



28 November 2014

Senate Standing Committees on Economics  
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**Re: Inquiry into Digital Currency**

Dear Chairman Dastyari, Deputy Chairman Edwards, and Members of the Committee,

The Bitcoin Foundation and the Bitcoin Association of Australia are pleased to offer the following information and comments on the inquiry into digital currency referred you by the Senate:

- (a) how to develop an effective regulatory system for digital currency that:
  - (i) ascertains the most appropriate definition of digital currencies under Australian tax law;
  - (ii) promotes competition and growth of the digital currency industry;
  - (iii) ensures ongoing stability in the financial services industry;
  - (iv) secures protection of consumers and businesses against illegal activity;
  - (v) incorporates digital currencies into Australia's national security framework;
  - and
  - (vi) ensures the financial stability of the industry;
  
- (b) the potential impact of digital currency technology on the Australian economy, including the:
  - (i) payments sector;
  - (ii) retail sector; and
  - (iii) banking sector;



(c) how Australia can take advantage of digital currency technology to establish itself as a market leader in this field; and

(d) any other related matters.

Please consider us as a resource as you continue your study of these very important issues for financial innovation in Australia.

## Executive Summary

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The invention and growth of digital currency has not just created a new class of economic functions - it is an evolution of existing economic functions and it offers a new way to provide existing services with less friction and cost than incumbent methods.

Australia has the potential to grow a robust and vibrant digital currency economy and to become a world leader for innovation in the financial services sector.

The success of the local digital currency economy relies on the Australian government being committed to facilitating the growth of the industry through regulation that mitigates risk without stifling business growth through innovation.

Bitcoin is the best-known of a growing class of digital currencies today. Bitcoin is programmable money that is decentralised, meaning no single entity is responsible for its integrity, security or value - in the same way as there is no "Internet Pty Ltd".

There are literally thousands of potential applications for this, some which have not even been conceived of yet. The first application is simple transfer of value between accounts. Others include automated escrow, eConveyancing, dispute arbitration marketplaces, financial instruments including derivatives, and "smart property" that is aware of its owner and responds accordingly.

The transaction ledger of Bitcoin is an open book, available for anyone to scrutinise and analyse. Notably, while the entire transaction history is visible to everyone, the parties to transactions do not necessarily connect their full identity to each transaction.

By providing appropriate regulatory and legislative frameworks Australia can become a global leader in the crypto-currency and financial technology (FinTech) industries.



## About the Bitcoin Foundation

The Bitcoin Foundation is a member-driven non-profit organization dedicated to serving the business, technology, government relations, and public affairs needs of the Bitcoin community.

The Foundation works to standardize and strengthen the Bitcoin protocol and software, to protect the Bitcoin community, and to broaden the use of bitcoin through public education and by fostering a safe and sane legal and regulatory environment. Incorporated in July of 2012, the foundation is organized under section 501(c)(6) of the U.S. Internal Revenue Code.

The Bitcoin Foundation's members include many of the top companies, entrepreneurs, and technologists working to make Bitcoin a success.

## About the Bitcoin Association of Australia

The Bitcoin Association of Australia ("BAA") is a not for profit organization (ABN: 87 395 885 621) that seeks to reduce knowledge barriers to entry, thereby growing the Bitcoin ecosystem and improving new opportunities for Australia.

For individual and institutional users, BAA provides objective, fair and balanced practical information, consultation and impartial advice. The BAA seeks to ensure the potential benefits of this financial technology are realised and seeks to protect the Australian Bitcoin ecosystem by bringing a necessary level of conformity through the creation of content, standards and guidelines of best practice for interacting with the technology.

## About Bitcoin

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Bitcoin was invented in 2008 as a peer-to-peer payment system for use in online transactions.<sup>1</sup> Bitcoin is revolutionary in that, unlike any prior online payment system, it is not administered by any central authority.

There is no middleman between the sender/buyer and the receiver/seller as there is with, for example, PayPal, traditional payment cards, bank transfers, or other payment systems. This is why bitcoin is referred to as a "decentralised" digital currency.

The Bitcoin software is open-source, non-proprietary and developed by a community of volunteers as well as a small group of developers supported by the Bitcoin Foundation.

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<sup>1</sup> Satoshi Nakamoto, "Bitcoin: A Peer-to-Peer Electronic Cash System," <http://bitcoin.org/bitcoin.pdf>.



There is no “Bitcoin company” that manages or controls the software or its operation. If the Bitcoin Foundation ceased work on Bitcoin’s technical development, the technical development work would continue among the volunteers worldwide who already do much of the heavy lifting.

If the Bitcoin Foundation or any other actor tried to take control of or damage the Bitcoin network, the Bitcoin community would reject the controlling effort. This is similar to the development of the technologies that underpin the internet, as the internet is resistant to control or manipulation due to its decentralised nature.

