

## **Inquiry into how to develop an effective regulatory system for digital currency, the potential impact of digital currency technology on the Australian economy, and how Australia can take advantage of digital currency technology.**

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Thank you for the opportunity to make a submission.

Terms of Reference:

### **(a) how to develop an effective regulatory system for digital currency.**

The regulation of a digital Currency Commerce is best answered in first understanding the nature of the “open source” concept which is used widely and successful across the internet. However it has not been without its problems. The balance between regulation is proportionate in respect to who is doing the regulation and to what, and for what reason. The three considerations are basically, Government, Private Sector or Industry. And with each of these options comes a set of problems and issues independent of each other, as the Financial System Inquiry Interim Report outlines. I quote from the “Australian Senate inquiry into bitcoin set to be announced, as industry group ADCCA advocates self regulation” – Monday 22nd September 2014.  
<http://www.startupsmart.com.au/people/sam-dastyari.html>

The Australian Digital Currency Commerce Association (ADCCA) advocate for a self regulatory system but at the same time supports the FSI with;

“increased regulatory focus on digital currencies...to facilitate certainty, transparency and economic growth”

This will have the exact opposite effect to which is intended and it is this attribute which will be used to allow big internet industry step in and to take over and monopolise the Australian Digital Currency. By committing to a self regulated industry and then calling for more regulatory focus does not make the purpose of self regulation viable or attractive in the nature that the bill is intended.

The other element relied upon with an effective regulatory system for digital currency is the entities that do the handling of the ‘transactions’. Recently there has been a spike in the area of mobile phone applications and devices which are used for mobile payments from digital currencies, along with the already well known credit cards.

For example some of the large international carriers, such as PayPal charge 2.75% per ‘swipe’, while others have charges which start at 1.75% and then increase after a year. What Mr Ronald Tucker, chairman of ADCCA says, “This means we apply a consumption tax to purchasing bitcoins and then an additional 10% GST for fixed transactions at some exchanges – it’s double taxation. And also, dual invoicing is required in barter transactions. “Something like that does chill the innovation. It’s something we need to avoid, either through the ATO or other regulatory bodies.”

This is something which immediately sends up a red flag. Mr Tucker puts forth a figure of 10% in an arbitrary way, Mr Tucker should look at how much digital currency is actually bought. Why would a person purchase a digital currency which is going to be taxed when they buy it and then taxed again? Along with the carrier charges, ATM fee. That would n't "chill" innovation, it would "chill" purchasing which flows back through the purchasing chain.

Over regulation and over taxing would in fact create an alternative work around, like the true 'pirate' intentions which are pervasive throughout the open source concept of digital currency,...if it needs to work, then work around it. This is creating regulations and laws for the sake of creating laws and regulations. A better model to which this Bill can be reported, there needs to be a complete understanding of what it is that is being regulated and why. Digital Currency should really be no different to any other financial regulatory model. The only differences are the medium in which they exist.

**(ii) promotes competition and growth of the digital currency industry,**

Promoting competition and growth will not always be conducive with regulation and tax. To be carefully measured in the amounts of tax payed throughout the purchase and services transactions will be incentive enough to stream the digital currency purchasing option. Differences of half a percent may be enough to sway a complete consumer market to a particular carrier. Others may prefer to pay a premium price and take advantage of 'reliability' of a service.

The digital currency market in Australia should not be allowed to turn onto a one horse race. To these ends a system of regulation needs to be robust yet malleable enough to give certain advantages to Australian start up companies and local endeavours. The benefit of this type of 'allowance' would then spin off into associated industries which then provide conduits along with the digital currency system, such as a diverse range of technology, or a purchasing area which had previously not existed, and similarly with services.

**(iii) ensures ongoing stability in the financial services industry,**

The ongoing stability is only as well planned as the laws that support it.

**(iv) secures protection of consumers and businesses against illegal activity,**

Again this is dependant on the integrity of the system. Security is a myth but the ability to mitigate it is available. The open source nature of the digital currency balances the probability that an issue will occur against it not occurring. Much the same as any computer software there are vulnerabilities and weaknesses which are sometimes made use of by nefarious criminals. Basically a code of practice is more pertinent in this regard as opposed to restricting the freedoms of the concept of digital currencies. Events have taken pace in recent times which have highlighted the need to provide a protection and mitigation against illegal activity, something which even the biggest financial institutions struggle with on a day to day time scale.

