

Risk and Regulation of Chinese Online Investment Products

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The emergence of Yu'E Bao and the like provides Chinese investors with a new and flexible investment option. Such new investment instrument forces up the cost of capital of local banks and also takes away the market share from them. Yu'E Bao has allocated most investments in inter-bank money market due to the liquidity concerns. This study investigates Yu'E Bao's portfolio allocation and potential risk, and also provides policy implications for regulators. The research findings suggest that regulators should issue more provisions to further regulate the operation of online investment products and keep the liquidity risk under control, i.e. require money market funds to hold more capital in reserve on a gradual basis. By examining the case of Yu'E Bao, a new online investment product in China, this study sheds light on the recent financial development and reform of China.

Keywords: Yu'E Bao, online investment, money market fund, financial reform, government regulation, China

The Launch of Yu'E Bao

Alibaba Group, China's largest e-commerce firm, introduced an online personal finance product, Yu'E Bao, which means leftover treasure in Chinese, on 3 June 2013. Personal investors can subscribe Yu'E Bao through Alipay, a PayPal-style third-party payment platform and also a wholly owned subsidiary of Alibaba. Yu'E Bao is essentially a money market fund managed by Tian Hong Asset Management Co. According to the report by Tian Hong, as of the end of February 2014, Yu'E Bao had more than 808 billion Chinese Yuan in investment from almost 300 million users. Based on Bloomberg's data¹, it had become the largest fund in China and the 14th largest worldwide only year after it was launched.

Yu'E Bao and the like provide investors with much higher returns than bank deposits but lower investment threshold than wealth management products with similar returns of banks. However, investors may not be fully aware of the risks associated with Yu'E Bao and the like. Although Alibaba offered insurance to cover the potential losses of investors, there may still be a potential and serious liquidity risk associated with Yu'E Bao, and Alibaba has not taken any precaution against such risk so far. During the first year after Yu'E Bao's emergence, regulators, such as People's Bank of China (PBC), the de facto central bank, and Chinese Securities Regulatory Commission (CSRC), the securities market watchdog of Chinese government, did not issue any provisions to regulate the operation of Yu'E Bao and the like. Recent studies suggested that one of major institutional deficiencies in Chinese financial markets was that individual investors were lack of expertise and there was insufficient investor education (Dobson & Masson, 2009; Yao, Ma, & He, 2014). Therefore, it is

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¹ Please see: <http://www.globaltimes.cn/content/837721.shtml#UxV94tKBmOQ>.

crucial for regulators to inform investors the potential risk associated with online investment products and keep the risk under control by issuing relevant regulations.

Yu'E Bao was not a truly innovation. PayPal launched a money market fund in early 2000s, but shut it down on 27 July 2011. There were several reasons that led to the failure of the money market fund of PayPal. Investors worried about the safety of their accounts and also the liquidity of their money. Moreover, the overall returns of PayPal money market funds were not high enough to make investors tolerate these risks. Yu'E Bao is exactly a copy of the PayPal money market fund. Although Yu'E Bao has become a hit among Chinese individual investors, whether it would become another PayPal money market fund is still unknown.

This study aims to examine the so far success of Yu'E Bao and evaluate the risks associated with Yu'E Bao and the like. Moreover, this study provides policy implications to regulators to monitor the operation of new online investment products and offers suggestions for Chinese financial reform. The reminder of this study is organized as follows. Section two analyzes the motivation of Alibaba and the way it operates Yu'E Bao; Section three discusses the risks associated with Yu'E Bao and the like; Section four provides policy implications and suggestions. Section five concludes above remarks.

The Motivation of Alibaba and the Way It Runs Yu'E Bao

Why Alibaba Launched Yu'E Bao?

The PBC issued a provision² regarding the regulation on the payment services provided non-financial institutions on 21 June 2010. According to this provision, non-financial institutions or third-party payment companies, such as Alibaba, were required to have registered capital of at least 10 percent of the money they handle for clients on a daily basis. Total sales of the two online shopping platforms of Alibaba, namely Taobao and Tmall, exceeded one trillion Chinese Yuan (approximately 160 billion US dollars)³ in 2012. The combined amount of funds in consumers' Alipay accounts and those entrusted to Alipay before a transaction is completed went up to almost 100 billion (approximately 15 billion US dollars) on a daily basis in 2012⁴. As such, Alibaba ought to have registered capital around 10 billion Chinese Yuan to comply with the requirement of the PBC. However, the registered capital of Alibaba is only 500 million Chinese Yuan according to the introduction of Alibaba group, which is far less than the required registered capital. A large increase in registered capital would highly increase the operation cost and might force Alibaba to look for new outside investors. As such, Alibaba had sought a channel to distribute the funds in clients' Alipay accounts after the PBC's provision. After launching the Yu'E Bao, a majority of clients' money was distributed to Yu'E Bao, a de facto money market fund operated by Tian Hong Asset Management Co. This had significantly reduced the required registered capital of Alibaba.

