ORIGINAL PAPER

DOI: 10.26794/2587-5671-2021-25-6-16-28
UDC 336.764.061(045)
JEL D82, G24, G32, E22

Analysis of the Dynamics of IPO Transactions in the Banking Sector

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ABSTRACT

IPO (initial public offering) is a widespread financing instrument in the world, however, the scientific community pays little attention to the dynamics of IPOs in the banking sector. The **aim** of the study is to critically analyze the dynamics of IPO transactions of credit institutions on the horizon from January 1, 2000, to December 31, 2020. The research **methodology** includes analytical methods for collecting and processing information, comparative and graphical analysis of the database collected by the author and consisting of 305 IPOs of banks from 2000 to 2020. The study compares the dynamics of IPO transactions of credit institutions from developed and developing countries, identifies characteristics inherent in each market, and explains the differences in market dynamics. The study reveals clustering in the IPO market of credit institutions and compares clustering with the general market of initial public offerings. It is shown that lending institutions around the world have actively attracted funds through IPO, having placed their shares for a total of $ 218 billion. The bulk of the funds were attracted by banks from emerging markets, primarily from China. During this period, there were 3 IPO waves on the banking IPO market, characterized by a significant increase in placement volumes and profitability on the first day of trading. This clustering in the IPO market of credit institutions was not typical only for the banking sector but coincided with the global growth in the number of transactions and IPO yields. The author **concludes** that the placement of shares of credit institutions during the hot market period is the most promising in terms of the volume and dynamics of raising funds; the IPO market of credit institutions retains high growth potential, primarily in Asia and the CIS.

Keywords: Initial Public Offering (IPO); IPO of commercial banks; IPO cycles; clustering

For citation: **Belyaev V.A. Analysis of the dynamics of IPO transactions in the banking sector. *Finance: Theory and Practice*. 2021;25(6):16-28. DOI: 10.26794/2587-5671-2021-25-6-16-28**

INTRODUCTION

Banks are financial intermediaries in the economy; the stability of the country's economy and the possibility of sustainable economic development in general depend on their financial position. The banking sector is fundamentally important for the day-to-day functioning of the economy, and a crisis in the banking sector can have irreparable consequences for macroeconomic stability due to the action of a financial accelerator [1] and, moreover, can lead to a global economic crisis, as happened in 2008.

Due to its importance to the economy, the banking sector is most heavily regulated by supervisors, primarily central banks. The Basel Committee on Banking Supervision at the Bank for International Settlements provides recommendations on the regulation of capital adequacy ratios for banks. Central banks and relevant regulators take these recommendations into account when shaping supervisory policies domestically. Requirements for reserve funds have doubled in 15 years, and additional coefficients have appeared to protect against cyclical fluctuations of the economy, which, in turn, further limits the ability of banks to increase their loan portfolio [2].

A long period of tightening requirements for the capital adequacy of banks, as well as the need to increase equity capital to create a loan portfolio, are forcing credit institutions to look for new sources of financing. In this situation, the attraction of additional funds by banks through the initial public offering of shares on the stock exchange is a logical decision. Raising additional resources through the placement of shares on the stock exchange has an advantage over the placement of bonds, since this type of financing is not borrowed and is not considered as a bank's obligation when calculating capital adequacy ratios, and also does not imply a mandatory return of borrowed funds.

In addition to the need to comply with capital adequacy standards, banks can raise funds through an IPO (initial public offering) to strengthen their market positions through mergers and acquisitions, entering new markets of presence and developing their branch network. The IPO mechanism makes it possible to privatize the state's share in a credit institution, as was the case in Russia in 2007 during the "people's IPOs" of Sberbank and VTB, as well as a number of Chinese banks, and, in addition, effectively monetize the share of the bank's existing shareholders. Another motivation for the bank's IPO is to raise funds for the development of financial technologies.

The banking sector is cyclical and correlates with economic growth in the country, which is confirmed by the research of U. Albertazzi, L. Gambacorta [3]. The measures to regulate the banking sector, as well as the regulatory approach proposed by the Basel Committee, in turn, are aimed at reducing the cyclical factor in the banking sector by creating additional reserves.

Banks' profits depend on the interest rate in the country and on the growth of lending. During the period of economic growth, the demand for loans grows, which positively affects the growth of banks' profits. During crises, banks, as a rule, cut back on lending, as the financial position of borrowers deteriorates significantly, which leads to a drop in the growth rate of the loan portfolio. However, the government's stimulating policy aimed at leveling the crisis in the economy by lowering the key rate and additional measures to support banks, such as placing deposits in accounts and reducing the reserve rate, also increases the banks' resilience to cyclical fluctuations in the economy [4].

This paper presents a critical analysis of the dynamics of the IPO market of credit institutions. The scope of the analysis is 20 years, from January 1, 2000 to December 31, 2020. The sample included IPOs of banks in the amount of more than $ 20 million, for which data on the dynamics of the share price on the first day of the placement were available. The database is compiled on the basis of the information portals CapitalIQ and PREQVECA.

A number of economists, such as N. Liang [5], M. Dicle [6], W. Mehmood [7], K. Song and others [8–26], have devoted their works to the problems of studying the IPO market, but the issue of IPO in the banking sector has received little attention in the scientific community, despite the importance of this sector to the economy.