Eija Seittenranta, Australian Parliament Department of Parliamentary Services, was heard in Senate Committee (September 19th 2013) that Parliament House under goes approximately 400 attempts per month from malicious intrusions.  
(<http://www.youtube.com/watch?v=kj1meCR1rrA>)

The addressing of this issue must be done in the integrity of the software and not in the system it is working in. Cryptography and pass word protection standards must be raised and made mandatory to ensure malicious intrusions are an unavailable option. Grifting and Phishing scams will always be on the internet in one form or another. Like some huge

pool of gelatinous microbes which swarms on any new start up or application probing, occasionally finding success discovering a chink in the armour and for ever rendering the once impenetrable, penetrated. Encryption should not be an after thought or an option. But a standard operating platform.

- (v) **incorporates digital currencies into Australia's national security framework, and**
- (vi) **ensures the financial stability of the industry;**

Incorporating digital currencies into Australia's National Security framework has to a certain extent already happened. The decisions now needs to made as to how it will be managed and by which Government Acts. Using existing acts to model a new system should be taken at caution. The whole premise of creating a Digital Currency Regulatory System is to allow one to grow and attract more business, not imposing arbitrary percentage tax and then re-taxing.

Thought should also be given to the financial market environment over the next decade and beyond. Is there viability in a digital currency in Australia? What factors and elements contribute to it existing and how they react in regards to stability is dependant on the standards used for comparison. What metrics would be used to come to a decision regarding 'stability' and how would that be represented? How the current financial system would integrate Digital Currency is something which cannot be measured.

I refer to the proposed Bit coin regulation coming from the New York Department of Financial Services (NYDFS)

"Headed by Ben Lawsky, the Department has embarked upon creating a licensing system that all Bitcoin companies doing business in the state of New York would have to be compliant with. This proposed regulation has, of course, been met with animosity from the community. Most members of the Bitcoin community agree that BitLicense, if made into law in its current form, would increase the cost of business and thereby limit competition and compromise consumer privacy, at the very least. Some members of the community, who take more of an ideological approach to Bitcoin regulation, have argued that any laws regarding digital currency at all would undermine the purpose of creating Bitcoin, so we should refrain from passing any digital currency legislation."

- (b) **the potential impact of digital currency technology on the Australian economy, including the:**
  - (i) **payments sector,**
  - (ii) **retail sector, and**
  - (iii) **banking sector;**

This is again a matter of at what levels regulation and charges are allowed to evolve. The earlier example offered of a 2.75% per swipe is indicative of the ball park figure for carriers. Incentives for customers who spend over \$50 and the handling cost per swipe may decrease with every increment until it hit a flat figure of 1% per every thousand dollars handled through the carrier. Others may offer a standard fee with restriction on the lowest figure transacted.










At the writing of this submission 1 btc = \$Au401.75

Bitcoin mining takes into account the size of the graphics card available to a user and the length of time that the 'mining' takes place. This can lead to making a tiny amount. For example over a week an average graphics card on a home laptop will make 0.0000001 bitcoin. And this is dependant on all types of conditions, electricity cost, internet cost etc,.

Tables are available for comaprison purpose from <https://blockchain.info/stats> which is one of many such transaction sites on the internet. It will show volumes traded and the value of the traded currency.

The mining costs can also be viewed for example in this slide.

## Currency Stats Bitcoin currency statistics

Blocks Mined	146.00	
Time Between Blocks	9.86 (minutes)	
Bitcoins Mined	3,650 BTC	
Total Transaction Fees	13.70564172 BTC	
No. of Transactions	82562	
Total Output Volume	964,641.4991557 BTC	
Estimated Transaction Volume	215,405.29704127 BTC	
Estimated Transaction Volume (USD)	79,073,130.49 USD	
<b>Market Summary</b>		
Market Price	\$367.09 USD (weighted)	
Trade Volume	\$17,462,351.56 USD	
Trade Volume	47,569.67 BTC	
<b>Mining Cost</b>		
Total Miners Revenue	\$1,344,650.67	
% earned from transaction fees	0.37%	
% of transaction volume	1.70 %	
Cost Per Transaction	\$16.29	
<b>Hash Rate and Electricity Consumption</b>		
Difficulty	35,002,482,026.13	
Hash Rate	254,037,491.61 GH/s	