On the other hand, Yu'E Bao has provided a considerable profit to both Alibaba and Tian Hong. The costs of investing in Yu'E Bao include 0.3% administration fee, 0.08% custody fee, and 0.25% sales charge. The income from administration fee is shared between Alibaba and Tian Hong, but the details are not disclosed. According to the report by Tian Hong, profit made from Yu'E Bao was 1.422 billion Chinese Yuan during the fourth quarter of 2013. After four years' expansion, Yu'E Bao's total profits were 19.2 billion Chinese Yuan (approximately 2.8 billion US dollars) in 2016.

² Please see: http://www.pbc.gov.cn/publish/english/955/2010/20100804095715059176127/20100804095715059176127_.html.

³ Please see: http://www.chinadaily.com.cn/china/2013-11/12/content_17096624.htm.

⁴ Please see: <http://english.caixin.com/2014-02-27/100644310.html>.

Why Yu'E Bao Grows So Rapidly?

Alibaba owns two largest online shopping websites in China: Taobao and Tmall. Taobao is a consumer-to-consumer (C2C) retail network that provides a platform for small businesses and individual entrepreneurs to open online retail stores that mainly cater to Chinese customers. Different from Taobao, Tmall is a business-to-consumer (B2C) online retail network that provides a platform for Chinese and international businesses to sell brand name goods to Chinese consumers. All customers shopping at Taobao and Tmall can pay through Alipay to reduce their transaction risk. According to the report by Alibaba, as of the end of 2013, Taobao and Tmall had more almost five hundreds of millions of registered users and over 60 million visitors every day. Many regular customers have deposited money into their Alipay accounts. Over 48 hundreds of products are sold through these two shopping websites every minute. As such, Alibaba generated a huge number of customers before it launched Yu'E Bao. This provided a fertile ground for the growth of Yu'E Bao.

The other major reason why Yu'E Bao attracted so many investors in a short period was that there has been lack of replaceable investment instruments for Chinese individual investors, especially for individual investors with strong liquidity needs. The money withdrawn by investors can arrive in their bank accounts within two hours if investors' accounts are open with banks that have cooperation with Yu'E Bao. For other investors, the money withdrawn by them will arrive in their accounts before 12 p.m. of next day. Moreover, the profits of investment on day 1 will be transferred (in cash) to investors' accounts on day 2 at 3 p.m. Furthermore, Yu'E Bao offers investors an extremely low investment threshold, which is just one Chinese Yuan. The threshold of most wealth management products of banks were relatively high, i.e. 50 thousand Chinese Yuan, before Yu'E Bao was launched. The low investment threshold made Yu'E Bao an instant hit among Chinese individual investors, especially among young people whose driblet savings were often neglected by banks.

Besides the high liquidity, Yu'E Bao has offered much higher return than bank deposits. Table 1 shows the central bank benchmark interest rate (in percentage) during January 2010 to February 2014. The current deposit interest rate was between 0.35% and 0.36%, and the one-year fixed term deposit interest rate is between 2.25% to 3.25% during the past three years. The PBC only allowed commercial banks to float interest rates on deposits upward by 10% from the benchmark during the period. Actually, China's major five state-owned banks only offered customers the benchmark rates on deposits during the past decade. Figure 1 shows the annualized rate of returns of Yu'E Bao. After the first month of its establishment, the return of Yu'E Bao was around 6%. As such, in most cases, the return of Yu'E Bao was almost 15 times of the current deposit interest rate.