ANALYSIS OF IPO DYNAMICS IN THE BANKING SECTOR

The database compiled by the author includes 305 IPO transactions of credit institutions completed from 2000 to December 2020. The total amount of funds raised during the IPO of banks is $ 218 billion (*Fig. 1, 2*).

It should be noted that the market clearly shows three IPO waves, characterized by a large volume of placement of shares, as well as a higher yield of placements on the first day of trading. It is noteworthy that these IPO waves coincided with the general growth of IPO transactions in the indicated years and are not typical only for the banking sector. This fact correlates with the results of a study by J. Helwege, N. Liang that clustering IPOs in certain industries is not typical for a "hot" or "cold" market, and during a "hot" market, companies from different industries tend to place their shares on exchange [5]. In total, there were three IPO waves during this period: 2005–2007, 2010–2011, 2014–2017 [6].

The average IPO size of credit institutions over 20 years amounted to $ 711 million, and the average value was $ 150 million. At the same time, the average transaction size in emerging markets significantly exceeded the average amount of funds raised by credit institutions from developed countries — $ 1.1 billion versus $ 309 million. Moreover, the average profitability of the first day of trading is also higher for banks from developing countries — 34% versus 5%. The number of transactions worth more than $ 1 billion in emerging markets was 29 versus 10 in developed ones.

Higher IPO returns in emerging markets are not unique to the banking sector. According

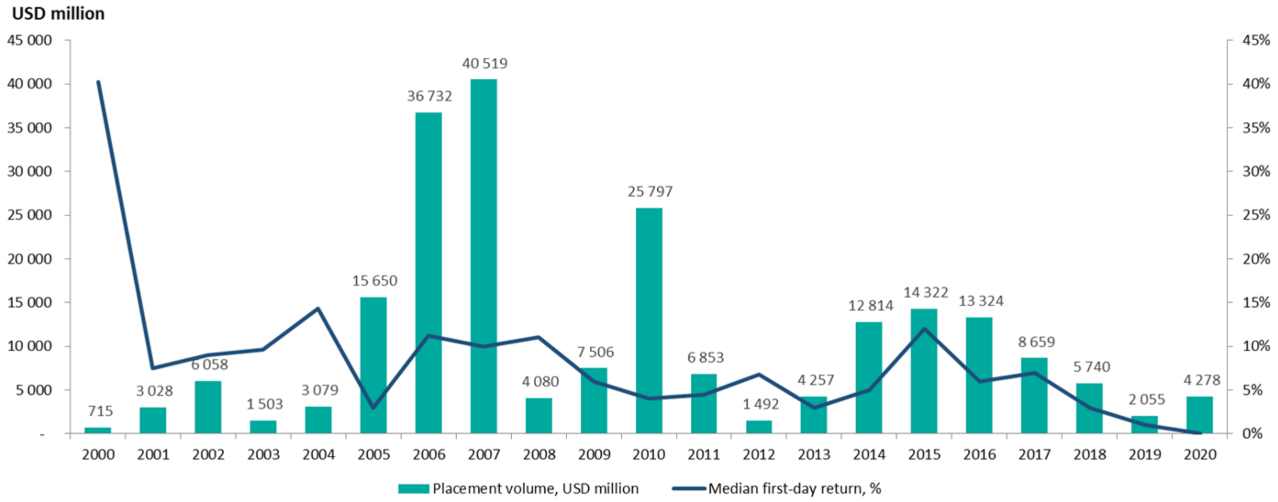

Fig. 1. **IPO volume in banking and median first-day return**

Source: (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (дата обращения: 21.03.2021) / (accessed on 21.03.2021).

to research by W. Mehmood, R.-M. Rashid, A.H. Tajuddin, the first-day return of the IPO of companies from developing countries, on average, exceeded the profitability of IPOs of companies from developed countries [7]. According to research by K.R. Song and Y. Lee, the average IPO dynamics for companies from developed countries was about 15%, and for companies from developing countries — 60%. It should be noted that the greatest dynamics was shown by the shares of companies in the Asian region [8]. The results of these studies are also confirmed by data on IPOs of banks (*Fig. 3*).

Geographically, the bulk of fundraising during IPO came from China (*Fig. 3*) — local banks in aggregate attracted about half of the total volume of the banking IPO market, while 51 transactions were carried out, which is 16% of the total volume of transactions in the sample (*Fig. 4*). Chinese banks have had a significant impact on the banking IPO market, but it is worth noting that the dynamics of placements by both Chinese banks and banks in the rest of the world coincided with the worldwide waves of IPOs observed in the market. There are differences in the dynamics of placements within the waves, but the bulk of the funds raised fell on the hot IPO markets (*Fig. 5*).

The Chinese economy is characterized by high growth rates, and banks have been actively raising funds by placing shares on financial markets. Chinese banks carried out record transactions not only for the banking sector, but also for the entire IPO market at that time — the Industrial and Commercial Bank of China and the Agricultural Bank of China raised more than $ 19 billion each during the placement of shares. The average IPO size in China during this period was $ 2 billion, and the average value was $ 700 million, which is significantly higher than the market average for this period. It should be noted that the yield on the IPO of Chinese banks also significantly exceeded the yield on the IPO of credit institutions in the rest of the world — the average and median yield was 24% and 14%, respectively (*Fig. 6*).

