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Barriers of Digital Finance in COVID-19

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ABSTRACT. *Digitalization is rapidly transforming the way people consider finance to be, empowering monetary sectors with more flexibility, tenacity and executive ability. Moreover, the unpredictable pandemic COVID-19 has emphasized the capability of digital finance when responding to crisis effectively. This paper introduces the role digital finance played overcoming the shortfalls in present financing system, especially in the period of COVID-19 spread and the exposed capability barriers that would restrict the potential development of digital finance.*

KEYWORDS: *COVID-19, Digital Finance, Overcoming*

1 Introduction

1.1 Background Information

In 2019, the world economy experienced its slowest growth rate since the financial crisis[1], and people are expecting a tremendous growth in 2020. In the first quarter of this year, however, that hope was dashed by an unexpected corona-virus outbreak. As the outbreak of epidemic has spread so rapidly that a great majority of countries have been affected in economics to varying degrees. The managing director of the International Monetary Fund (IMF) , Kristalina Georgieva mentioned that "There is an urgent need to return the financial services industry to what it is supposed to be - an industry that serves people."[3]Therefore, appealing the international community to cooperate in union in order to reduce the negative impact of COVID-19.

The unprecedented social and economic crisis caused by the COVID-19 pandemic has led digital finance into an inevitable trend, which provides business support, jobs and livelihoods for millions of people around the world. [2]Indeed，digital technologies are rapidly transforming society, simultaneously allowing for unprecedented advances in the human condition and giving rise to profound new challenges.[4]

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1.2 Digital Finance Development

Digitalization is transforming finance, enabling services and markets to be automated, commoditized and customized.[4] Tens of millions of businesses, particularly smaller enterprises, depend on digital markets, with an estimated 1.9 billion people worldwide purchasing goods online, amounting to US$3.5 trillion of sales in 2019. Today, over half the world's population is online, a one hundred-fold increase since 1990.[5] Digital rails have become the superhighways for large cash transfers by governments to citizens in the face of income losses associated with mandatory lock downs.[6] Mobile payment platforms have turned mobile phones into interfaces with the financial system and are now used by over 1 billion people.[7] In 2017, 69% of adults had an account with a financial institution, up by seven percentage points since 2014.[8]

Online shopping has surged through the crisis, with many surveys pointing to a permanent shift in consumer behavior towards digital purchases.[9] Customer spending through Amazon has surged during the crisis to US$11,000 per second, driving the value of the Seattle-based company up to almost US$1.2 trillion.[10] Alibaba, which emerged as China's leading commerce platform after the 2003 SARS outbreak, is now offering billions of dollars in loans to SMEs at a time when many others are retrenching.[11]

Today's unprecedented crisis has made digitalization far more important than at any time in history. However, digital finance also introduces new risks which are barely discussed in present research. While expecting great outlooks of digital finance, the barriers of achieving a systematic development are also amplified under the impact of COVID-19 and will be further discussed in the essay.

2 Capability Gaps

Physical exclusion is the most obvious barrier. There are still 750 million people who remain unserved by mobile data networks. A further 3.3 billion people lack adequate resources and capabilities to take advantage of the digital world.[12]

Table. 1 Classification standard of GDP capita grouping

GDP per capita grouping	Classification standard (dollars)
Low income country	<1036
Lower-middle income country	1036-4045
Upper-middle income country	4046-12535
High-income country	>12535

The following figure shows that The accessibility of PCs and broadband connectivity result in the quantity gaps of internet users in countries with different GDP levels.

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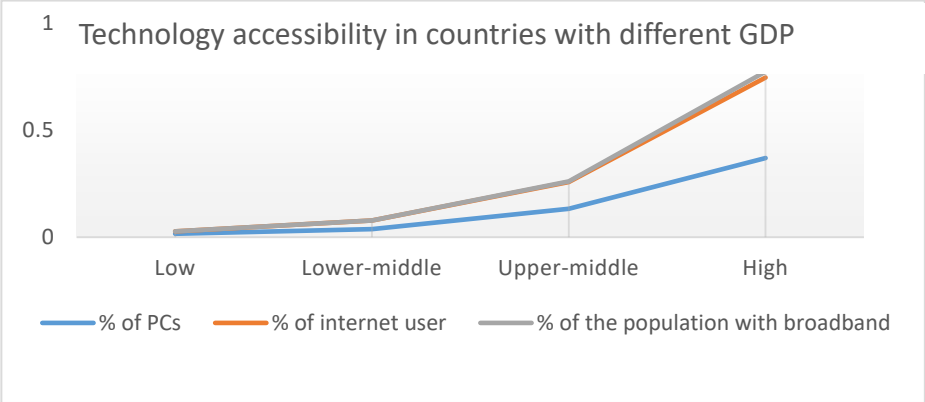