Table 1

Short-term Benchmark Interest Rate From Jan. 2010 to March 2014

Central Bank benchmark interest rate (in percentage)				
Date	Current	3 month fixed term	6 month fixed term	1 year fixed term
04 Jan. 2010-19 Oct. 2010	0.36	1.71	1.98	2.25
20 Oct. 2010-27 Dec. 2010	0.36	1.91	2.2	2.5
28 Dec. 2010-08 Feb. 2011	0.36	2.25	2.5	2.75
09 Feb. 2011-05 Apr. 2011	0.5	2.85	3.05	3.25
06 Apr. 2011-05 July 2011	0.5	2.85	3.05	3.25
06 July 2011-07 June 2012	0.5	3.1	3.3	3.5
08 June 2012-05 July 2012	0.4	2.85	3.05	3.25
06 July 2012-01 Mar. 2014	0.35	2.6	2.8	3

Table 1 shows the short-term benchmark interest rate in percentage set by People's Bank of China, the de facto central bank of China.

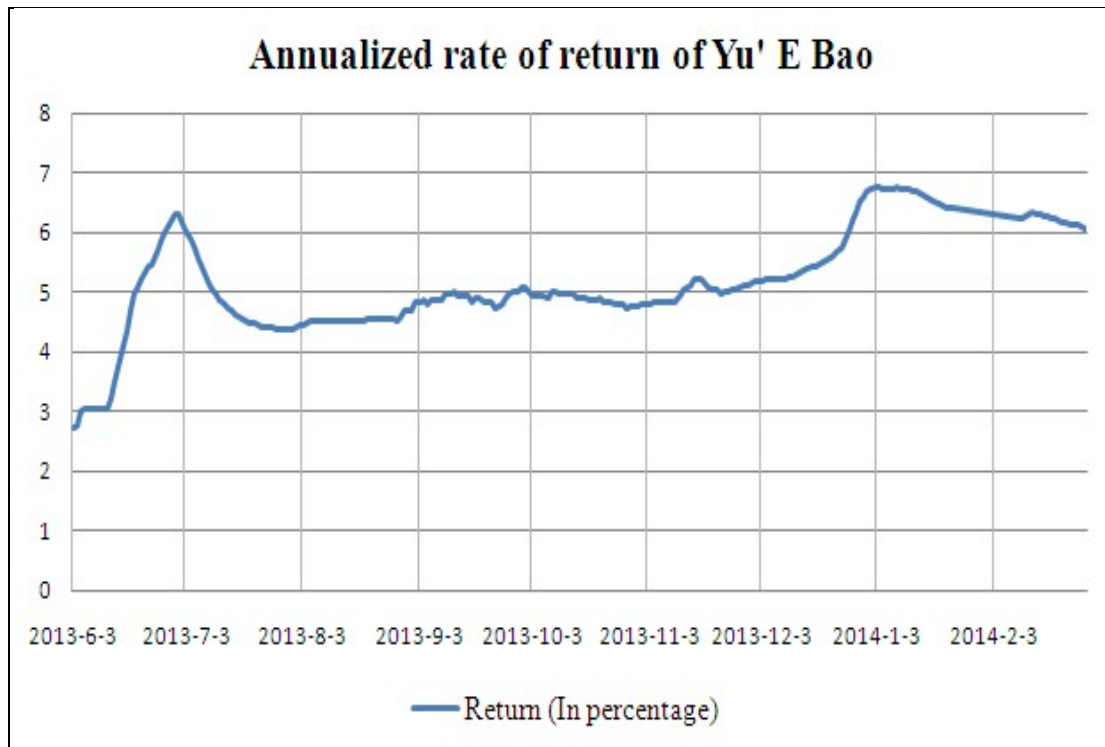


Figure 1. Annualized rate of return of Yu'E Bao since its establishment.

Figure 1 shows the annualized rate of return in percentage of Yu'E Bao during 3 June 2013 to 1 March 2014.

What Does Yu'E Bao Invest in?

Currently, all funds raised by Yu'E Bao directly go to Zengli Bao fund, managed by Tian Hong Asset Management Co. Zengli Bao is a money market fund, and mainly invests in Chinese sovereign debt, high-rated and short-term corporate bond, and inter-bank money markets. Table 2 shows the portfolio asset allocation of Yu'E Bao at the end of the third and fourth quarters of 2013. The major investment of Yu'E Bao was allocated in inter-bank loans. Further, the percentage of investment allocated in inter-bank loans had even increased from 84.52% to 92.21% during the fourth quarter of 2013, which may be due to that the Shanghai Interbank Offered Rates (SHIBORs) moved up during at the end of 2013. The overly concentrated investment indicates that Tian Hong may need diversify the portfolio of Yu'E Bao by allocating more investment in other assets, such as high-rated and short-term corporate bonds, especially when SHIBORs are moving down. As of the end of 2016, Yu'E Bao's asset allocation was still quite similar to those in 2013.

