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PROBLEMS OF THE IPO MARKET AND DIVESTMENT OF PRIVATE EQUITY FUNDS

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Purpose: Initial Public Offering (IPO) offers on the stock markets are well documented in literature. IPOs emerge when companies decide to enter the equity market by selling their stock to the public. Studies on the effectiveness of IPOs of companies powered by Venture Capital and Private Equity funds suggest clear differences between four groups of factors, which are: size of the capital market, sector classification, rates of return on the first day of listing and key operational characteristics at the time of debut. In fact, IPOs backed by private equity are more valuable in terms of sales and assets, and therefore more profitable. That is why a liquid capital market is so important for funds, enabling an effective debut process. Problems with the possibility of exiting through the stock exchange lead to a decrease in investment profitability and fund performance, and as a consequence, extending the period of time companies remain in the portfolio and problems with the return of funds to its investors. The main aim of the article is to examine trends on the global stock market as well as local one in Poland and their impact on the number and value of disinvestments of private equity and venture capital funds in the period of 2000-2022. During this period one could observed many hot and cold periods at the stock exchanges regarding IPO transactions. Currently we have some slow down in IPO transactions witch has an effect on private equity and venture capital industry. This study examined the problems of IPO transactions conducted by venture capital and private equity funds at Warsaw Stock Exchange. The article analyses the relationship between private equity and venture capital backed IPO and situation at the stock exchange that influence type of exits for the funds. An additional goal was to present a classification of selected type of divestments conducted by private equity and venture capital funds in the period of 2000-2022 in Poland.
Design/methodology/approach: The study employed data form Warsaw Stock Exchange as well as from Invest Europe, (formerly known as EVCA - European Private Equity & Venture Capital Association) which represents the venture capital and private equity funds and community in Europe. Data was combined with cycles of investments and divestments of PE and VC funds that operated in Poland in the period of 2000-2022. The article uses a simple methodology to calculate the shares and dynamics of the analyzed phenomenon of IPO transactions conducted by private equity funds.
Findings: The empirical studies helped to identify a positive correlation between situation at the stock exchange and private equity and venture capital divestments methods, especially IPO. Data shows that in recent years IPO market is not effective in Poland, what influence Private Equity backed IPO and its investments. Number of IPO is lowering and almost 60% of PE/VC backed IPO are held at the foreign stock exchanges. IPO market is not effective in Poland,

what influence VC/PE backed IPO and its investments. Studies finds shrinking number and value of VC/PE backed IPO which also influence the future level of fund's investments.
Originality/value: This paper examine problems of IPO at the Warsaw Stock Exchange and how it influence private equity backed IPO in Poland. This is rare study that highlights problems of divestments of PE funds through IPO.
Keywords: Private equity, Venture capital, Venture capital backed IPO, IPO problems.
Category of the paper: Research paper, Viewpoint**.**

