways that threaten citizens’ freedom.

Digital transactions undermine consumer privacy because all digital transactions are recorded and traceable. As explained by investment reporter Tim Shufelt in March 2019, ‘Every non-cash transaction leaves a digital trail. Each tap or swipe of a credit card reveals, at a minimum, one’s identity, basic financial account information, purchase amount, as well as location and time. Credit cards attached to loyalty programs additionally track shopping habits. Online purchases can also reveal one’s IP address and details on browsing history. And some phone payment apps may track their user’s movements.’

<https://www.theglobeandmail.com/investing/personal-finance/article-rise-in-cashless-payments-stokes-concerns-over-data-security/>

This type of data can be used for targeted advertising and personalised promotions based on the consumers’ already-tracked shopping habits. For example, in 2012, a New York Times article detailed how statisticians working for Target in the United States came up with a way to predict which of its shoppers were pregnant, by analysing purchases of products such as supplements and lotions and generating a ‘pregnancy prediction’ score. This type of data can then be used to direct promotions to consumers based on their assumed needs. For example, the above group of women could receive tailored advertisement for baby products.

<https://www.theglobeandmail.com/investing/personal-finance/article-rise-in-cashless-payments-stokes-concerns-over-data-security/> A 2017 Austrian report titled ‘How Companies Use Personal Data Against People’ noted that this type of consumer manipulation was

already available via the data on consumer behaviour gathered by companies such as Facebook and Google. The report states, '[A corporation promoting gambling] may target persons with a high predicted "customer lifetime value" who are interested in gambling and have recently been searching online for credit-related topics.'

https://crackedlabs.org/dl/CrackedLabs_Christl_DataAgainstPeople.pdf Critics note that the sort of personal data Facebook and Geigle currently supply to advertisers and promoters could equally be made available through consumers' digital purchases history.

Critics claim that China demonstrates the extent to which governments could potentially use the information gained from cashless transactions to regulate their citizens and shape their behaviour. China is trialing a digital currency, the digital yuan, which the government will generate, and which will allow the Chinese Communist Party (CCP) to monitor and potentially control the spending behaviour of Chinese citizens. Critics have warned that in a digital-yuan-consumer society, the government could deny dissidents and human rights activists, for example, access to their digital funds. They have further warned that those doing business in China may be required to use the digital yuan, giving the CCP access to records of their financial transactions. <https://www.washingtonpost.com/opinions/2021/03/02/china-digital-yuan-currency-surveillance-privacy/> American commentators have speculated about the implications of such developments for their own society, suggesting that governments in the future could track consumer digital transactions and actively discourage consumers from making certain purchases. This could be justified on social or economic grounds, as with inhibiting citizens' purchase of cigarettes, alcohol or what are deemed unhealthy foods. However, critics are concerned about the potential for an accelerating loss of personal freedoms. <https://mindmatters.ai/2021/03/what-if-government-knows-you-ate-a-big-mac-and-doesnt-approve/> in October 2018, Global News reported that Statistics Canada (a government agency) had requested from banks the transaction and personal information of 500,000 customers. This was purportedly to track household and consumer trends, and without the consent or knowledge of subjects. <https://fcpp.org/2019/04/26/how-to-protect-privacy-in-a-cashless-economy/>

4. A cashless society makes some forms of crime easier

Critics of Australia becoming a cashless society argue that digital fund transfer makes some crimes far easier. They claim that rather than reducing crime, a cashless society could simply facilitate different types of crime. Dr Richard Harmon, managing director of financial services at data cloud firm Cloudera, has stated, 'As payments move online, there would be an increased risk of crimes such as identity theft, account takeover, fraudulent transactions and data breaches, due to the higher volume of cashless transactions and more points of exposure for the average consumer.'

