

## Virtual currencies and physical posts: A perfect match?

Virtual currencies like Bitcoin are progressively gaining in popularity. However, limited availability still preempts their broad usage. Postal operators with their spatially comprehensive physical presence could play a key role in providing easy, quick and nation-wide access to these alternative currencies. The postal network thus constitutes a natural bridge between the virtual and the physical worlds. By offering local exchange and transaction services, posts could forge new business and complement their physical delivery role in e-commerce with an innovative payment channel. In fact, a perfect match between virtual currencies and physical posts appears to have evolved.

### The virtues and challenges of virtual currencies

Virtual currencies enjoy increasing popularity. Prominent examples include token systems for shopping or loyalty programs such as frequent flyer and supermarket points. Bitcoin, the latest offspring of virtual currencies has taken them to a new level. It was set up in 2009 as an open-source software and is entirely decentralized, being based on a peer-to-peer network. In contrast to conventional currencies, Bitcoin is not controlled by a central bank and does not enjoy a status as legal tender. Instead, the monetary base grows at a deterministic rate; newly created bitcoins (seigniorage) are awarded to those users who contribute the most to secure the network by performing cryptographic functions. By halving the number of newly rewarded bitcoins at regular intervals, it is ensured that the monetary supply does not grow endlessly; indeed it is capped at 21 million bitcoins.

A key advantage of Bitcoin is its low transaction costs due to its peer-to-peer nature and the independence of financial intermediaries. This facilitates trade in general and

is particularly beneficial to industries with low margins such as online supermarkets, discount shops, and to cross-border transactions with one global currency. Indeed, Bitcoin is as quick and private as cash, yet entirely location-independent. In more concrete terms, users do not depend on banks, money transmitters or credit card companies for payment transactions. The irreversibility of Bitcoin-payments is particularly advantageous for merchants. Due to its peer-to-peer character, Bitcoin also has a political dimension and can be considered as highly democratic since it evolves with its network of users without the interference of any authoritative institution. From an economic point of view, Bitcoin as an alternative and independent means for monetary transactions also puts competitive pressure on the legacy banking and financial system. In fact, Bitcoin enables participation in e-commerce for households without access to credit cards or banking services. In 2012, for instance, 29% of the US population did not own a credit card, and in developing countries the diffusion was merely 7% among adults. Yet more severely still, approximately half of the world population did not even have bank accounts in 2012.

Despite Bitcoin's great advantages, there are still a number of factors impeding further adoption. First, it is still in its infancy and it is not yet very friendly to use for the layman. Second, the exchange rate of Bitcoin to fiat currencies like USD, EUR or RMD is quite volatile. Third, acceptance as payment and exchange possibilities to conventional currencies are still somewhat limited. These shortcomings are increasingly being taken care of by new startup firms offering payment processing and currency exchange services. What is currently most difficult is exchanging Bitcoin for other

currencies offline. Even though the Bitcoin system is designed to function fully virtually and without institutions, trusted parties with physical presence may enhance trust and ease its usability for the uninitiated.

### **Potential roles of the Post**

Many Posts have legal universal service obligations, requiring them, among other things, to provide access to postal offices within reasonable distance. Actually, in 2012, with globally 642'000 post offices, the network of postal outlets was the most dense network of branches in the world. There currently exist two major challenges for traditional postal operators: Indirect competition from electronic substitutes in the mail segment and direct competition in parcels.

The first challenge results from the increasing use of email and other Internet based services for communications purposes. Since the end of the 1990s, physical mail volumes have declined in most industrialized countries. There seems to be no foreseeable end to this trend and the decrease will strongly affect the development of postal markets in the future. Indeed, between 2006 and 2010 domestic and international letter-post traffics have decreased by 3.5% and 13%, respectively, while the average number of letters posted per capita in the year 2012 reached a record low of 49.3 world average. In contrast, the number of Internet users more than doubled during the last 5 years with over 35% users of the world population and approximately 65 e-mails sent per email user *daily* in 2012. Consequently, posts face the challenge of operating dense networks of branches serving the population in proximity, while suffering from a decreasing demand for letter mail items.

The second challenge concerns the continuously growing sector of e-commerce. In fact, over the last decade, e-commerce has fundamentally changed the face of the retail sector, helping companies to expand into new markets and engage more efficiently with customers. From the perspective of postal operators, e-commerce is a unique opportunity and one of their rare growth areas. A striking visible consequence can be

seen in the doubling of the global domestic postal parcel traffic during the last 20 years. Undoubtedly the sustained increase in e-commerce activity constitutes a positive development for postal operators. Liberalization of the parcel segment has attracted considerable competition. An essential issue that the posts need to carefully evaluate is their positioning and differentiating in parcels for e-commerce. In particular, cross-border delivery has to be addressed, which poses a major obstacle to international e-commerce.

### **A perfect match**

There seems to be a well-suited match between virtual currencies and posts in view of the above mentioned challenges. On the one hand, virtual currencies are still lacking a physical interface that is easily as well as generally accessible to the public, while on the other hand postal operators dispose of nation-wide networks of branches with declining usage of their traditional core business. A natural opportunity has thus evolved: Posts may employ their network as a bridge between the virtual world of Bitcoin and traditional currencies by offering a local exchange and transaction service.

The attractiveness of matching Bitcoin and posts is reinforced by at least five further factors. First, since Bitcoin is increasingly used in e-commerce, new customers could be attracted to the postal offices. In particular, persons owning neither a credit card nor a bank account would thus be enabled to access e-commerce via exchanging traditional currencies for Bitcoin. Second, the Post's parcel delivery channel would be complemented with a growing payment channel for e-commerce, which in turn would prompt consumers towards the postal operator for the delivery of their purchases. Hence, posts become a one-stop-shop covering both physical delivery and the payment channel in e-commerce. Third, the Post could establish itself as a leading service point for remittances in Bitcoin. Fourth, since access to traditional financial services and a stable currency is limited, a ubiquitous postal provision of Bitcoin-related services could substantially increase global participation in commerce. In fact,

financial inclusion constitutes a substantial objective of the Universal Postal Union, which intends to help its member countries to introduce or develop inclusive and financial services. In effect, the construction of a ubiquitous Bitcoin interface fits perfectly such an agenda. Fifth, cross-border delivery would be facilitated by a postal network of Bitcoin services where merchants and consumers could easily use Bitcoin by exchanging it for their local currency at the post office

## **Conclusion**

To conclude, a forward-oriented use of the spatially comprehensive postal network for virtual currencies like Bitcoin which are increasingly endorsed yet not easily accessible provides an appealing opportunity for postal operators in the face of a changing competitive and technological environment. Indeed, Bitcoin and the Post do appear to be a perfect match.

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