1. Introduction

The first Initial Public Offering that resembles a market vehicle we would recognize today was conducted in 1602 in the Netherlands. IPO of shares in the United East India Company at the Amsterdam Stock Exchange we can consider as founding of the first modern stock market. Many different and complex factors influence the growth and construction of a company are often volatile. In the 1950s, one could observed many institutional investors began shifting their investing at the market from bonds to stocks. Many different type of institutions, mostly corporate and public pension funds, were changing and growing rapidly. Second, a professionalized venture capital and private equity funds had developed rapidly, they raised huge amounts of new capital and was moving its capital into start-ups, many of them companies developing and exploiting the latest technological advances. Those investments were introducing new segments of the economy and give fundaments to sectors such as semiconductors or digital electronics. IPOs became a very important and a key component of a sophisticated capital market structure. The Initial Public Offering market can be viewed from a variety of perspectives, including by the number of IPOs and the total amount of capital raised. Sector and size can also be an attribute in this matter. New Venture Capital sector as high-risk vehicles was organized to support culture of start-ups, entrepreneurs and innovation as well as to profit from it. Venture stakes were in many cases extremely illiquid and in time there was a need to transform it into public shares, through mergers and acquisition or IPO transactions. High-risk was combines with high-reward opportunities and was the fundament for VC and PE market development. To secure and drive long time growth, many companies required the bigger and cheaper (not traditional bank capital) level of capital provided by public markets: permanent equity capital. However there were a lot of issues and problems with keeping the number of IPOs at the required level. One can remember problems with the dot-com bubble in 2000, after which the annual number of IPO has fallen and not recovered for many years. Since that year, the number of IPOs has averaged 135 annually, less than a third of the average in the 1990s. That sharp drop has long been viewed as a problem to IPOs of technological innovation, competitiveness and job creation. That situation influence global markets and cause problems of IPO transactions worldwide. Venture capital and private equity funds use capital markets to conduct their divestments. This paper examines and surveys the extensive research and discussion about Initial Public Offering, particularly declining IPO number in Poland and how it influence venture capital and private equity divestments through IPO on Warsaw Stock Exchange. It analyzing the question of identifying the factors behind the decline in IPO number and volume. The terms private equity, venture capital and Initial Public Offering are closely related. Private equity or venture capital investment funds are very eager to use the capital and stock market to complete their portfolio investments, using an IPO. In the years 2000-2022, divestments of funds through IPOs on the Warsaw Stock Exchange accounted for about 14% of the number and value of all transactions carried out there. Global and European problems of the IPO market affect the possibility of a smooth and effective completion of investments by private equity and venture capital funds. Various studies indicate that disinvestment through IPO allows funds to obtain the highest possible valuation of the portfolio company and leads to the maximization of the return on investment. Studies on the effectiveness of IPOs of companies powered by PE and VC suggest clear differences between four groups of factors, which are: size of the capital market, sector classification, rates of return on the first day of listing and key operational characteristics at the time of debut. In fact, at most markets IPOs backed by PE/VC funds are more valuable in terms of sales and assets, and therefore more profitable (NVCA 2010). That is why a liquid capital market is so important for funds, enabling an effective debut process. Problems with the possibility of exit through the stock exchange lead to a decrease in investment profitability and fund performance, and as a consequence, extending the time companies remain in the portfolio and problems with the return of funds to fund investors. This is complex problem and there are no simple solutions. Multiple factors appear to have played a role not just in the recent decline in IPOs, but in the inflow in volume and number of Initial Public Offerings that started at the beginning of the 80s. Just to name few of the which include: financial system that features consolidation and greater scale in both financial institutional investors and intermediaries; the rise of private capital, from venture capital and private equity to liberalized rules on other forms of private capital offerings; a shift in institutional investing from active to passive strategies; and an increasing burden of regulation on all public companies. The aim of the article is to analyze the trends on the stock market in Poland and their impact on the number and value of disinvestments of private equity and venture capital funds in the period of 2000-2022.

2. Literature review

Academic literature reveals that venture capital funded companies show superior and much advanced performance to regular companies that does not have venture capital support. Those firms contribute in many ways to the development of economies through boost of the turnovers, innovations, the creation of jobs as well as an exceptional growth rate. Their high level of investments also influences many different areas of the economy and their global experience and expansion help in employee's self-development. However in general, in the macro economy the proportion of companies that receive venture capital funding is limited and very small. Despite that, there has been a rapid growth in the availability of VC/PE funds over the years in the different branches and economies. One can observe that there is still lack of this kind of investors in many sectors. Researchers conclusions have indicated that significant variance in performance between companies that are supported by VC/PE and regular firms can be attributed to the VC/PE investors. This outcome should then led us to the important question—what capabilities of VC/PEs contribute to the performance variation of the supported companies. There has been high number of research evidence to indicate that managerial and value addition capabilities of venture capital dominate the selection capabilities in explaining the performance variation. The relationship between entrepreneur and investor is a broad area for VC/PE value added research. Most important might be acceptance of the investment manager (in most cases its and current owner of the company) through the management of the venture. Cable and Shane conclude that a cooperative relationship between entrepreneur and investor is even more important for the positive development of a company than a provision of money itself. This relation is characterized by as a socially complex inter-organizational relationship. They argue that the relationship between two parties increases in its social complexity and therefore becomes more and more difficult to imitate (Cable et al., 1997). This in turn led to an improvement in the company's performance. At the certain period in the investment time span venture capital funds should conduct an effective divestment process. IPO as desirable exit for the funds is the outcome of that process. When a venture capital or private equity sponsor conducts an IPO of a portfolio firm, it not often sells significant stake of its investment, usually remaining a large block holder in the newly listed firm for a longer and much extended period. This practice is consistent with the recognition that retention of shares in an IPO is a signalling device that mitigates adverse selection intrinsic to equity issuance (Leland and Pyle, 1977). There were clearly benefits of a healthy IPO market. Research suggests that IPOs finance growth and stimulate innovation, productivity and job creation. After an IPO, venture capital funds generally block and hold its governance rights, maintains board representation, monitor managers, influences corporate decisions and sometimes is bound by regulations that restrict its share trading. Because a sponsor influences a firm's operations until its ownership is sold (typically some years after an IPO), venture capitalist is the type of block holder that researchers (Demsetz, 1986) viewed as an effective corporate monitor. At the same time, the limited horizon intrinsic to VC/PE's business model, creates pressure for sponsor divestment after an IPO, including the fact that a sponsor's limited partners pay high fees for managing. Venture capital and private equity contracts govern long-term relations between entrepreneurs and their investors in a way that establishes path for growth, cash flow, control rights and exit horizon. The long-term nature of VC/PE–entrepreneur relationships leave entrepreneurs open to exploitation by VC/PE funds (Fried, Ganor, 2006; Atanasov et al., 2006), and VC/PE funds open to expropriation by entrepreneurs (Gompers, 1998; Casamatta, 2003; Schmidt, 2003; Kaplan, Strömberg, 2003). It is therefore natural for relation and its contracts to depend on the bargaining power of the VC/PE funds and the entrepreneurs. Further, as high-tech start-up entrepreneurial firms do not have sufficient cash flows to pay interest on debt or dividends on equity, contracts are established in a way that control rights are allocated over divestment decisions (Sahlman, 1990; Black, Gilson, 1998; for related theoretical work, see Aghion and Bolton, 1992; Berglöf, 1994; Trester, 1998; Garmaise, 2000; Bascha, Walz, 2001; Schwienbacher, 2007; Neus, Walz, 2005). A successful divestment may involve an IPO, or an merger or acquisition (often referred to as a "trade sale").