Identity theft and account takeover are growing problems worldwide which would be worsened by a complete reliance on digital transactions. An overview of these problems was given by Queensland in a warning published on October 14, 2021. Their warning states, 'As we evolve into a cashless society with more and more businesses and individuals using credit cards and electronic banking, the likelihood of becoming a victim of fraud increases. Criminals have embraced modern technology to pursue their dishonest activities. Methods used include credit card skimming, false and stolen identities and taking advantage of ineffective security systems to obtain Internet banking passwords and account particulars.' <https://www.police.qld.gov.au/safety-and-preventing-crime/r-u-in-control/credit-card-eftpos-fraud> The extent of this criminal activity is increasing. In an article published on February 1, 2021, Sarah Sharples, writing for news.com.au noted, 'One in four Aussies have fallen victim

to identity fraud, with the misuse of their personal information costing them \$300 on average. Victims also spend \$80 and 34 hours [a year] dealing with the fallout of the fraud, research...[has]found. The types of personal information most at risk include someone's name, credit card details, bank account information, address and date of birth.'

<https://www.news.com.au/finance/money/costs/identity-fraud-is-costing-aussies-billions-as-hackers-use-common-tactic-to-take-control-of-phone/news-story/2764f5f204a0f535563057c9f695ffcc>

The cost of identity crime in Australia was \$3.1 billion in 2019 according to the Australian Institute of Criminology. This is a 17 percent increase from 2016. In August 2019, the Australian Consumer and Competition Commission reported identity theft was up 55 percent since the beginning of the pandemic. Commentators note online shopping, digital banking and cashless payments are increasing the opportunities for identity theft, as 81 percent of Australians now shop online and a third have their bank details connected to their phone or smartwatch.

<https://www.news.com.au/finance/money/costs/identity-fraud-is-costing-aussies-billions-as-hackers-use-common-tactic-to-take-control-of-phone/news-story/2764f5f204a0f535563057c9f695ffcc>

Australian security researcher Troy Hunt has given a further outline of the types of crime facilitated by digital transactions. Hunt states, 'We're seeing things like the rise of crypto cards ... bitcoin wallets for example stolen in various cases. We've seen attacks against point of sale terminals — Kmart in the US had a big attack a few years ago. We've also seen attacks against physical [credit and debit] cards, using things such as RFID [radio-frequency identification] readers.'

<https://www.abc.net.au/news/2017-03-28/how-much-privacy-will-you-lose-in-a-cashless-society/8390460>

Another area of criminality fostered by digital transactions is financial abuse of the elderly and of spouses. Lachlan Maddock, a reporter for Fintech Business, has stated, 'Elderly people, who might lack understanding of digital technology, would be particularly vulnerable. Couples with joint bank accounts are also at risk – money can be tracked and controlled by one person. These issues are already of great concern, but they'd be even worse in a cashless society.'

<https://www.mybusiness.com.au/technology/6471-is-a-cashless-society-really-worth-it> Better Health While Aging describes this crime against the elderly as 'financial exploitation... a subset of elder abuse... [which] basically means inappropriately using an older person's financial resources, for the benefit of someone other than the older person. Such exploitation is often – but not always — facilitated by the perpetrator using "undue influence," in which they create some kind of manipulative dynamic that allows them to take advantage of the older person.'

<https://betterhealthwhileaging.net/financial-abuse-what-to-know/> Critics of exclusive reliance on digital funds transfer claim such transactions facilitate this form of abuse.

5. Natural disasters, technological malfunctions and sabotage can leave people without access to their money

Those who oppose to an exclusive reliance on cashless transactions argue that they are not sufficiently reliable. It is noted that there are many ways in which the technology supporting a cashless system can become unavailable to people. Natural disasters, for examples fires and floods, power outages, and the deliberate sabotaging of systems can close off electronic access to funds.