Instead of a central authority, Bitcoin is operated by a global network of computers running the Bitcoin software. Anyone can run the software, join the network and participate in strengthening the security of the transactions. Each computer on the network holds a copy of the public ledger known as the “blockchain”.

The participants need only trust the network as a whole, the rules of which are established up front and only evolve through consensus.

Importantly, the encryption algorithms in the Bitcoin protocol are conservative, time-tested choices. Their widespread use over decades in financial and military security mean they have been heavily analysed by academia and have resisted attack. Bitcoin employs this strong cryptographic protection to prevent forgery, counterfeiting and transactional fraud.

## **The Blockchain**

The main invention of Bitcoin is a ledger containing all transactions occurring in the system. The ledger is composed of “blocks” of transactions equivalent to pages in a traditional ledger. Each new block of transactions is cryptographically linked to the previous block, forming a chain, “the blockchain.” Inspecting the blockchain reveals every bitcoin transaction ever made since the “genesis block” back in 2009.

## **Bitcoin Mining**

While Bitcoin does not involve an entrusted party to audit and validate all transactions, in every block they are validated thoroughly through a clearing and settlement service. Network participants compete to provide this service and are rewarded in newly issued bitcoins. These operators are referred to as miners.

The business of bitcoin mining involves running special-purpose computer machinery that is performance-tuned for the number crunching workload of bitcoin auditing. The workload is a deliberately and artificially introduced auto-balancing mathematical puzzle for which there are



no known shortcuts. Mining is a matter of hitching available computer power to find the solution to the next block's unique mathematical problem before any other miner.

The key features of this mathematical problem are that it is both difficult to solve and easy to verify, like a Sudoku puzzle. Mining business is costly in terms of computer processing (hardware, electricity, and time), but verifying miners' work is cheap. All miners on the network recognise the newly minted block as the correct solution instantly and the competition to find the next block begins.

The number of bitcoins issued by the software to the miner who discovers the solution for the latest block, this issuance has a predefined schedule. After a specific number of blocks have been mined, the "block reward" halves for subsequent blocks.

The consequence of this is a very specific expansion of the bitcoin money supply. The amount of bitcoin created halves every four years until it ceases altogether in the year 2140 with approximately 21 million bitcoins in total. At that point the money supply no longer expands with the theory that miners will derive revenue solely from transaction fees.

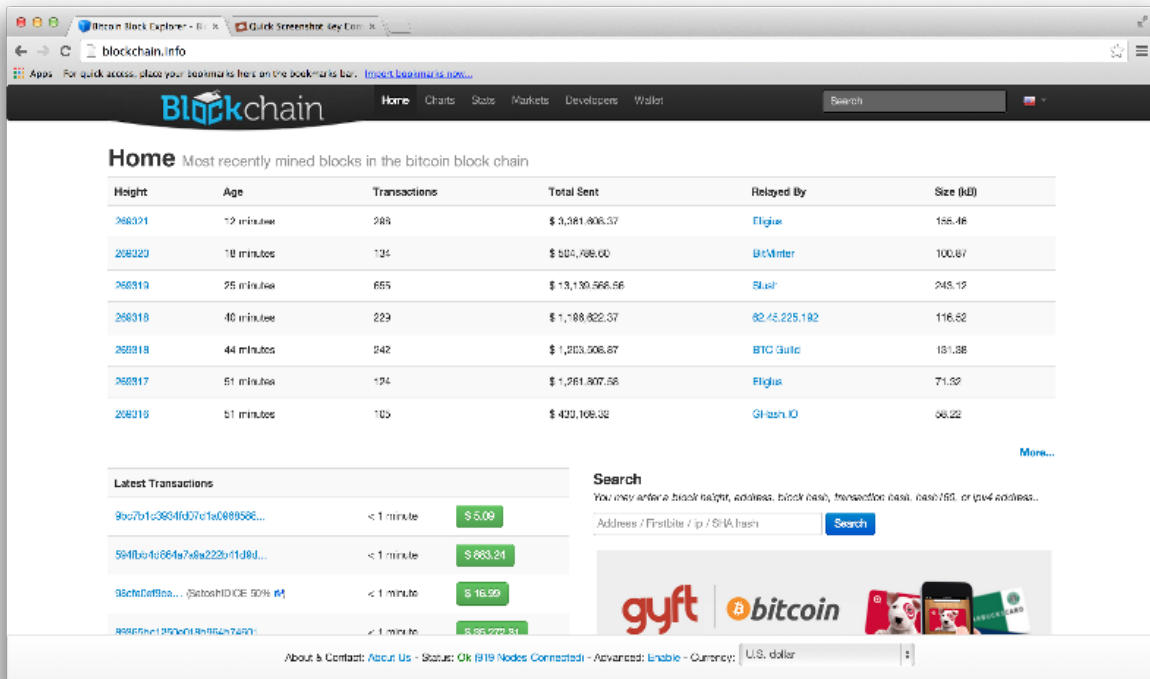
It's widely known that computer power increases very rapidly over time, so the design of the mathematical mining problem (called a "proof of work algorithm") includes an auto-balancing difficulty scale.