Given that after IPOs, VC/PE sponsors are transitional owners that intend to exit their ownership, they confront the challenge of disposing of large illiquid stakes in listed firms within a limited horizon. While several studies (e.g., Degeorge, Zeckhauser, 1993; Cao, 2011; Cao, Lerner, 2009) focus on the timing and performance of private-equity backed IPOs, private equity and venture capital divestment from holdings maintained beyond lockup expiration is an under-researched facet of VC/PE. An exception is Gompers and Lerner (1998) who examine a sample of post-IPO distributions to limited partners of shares retained by VC/PE groups in start-up firms. They report a negative share price reaction of 2% for such distributions. Unlike secondary offerings, these distributions are small in size and are not immediately disclosed to the public, so Gompers and Lerner view them as a form of permitted insider trading. Other researchers have tried to point and categorize these value-adding actions and responsibility of VC or PE investor. However this approach (All of these categorizations) has disadvantage that they do not clearly differentiate one category from another one. So one way was to differentiate between social or supportive value added, strategic value added and networking value added. Introduced two additional categories: strategy, finance, organization and operations, network and cooperation, and personnel (Gompers et al., 2001).

The often pointed diametrical contrast between the two main exit channels of VC/PE funds from their investment in young entrepreneurial firms trade sales and IPOs (Bayar, Chemmanur, 2011) becomes somewhat blurred from the point of view of the firm. What looks like a firm ending up on the exchange and with dispersed ownership (via the IPO) is in essence, in a significant number of cases, a delayed trade sale: afterwards, the firm is no longer listed itself and has a concentrated ownership. This finding sheds new and detailed light on the exit decisions of VC/PE funds as well as the governance of their portfolio firms.

This work is also closely associated to the literature on the exit choice that is considered by VC and PE investors. Starting with Black and Gilson (1998), a vast majority of papers have addressed the VC/PEs choice of divestment mode via Initial Public Offering or acquisitions (see e.g. Giot, Schwienbacher, 2007, Bayar, Chemmanur, 2011), as well as the issue of exit timing (see e.g. Giot, Schwienbacher, 2007, Neus, Walz, 2005). Divestment activity in the Cantal and Eastern Europe showed also significant fluctuations in the period 2000-2022.

In this sense, the values of exits were the highest starting with 2011. Observed structure of exit type mechanisms in the given period are characterized by similar patterns in other European states (Diaconu, 2017).