Figure. 1 Technology accessibility in countries with different GDP

The number of computers in the country is less than 2%, while almost 40% of the population has access to computers in high-income countries. Upper middle income countries have 10 times as many internet users as low income ones. In high income countries this figure is 30 times higher.[13] The lack of digital capabilities hinder uptake and usage and reinforce inequality from low income countries to high-income countries.

The escalation of the COVID-19 epidemic in global, which had certain negative impact on the production, sales and export of computers. In the semiconductor industry, the whole computer assembly is a labor-intensive industry.

In the first quarter of 2020, affected by the epidemic in China, the nationwide resumption of work was delayed, which to some extent affected the shipment of computers. From January to February in 2020, the added value of the computer manufacturing industry decreased by 27.6% year-on-year. Among the main products, the output of microcomputer equipment decreased by 31.4% year on year; Among them, notebook PC production fell 31.1% and tablet PC production fell 24.5% year on year.[14] Affected by the epidemic, China's computer, communications and electronic equipment manufacturing industry saw a cumulative revenue of 1.18 trillion yuan in January-February 2020, a year-on-year decline of 16.3% and a growth rate of 13.4 percentage points lower than that of the same period in 2019. Thus, the COVID-19 epidemic has hit the electronic equipment manufacturing industry to a certain extent.Overseas orders decreased and orders cancellation increased. From February to mid-March 2020, the number of confirmed COVID-19 cases in China is increasing, and the world panic mentality is also increasing day by day. As a result, the new overseas orders for computers are decreasing year on year, and some of the intended orders before the year are also decreasing.[14]

Domestic and foreign transport blocked, computer export blocked affect the delivery date. Oversea countries have successively added quarantine procedures for

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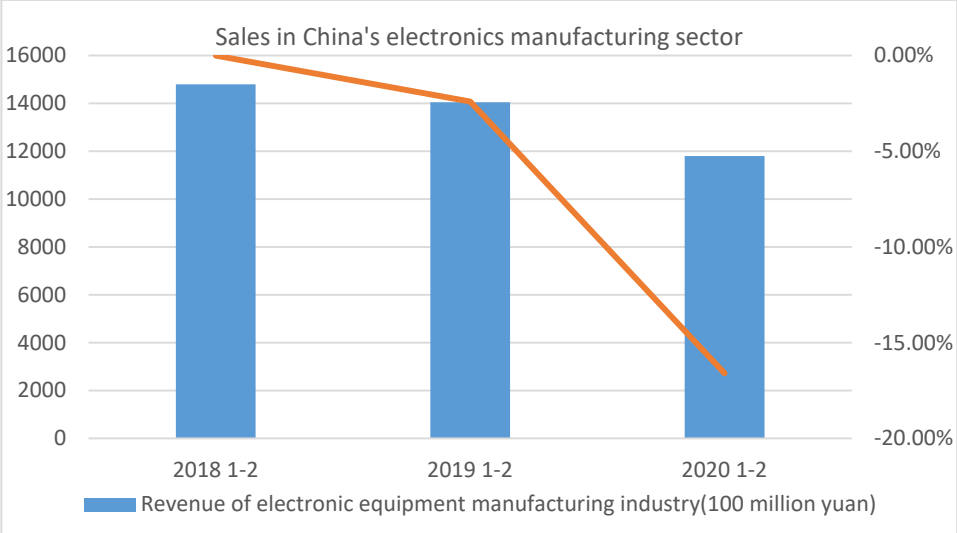
Entry of Chinese ships and restricted entry procedures (14 days of quarantine before entry), resulting in the extension of irregular berthing time of ships and extremely complicated procedures. In particular, some countries have begun to close their borders and ports of customs clearance, making it difficult to declare exports and raising the possibility of soaring sea freight costs. [14]