As shown in Figure 1, the highest return of Yu'E Bao occurred at the end of 2013 and early of 2014. As shown in Figures 2 and 3, after July 2013⁵, the highest SHIBORs also occurred at the end of 2013. However, this was a lag between the return of Yu'E Bao and SHIBORs as the profit from investing in money market

⁵ During the first two months after the establishment of Yu'E Bao, there were not quite many investors and the size of Yu'E Bao was not large. Due to the small size, the early return of Yu'E Bao was not considerably high.

needed a few days to show in investors' accounts. Table 3 shows the correlations between the return of Yu'E Bao and different SHIBORs⁶. The return of Yu'E Bao was highly correlated with three months, six months, nine months, and one year SHIBORs, but is not highly correlated with over night, one week, and two weeks SHIBORs. Therefore, although Yu'E Bao did not disclose the maturities of inter-bank loans in which they invested, most of the investments of Yu'E Bao should have been allocated in three months to one year inter-bank money markets. The investment of Yu'E Bao was excessively sensitive to the SHIBORs. This may help Yu'E Bao maintain a relatively high return when SHIBORs were high, but might also drive down the return when SHIBORs become low. As shown in Table 4, the one month SHIBOR was the highest among all SHIBORs. However, the standard deviations of three months to one year SHOBIRs were much lower than those of other SHIBORs. As such, the purpose of Tian Hong allocating most of funds in three months to one year inter-bank money market could be seeking a relatively stable return.

Table 2

Yu'E Bao's Portfolio Asset Allocation

Type of assets	Value (Chinese yuan)	Proportion (%)
Panel A: At the end of the third quarter of 2013		
Fixed income (bonds)	3,833,008,248.89	6.88
Repurchase agreement	4,463,318,392.04	8.01
Inter-bank money loans	47,120,567,949.34	84.52
Others	331,803,873.85	0.6
Total	55,748,698,464.12	100
Panel B: At the end of the fourth quarter of 2013		
Fixed income (bonds)	12,762,005,913.59	6.7
Repurchase agreement	1,580,737,687.37	0.83
Inter-bank money loans	175,541,017,053.14	92.21
Others	492,025,474.79	0.26
Total	190,375,786,128.89	100
Panel C: At the end of the 2016		
Fixed income (bonds)	143,286,221,126.28	17.91
Repurchase agreement	12,270,514,478.60	1.53
Inter-bank money loans	643,695,178,486.11	80.44
Others	961,005,215.42	0.12
Total	800,212,919,306.41	100

This table shows Yu'E Bao's portfolio asset allocation at the end of the third and fourth quarters of 2013, and at the end of 2016.

⁶ This study uses three-day lagged annualized rate of return of Yu'E Bao in the correlation analysis. This study also uses one-day, two-day, and four-day lagged returns of Yu'E Bao, and the results are similar. Due to the size limit, these results are not reported, but are available upon request.