The entry of Chinese banks to the stock exchange was preceded by a long process of reforming and restructuring credit institutions. After China's accession to the WTO in 2002, the Chinese government embarked on a policy of bank liberalization. The aim of the state banking policy was to improve the efficiency of banks in terms of making a profit and reducing the level of problem loans. Many banks had a high percentage of overdue loans on their balance sheets, the volume of which could reach 11–15% of assets. Most of the bad loans were transferred to specially created bad asset funds, and the banks were capitalized at the expense of government reserves and the issuance of government bonds. The Chinese government used the IPO instrument as an effective way to reduce the state's share in the capital of credit

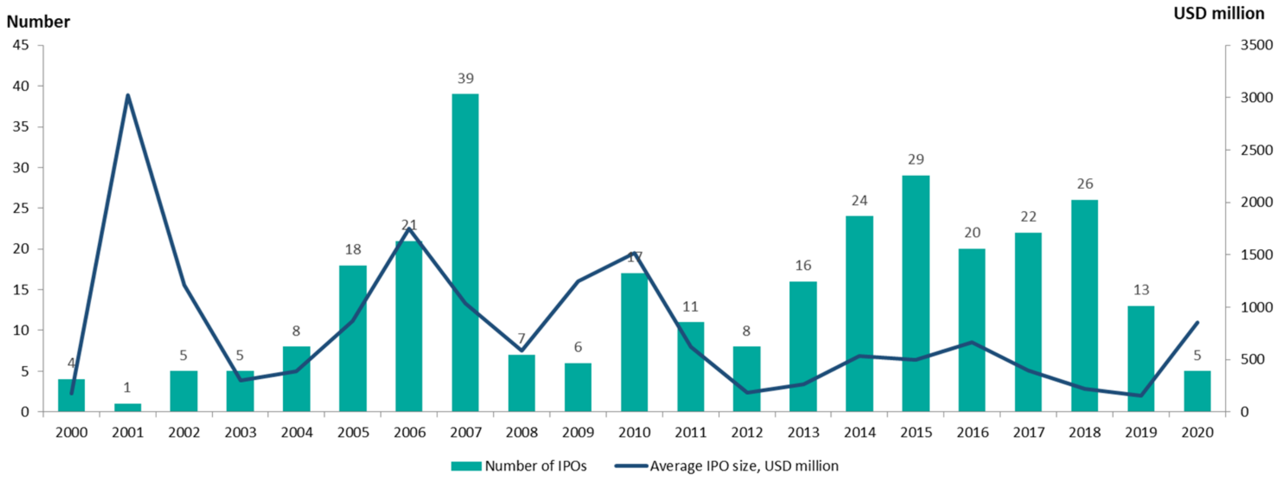

Fig. 2. **Number of IPOs in banking**

Source: CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

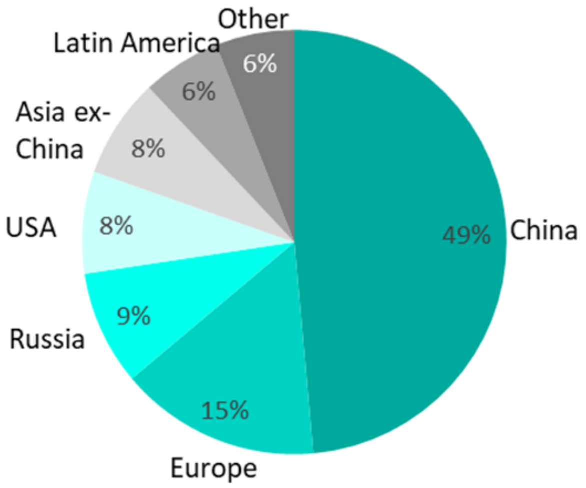

Fig. 3. **Share of IPO market in banking by country in 2000–2020**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

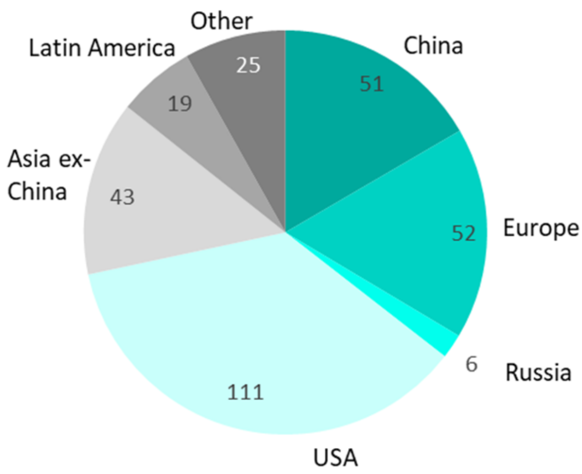

Fig. 4. **Number of IPOs in banking by country in 2000–2020**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

institutions. This process took place within the framework of liberalizing the local market and reforming the financial sector to increase its stability and transparency. Another factor that increased the attractiveness of banking sector shares for investors, as well as the transparency of the financial system, was the introduction of Basel II standards that were relevant for this period [9–11].

The demand for shares of Chinese credit institutions during the IPO was mainly represented by local investors and financial institutions and significantly exceeded the supply — the order books were often re-signed several times, and often several dozen times [11]. It should be noted that such high indicators of profitability on the first day of trading in shares of Chinese banks are explained by the specifics of the local market and are characteristic not only of the banking sector [12].