Source: China Statistics Bureau

Figure. 2 Sales in China's electronics manufacturing sector

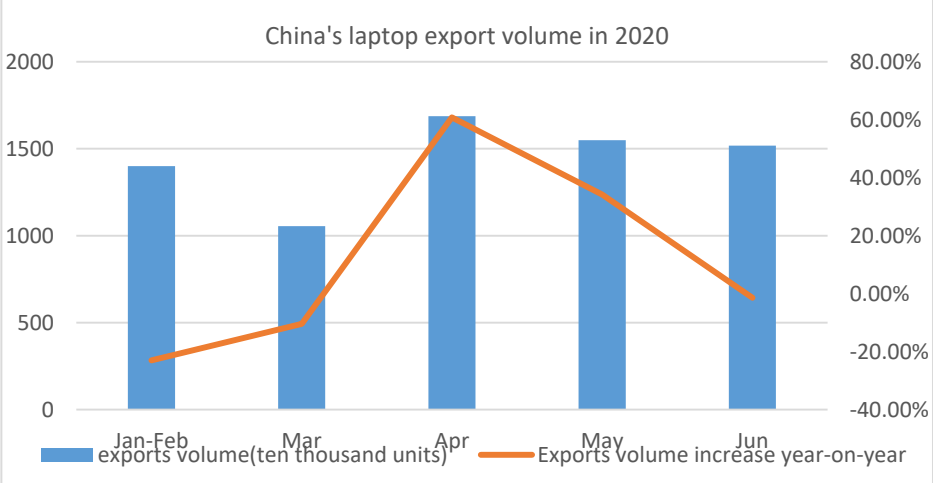


Figure. 3 China's laptop export volume in 2020

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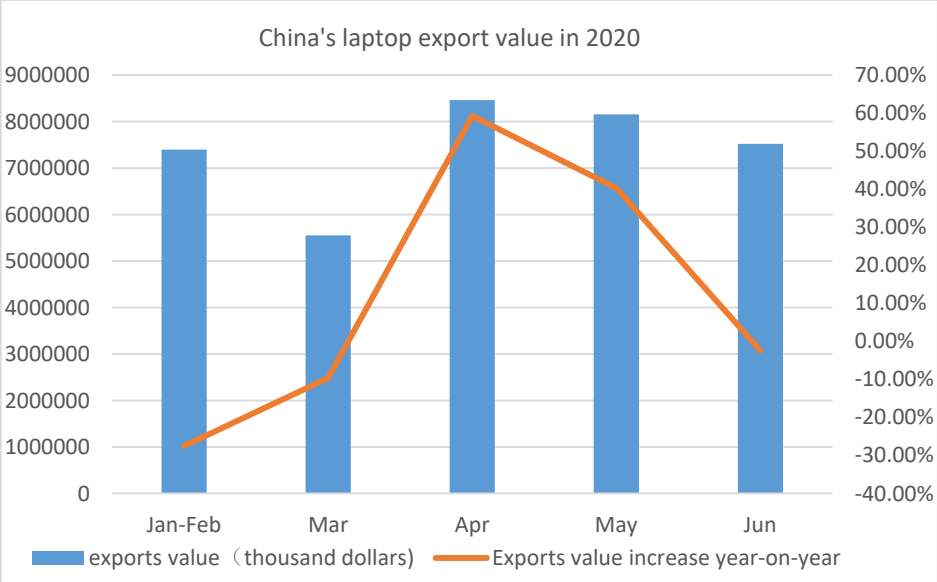

Source: China customs

Figure. 4 China's laptop export value in 2020

The certain increase in export volume and export value represents in the chart from March to May is caused by the increase of electronic shopping due to quarantine and blockade orders. However, after the hot spot of online spending is over, we can still find out that the computer exports are in a downward tendency. The rapid spread of the global epidemic has led to the downgrade of the global economic forecast by international authorities in 2020, and the export of China's computer industry is still facing the risk of demand reduction.[14]

The relationship between technology capability which mainly comprise broadband and computer distribution and the equality accessibility of digital finance is closely related. Only when provide with basic facilities can ensure less-developed countries the equal standard to be served with digital finance. Many of the international assistance and commercials are canceled or delayed during the epidemic, countries with sounding digital capabilities can be largely shielded from the negative impact and obtain secured, affordable and appropriate digital finance services. At meantime, less developed countries will face a particularly severe lack of complete, equal and fair digital service.