On October 29, 2021, Justin Pritchard, writing for The Balance, noted, 'Glitches, outages, and innocent mistakes can...cause problems, leaving you without the ability to buy things when you need to. Likewise, merchants have no way to accept payments when systems

malfunction. Even something as simple as a dead phone battery could leave you “penniless,” in a sense.’ <https://www.thebalance.com/pros-and-cons-of-moving-to-a-cashless-society-4160702> On June 19, 2019, The Conversation published an article by Jay Zagorsky, a professor at Boston University, in which he stated, ‘A cashless society makes a country’s entire economy more vulnerable to disruptions. That’s because a cash-free economy depends on several things always working: a stable supply of electricity, constant communications networks and robust security.’ <https://theconversation.com/facebook-claims-libra-offers-economic-empowerment-to-billions-an-economist-is-skeptical-118982> Countries are becoming increasingly aware of the range of factors that could disrupt their economic systems. These factors are intensified in economies where consumers rely heavily on cashless transactions.

Australia is a country that is particularly prone to natural disasters and is likely to become more so. The report of the Royal Commission on Australia’s natural disaster preparedness was tabled in federal parliament in October 2020. It explained Australia’s high level of natural disaster risk and suggested that global warming would increase this risk. It stated, ‘Australia has a long history of natural disasters. The causes of natural disasters have been shown to be many and complex. Australia’s weather and climate agencies have told us that changes to the climate are projected to increase the frequency and intensity of natural disasters in Australia. Further warming over the next 20 years appears to be inevitable. Sea-levels are projected to continue to rise. Tropical cyclones are projected to decrease in number but increase in intensity. Floods and bushfires are expected to become more frequent and more intense.’ <https://naturaldisaster.royalcommission.gov.au/publications/interim-observations-1>

The Royal Commission’s report noted that individuals’ access to immediate funds and their capacity to purchase necessities were undermined by the power outages caused by the 2019/20 bushfires. It stated, ‘These disruptions...meant that people could not...purchase essential goods due to either supply chain issues...or the inability to use EFTPOS... At best, these difficulties add to the stress of an already stressful situation, and at worst, they place the lives and safety of individuals, households and communities at risk.’

<https://naturaldisaster.royalcommission.gov.au/publications/html-report/chapter-09>

An ABC report published on December 26, 2021, interviewed Michael Keys, the owner of a service station in the New South Wales beachside town of Batemans Bay, an area which was directly affected by the 2020/21 bushfires. Mr Keys noted that businesses and customers had had to rely heavily on physical money during the bushfires as the electricity and internet infrastructure had been knocked out. He stated, ‘From a business perspective, unless you’ve got infrastructure in place that’s very reliable, you can’t get rid of cash.’

<https://www.abc.net.au/news/2021-12-26/cashless-society-economy-australia-covid/100725728>

Electronic banking services can also fail users because of faults in their systems. On June 17, 2021, it was reported that the mobile apps and websites of several Australian banks including Westpac, St George, ANZ and the Commonwealth Bank went down following technical issues with a global service provider. Most major banking websites came back online around 5pm, after having been down for around two hours. Several other websites, including Virgin Australia, Allianz Insurance and CMC Markets also went down. Critics claim that failures such as these highlight the danger of relying exclusively on digital transactions.

<https://www.9news.com.au/national/australia-mobile-banking-apps-go-down-in-mass-outage-commonwealth-westpac-anz-st-george/7e7b9c52-aa3c-4b06-bc69-be3f974feddf>

Another of the threats created by widespread reliance on digital funds is foreign interference deliberately designed to stymie another nation's economy by disabling electronic funds transfer. The United States government recently acknowledged that it is deploying malware and viruses inside Russia's electrical grid that could cripple it. That is because the United States believes Russia has already infiltrated America's power grid.