In terms of the number of IPOs, the USA is in first place, but in terms of the total volume of

Fig. 5. **IPO volume in China and the rest of the world**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

attracted funds, the USA is in fourth place. The major US banks, as those in Europe, were listed on the stock exchange before 2000, but the US banking system is characterized by a significant number of relatively large regional banks that actively listed their shares on the stock exchange. The most liquid financial market and relatively low transaction costs when entering the stock exchange also contributed to the attraction of financing through the IPO instrument [13].

However, the average IPO size in the United States is one of the lowest — $ 153 million, and the median value is only $ 55 million, which is 3 times less than the world average. The average return on the first day of trading in bank shares on the US stock exchange was 4%. It should be noted that in the United States, the number of IPOs, as a result of which, at the end of the first day of trading, the shares of the issuing bank fell below the offering price, is quite large — 26 transactions (23% of all transactions), and the average drawdown was 21%. It is noteworthy that US banks entered the IPO market quite confidently, regardless of the state of the market cycle (*Fig. 7*). Only two US banks raised more than $ 1 billion in their IPO: CIT Group placed $ 4.6 billion in shares in 2002, and Eastern Bankshares raised over $ 1.7 billion in 2020.

European credit institutions held a significant share of the bank IPO market during this period, despite the fact that the main largest placements of shares of European banks took place before 2000 (BNP in 1993, Banca Nazionale del Lavoro in 1998, Credit Lyonnais in 1999). In aggregate, European banks attracted $ 33.5 billion, the average and median transaction value amounted to $ 643 and 316 million, respectively, which is close to global indicators and significantly exceeds the indicators of the United States (*Fig. 8*). The banking system in Europe is less concentrated than in China, and is also characterized by a fairly large number of regional banks.

Russian banks raised a total of $ 19 billion, the bulk of which was raised in 2007, when shares of Sberbank, VTB and Bank St. Petersburg were placed. This year, Russia accounted for about 20% of all raised funds in the total volume of the banking IPO market. These placements were quite successful, given the fact that on the first day of trading the price of shares of credit institutions was higher than the offering price, but the yield was still below the world average for this period. In the aftermath of the financial crisis, only one bank, with the main business in Russia, held an IPO worth more than $ 1 billion — in 2013, Tinkoff raised $ 1.08 billion by listing its shares on the London Stock Exchange. The last IPO in the Russian banking sector during this period occurred in 2015, when MKB Bank placed its shares in the amount of $ 237 million (*Fig. 9*).

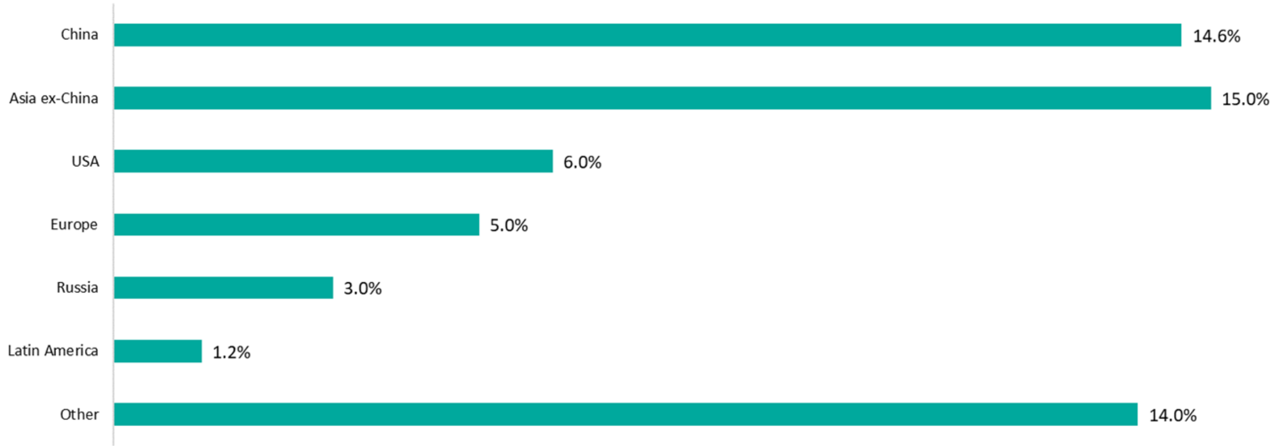

Fig. 6. **Median first-day return on IPOs in banking**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