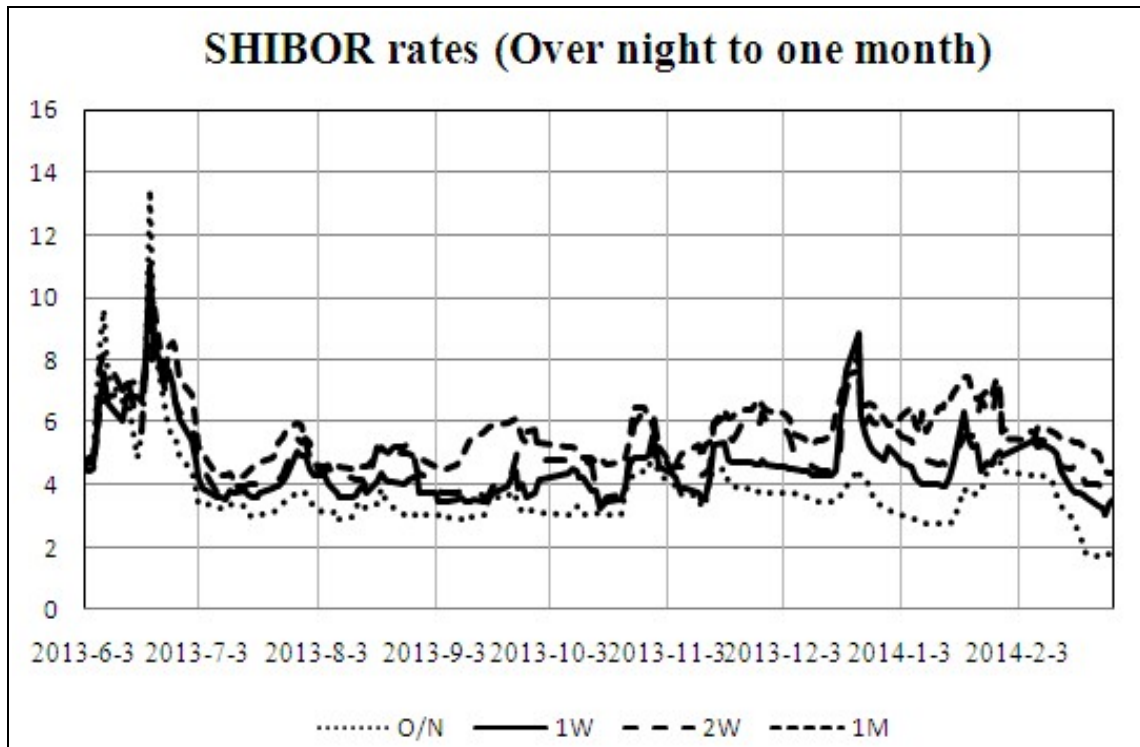


Figure 2. SHIBOR rates (over night to one month) from June 2013 to Mar. 2014.

Figure 2 shows the over night, one week, two weeks, and one month SHIBORs in percentage.

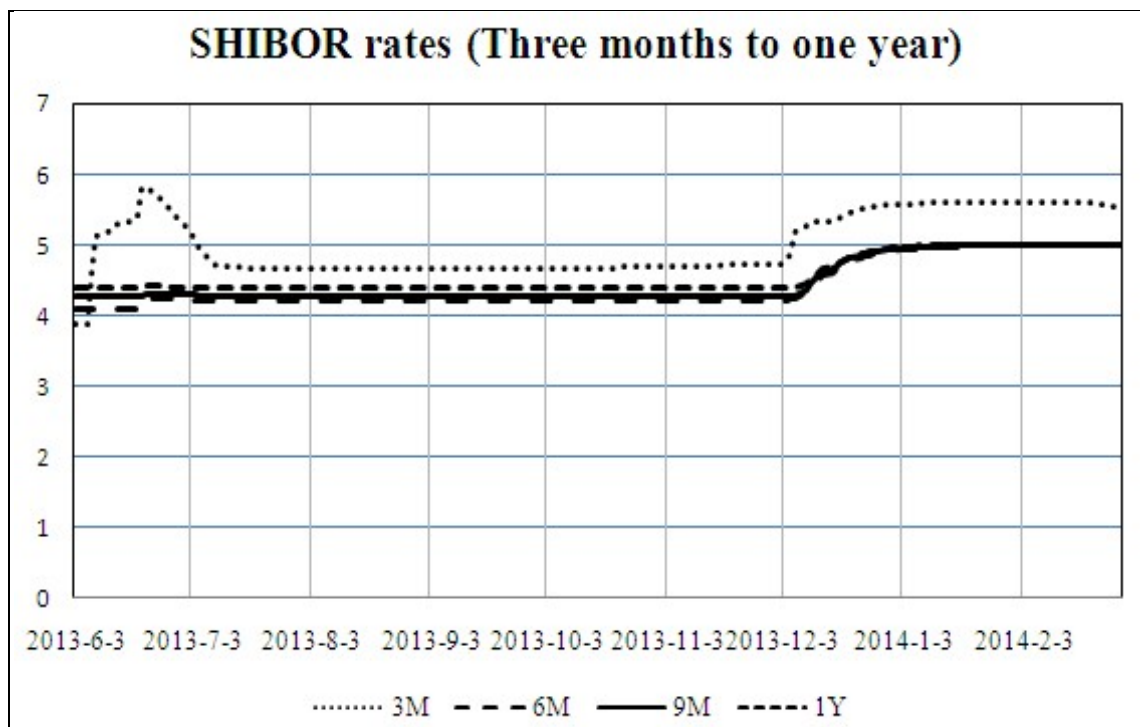


Figure 3. SHIBOR rates (three months to one year) from June 2013 to Mar. 2014.

Figure 3 shows the three months, six months, nine months, and one year SHIBORs in percentage.