The literature on VC/PEs exit decisions via IPO has also examined the implications of this decisive decision on the contractual relation between the VC/PE and the entrepreneur (Cumming, 2008, Cumming, Johan, 2008). However, most of these papers only address the time during or prior to the IPO, with the only exceptions being those papers which investigate the post-IPO financial performance of VC/PE-backed firms (see, e.g., Brav, Gompers, 1997). Also costs of IPO are an important factor that influences IPO dynamics. What was observed in many researches which conducted analysing on “hot periods” in the market, pattern was that there is increased activity in the IPO market (Ritter, 1984; Boulton et al., 2018). Aggarwal and Rivoli (1990) report empirical findings that are supportive of IPOs being subject to overvaluation of given stocks. An inclusion of a market momentum measure is intended to proxy for such periodic market conditions (Lyn, Zychowicz, 2003). Therefore, it can be assumed that IPO market activity is closely correlated with total costs of the whole process. On the one hand, higher direct costs can be expected during such periods but on the other hand, lower direct costs can be anticipated resulting from greater competition among advisors assisting in the offering. It is also interesting whether the macroeconomic variables affecting the cost of money in the debt market, such as the prime rate LIBOR or WIBOR, affect the cost of the Initial Public Offerings. One could observe that during periods of higher interest rates on the debt market, offering costs would also fall. Companies listing on the stock exchange because of the decision of the main shareholder to exit are characterised by a lower total cost of offer, which is due to two reasons. Firstly, such a shareholder is not willing to leave money on the table, so it has the impact on indirect costs. Research on VC backed IPOs in Poland shows that underpicing is mostly reduced in funds public offers. Second, the direct costs are shared by the company and by the shareholder. The cost is lower in a combined offer, which is also due to the selling shareholder contribution in bearing part of the costs. However, it is important to bear in mind that the costs incurred during an IPO for individual companies vary significantly and their components depend on few different factors (see Podedworna-Tarnowska, 2022). The dynamics of the corporate governance of VC/PE backed firms on the stock exchange in the aftermath of an divestments via IPO has not yet been analysed.

3. The IPO market in the years 2000-2022 in the World and in Poland

IPO is the first public offer to purchase a company's securities to a wide group of investors. After the day of the company's debut on the stock exchange, the shares bought in the IPO are used for ordinary market trading and can be sold on the first day of listing. Companies that decide to make an initial public offering expect that thanks to the debut on the stock exchange they will gain funds to finance the company's development. In this way, it will be possible to accelerate growth or acquisitions of other companies and further development by entering new markets. It is crucial to thoroughly prepare for the IPO. Therefore, the preparation of the strategy and planning the IPO often starts 24 months before the debut. Shares in the IPO process are offered for a fixed price or with a reserve price. If there is too much interest in shares, a proportionate reduction in orders is necessary. The IPO process ends when the shares are admitted to trading and debut on the stock exchange.

The initial public offering on the global markets has long been associated with the activity and vitality of the main capital markets such as US one. But since 2000, near the height of the dot-com bubble, the number of offers (both VE/PE exits and classic ones) began a long decline. The average annual number of IPOs fell by over 61% between the 1990s and the 2000s. In the early periods offers were inflated by the waves of high-tech companies willing to sell public shares and exit their venture capital portfolios. The sharp drop since that time is hardly just a correction in the IPO market, but represents a more persistent, longer-term trend. In fact, the decline in IPOs persisted throughout the recession that followed the dot-com bust, through the subsequent recovery, through the market collapse that led to the Great Recession, and through the nearly decade-long recovery (Lux, Pead, 2018). The current situation analyzed in the EY Global IPO Trends reports confirms the collapse of the IPO market in 2022 and early 2023. After a record-breaking 2021, the situation has changed quite dramatically. In the period from January to December 2022, only 1333 transactions were recorded worldwide, the proceeds of which amounted to USD 179.5 billion. These are decreases - year on year - by 45% and 61%, respectively. The situation is even less favorable if we single out only the fourth quarter, with the results lower by 50% (number) and 73% (value). It should be noted, however, that compared to 2019, the full-year transaction volume increased by 16%. Analyzing the IPO market in Poland, it should be pointed that in the analyzed period of 2000-2022 it developed properly and was a leader among the countries of Central and Eastern Europe. In the years 2000-2022, 520 companies debuted on the WSE. The most dynamic period falls on the years 2004-2011, when 308 IPOs were made. Unfortunately, the last period of 2020-2022 is only the transition of companies from the New Connect market to the main market. Record braking 2021 in US and Worldwide hasn't happened in Poland. Thus, the typical IPO process is losing its importance in the current period, and companies do not decide to carry out this process. It is important to emphasize the fact that, similarly to global markets, companies withdraw from it even after the initial decision to start the official IPO process, observing the current market situation. This situation on the market in Poland is intensified by the fact that companies are quite overvalued on the day of their debut. Most companies record a fall in the value of shares on the day of the debut, and in addition their prices fall in the long term (Sieradzki, Zasępa, 2016). The corporate bond market offers much higher rates of return, which is an alternative for investors. Observed decline in IPOs has lead us to a search for an explanation and most important for possible policy action from regulatory bodies. The situation on the IPO market in the period 2000-2022 in Poland is presented in Figure 1.