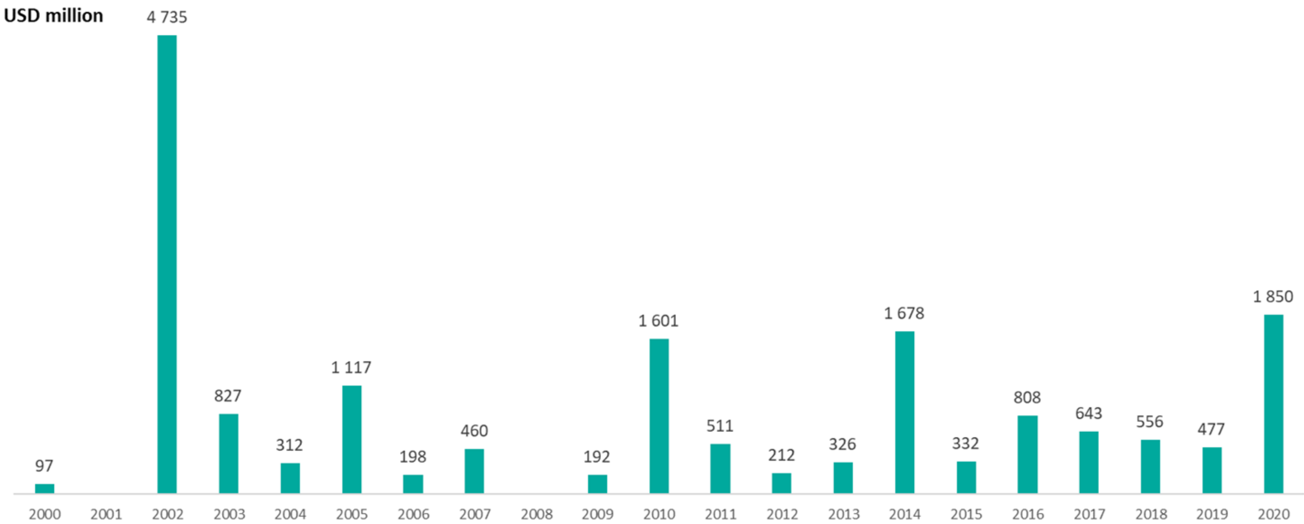

Fig. 7. **IPO volume in the USA**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

Only 6 Russian banks were listed on the stock exchange during the analyzed period, and 88% of all raised funds fell on two banks: Sberbank and VTB. It should be noted that practically all placements of shares of Russian credit institutions were successful, and banks were able to attract the declared funds. Despite the lower profitability on the first day of trading compared to world values, the average profitability in Russia was 4.17%, the median was 2.89% versus 21% and

6.8% globally, respectively. At the end of the first trading day, shares of only one bank fell below the placement price — quotes of NOMOS-Bank (Otkrytie FC Bank) lost 0.5%.

In addition to Chinese banks, credit institutions from other countries of the Asian region and, above all, from Japan, showed high activity in IPOs (*Fig. 10*). During this time, Japanese banks held 9 IPOs, placing their shares for a total of $ 12 billion. It is worth noting that the average IPO size of Japanese banks was quite high — $ 1.3 billion, and the median value was $ 480 million. The placement was carried out by banks, the main shareholders of which were American private equity funds — these funds

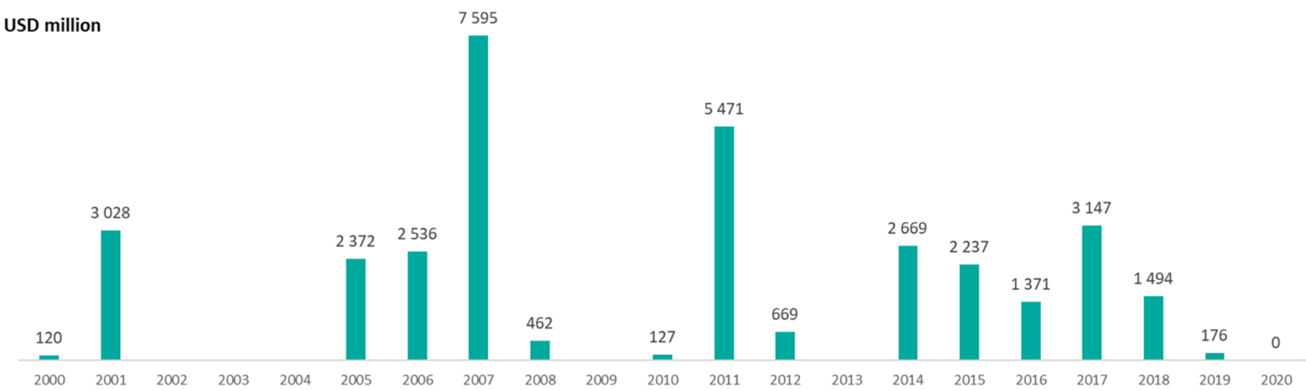

Fig. 8. **IPO volume in the EU**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

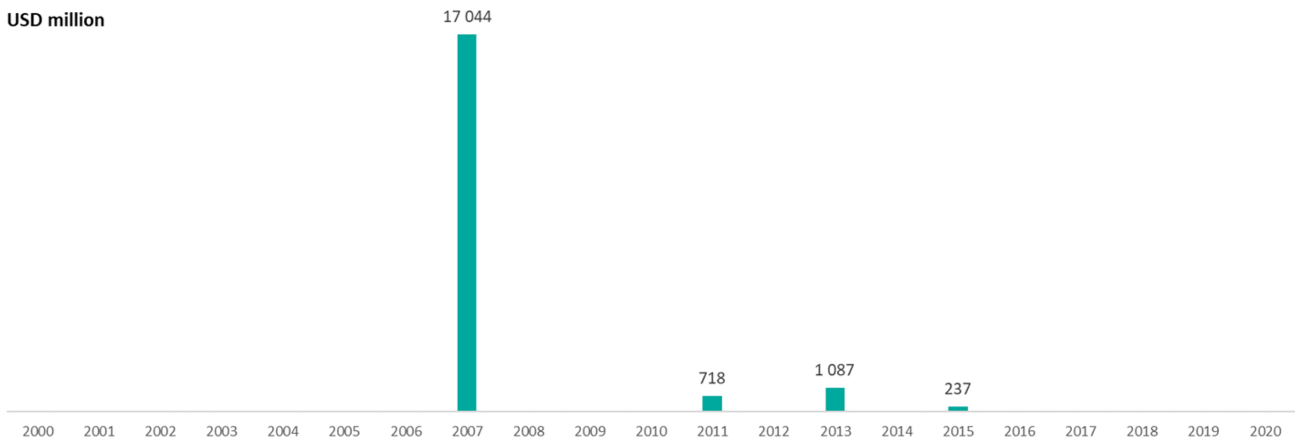

Fig. 9. **IPO volume in Russia**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

bought controlling or block stakes in Japanese banks that were on the verge of bankruptcy, and, after a deep restructuring, carried out an IPO.