Table 3

Correlations Between Yu'E Bao Return and SHIBOR Rates

	O/N	1 week	2 weeks	1 month	3 months	6 months	9 months	1 year	Yu'E Bao
O/N	1	0.872***	0.796***	0.714***	0.435***	0.045	-0.001	-0.006	-0.203***
<i>p</i> -value		0.001	0.001	0.001	0.001	0.449	0.980	0.921	0.007
1 week		1	0.892***	0.852***	0.621***	0.285***	0.240***	0.234***	0.167**
<i>p</i> -value			0.001	0.001	0.001	0.001	0.001	0.001	0.027
2 weeks			1	0.881***	0.669***	0.357***	0.296***	0.290***	0.135*
<i>p</i> -value				0.001	0.001	0.001	0.001	0.001	0.075
1 month				1	0.812***	0.491***	0.414***	0.405***	0.455***
<i>p</i> -value					0.001	0.001	0.001	0.001	0.001
3 months					1	0.807***	0.727***	0.717***	0.845***
<i>p</i> -value						0.001	0.001	0.001	0.001
6 months						1	0.987***	0.984***	0.813***
<i>p</i> -value							0.001	0.001	0.001
9 months							1***	0.999***	0.784***
<i>p</i> -value								0.001	0.001
1 year									0.783***
<i>p</i> -value									0.001
Yu'E Bao									1

Notes. This table shows the correlations between the annualized rate of return of Yu'E Bao and different periods SHIBOR rates. ***, **, and * represent statistically significant at the 0.01, 0.05 and 0.10 levels, respectively.

Table 4

Descriptive Statistics of SHIBORs

	O/N	1 W	2 W	1 M	3 M	6 M	9 M	1 Y
Mean	3.75	4.59	5.06	5.66	4.99	4.42	4.46	4.56
Median	3.45	4.32	4.81	5.41	4.71	4.22	4.27	4.40
Std. Dev.	1.34	1.15	1.08	1.04	0.44	0.33	0.31	0.25

Note. This table reports the mean, median, and standard deviation (in percentage) of different SHIBORs during June 2013 to March 2014.

Impact of Yu'E Bao on Other Sectors of Economy

The so far success of Yu'E Bao has made an instant impact on current Chinese financial system and also other sectors of economy. There are many other similar online investment products that have emerged, such as the Li Cai Tong launched by WeChat, which is a WhatsApp style instant messenger and wholly owned by Tencent, the largest Chinese internet service provider. According to the report by Financial Times, for every 12 Chinese Yuan that companies and individuals have deposited in Chinese banks since June 2013, they placed roughly one Chinese Yuan in their Yu'E Bao accounts, and the transfer of cash from banks to the Yu'E Bao was even speeding up⁷. Therefore, the first sector that has been affected by online investment products was banking industry, which has benefited from the state-protection for a long period. If the CSRC and the PBC do not issue additional regulations to restrict the development or increase the administrative costs of online investment products, the profits of commercial banks will be further eroded. Based on the current size of Yu'E

⁷ Please see: <http://www.ft.com/cms/s/0/58dfd7ce-63d8-11e3-98e2-00144feabdc0.html#axzz2urRekpf>.

Bao, 800 billion Chinese Yuan, the profits of commercial banks eroded by Yu'E Bao is approximately 26.28 billion Chinese Yuan⁸ every year.

Chinese stock exchanges, including both Shanghai stock exchange (SHSE) and Shenzhen stock exchange (SZSE), have performed poorly since the 2008. Due to the poor investor protection resulted from that State plays the roles of both regulator and major participants (a number of listed firms are still ultimately controlled by the government) (Allen, J. Qian, & M. Qian, 2005; Zou, Wong, Shum, Xiong, & Yan, 2008), and poor internal corporate governance of listed firms (Wei, Xie, & Zhang, 2005; Yuan, Xiao, & Zou, 2008), many investors lost their confidence in stock markets, and started to look for other investment channels. Yu'E Bao and similar provided local investors a new investment option other than domestic stock markets, which may constantly reduce the money flowed in stock markets.

Risk Associated With Yu'E Bao and the Like

Although Yu'E Bao mainly invests in sovereign debt and inter-bank money markets, there are still certain risks associated with the investment. Currently, one of the major criticisms on Yu'E Bao is that Alibaba does not invest any of its own capital in Yu'E Bao. As such, Alibaba does not share any risks with the investors of Yu'E Bao. To ease investors' concerns, Alibaba provided insurance to investors by cooperating with Ping An Insurance Co, one of the largest insurance companies in China. All investors' losses will be covered by Ping An Insurance Co, and there is no limit for compensation on investors' losses.