If more miners join in with more powerful mining computers, the algorithm adjusts, always retargeting the workload difficulty so that the average time to solve the problem for a block is ten minutes.

The inflation rate is therefore predetermined over time. The design of this issuance rate is derived from the supply rate curve of mining precious metals like gold or silver.

The blockchain prevents anyone from spending their bitcoins twice. Because the record of every transaction is available to all, attempts double spend are easily detected.

The security of the protocol against double spends, the inability to forge or counterfeit and the fixed money supply ensure that the bitcoin tokens retain scarcity - these are defining features of bitcoin as a money.



The screenshot shows the blockchain.info website. The main section is titled 'Home' and displays 'Most recently mined blocks in the bitcoin block chain'. Below this is a table with columns: Height, Age, Transactions, Total Sent, Relayed By, and Size (kB). The table lists several blocks with their respective details. Below the table is a 'Latest Transactions' section showing a list of transactions with their IDs, ages, and values. A search bar is also visible on the right side of the page.

| Height | Age        | Transactions | Total Sent       | Relayed By    | Size (kB) |
|--------|------------|--------------|------------------|---------------|-----------|
| 268021 | 12 minutes | 288          | \$ 3,381,806.37  | Eligius       | 158.46    |
| 268020 | 18 minutes | 124          | \$ 504,706.00    | BitMinter     | 100.67    |
| 268019 | 25 minutes | 655          | \$ 13,150,566.56 | Slush         | 245.12    |
| 268018 | 40 minutes | 229          | \$ 1,108,822.37  | 82.45.225.182 | 116.52    |
| 268018 | 44 minutes | 242          | \$ 1,203,506.87  | BTC Guild     | 181.88    |
| 268017 | 51 minutes | 124          | \$ 1,261,807.56  | Eligius       | 71.52     |
| 268016 | 51 minutes | 103          | \$ 423,106.38    | Glitch.IO     | 66.22     |

Source: [www.blockchain.info](http://www.blockchain.info) - a website that allows inspection of Bitcoin transactions

## How a Bitcoin Transaction Works

Bitcoin enables any user to transact directly with any other Bitcoin user directly (peer to peer). To do this, a user needs a Bitcoin address, which is typically kept in “wallet” software.

While wallets can be created and maintained using the Bitcoin open-source software, in practice many users have accounts with one or more Bitcoin service providers and store bitcoins at addresses provided through their accounts.

To initiate a transaction, one’s software or service sends a message to the Bitcoin network announcing the transfer of a certain value in from one bitcoin address to another.

The sending user's wallet software, using a “private key” is used to “sign” the transaction, confirming to the network that the transaction originated with, and was approved by, the actual owner of the bitcoins being transferred. It is with this digital signature, and the use of the blockchain that a transaction is deemed valid by the consensus/quorum of the entire network.



While this process sounds complicated, it is handled automatically and invisibly for users by the Bitcoin software.

From the user's perspective, sending bitcoins to someone else is no more difficult than sending funds using traditional payment systems, or sending an email.

Crucially, performing a transaction does not require the sharing and storage of sensitive personal details within the databases of merchants, whose security is varied and has contributed to the rise in financial fraud and identity theft, costing the global economy hundreds of billions annually.

## Bitcoin's Promise

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The Bitcoin technology offers many benefits. The Bitcoin Association of Australia believes Bitcoin holds out a number of powerfully beneficial social and economic outcomes, including:

- global financial inclusion;
- helping Australian businesses to access a global market;
- improved financial transparency; and
- an alternative and stable money supply for in countries where monetary instability and inflation may threaten prosperity and even peace.

The bitcoin system may be described as 'programmable money', but administering a payment or money system is not the only use of the bitcoin public ledger.

The Bitcoin network and services are expanding over time to facilitate many advanced services such as low-cost escrow systems, automated exchange, abstract financial instruments such as stocks and derivatives.

In much the same way as modern internet services might not have been easily imaged when the first 'internet' was available, Bitcoin provides a platform for future innovation in an open and accessible manner.

Whilst the current primary use of bitcoin is as a currency, there are many uses for blockchain technology that are not currency based.