Indian bank IPOs were low compared to the global average, averaging $ 171 million. During this period, a total of 12 banks listed their shares on the stock exchange, while the IPO activity of Indian banks has increased significantly over the past 5 years. Research by A.B. Sinha, B.M. Singh M. Singh [14] also points to an increase in the number of IPOs in India over the past few years. The authors associate this phenomenon with the achievement of new record values of indices in the Indian stock market and high rates of economic growth. Notably, while activity in the IPO market has been declining since 2017, the local Indian market has seen an increase in the number of IPOs. India's banking sector has significant IPO potential given the fact that only 5 of the 10 largest banks by asset size listed their shares on the stock exchange, as well as the significant growth of the banking sector in recent years and the continuing development prospects. In total, banks in the Asian region, excluding China, raised $ 16.6 billion through IPOs over 20 years (*Fig. 10*).

HOT IPO MARKETS

There are several parties involved in the IPO process, each of which strives to realize its goals. The task of the issuing company is to maximize the funds received from the sale of

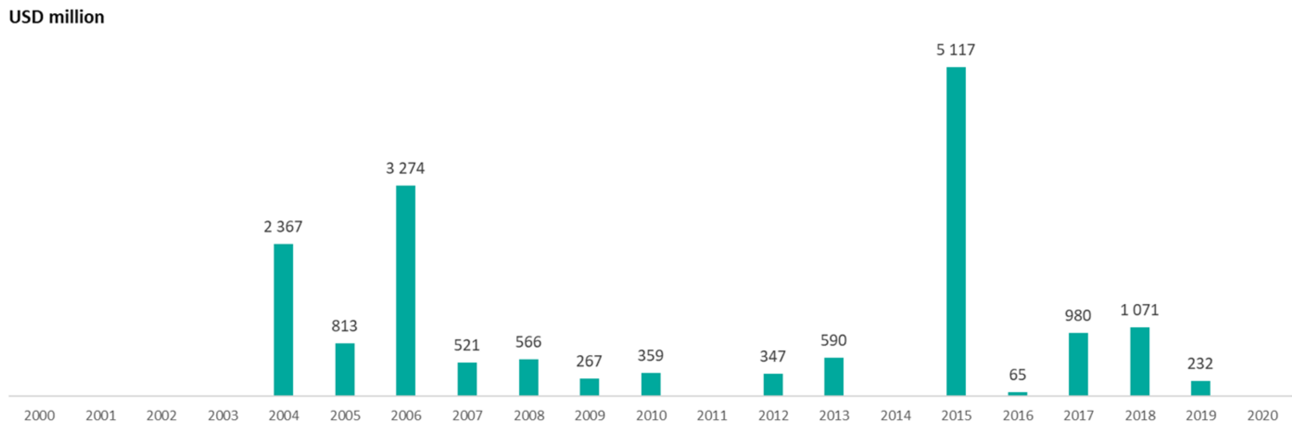

Fig. 10. **IPO volume in Asia ex-China**

Source: built by the author based on data from CapitalIQ, PREQVECA. URL: www.capitaliq.com (accessed on 05.04.2021); URL: http://www.preqveca.ru/placements/ (accessed on 21.03.2021).

its shares to a wide range of investors. Despite the potential conflict of interest, the goal of the underwriter is largely the same as that of the issuing company, as the underwriter's income depends on maximizing the demand and price of the company's shares. From the point of view of the issuing company and the underwriter, a successful IPO will consist of a full offering of the shares being traded in accordance with a valuation that suits the issuing company's shareholders. For an investor, the main goal of participating in an IPO is to generate income from the purchase of company shares. The rise in the value of shares during trading will be one of the main factors determining the success of an IPO for an investor. In other words, a successful IPO is characterized by a balance in achieving the goals of all parties involved.

During a hot market, the chances of achieving the goals of all parties are highest, as these periods are characterized by high demand for offered shares from investors, due to which a full placement of the company's shares is achieved. The high profitability of the company's shares on the first day of trading attracts special attention from both all parties involved in the IPO of shares and the scientific community [15].

It is customary to associate high stock returns on the first day of trading not only with the high interest of investors in the company's shares, but also with the deliberate underestimation of the issuing company during the IPO to ensure a full placement of the sold shares. Despite the fact that the high profitability of shares on the first day of trading can be interpreted as lost funds of the issuing company, such placements are considered successful, since during the IPO the entire volume of the placed shares is sold, and investors receive income from participation in the placement that meets the interests of all interested parties.

Many authors in the process of researching the problems of the IPO market use the concept of "hot" and "cold" IPO markets, but it should be noted that the definition of "hot" markets differs from one researcher to another and often the authors use their own methodology. As a rule, by "hot" IPO markets, researchers mean a situation in which the price of shares of companies on the first day or month of trading is characterized by high growth, and the number of companies entering the stock exchange increases significantly in a short period of time. These periods are characterized by increased investor risk appetite, as well as increased demand for shares of issuing companies. Given the cyclical nature of IPO markets, this period represents an upswing in the IPO wave followed by a downturn or cold market. The cold market is characterized by low returns on the first day of trading, as well as significantly fewer IPOs.