Although Alibaba has provided insurance to investors to compensate the potential losses, there is still a concern about that Alibaba does not disclose all information regarding the risks associated with Yu'E Bao. The other major risk faced by Yu'E Bao is the liquidity risk. Yu'E Bao transfers the return to investors' account on a daily basis. However, neither inter-bank loans nor sovereign debts pay interests on a daily basis. Therefore, there is a mismatch between the interests received by Yu'E Bao and the funds it pays to investors. Further, since investors are allowed to withdraw their money at any time, Alibaba would face a serious liquidity risk when the interest rates of inter-bank loans move down and withdraw suddenly exceed expectation. Yao, Ma, and He (2014) find that a herding behaviour is pronounced among stock market investors under conditions of declining markets. As such, it is likely that investors of Yu'E Bao may heavily withdraw their money from Yu'E Bao when the returns of inter-bank money market are decreasing. So far, Alibaba and Tian Hong do not clarify how they would handle such a situation.

Moreover, investors worry that what Alibaba does at this stage is exploiting the loopholes in current legal and regulated systems, as there are no relevant rules or regulations that closely monitor the operation of new online investment products. Since the majority of the investments of Yu'E Bao have been placed in inter-bank money markets, the PBC ought to closely watch over the operation of Yu'E Bao. However, a high ranking officer of the PBC suggested that the major regulator should be the Chinese Securities Regulatory Commission (CSRC), as Yu'E Bao is essentially a mutual fund⁹. The CSRC initially responded that Yu'E Bao was a financial innovation and provided investors with more options, and hence, should be encouraged¹⁰ on 21 June

⁸ The current size of Yu'E Bao is around 800 billion, and around 90% of the funds have been allocated in inter-bank markets. The difference between the annualized rate of return of Yu'E Bao and current rate on deposit is about 3.65% (i.e. 4%-0.35%). Therefore, the money invested in inter-bank loans can generate annual returns around 26.28 billion Chinese Yuan (i.e. $800 \times 90\% \times 3.65\%$).

⁹ Please see: http://finance.ifeng.com/a/20130702/10049385_0.shtml.

¹⁰ Please see: http://www.csrc.gov.cn/pub/newsite/bgt/xwfbh/201306/t20130621_229568.htm.

2013 when Yu'E Bao had been launched by Alibaba for only two weeks. Recently, anecdotal evidence suggests that the CSRC is about to increase the capital adequacy ratio of money market funds to hedge against potential risk, which would directly lower the return of Yu'E Bao. However, till present, there are not any new provisions that regulate the online investment products, such as Yu'E Bao, issued by the CSRC.

Possible Regulations

Will the CSRC and the PBC Prohibit the Operation of Yu'E Bao?

Since Yu'E Bao and the like have exerted a significant impact on Chinese financial system, especially the banking industry, this is a concern that the CSRC and the PBC would work together to prohibit the operation of Yu'E Bao. However, this is not likely to happen. One of the major policies of Chinese government is to make the country stable (*Wen Ding Ya Dao Yi Qie*) (Gallagher, 2005). Considering that Chinese citizens have been arguing the returns of bank deposits are too low and there are no replaceable investment products at current stage, prohibiting Yu'E Bao and the like would result in a serious citizen discontent. This argument has also been supported by recent news. The central bank governor announced that the government would not prohibit Yu'E Bao and the like but to improve the regulations during the 2014 annual meeting of national people's congress¹¹.

Possible Regulations

The two major risks associated with Yu'E Bao are online account risk and liquidity risk. The same as PayPal money market fund, Yu'E Bao is subscribed through a third-party payment platform, namely Alipay. It is possible that investors' accounts can be hacked. Moreover, investors can manage their Alipay accounts on mobile phones through using the Alipay mobile app. The risk of investors' Alipay accounts being hacked would be even higher when they lose their mobile phones. Although Alibaba allows investors to suspend their accounts temporarily by reporting to Alibaba when losing their mobile phones, investors may not instantly be aware of that their phones are lost. Recently a few cases have been reported on media that some investors' Alipay accounts were hacked and their money was transferred to other accounts involuntarily. Therefore, controlling the safety of Alipay accounts is of the utmost importance to keep investors' money safe. Note that this is technique issue, and addressing this issue may involve government agencies other than the PBC. As such, the PBC ought to work together with the government agencies, such as Ministry of Industry of Information and Technology, to force Alibaba to provide better protection to investors' Alipay accounts. One possible solution is that investors' accounts have to be compulsively bound with one or two bank accounts of investors' own, so that the money in investors' Alipay accounts cannot be transferred to other bank accounts even if investors' computers or mobile phones are hacked.