3 Digital Fraud

Online financial fraud increased with scams and schemes related to the outbreak of COVID-19. The need for self-isolation has significantly changed how we conduct

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business and interact with one another. It has resulted in a dramatic increase in online activity, which in turn leaves us vulnerable to criminals looking to exploit the sudden and extensive digitalization.

Across all financial products, fraud rates rose by 33% in April, when compared with previous monthly averages before COVID-19 outbreak. The largest increase was in car and other asset finance applications, which saw a rise of 181%, followed by current accounts (35%) and then saving accounts (28%). Fraudulent credit card applications (17%) and unsecured loans (10%) also went up. (Experience pic-Financial providers successfully foil criminals seeking to take advantage of pandemic disruption). [15]

China, the first country facing major spread and outbreaks of COVID-19, now has been internationally confirmed that China provides effective and precious experience for the global fight of epidemic. In addition, the statistical information gathered in China will have a guiding function for the further prediction extend to worldwide range.

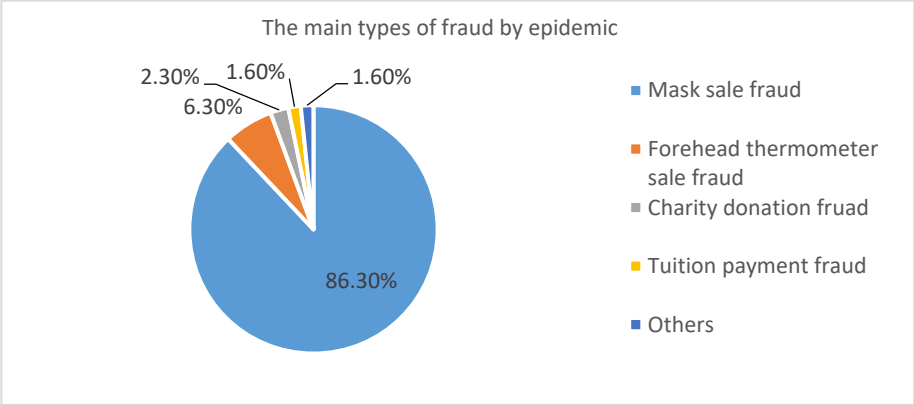

Figure. 5 The main types of fraud by epidemic

Under the influence of epidemic prevention and control, mask sales fraud has emerged as a new force. Among all the reports that take advantage of epidemic situation to carry out fraud, mask sales fraud ranks the first, accounting for 88.3%, followed by sales of temperature gun fraud, accounting for 6.3%. More than 90% of people are cheated because of purchasing anti-epidemic products.[16] In terms of per capita loss, the sales volume of tempering gun fraud ranks the first, with the per capita loss as high as 72,590 yuan. This is mainly due to the high unit price of forehead thermometer, and the overall cheated amount is relatively high. Although the unit price of masks is low, they are also purchased in bulk. The per capita loss reaches 6,692 yuan, ranking the second. Among them, tuition payment fraud and charity donation fraud are new tricks of fraudsters during the epidemic.

The outbreak of the coronavirus disease has offered an opportunity for fast cash, as criminals take advantage of the high market demand for personal protection and

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hygiene products. For instance, law enforcement agencies which taking part in Operation Pangea found 2,000 online links advertising items related to COVID-19. Of these, counterfeit surgical masks were the medical device most commonly sold online, accounting for around 600 cases during the week of action. The seizure of more than 34,000 counterfeit and substandard masks, “corona spray”, “corona-virus packages” or “coronavirus medicine” reveals only the tip of the iceberg regarding this new trend in counterfeiting.[17]