R.G. Ibbotson and J.F. Jaffe define a "hot" market as a situation in which the average return in the first month of trading in a listed stock is abnormally high relative to the market as a whole. It should be noted that the profitability of "cold" markets, according to the authors' methodology, does not have to be negative [16].

K. Penzin distinguishes three cycles in the IPO market, depending on the price dynamics on the first day of trading [17]:

- hot IPO market — the opening price is more than 15% higher than the offering price;
- warm IPO market — the opening price is less than 15% higher than the offering price;
- cold IPO market — the opening price is lower than the offering price.

In this paper, the term "hot" IPO market refers to a market situation in which the IPO volume and median return on the first day of trading increase significantly compared to the previous period.

The first IPO wave was observed in 2005–2007, this period was a record one in terms of the amount of funds raised not only for the banking sector, but also for other industries. This period was due to the high-risk appetite of investors against the background of positive expectations from the growth of the world economy [18, 19]. The median return on the first day of trading on shares of credit institutions increased over this period to 10.2% versus the median value over 20 years of 6.8%.

Half of the volume of funds attracted to the banking sector during this period was accounted for by banks from China, which together attracted $ 50 billion. It is worth noting that it was during this period that the largest placements of shares of Russian banks took place: the IPO of Sberbank and VTB for a total of $ 17 billion.

Despite the hot IPO market during this period, the dynamics of share prices of Russian banks on the first day of trading on the stock exchange after the placement turned out to be worse than the market — the median yield on placements of Russian banks was 4%, which is lower than the median yield on IPOs of credit institutions for this period of 10%.

This IPO wave is characterized by the fact that 80% of transactions during this period were carried out by credit institutions from emerging markets. The median first day IPO return for transactions in emerging markets in 2005–2007 was also significantly higher than the median return on IPOs of banks from developed countries — 14.3% versus 7%. It is noteworthy that during this period 10 banks from Brazil placed their shares, and in 2007 there were 9 placements, given that in 20 years only 12 Brazilian banks entered the stock exchange. However, despite the large number of placements by Brazilian banks, these IPOs cannot be called successful, since the yield on the majority of placements on the first day of trading was negative, and the median yield was 0%.

After the 2008 financial crisis, the number of IPOs by credit institutions dropped significantly, and it took the market several years to return to pre-crisis levels. However, it should be noted that, despite the low total volume of attracted funds, the initial public offering of the bank's shares, carried out in 2008–2009, was generally successful — out of 13 transactions during this period, only 3 placements were completed in the negative zone on the first trading day.

Research by R. Li, W. Liu, Y. Liu, S.-B. Tsai, as well as the works of C.-Y. Hsu, J. Yu, S.-Y. Wen confirm the fact that the profitability of companies' shares on the first day of their placement on the stock exchange fell significantly after the financial crisis of 2008, and the recovery of the IPO market took about 3 years [20, 21].

The second IPO wave took place in 2010 and lasted only a year. The volume of funds raised and the number of transactions increased several times compared to previous years, but almost 75% of all funds raised this year fell on the placement of the Agricultural Bank of China, which attracted $ 19.2 billion. It should be noted that this wave was also not typical only for the banking sector: the data collected in the work of U. Güçbilmez show a significant increase in IPO transactions in other sectors around the world in the period 2010–2011 [22].

This market recovery was fueled by the global economic recovery after the 2008 financial crisis, as well as the delay in going public for companies planning an initial public offering before the crisis. During this period, major global stock indices recovered and reached new records, as well as increased risk appetite for investors, which increased the chances of companies to successfully list shares on the stock exchange. However, events such as the military conflict in Libya, the EU debt crisis amid problems in Greece, and the accident at a nuclear power plant in Japan increased volatility and negatively affected the market, which led to a change in investor sentiment and the end of a hot period on the IPO market. The cold IPO market lasted until 2014 and was characterized by a significant drop in both the total volume of transactions and the average size of IPO transactions in the banking sector. The downturn also coincided with a long-term decline in commodity prices, which dampened investor risk appetite [23, 24].

The third IPO wave took place in the period 2014–2017. This IPO wave is characterized by lower volumes of funds raised compared to the hot market in 2004–2007 — in total, during this period, banks attracted $ 49 billion. As in previous periods, the bulk of the funds raised fell on China — in total, local banks attracted $ 22 billion. The data collected by M.Á. Acedo-Ramírez, A.C. Díaz-Mendoza, F.J. Ruiz-Cabestre [23], as well as L.V. Tokun, A.G. Berg [25] indicate that there was a hot market in the world between 2014 and 2017.

This IPO wave was fueled by a general raise in the stock market after the downturn seen in 2012–2013. The hot market kicked off with a successful $ 25 billion IPO in the world of China's Alibaba, followed by a general surge in IPO activity. Statistics also show that the majority of placements during this period were in the Asian markets, with the largest growth in the markets of China and India [26].

Despite the hot IPO market, this period was characterized by a significant number of geopolitical risks in both Europe and the United States and the Middle East, which often led to the postponement of IPO transactions and increased volatility in stock indices. Factors such as the first drop in China's GDP growth below 7% in 20 years, the UK's exit from the EU, a significant drop in oil prices, and the US presidential election had a significant impact on the market during this period. The anticipation of a slowdown in global economic growth led to stagnation in the stock market and a decrease in the number of IPOs.