All statistics are for the previous 24 hour period unless otherwise stated

Swapping items for bitcoin or providing services paid for in bitcoin is another growing financial services area. People will swap a car or an asset for the equivalent amount of bitcoin is one example. The purpose of doing this allows the recipient of the bitcoins to purchase or again swap items which may only deal in bitcoin as a financial payment system. The examples of Silk Road and Agora come to mind through the popular media highlighting ways in which a digital currency has been tarnished, just as many reputable and genuine retail sites on the internet are now using bitcoin and as recent developments show only continue to grow. An example of Graphic Designers accepting bitcoin for work is another popular model which is becoming common place. The ease at which these transaction are made and due to the anonymity factor which in itself is attractive for most any internet user to start using bitcoin. Credit Card transaction which are all tracked and logged, make time unattractive to some internet users, where bitcoin purchases are enabled a default anonymity within their architecture.

For the retail sector the positives attached to it will mean more people will engage in internet online purchasing. It would offer an alternative means of transaction such as standard Credit Cards. In some ways it will no different to processing a "Load & Go" debit card than it would be to process a bitcoin transaction.

The only underlying difference is the credibility that the currency contains within the attributes as a currency. The regulation and management of the currency would be a measure of its success. It is not difficult to research the scams and viruses that have come along withing bitcoin. The prevalence of such viruses and trojans have created a

flux or low confidence trough in the digital currency market place. Tales of users picking up bitcoin mining viruses from download torrent sites are plentiful and would need to be a major consideration in the security considerations of regulation. (<http://rt.com/news/175912-critroni-ransomware-tor-network/>)

The Banking Sector will have to learn to evolve with digital currency. The opportunity for market growth is one which if correctly appreciated could become a new direction of potential into the Asian 21st Century. But with every great opportunity there will be an unscrupulous element who will seek to benefit.

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

This could be achieved through a quality assurance standardisation. Standards by which the industry can operate and a standardised code of practices should be tabled. Companies who are unable to meet those minimum standards should be unable to trade in the Australia. The other consideration is to attract a market place competitiveness by allowing companies that perform at a premium level to be more responsive to customers by offering cut price trading fees. This will attract new and start up companies who will be able to offer consumers better deals and competition to the larger companies who already have a market place identity. This in turn will only be good for the consumer of such a service. The idea that high quality standard practices and a code of practices at lower than industry transaction costs would be a healthy inducement for repeat business. The other consideration to understand is how international customer and users of digital currency will become attracted to using Australian Market Models and Carriers would be another benefit.

In ending I would like to make reference for comparison purposes to Ecuador and the way Bitcoin has been banned and they have set up their own digital currency.  
July 25 2014

Ecuador Bans Bitcoin, Plans Own Digital Money  
<http://www.coindesk.com/ecuador-bans-bitcoin-legislative-vote/>

“The National Assembly of Ecuador has effectively banned bitcoin and decentralised digital currencies while establishing guidelines for the creation of a new, state-run currency.”

Further to this I refer to June 2014 article,  
<http://panampost.com/panam-staff/2014/07/25/ecuador-bans-bitcoin-initiates-government-run-digital-currency/>

“Digital money will stimulate the economy; it will be possible to attract more Ecuadorian citizens, especially those who do not have checking or savings accounts and credit cards alone. The digital currency will be backed by the assets of the Central Bank of Ecuador,” the National Assembly said in a statement.”

“In addition to the ban on bitcoin and other digital currencies in Ecuador, this reform imposes new regulations on the financial system, as well insurance and stock markets. With these new rules, the state seeks to “insure the deposits — the assets that Ecuadorians possess in public and private banks, credit unions, and all types of credits in the national financial system — though a deposit-guarantee system.”

This type of reformation, regulation and legislation within a sovereign financial structure need to be balanced with the concept, implementation and user security laws in ratio to the already existing financial legislation without curbing the enthusiasm of digital currency. It must be made note of that bitcoin does not replace the current notion of currency, it is an alternative which has arisen out of innovation for an alternative, something which Australia is well known for. In closing this enquiry should make note of this demand and supply flow and seek to enhance and not regulate the integrity or innovations which have flourished alongside the digital currency use. Services which prior to digital currency did not exist. The ease and accuracy that a consumer can apply to that supply of demand will be directly encumbered on the regulations and legislation in which it is to operate.

Thankyou.

V Hesse