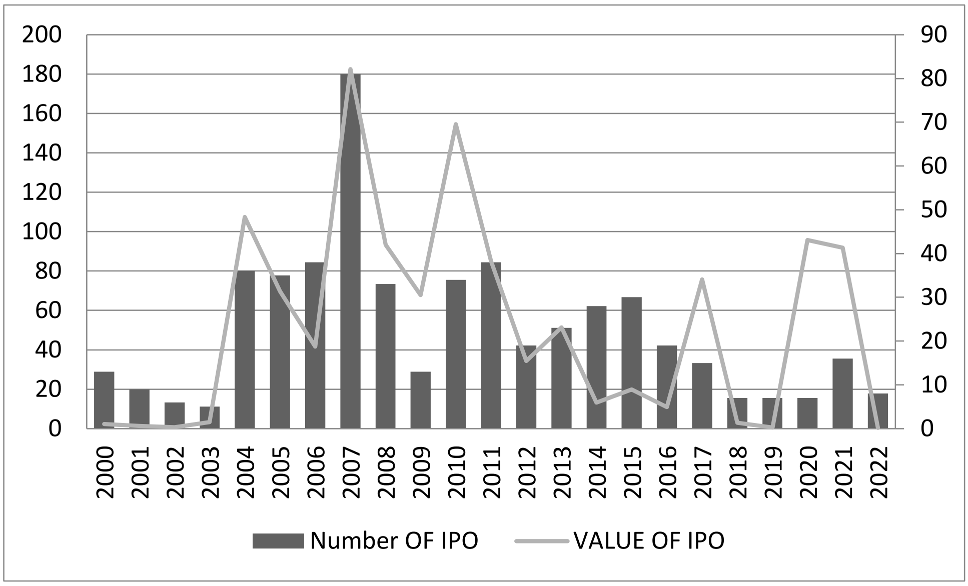

Figure 1. Number and value of IPO transactions on the Polish market in 2000-2022.

Source: study based on data from the WSE data. Number, left scale, value in PLN thousand, right scale number of IPO.

The situation on the Polish IPO market is closely correlated with global and European trends in the field of IPOs. According to PWC analyses, the global and European stock markets recorded a significant decrease in the activity of companies in the field of IPOs. In 2022, only 102 IPO transactions worth EUR 15.6 billion were recorded on European stock exchanges, which is the lowest result since 2012. When analyzing the data on the value of IPOs carried out in Poland, it should be noted that in 2000-2022 companies raised PLN 120 billion from the stock exchange. The record year was 2007, when the companies acquired as much as PLN 18.2 billion. The period of prosperity is the time of 2004-2011, similarly to the number of IPOs. The favorable situation on the IPO market was also used by Private Equity and Venture Capital funds, carrying out numerous disinvestments with the help of IPOs.

The listing of a prosperous company on the stock exchange seems to be a natural sequence of events in the investment process of PE/VC funds. The IPO process is associated with successive stages of preparation, which must be followed step by step. All this leads to the final stage, which is the submission of an application to the Warsaw Stock Exchange and, in the best case scenario, debut on the stock exchange. It allows the funds to obtain the highest possible valuations of their shares and stocks and to successfully complete the investment process in their portfolio companies. It can be observed that liquidity drives stock markets, so candidates for IPOs should consider entering the market when it offers an opportunity and favorable conditions. In boom periods, liquidity is the highest, the number of investors reaches record levels and IPO underpricing records the lowest values, which is extremely important for VC/PE funds due to the possibility of conducting an effective disinvestment process.