From 2017 to 2020, there was a decrease in the volume of placements of shares of credit institutions in monetary terms, despite the continued high number of transactions. This decline was also largely due to geopolitical factors, primarily the UK's exit from the European Union and investors' fears about the prospects for further growth of the EU economy.

Banks from China continued to dominate the banking IPO market, with a total of 16 placements in Chinese banks totaling $ 9.2 billion over this period. During this period, credit institutions from the United States became more active in the IPO market, the number of placements of which amounted to 27, but the average size of transactions also remained relatively low — $ 130 million.

The aggravation of the epidemiological situation due to the spread of COVID-19 around the world and the introduction of widespread quarantine measures led to a decrease in IPO transactions. Despite the difficult situation in the world, in the second half of 2020, against the backdrop of growing liquidity in the stock market as a result of significant injections from regulators, there was a recovery in stock indices, as well as two banks from China and the United States successfully completed major share placements worth $ 1.7 billion each.

As the economy recovers and inflation accelerates around the world, central banks are expected to begin phasing out their monetary stimulus programs, leading to higher interest rates, which in turn could have a positive impact on banks' profit [27].

It is worth noting that most of the largest banks in developing countries have also had IPOs over the past 20 years, but there is still a lot of potential for placing shares of banks from the Asian region. In addition, financial technologies are now actively developing, and startups from this sector are direct competitors of traditional banks, since they often have banking licenses. The placement of shares of companies in this sector may become the next stage in the development of the IPO market for credit institutions.

In Russia, only 6 banks placed their shares on the stock exchange, of which 3 credit institutions are among the top 10 largest banks in terms of assets, which indicates that the potential for IPO transactions is preserved, given the high level of development of the banking sector in the country.

One of the possible options for the development of the banking IPO market in Russia may be the listing of banks that have undergone the reorganization of the Central Bank.

CONCLUSIONS

Raising funds through IPO transactions is one of the most attractive sources of financing for credit institutions in the face of tightening capital adequacy requirements and the need for additional funds to increase the loan portfolio.

Emerging market banks attracted the most funds during the period under review during the initial public offering — $ 156 billion. Emerging markets showed high rates of economic growth, which led to a high need for additional financial resources of credit institutions. In addition, leadership in raising capital from emerging market banks is also due to the fact that major large banks in the US and Europe held IPOs before 2000.

The largest volume of funds raised fell on the Chinese banking sector — local banks attracted a total of $ 106 billion. During this period, there was an active process of liberalization of the Chinese financial sector, and China used the IPO mechanism as an effective way to increase the efficiency and transparency of the country's banking system, as well as reduce the share of state participation in the economy. Despite the fact that the largest banks in China have already conducted IPOs, this market retains its potential due to the rapid growth of the financial sector and the presence of a large number of large regional banks. Even during the crisis, Chinese banks held a leading position in the banking IPO market.

The yield on placements by credit institutions from emerging markets was also higher than that of banks from developed countries — the median return on the first day of placement for emerging markets was 10% versus 5.5% for developed countries. Chinese banks also posted the highest first day IPO returns, with a median first day yield of 14.7% over that period.

During this period, 3 IPO waves took place on the IPO market of credit institutions, which were characterized by higher volumes of placement of shares, as well as higher profitability on the first day of placement. It should be noted that these IPO waves were typical not only for the banking sector, but for the entire IPO market as a whole, which confirms the theory of J. Helwege, N. Liang about the absence of clustering in certain industries during formation of the hot IPO market. Banking IPOs strongly correlate with the general sentiment in the IPO market, and clustering of IPOs in certain periods was not observed only in the banking sector during the study period.

The placement of the bank's shares during the hot market period is more promising from the point of view of the successful completion of the transaction, given the fact that the profitability and volume of placements in these periods increase significantly, which confirms the conclusions of R.G. Ibbotson, J.F. Yaffe [16] that the issuing company receives the greatest income from the sale of shares in the period following a period of low profitability in the market, that is, during a hot market. The median profitability of the banking sector in the hot market is 8.3% versus 4.5% in the cold market, equal to $ 112 million.

Over the past 20 years, most of the largest banks in the Asian region have listed their shares on the stock exchange, but there is still great potential for IPOs by lending institutions from the CIS, India, as well as a number of fast-growing countries in the Asian region. Fintech companies, which often become direct competitors of banks, can also become a growth point for the IPO market of credit institutions.

Further prospects for working on this topic include analyzing the valuations of credit institutions when placing their shares on the stock exchange at the P/B (Price-to-book value) multiple and comparing this indicator depending on the market period. This analysis will test the hypothesis that an IPO during a hot market period is more promising from the perspective of the company's current shareholders, as the likelihood of a successful IPO with higher multiples during this period increases after an overall market assessment.

Another development of this topic is the analysis of SPO (Secondary Public Offering) transactions of credit institutions. SPO analysis will test the hypothesis that already listed banks will continue to offer their shares as a financing instrument for their activities after the IPO, and will also test the correlation between SPO volumes and the market phase.

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The article was submitted on 18.05.2021; revised on 01.06.2021 and accepted for publication on 17.08.2021. The author read and approved the final version of the manuscript.