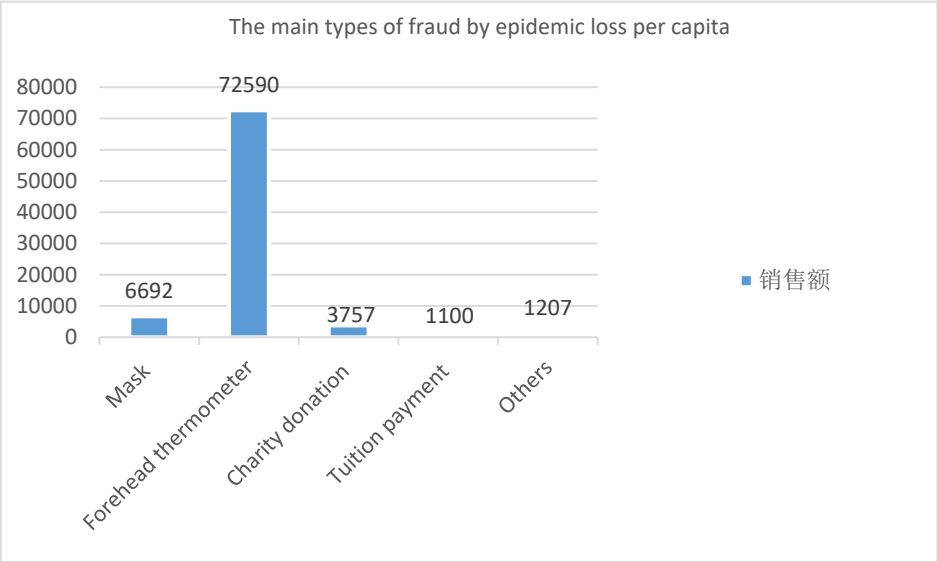

Figure. 6 The main types of fraud by epidemic loss per capita

The figure shows number of weekly reports and per capita losses of online fraud during the epidemic which showed an upward trend. It reaches the peak of fraud losses during the week of January 24 to 30 due to the exaggerated demand of tickets offers the market for scalpers to sell tickets in extreme high price. The peak came at the end of February with the outbreak of the epidemic and the increasing incidence of fraud. In terms of loss per person, the loss per person was the highest on February 14, mainly due to the high incidence of financial fraud and online gambling fraud. On January 26, 2020, the website received a report of mask sale report online for the first time. In the very beginning of COVID-19 outbreak, the supply of masks and other epidemic prevention products was tight. Criminals took advantage of the public's urgent demand for anti-epidemic products in short supply and fabricated the supply of epidemic prevention products to cheat, and the number of reports on mask fraud increased significantly.[16] Due to the epidemic, the resumption of work and school term have been delayed again resulted in the ascent of game account tradings, game props and game practice, the number of related fraud reports has also increased correspondingly.

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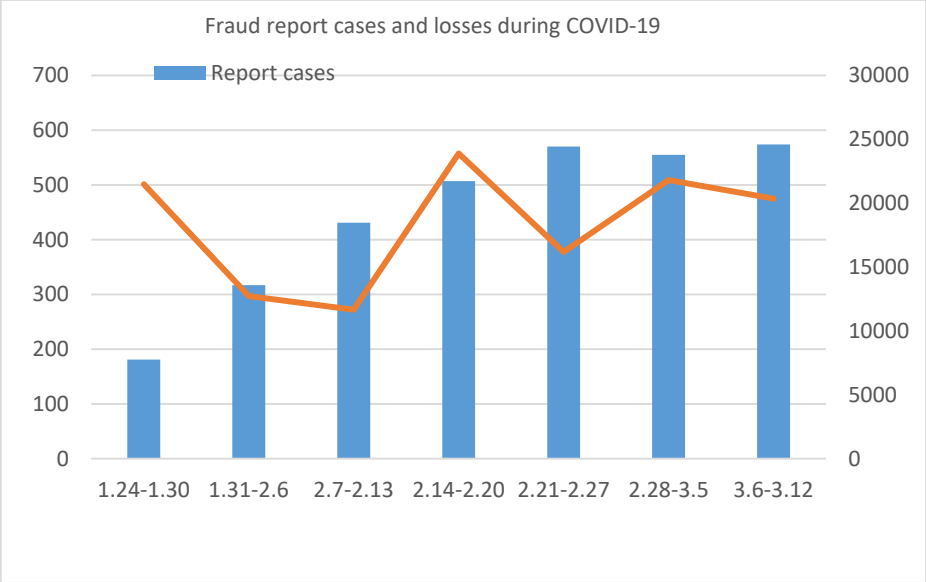

Figure. 7 Fraud report cases and losses during COVID-19

4 Conclusion

Digital finance enters a new develop era that people necessarily in need of it to reconstruct their personal lives. However, digital risks will also be more present than ever before.[4] So far, we haven't built a normative and robust digital finance system to adapt to the rapid development of digitalization. As mentioned above, digital accessibility and data security represent a growing concern, often affecting the most vulnerable countries with less advanced capabilities.

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