This technology has many potential uses, including use as a distributed system for storing data, the execution mechanism for self-executing smart contracts, real time auditing, and the trading



of digitised real property rights. For example, digitised documents can be added to a blockchain providing a low cost distributed network that has very low barriers to entry.

### **Global Financial Inclusion**

In April 2012, a World Bank report found that half of adults worldwide are unbanked due to barriers such as high cost, physical distance, and lack of proper documentation.<sup>2</sup>

Around the world, multitudes of people simply lose wealth that they could use for food, shelter, medical care, and the education of their children because of underdeveloped financial infrastructure. Informal saving methods such as keeping physical money in the home are subject to losses as high as 26% of the amounts saved per year.<sup>3</sup>

Alternative money transfer schemes, such as M-PESA in Kenya, have shown that technology can play a key role in achieving financial inclusion in developing countries. Bitcoin is an extremely lightweight financial infrastructure that can exist wherever there is internet or mobile phone coverage, smartphone, or an SMS-capable phone. An internet connection is only needed for sending bitcoin, not for receiving it.

A key advantage of bitcoin is that it is not a closed network like M-PESA. It is an open value transfer scheme that can be accessed by anybody – not just customers of a particular telecoms provider.

Bitcoin's ability to transfer value across international borders for fractions of a cent enables cross-border micropayments and it facilitates the flow of remittances into developing countries. These remittances are often the primary source of income for millions of people.

That greater access to income may produce improved outcomes in the area of food and nutrition, health and longevity, education and child development, family structure, protection of civil and political rights, and even political stability and global security.

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<sup>2</sup> Asli Demircuc-Kunt and Leora Klapper, "Measuring Financial Inclusion: The Global Findex Database," Policy Research Working Paper No. 6025, The World Bank, Development Research Group, Finance and Private Sector Development Team (April 2012) [http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2012/04/19/000158349\\_20120419083611/Rendered/PDF/WPS6025.pdf](http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2012/04/19/000158349_20120419083611/Rendered/PDF/WPS6025.pdf).

<sup>3</sup> Graham A.N. Wright and Leonard Mutesasira, "The Relative Risks to the Savings of Poor People," MicroSave (January 2001) [http://www.microfinancegateway.org/gm/document-1.9.28889/26216\\_file\\_The\\_Relative\\_Risks\\_.pdf](http://www.microfinancegateway.org/gm/document-1.9.28889/26216_file_The_Relative_Risks_.pdf).





We believe Bitcoin can improve the quality of life of the world's people who have no access to the existing financial system. These people will have the same instant and unencumbered access to a global financial system as anyone else in the world.

It will take time and effort to propagate the infrastructure that is needed to access and use bitcoin in the far corners of the globe.

The Bitcoin Foundation and the Bitcoin Association of Australia are committed to facilitating this propagation by fostering businesses and business environments that allow local merchants everywhere to accept bitcoins and that allow convertibility of bitcoin to local currencies.

### **Stable Money Supply**

A significant benefit of Bitcoin in the eyes of many in the Bitcoin community is its assurance of a stable base money supply.

As noted earlier, the Bitcoin protocol provides for mining of a limited number of bitcoins, and that limit cannot be changed without the consensus of the community.

The production of bitcoins will slow according to a schedule until around 2140, when the last fraction of a bitcoin, known as a satoshi, will be mined.

A satoshi is the base unit of a bitcoin in the same way cents are the base unit of dollars. While there 100 cents in one dollar, there are 100,000,000 satoshis in one bitcoin.

The rate of new bitcoin mining is similar to the mining rate of precious metals such as gold or silver. A low rate of new creation relative to the existing base means that added supply does not significantly debase the value of the existing stock.

Like these precious metals and unlike fiat currencies, the stock of bitcoin cannot increase rapidly, causing them to drop in value relative to other goods.

This means that bitcoin is largely inflation-proof. Though it is thinly traded and volatile now, time and experience may prove it to be a more stable store of value than many fiat currencies, while it enjoys advantages over precious metals in other respects, such as transferability, divisibility, and security in storage.

These properties makes Bitcoin a potential key to financial well-being for savers and investors worldwide, but particularly in those jurisdictions where fiat currencies may be mismanaged.



We believe all the world's currency systems are safer if there is a more diverse web of monetary systems with which to work.

We believe that Bitcoin can add to monetary stability both directly, by acting as stable money itself, and indirectly, by husbanding the behaviour of central bankers.

### **Consumer Protection**

In addition to significantly cheaper transaction costs, bitcoin can reduce the cost of fraudulent transactions, credit card fraud and identity fraud in both the online and the bricks-and-mortar economy. This capability is inherent in the bitcoin protocol.

At its most basic level a bitcoin payment is initiated ('pushed') by the sender, rather than 'pulled' by the receiver.