<https://theconversation.com/facebook-claims-libra-offers-economic-empowerment-to-billions-an-economist-is-skeptical-118982> Australia has also determined that its essential services (including electricity transmission and economic funds transfers) are threatened by the actions of numerous hostile governments. Reporting on probable digital interference in Australia by other nations in 2020, the global cyber security firm CrowdStrike found China was behind 67 percent of state-sponsored attacks. Iran was responsible for 7 percent, North Korea 5 percent, Russia 1 percent, while another 20 percent were suspected state-sponsored attacks, but their source was unknown. <https://www.smh.com.au/politics/federal/china-responsible-for-two-thirds-of-state-sponsored-cyber-attacks-20210915-p58rt2.html>

Further implications

Australia is ranked among the top seven countries in the world moving rapidly toward cashlessness. <https://www.globaldata.com/top-countries-moving-towards-a-cashless-society-by-2022/> This movement appears to be primarily driven by market trends, with banks closing branches and ATMs and encouraging customers to take up credit cards.

<https://www.afr.com/companies/financial-services/bank-branches-and-atms-vanish-as-customers-avoid-cash-like-the-plague-20211018-p590v5> Australian consumers have responded enthusiastically to the availability of digital transactions.

<https://www.itnews.com.au/digitalnation/digitalnation/news/cashless-australia-woolies-transactions-90-per-cent-digital-bank-withdrawals-tank-paypal-surges-571150> There was a failed attempt on the part of the federal government to accelerate the move toward Australia becoming a cashless society by attempting to limit cash transactions to below \$10,000.

However, the government abandoned its own enabling legislation in the Senate.

<https://www.ldb.com.au/business-advisory/law-to-ban-cash-purchases-over-10000-axed/> A number of social commentators have argued that rather than seeking to hasten the transition to a cashless society, Australian governments should monitor this development and ensure that sections of our society are not disadvantaged by it.

Sweden has been presented as an example of a country whose government and central bank left it to the market to decide what worked best. As in Australia, banks had no interest in keeping physical currency alive as they make no profit on cash purchases, and ATMs are costly to operate. The trend toward closing ATMs accelerated rapidly. The vast majority of the nation's banks stopped allowing customers to withdraw or pay in cash over-the-counter. <https://www.bbc.com/news/business-43645676> This created a major problem for sections of the community which were unable to keep up with this swift transition. Those living in rural areas, the elderly and the disabled were particularly disadvantaged. Niklas Arvidsson, an associate professor at Sweden's Royal Institute of Technology, has noted that there was even evidence some people were having to forego buying things because they could not access cash. <https://www.abc.net.au/news/2020-06-09/australia-can-learn-from-swedens-move-to-a-cashless-society/12282764>

Commentators advise that the Australian government needs to recognise that there are significant sections of Australian society either unable or reluctant to make digital cash transfers. In April 2020, the Australian Banking Association (ABA) reported there were more than 500,000 customers who actively used a passbook account or transaction account with no

linked debit card. This means they pay for goods and services using cash or EFTPOS cards that don't have debit capabilities and are unable to shop online or over the phone.

<https://www.abc.net.au/news/2020-06-09/australia-can-learn-from-swedens-move-to-a-cashless-society/12282764> Research by the Reserve Bank of Australia (from 2019) suggests about a quarter of the population remain “high cash users”, for whom no longer being able to use cash would be ‘a major inconvenience or genuine hardship’. The RBA stated, ‘These high cash users are more likely to be older, have lower household income, live in regional areas, and/or have limited internet access.’ <https://theconversation.com/going-cashless-isnt-straightforward-ask-sweden-or-zimbabwe-146187>

The situation in Sweden became so severe that in 2019 all but one of Sweden’s political parties supported new laws requiring Sweden’s major banks to continue to offer cash services across the country. <https://theconversation.com/going-cashless-isnt-straightforward-ask-sweden-or-zimbabwe-146187> Social commentators in Australia advise that it would be preferable if the Australian government took action to ensure that all Australians who want or need access to cash continue to have it available to them. If no government oversight is supplied there is a real risk that many Australians will find themselves in the situation of those in Sweden who became unable to purchase even everyday necessities.

<https://www.abc.net.au/news/2020-06-09/australia-can-learn-from-swedens-move-to-a-cashless-society/12282764>