4. Private equity/venture capital funds as an important participant in the IPO market in Poland

The term venture capital is often used interchangeably with the term private equity, but the former covers a narrower fragment of the financial market. The term private equity covers such market segments as: venture capital, buyout capital and mezzanine capital. In general terms, private equity investments can be defined as: medium- and long-term equity investments in private enterprises, often on the private market, combined with the company's managerial support, which have a chance of achieving an above-average increase in value in the period specified by the investor. The investment process ends with the disinvestment process, i.e. the sale of shares in the portfolio company. Each way a fund disinvests has different consequences. They depend on the nature of the selected transaction, but also on the state of the stock market and the economic situation of the industry in which the company operates. The existing advantages and disadvantages may also depend on the goals that the fund wants to achieve by selling its shares in companies. The characteristics of investment exits also change with the change of the market or country in which the transaction is made and it depends on the maturity of the venture capital institution. In all markets, the two primary ways of disinvestment are the initial public offering and the sale of shares to a strategic investor. The IPO method is more desirable due to the possible high valuation of the portfolio company's shares. Analyzing the developed stock markets, it should be noted that in the USA IPOs of technology companies powered by PE/VC funds account for a share of up to 50% of the value and number of debuts. Table 1 shows the number of transactions of companies funded by PE/VC funds in relation to the total number of IPOs on the Polish and US markets.

Table 1.
The number of IPOs conducted by Private equity/Venture capital funds in the period 2000-2022 in Poland and the USA

Year	Number of IPO in Poland	PE backed IPO in Poland	Share in %	Number of IPO in USA	PE backed IPO in USA	Share in %
2000	13	0	0.00%	397	238	59.95%
2001	9	2	22.22%	141	37	26.24%
2002	6	1	16,67%	183	24	13.11%
2003	5	0	0,00%	148	26	17.57%
2004	36	5	13.89%	314	82	26.11%
2005	35	7	20.00%	286	59	20.63%
2006	38	9	23.68%	220	68	30.91%
2007	81	6	7.41%	268	92	34.33%
2008	33	2	6.06%	62	7	11.29%
2009	13	0	0.00%	267	10	3.75%
2010	34	2	5.88%	190	45	23.68%
2011	38	3	7.89%	171	46	26.90%
2012	19	1	5.26%	157	60	38.22%
2013	23	2	8.70%	251	87	34.66%
2014	28	6	21.43%	304	126	41.45%
2015	30	1	3.33%	206	86	41,75%

Cont. table 1.

2016	19	3	15.79%	133	43	32.33%
2017	15	3	20.00%	217	69	31.80%
2018	7	1	14.29%	255	94	36.86%
2019	7	7	10.,00%	232	90	38.79%
2020	7	6	85.71%	480	109	22.71%
2021	16	1	6.25%	1035	191	18.45%
2022	8	1	12.50%	181	36	19.89%
Total	520	69		6098	1725	

Source: Warsaw Stock Exchange, NVCA Yearbooks 2012-2023, EVCA Yearbooks.

Analyzing the data (Table 1), it should be stated that PE/VC funds are quite a significant participant in the IPO market. In Poland, the number of offers in the analyzed period of 2000-2022 accounted for a share of 13.26%, while on the American market it was already 28.28%. This is a relatively high share, which indicates the funds' potential for developing portfolio companies (creating their value - in a fairly short investment process) into mature listed companies.

5. Private equity/venture capital funds divestments using IPO on the Polish market

There are many ways for a venture capital fund to end its investment. The use of each of them depends to a large extent on the results achieved by the share company, the state of development of the capital market and often the reputation of the fund itself. The method of divestment is also influenced by the negotiations preceding the investment, specifying the possible method of sale of shares by the fund. The most important ways of completing capital investments used by venture capital/private equity funds include the introduction of the company to the stock exchange (IPO) and the sale of shares to a strategic investor (trade sale). Analyzing the fund’s data from the period 2000-2022, it can be stated that these ways of terminating the investment by the fund account for more than half of the number and value of all divestment transactions.

Table 2.

Number and value of disinvestments of private equity and venture capital funds on the Polish market in the period of 2000-2022

Exit route	Number of divestments 2000-2022	Share in %	Value of divestments 2000-2022 (in millions of euro)	Share in %
Trade Sale	320	33,33%	1 994,06	35,51%
IPO	171	17,81%	937,76	16,70%
Write off	58	6,04%	350,31	6,24%
Repayment of preference shares/loans or mezzanine	65	6,77%	214,98	3,83%
Sale to another private equity firm	68	7,08%	996,36	17,74%
Sale to financial institutions	65	6,77%	708,38	12,62%

Cont. table 2.