A merchant using a credit card has to be sure that the card they are 'pulling' from is legitimate and that the buyer won't bring an invalid claim against them, reversing the payment and causing loss to the merchant.

As bitcoin is a 'push' system, identity fraud and loss of details such as credit card numbers are removed.

A merchant can experience significant (e.g. 2% to 20%) improvement in transaction and fraud costs which currently account for over a trillion dollars annual cost to the global economy, and lock many parts out of the world out from being viable markets due to high risk.

While this is the case on the merchant side, the consumer needs to be protected against merchant fraud (for example a merchant accepting payment and not shipping a product).

Bitcoin has the mechanism already to solve or mitigate this risk. This capability is currently under development and is being rolled out as part of the broader and generalised maturation of bitcoin.

Escrow payment systems (payment is only released on condition the participants are satisfied) are catered for by the Bitcoin technology where the approval of two or more digital signatures/approvers is required in order for a transaction to be executed by the Bitcoin network.

The development and use of such escrow systems and arbitration services should be supported by government and consumer guarantees covering scenarios such as non-delivery of goods,



faulty goods, and so on should be applied to those operating with digital currencies, in the same way as with traditional money.

For example, businesses with a history of issues or a high risk (such as delivery of goods in a distant future) might be required to provide escrow for their customers by law. The inherent technological capabilities of the bitcoin protocol will facilitate the process.

The development of a wider dispute resolution mechanism for merchant payments can also be achieved through using bitcoin. Dispute resolution processes are currently controlled by the fraud department of a small handful of players, such as Visa, Paypal and Mastercard.

Merchants often have to include a significant mark-up on their product to cover potential fraud and 'charge-back' losses, paid by legitimate customers as insurance but hidden in the cost of products.

A common complaint by merchants is having funds frozen or reversed, despite acting in good faith. Funds (or accounts) frozen without recourse may paralyse a legitimate business until the payment provider (e.g. Paypal) can resolve the issue.

Many merchants are unable to accept valid transactions from high risk environments due to fraud, thereby removing potential sources of revenue and isolating these people from the benefits of a global economy.

A buyer in one of these high risk jurisdictions using bitcoin is just as legitimate as one in a lower risk jurisdiction and can access better global prices, or advertise their own products and services globally.

Bitcoin could also help reduce white-collar crime. Bitcoin's technological features such as traceability and the ability to automate conditions for release of funds offer an unprecedented level of financial transparency that could significantly reduce financial crime.

## **Law Enforcement and National Security**

Contrary to the sensationalised early reporting about Bitcoin, it is not a magic cloak for illicit transactions. The recent break-up of successors to the vanquished "Silk Road" and domestic seizures by local law enforcement illustrate this well.

Bitcoin may provide new challenges to law enforcement and national security officials, who will have to learn about bitcoin and the blockchain to pursue investigations. However, once law enforcement and national security officials become familiar with the technology, they may find



that bitcoin's transparency makes it easier to navigate, as opposed to cash, which is almost entirely untraceable.

Transactions between bank accounts have required specific requests to fetch information, whereas transactions between bitcoin addresses can be data-mined and analysed readily by law enforcement without such hurdles. Law enforcement have and will be continue to be able to successfully investigate and prosecute criminals who use bitcoin.

Law enforcement investigations using payment systems today typically are "parties known/transactions unknown." Having some insight into suspected criminal behaviour, law enforcers use warrants, subpoenas, and other legitimate investigative tools to learn from financial services providers what transactions their suspects have engaged in.

If Bitcoin businesses thrive in Australia, investigations may still follow this model, gathering the bitcoin transactions of existing suspects from Australian based providers and providers in countries with mutual legal assistance treaties.

Investigations may also follow a "transaction known/parties unknown" model. The blockchain may permit law enforcement to observe transaction flows that they know to be illicit or to use the products of illicit activity. Tracing illicit transactions to transactions that identify the parties will reveal the identities of suspects.

## **Growth of an Australian Digital Currency Industry**

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Australia has the potential to become a global hub of digital currency innovation.

In addition to a world-leading financial services industry, Australia has a number of key market attributes that make it the perfect location for the growth of a robust digital currency industry.

For example, Australia is ranked #1 in the G20 countries for e-Trade Readiness. Affordable internet access, high smartphone penetration, high use of electronic payment and a well-developed regulatory framework have created a market environment that makes Australia "better placed to grow global online commerce than any other nation in the G20".<sup>4</sup>

Bitcoin's facilitation of low cost cross-border payments can play a key role in Australia leveraging this market environment.