As mentioned earlier, Yu'E Bao faces a serious liquidity risk, and such risk is even higher when withdrawal suddenly exceeds expectation. As there is a herding behavior among Chinese investors, especially under conditions of declining market (Yao, Ma, & He, 2014), a high rate of withdraw is likely to occur when the returns of inter-bank money market become low. Currently, the CSRC¹² only requires domestic mutual funds to hold cash in reserve no more than one percent of mutual funds' net assets to hedge against risk, and the cash in reserve should come from the administration fee and custody fee. As such, according to the current size

¹¹ Please see: <http://news.163.com/14/0305/02/9MHOIQSK00014AED.html>.

¹² Please see: http://www.csrc.gov.cn/pub/zjhpublic/G00306201/201309/t20130927_235506.htm.

of Yu'E Bao, 250 billion Chinese Yuan, it needs hold 2.5 billion Chinese in reserve. Table 5 shows the interests paid by Yu'E Bao to its investors and the subscription and redemption by investors at the end of 2013 and 2016. The accumulated returns for investors were around 1.8 and 68.1 billion Chinese Yuan at the end of 2013 and 2016, respectively. Considering the size of Yu'E Bao is still growing, the cash hold by Yu'E Bao can only cover the annual interests it paid to investors, but may not be high enough to hedge against the liquidity risk when redemption suddenly exceeds subscription.

Table 5

Investors Subscription and Redemption and Interest Paid by Yu'E Bao

Date	Subscription	Redemption	Accumulated return	Total net assets
2013-12-31	321,515.00	191,827.00	1,784.00	185,342.00
2016-12-31	8,128,132.00	7,940,529.00	68,110.00	808,294.00

This table shows the amount of money (in million) of subscribed and redeemed by investors and the interest (in million) paid by Yu'E Bao during the third and fourth quarter of 2013.

To keep the liquidity risk under control, regulators ought to require Yu'E Bao and the like to hold more capital in reserve. However, it is noteworthy that doing so will increase the cost of capital and reduce the yields of these online investment products. Since Yu'E Bao and the like provide higher returns and lower investment threshold than other investment products, i.e. bank deposits and wealth management products of banks, any new regulations that force up the cost and drive down the returns of online investment products would cause investors to be disgruntled. As such, a gradually increase in the capital that online investment products should hold in reserve could be a good option. In the meanwhile, the PBC should also provide essential investor education to help investors understand the potential risks associated with Yu'E Bao and the like. Further, the PBC may provide more autonomy to commercial banks, i.e. release the limitation on the bank deposit rates, so that commercial banks can offer higher deposit rates to customers and compete with Yu'E Bao and the like.

Conclusion

The emergence of Yu'E Bao and the like provides Chinese investors with a more flexible investment option, and forces up the cost of capital of banks, who have benefited from the government protection for a long period. Yu'E Bao is not a truly innovation. PayPal had launched a similar money market fund in early 2000s, but shut it down in 2011. Whether Yu'E Bao and the like would fail as PayPal money market fund does largely depend on two major factors: (1) whether they can provide investors constantly higher returns than other investment products; (2) whether the risks associated with them can be controlled. The current returns of Yu'E Bao and the like are more than 10 times of bank current deposit rates. Most investment of Yu'E Bao has been allocated in inter-bank money market. Yu'E Bao could reduce its exposure to inter-bank money markets and allocate more investment in other assets, so that their returns may not be affected when SHIBORs decrease.

On the other hand, regulators should issue more provisions to further regulate the operation of online investment products and keep the liquidity risk under control, i.e. require money market funds to hold more capital in reserve on a gradual basis. Moreover, regulators could provide banks with more autonomy to benefit investors by offering more investment options. Since Chinese investors are lack of expertise and may be not fully aware of the risks associated with online investment products, providing essential investor education is also the obligation of regulators. This study examines the case of Yu'E Bao, a new online investment product in

China, and also sheds light on the financial reform of China. Future study can contribute to literature by investigating the portfolio selection criteria and daily returns of online investment products and their impact on the cost of capital of commercial banks if data become available.

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