Management/Owner buy-back	116	12,08%	289,87	5,16%
Divestment by other means	97	10,10%	123,46	2,20%
TOTAL	960	100,00%	5615,18	100,00%

Source: own calculations based on EVCA and InvestEurope data.

The most important method of completing investments in the period 2000-2022 was the sale of shares by funds to a strategic investor, which accounted for over 33.33% of all transactions. Transactions involving the introduction of companies to stock exchanges, in the number of 171, accounted for almost 18% of all transactions, and in terms of value, it was 16.7%. This seems to be a significant share in the entire structure of divestment transactions. The value and number of divestments through IPOs on the Warsaw Stock Exchange are presented in Figure 2.

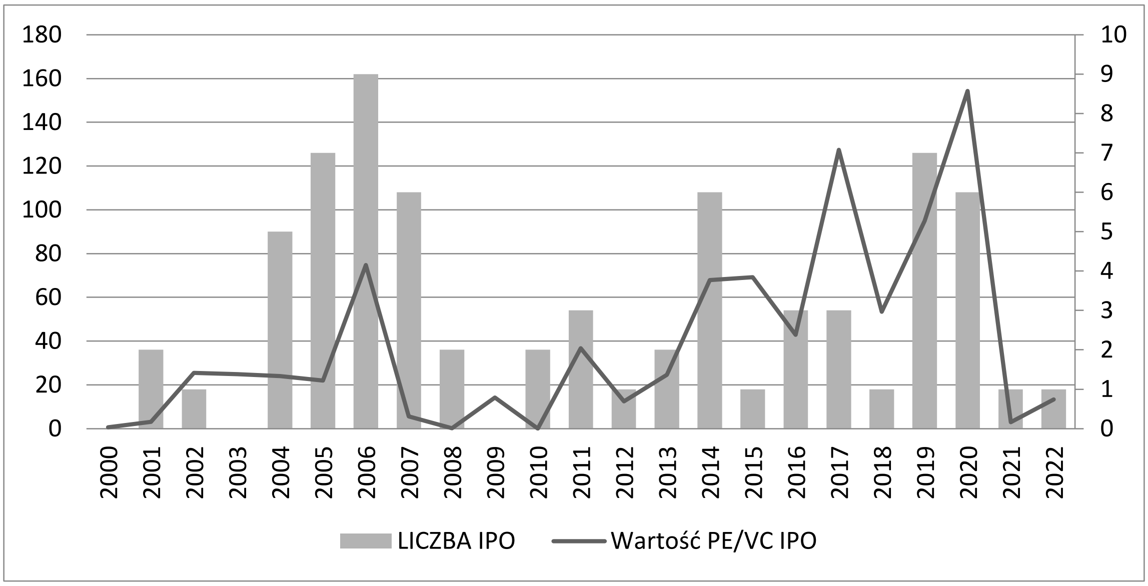

Figure 2. Number and value of IPO transactions on the Polish market carried out by private equity and venture capital funds in the period of 2000-2022.

Source: own calculations based on EVCA and InvestEurope data. Left scale value of the IPO transactions, right scale number of IPO transactions.