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<sup>4</sup> <http://www.austrade.gov.au/about-austrade/news/latest-from-austrade/2014/australia-leads-g20-nations-on-e-trade-readiness>



Australia is also #4 in the world for non-cash payments. The Australian Clearing and Payments Association reported that the use of cash for payments in 2013 was as low as 47%, with internet and smart-phone payments making up 90% of all remote payments in 2013.<sup>5</sup>

This wide-spread adoption of mobile payment solutions makes Australia an ideal market in which to develop and grow a digital currency industry.

One of Bitcoin's clearest concrete benefits is the low cost at which it allows payments to be made. The payments sector in Australia and around the world is generally expensive, in part because most systems use technologies that were not designed to use the efficiencies of the Internet.

Bitcoin payments are extremely low cost as one would expect of an Internet payment protocol. Payments costs are a drain on business profits that they also pass along to consumers.

Reducing those costs using bitcoin can return a good deal of money annually to the Australian consumer.

The barrier to entry for to begin traditional payment acceptance for a business is relatively complex in terms of costs and fees, implementation via POS systems and banking relationships.

A business can implement a bitcoin payment system with no help of intermediaries as simply as downloading an application from their favourite smartphone application store. With this class of applications they can begin to accept payments from anywhere in the world, without needing to understand the complex requirements of the traditional payment networks.

Naturally, the simplicity in being able to accept payments with zero risk of fraud provides a real and tangible benefit to Australian businesses leading to job creation, additional tax income and a general upskilling of the workforce.

As bitcoin is a push technology, the propensity for fraud is reduced. As the technology is adopted, fraud rates will decrease in traditional payment platforms allowing the savings to be reallocated.

The banking sector has the inefficiencies of traditional payments. Competition from Bitcoin-based providers will energize this sector, producing job-creating opportunities, increasing economic growth.

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<sup>5</sup> <http://apca.com.au/docs/policy-debate/evolution-of-cash.pdf>



Not only will Australia benefit directly from bitcoin implementation, favourable regulation will lead to job creation, investment, increased tax revenue and money flowing into the economy that would otherwise not.

## **An Effective Regulatory System for Digital Currency**

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The significant potential for a digital currency industry to benefit Australia relies on the right regulatory approach from the Australian Government. The interim report of the Financial System Inquiry highlighted the need for regulation to support innovation. It stated:

*“Whether new entrants should be brought within a regulatory perimeter depends on the nature and scale of the risk they present and who bears the risk. Government needs to strike a balance that allows the benefits of innovation to flow through the financial system, while maintaining stability*

...

*Technological innovation has the potential to improve financial system efficiency. It is a powerful force for competition, driving the development of products that better meet consumer needs and improve access. Firms can harness technologies to improve risk management and other internal processes. Although innovation has many benefits, it may also bring risks. Government must manage these risk, while enabling the benefits of innovation to flow through the system.”<sup>6</sup>*

An effective regulatory system for digital currency will achieve the right balance between managing risk and facilitating growth. It will also be appropriate, proportionate and practical.

Whilst the Bitcoin Association of Australia supports the general concept of self-regulation for the industry, we are keen to ensure that the self-imposed regulatory requirements do not become more onerous than those that exist under the existing regulatory framework.

The success of a self-regulatory model will be dependent on the ability to create a framework where:

- risks are mitigated appropriately;
- the compliance burden for the regulator is reduced;
- new entrants are able to enter the market easily; and
- the regulatory framework is dynamic and able to respond both to changes in the technology and in the industry.

Whether the regulatory framework is industry based, or administered at a government level, there will still need to be a focus on regulating for innovation.

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<sup>6</sup> <http://fsi.gov.au/publications/interim-report/09-technology/regulation-digital-environment/>



## **Appropriate Regulation**

Appropriate regulation focuses on regulating the commercial use of bitcoin, not the technology itself. This requires careful and thorough analysis of the types of activities conducted by bitcoin businesses on a case-by-case basis to determine how the Bitcoin technology is being used, and the true risk that each businesses may pose. For example, if bitcoin is being used as money, it should be taxed as money, as discussed further below.

Likewise, a Bitcoin business that accepts digital currency and provides credit notes for future redemption (similar to a bank) may be subject to similar capital reserve requirements and auditing as its traditional counterpart. Appropriate regulation in this instance would require the capital reserve to be bitcoin, and not fiat currency.

Such application of existing auditing requirements would have prevented the notable collapse of the Japan-based exchange Mt. Gox in early 2014, which should have had 100% of all deposited capital at all times and auditable.

## **Proportionate Regulation**

A significant emphasis in bitcoin related dialogue has been placed on the apparent “anonymity” of bitcoin transactions and the potential to use bitcoin in money laundering or terrorism financing.

The truth is that any technology or financial service may be exploited for illicit purposes. The overwhelming majority of Bitcoin users, and businesses operators, are not illicit actors. Regulators, law enforcement officials, and banking partners should not take a blanket approach to dealing with all uses of Bitcoin.

Any regulation, whether by the government or banking institutions, should take a case-by-case approach and conduct a thorough and accurate assessment of the true risk profile of the business.

For example, a compliant Bitcoin business with substantive anti-money laundering and counter terrorism financing processes and protocols does not present a significant risk. In fact, robust internal processes coupled with Bitcoin’s complete transparency of transactions could actually offer an unprecedented level of comfort to key stakeholders in the value transmission industry.

Instead of stifling the growth of legitimate Bitcoin businesses by removing access to banking, banking institutions should encourage the growth of these businesses and encourage the flow of bitcoin through legitimate and compliant gateways.



## Practical Regulation

The global and decentralised nature of Bitcoin presents challenges to effective regulation.

A practical regulatory framework will encourage voluntary compliance from Bitcoin businesses locally, and could encourage Bitcoin businesses from other jurisdictions to move their investments into the local economy.

Practical regulation addresses the following issues.

### 1. Cohesive language

All areas of the Australian government need to agree on consistent interpretation and treatment of digital currency. The disparate definitions of digital currency under different legislative regimes creates confusion for both the regulators, the industry participants, and the public.

For example, the Bitcoin Association of Australia supports the characterisation of bitcoin as e-money.

### 2. Clear regulatory guidance

The current regulatory uncertainty over Bitcoin creates major roadblocks in the commercialisation of this technology. While the Australian Taxation Office has consulted the industry and attempted to provide guidance on the taxation treatment of bitcoin, other areas of government are yet to make their position clear.

For example, the Australian Securities and Investments Commission (ASIC) is yet to provide any public guidance as to whether bitcoin is considered a financial product for the purposes of the Australian Financial Services Licensing regime. This has created a situation where a number of Bitcoin businesses have incurred significant legal costs to explore this issue, without receiving any definitive or satisfactory guidance.

The Bitcoin Association of Australia would like ASIC to engage in open dialogue with the industry to address the issue of how to properly characterise bitcoin. We welcome open and informed consultation on this issue.

### 3. Encouragement of voluntary compliance

A practical approach to regulation will encourage voluntary compliance.





Voluntary compliance is not achieved through impractical regulations that present a roadblock to commercialisation of this technology. For example, the proposed tax treatment of a bitcoin transaction as a barter exchange introduces a level of complexity and impracticality that negates the benefits of using bitcoin.

#### 4. Compliance costs

Added compliance costs can defeat the benefits of using bitcoin, remove the benefits for businesses, and stifle innovation.

For example, the double GST treatment of bitcoin transaction will increase the paperwork that is required to report each transaction. For a business, paperwork is money. This compliance cost will reduce or remove the advantage the business receives from bitcoin's low value transaction cost.

The cost of compliance with the Australian Financial Services Licensing regime is also barrier to entry for all businesses in the FinTech space - not just for those who are using bitcoin.

The Bitcoin Association of Australia urges the Committee to explore possibilities for reducing the compliance burden for new entrants. Some possible examples are below.

##### Clear guidance for start-ups

Legal advice is potentially the largest cost for a start-up in the Bitcoin or FinTech industry. By providing clear guidance and engaging in open dialogue with the Bitcoin industry, businesses will be able to benchmark themselves against the regulatory expectations. This will allow them to identify if and when they need to seek legal advice on a particular issue.

##### Exemptions and relief for new entrants

Innovation in the digital currency and financial services industry can be encouraged by offering exemption and relief from regulatory requirements for new entrants to the market.

The Bitcoin Association of Australia welcomes consultation from the Australian government on what exemptions or relief may be appropriate for Bitcoin start-ups.

##### Compliance Grants

The Research and Development Grant plays a key role in encouraging Australian innovation. The Bitcoin Association of Australia encourages the government to consider a Compliance



Grant scheme, where businesses could receive a tax rebate for a percentage of the costs that they have spent on compliance.

A Compliance Grant could help create a win-win situation where new entrants to the market will highly compliant whilst not be hampered by the onerous costs of compliance.

## The Taxation Treatment of Bitcoin

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**We urge the Committee to recommend legislative change to clarify that Bitcoin is treated as money and currency under all Australian tax laws.**

The Australian Taxation Office (“ATO”) recently released guidance about the application of the *A New Tax System (Goods and Services Tax Act) 1999* (“GST”), income tax, and capital gains tax to Bitcoin transactions.

The ATO has stated that it considers bitcoin to be property and not money or foreign currency. The ATO’s reasoning is based on the interpretation that bitcoin does not fall within the legal definitions of money or currency.

Broadly speaking, the ATO reasoning is that the legal definitions of money and currency only include state-issued and state backed currencies, despite there being clear legal authority for a contrary view.