Analyzing data from individual years in the period 2000-2022, it should be pointed that the problems of the global IPO market have a huge impact on the number and value of IPOs offered by PE/VC funds in Poland. The period of 2002-2007 was the best period for funds and disinvestment opportunities through IPOs. The end of this period coincides with the bull market on the Warsaw Stock Exchange, which, as stated in many studies, is conducive to the IPO process. It is important to emphasize the fact that the period 2019-2022 is characterized by a huge slowdown on the IPO market, and funds generated the majority of offers during this period (although these were only transitions from the New Connect market to the main market). This has its consequences related to IPO problems on the European market. The PwC report shows that in 2021, IPOs worth EUR 75 billion were carried out on European stock exchanges, i.e. 269 percent more than in the previous year, higher than in 2020. In turn, the number of debuts increased to 422 from 135. After a great 2021, in the next 2022, greater volatility could be observed on the financial markets, which affected the statistics on primary offers. The value of canceled or suspended IPOs exceeded USD 6 billion, which is more than twice as much as in the corresponding period of 2021. In turn, the value of initial public offerings carried out on European exchanges in 2022 amounted to EUR 15.6 billion - a decrease of 79.2% in 2022. Compared to 2021 (EUR 75.0 billion). Investors in the markets have faced rising inflation, aggressive interest rate hikes, the ongoing war in Ukraine and the energy crisis in Europe. The above factors undoubtedly affected the Polish market as well. As a result, for the Warsaw Stock Exchange, 2022 is the first period in the 21st century without an influx of new issuers to the main market (the only debutants on the main market were companies that decided to move their listings from the NewConnect market). Despite lower uncertainty and increases in most major European indices, in the first quarter of 2023, fewer IPOs were recorded on the IPO market than in the same period last year. No major surprises on the WSE - the main market is still waiting for the return of confidence and stability and for the first IPO in almost two years. The value of initial public offerings carried out on European exchanges in the first quarter of 2023 amounted to EUR 1.7 billion (20 IPOs in total). This is a decrease by as much as 39.3% compared to the same period last year (EUR 2.8 billion, 30 debuts in total). In the first quarter of 2023, there were 2 debuts on the Warsaw Stock Exchange (both on the NewConnect non-regulated market) compared to 5 in the same period last year. The total value of IPOs of debuting companies amounted to PLN 3.6 million (EUR 0.8 million), which means a decrease by 77.4% compared to the previous year, when the total value of IPOs in the first quarter was PLN 16.0 million (4 .4 million euros). In 2022, the funds invested in about 100 companies in Central and Eastern Europe, while in the very good year 2021 they took over shares in 140 companies. However, in terms of the direction of changes, the situation in our region does not differ from global trends. According to the Bain & Company report, globally, the number of acquisitions made by funds decreased by 10%, and the value of transactions decreased by 35% to USD 654 billion. On the Polish market, investor activity fell from EUR 1 billion (119 investments) to only EUR 300 million (102 investments). This is not a positive trend and, combined with the inefficient IPO market, will force PE/VC investors to look for alternative sources of disinvestment. This may lead to a decrease in the results achieved by the funds on the Polish market. Moreover, only 40% of divestments were IPO transactions on the Polish market (69 vs 171). This proves that the funds are looking for other alternative capital markets or completely different ways of disinvestment. Good companies are also often noticed by other large PE/VC funds, which, by offering the necessary capital, actually end planning their debut on the stock exchange.

6. Summary

Despite the revival on the IPO market or the increase in turnover on the stock market, the capital market has been fundamentally stagnant for 10-15 years in terms of its share in financing the Polish economy. The capitalization of the regulated market to Poland's GDP is about 27%, while the average in the European Union is 55%, and countries such as France has a ratio of 75%, Great Britain over 100%, and the United States 140%. There is an excess of cash in the banking system and the Polish capital market is underdeveloped in relation to the needs of the economy. Over 60 percent of savings of Polish households lies in bank deposits and this percentage is twice as high as the average in developed countries. According to NBP, at the end of 2021, deposits (in PLN and foreign currency) of individuals in banks amounted to PLN 1,060 billion, and deposit of non-financial companies - PLN 416 billion - a total of PLN 1.5 trillion. Another fact is the relatively low level of domestic capital on the Warsaw Stock Exchange. Another important aspect that should be noted is the undermined confidence of Poles in institutions dealing with investing on the market and the excessive role of the state in financing new companies, such as PFR funds. In developed economies, this is not the role of the state but the domain of private capital. Research show that there has been a long-term significant decline in initial public offerings since the dot-com bubble. The drop in IPOs has continued through several economic cycles and has also disproportionately affected smaller start-ups that might want and willing to sell shares in the public markets. The decline in IPOs and the number of publicly listed companies has triggered a search for an explanation as well as demands for policy action. Capital market participants should argue that the decline in Initial Public Offerings and drop in publicly listed companies is cause for current concern. This research also strongly suggests that there is no single cause of this decline; that, in fact, a variety of different factors have played roles, from fundamental shifts in the structure of capital markets and investing, to successive waves of re-regulation. In the process of maturing of private equity and venture capital funds, they could provide many of the benefits that public markets were struggling to offer: plentiful supply of fresh capital, significant and lucrative bonuses for senior managers, a long-term perspective and a governance regime that is tightly focused on portfolio companies. And companies that remained private, whether through venture capital ownership or continued reinvestment by private equity funds, are able to operate without many of the regulatory burdens of their public peers, and without concerns that they will be taken over through mergers or acquisitions.

Summing up local market activity large transactions, in particular in Poland and the countries of Central and Eastern Europe, should not be expected in the coming periods. This is reflected in the number of IPOs made by PE and VC funds, where 60% of IPO transactions in the analyzed period were carried out on foreign exchanges, which seem to be much more attractive for companies from our region.

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