For example, money is described in GST legislation as including a transfer between accounts (which Bitcoin transactions are), but accounts are interpreted by the ATO for this purpose as only those which involve a legal ‘chase in action’ against another party.

The inconsistency is further demonstrated in the fact that other non-monetary items are treated as financial supplies under the GST Act, including gold, stocks, and bearer instruments.

Derivatives and other abstract financial instruments created in an ad-hoc manner are also subject to more favourable GST treatment than bitcoin.

This result is already hindering bitcoin adoption and innovative start-ups in Australia, and has the potential to severely hinder the growth of the nascent FinTech space in Australia.

The ATO’s stance could also be forced to change if another country decides to declare bitcoin as its legal tender. Such a declaration would arguably mean that bitcoin would become a “foreign currency” under the tax legislation.



As the ATO does not consider bitcoin to be money or a financial supply under the GST Act, a transaction using bitcoin will be treated as a barter transaction.

This unfortunately means that GST can apply twice to one transaction —both to the goods or services being supplied, and to the “supply” of bitcoin used as payment.

The most difficult problem it creates is where a GST registered business supplies bitcoin to an Australian resident. The supplier must charge and remit GST on the supply, increasing the price by 10%. If the buyer is not registered for GST (for example as a private individual), this means that it is 10% more expensive for them to acquire bitcoin from an Australian supplier.

Very soon after the release of the ATO guidance on 20 August 2014, it became common practice for Australians to buy bitcoin from overseas suppliers.

The Bitcoin Association of Australia is aware of a number of Australian based bitcoin businesses moving operations offshore to remain competitive in a global market for the supply of bitcoin.

The ATO position sends a clear message to those who would seek to establish bitcoin financial technology companies or make Australia the hub of such marketplaces that they should seek to do business elsewhere.

The GST treatment of bitcoin is the main issue. Clarifying bitcoin’s status as a foreign currency (as has occurred in jurisdictions such as the UK) would simplify these scenarios considerably and encourage businesses to conduct their Bitcoin and digital currency business in Australia within a stable and predictable environment.

In addition, the ATO interpretation means that employees who want to be paid in bitcoin are unlikely to be able to, because their employers will be subject to Fringe Benefits Tax. We are aware of a number of international businesses in the digital currency and general technology space who pay their employees in bitcoin. Removing this FBT anomaly will also allow Australian businesses to compete in an increasingly global market for talent.

As a result, net tax revenues would increase, in line with increased broader economic benefits of Australian based bitcoin businesses participating in the global digital currency economy. It would also mean that Australians are no longer at a disadvantage against foreign entities in their own jurisdiction.

**We urge the Committee to recommend legislative change to clarify that bitcoin is treated as money and currency under all Australian tax laws.**



## Conclusion

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Cryptocurrencies like bitcoin are a ground-breaking innovation that has the potential to revolutionise and augment financial services globally.

For Australia to capitalise its potential to be at the forefront of this nascent industry, regulators and other key industry stakeholders must work with the digital currency industry to grow a robust, compliant, and dynamic industry.

A regulatory framework that facilitates innovation will not only allow local businesses in the industry to flourish, it will encourage overseas businesses to relocate to Australia. This will grow the local economy, increase the local talent pool of highly skilled workers, and allow local businesses to leverage off cutting edge technology.

As important as the regulatory framework is access to funding for the Bitcoin industry. The Bitcoin Association of Australia encourages the government to create a taxation and regulatory environment that encourages investment in early stage start-ups and assists the commercialisation of this revolutionary technology.

The issue of access to banking services is also key to the growth of a local digital currency industry. Blanket classification of all itcoin businesses and users as “high risk” customers is both inappropriate and disproportionate.

Banking institutions should have a risk-based approach that is “tailored to the nature, size and complexity of their business and proportionate to the level of money laundering and terrorism financing risk”.<sup>7</sup>

Just as the internet is used for many varying commercial purposes, bitcoin is used by businesses in many different ways. The Bitcoin Association of Australia asks the Australian banking institutions to adopt a case-by-case approach to assess the risk profile of bitcoin users and bitcoin businesses.

Refusing access to banking for cryptocurrency businesses and users will not prevent illicit use of the technology. It is counterproductive, as it only serves to limit the operation of legitimate actors.

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<sup>7</sup> <http://www.austrac.gov.au/25november2014.html>



We also invite banking institutions to engage in dialogue with the bitcoin industry to understand how the blockchain technology could be integrated into the existing banking infrastructure to increase transparency and enhance the system's capabilities.

The Bitcoin Association of Australia thanks the Australian government for the opportunity to contribute to the discussion about how Australia can benefit from the technological innovation of cryptocurrency and looks forward to working with the Australian government to grow a world leading industry.

Jason Williams  
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