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The Leveraged Buyout of Inwido - Return Analysis

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Abstract

This work project was conducted by three finance students and takes the form of an Investment Committee Paper proposing the leveraged buyout of Inwido, a Sweden-based company that operates, manufactures, and sells windows and doors in over 12 countries across Europe. The company was valued at an 8.4x EV/EBITDA multiple and is set to be acquired under an earnout structure. The investment case yields an IRR of 26.3% and a MM of 3.8x, over a holding period of 6 years. In addition, an in-depth analysis of PE returns was established, specifically focusing on leveraged buyouts.

Keywords: Private Equity, Leveraged Buyout, Valuation, Window and Doors, Inwido

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Group Contribution – The Leveraged Buyout of Inwido

Company Overview

Company Profile

Inwido is a leading European supplier of windows and doors. Founded in 2004 and headquartered in Malmö, Sweden. The company consists of 33 business units (independent portfolio companies) with approx. 4,900 employees. These units are divided into four business areas: Scandinavia, Eastern Europe, Western Europe, and e-Commerce. It is present in twelve countries across Europe, with operations in Denmark, Estonia, Finland, Germany, the Netherlands, Ireland, Lithuania, Norway, Poland, Romania, Sweden, and the UK.

Inwido offers a wide range of windows and doors tailored for residential and commercial applications, where the core focus lies in the manufacturing and distribution of high-quality fenestration products designed to enhance energy efficiency. As a market leader, it positions itself as a pioneer in the field of energy-efficient building components. This includes incorporating advanced materials, smart designs, and innovative construction techniques to improve insulation, reduce heat loss, and contribute to overall energy saving. By enhancing energy efficiency, Inwido differentiates itself in the market being a provider of solutions not only meeting functional needs but addressing broader societal and environmental concerns too.

Business Model & Value Creation

Inwido's strategy rests on 4 cornerstones, (1) a decentralized structure that drives customer and result focus, (2) focus on consumer-driven markets for profitable growth, (3) sustainable growth improved through acquisitions, and (4) synergies that drive structural developments.

One of the key concepts in the firm's strategy is decentralization. Each business unit is independent and makes its own decisions, tailoring its strategies based on local conditions and retaining full responsibility for business operations and financial outcomes. Given the inherent disparities among markets in the industry, with distinct variations in methods, lifestyle,

regulatory frameworks, seasonal patterns, and consumer preferences, successful navigation requires a close understanding of the specific market dynamics. The revenue process involves customizing products to meet the unique demands of individual customers, often sold before the actual manufacturing process. Central support functions in Inwido provide strategic assistance in areas such as purchasing, digitization, and leadership, increasing decision-making effectiveness. The streamlined decision-making process allows the group management to remain solid, fostering insights, synergies, and economies of scale, where the outcome is an agile and efficient group that can quickly adapt operations to demand fluctuations in their markets, with supported customer relations.

Acquisitions are an important driver of Inwido's growth strategy. Evaluating potential candidates involves criteria considering factors such as profitability, local market position, and alignment with the group. With a track record of approx. 50 successful acquisitions, Inwido has gained valuable insights into fostering the growth of acquired companies within its portfolio. Synergies derived and developmental opportunities realized within the group have proven transformative for these entities. The acquisition process involves a thorough examination of mature, cash-flow generative European windows and doors companies, and their market conditions.

Product Portfolio

Inwido's 33 business units deliver a wide range of different products in the fenestration category. They cater to both the premium market as well as to the middle range and value products, while each business unit designs and produces its products, often custom-made to each client there are a few overall general features that are consistent. The biggest category is windows followed by doors, a few companies also produce conservatories and other accessories on a smaller scale. Windows are split into four main materials; uPVC, aluminum, wood, and composite. Each with its distinct benefits and features, from price, insulation, and

design, and often with strong geographic preferences. Doors are produced in a wide range of materials including aluminum, wood, glass, and steel.

Management Team

The management team has been led by Henrik Hjalmarson (CEO) for the last 6 years, together with Peter Welin (CFO & Deputy CEO). Together they have restructured the operations of the senior management team, where they have brought in four Executive Vice Presidents (EVP) to be responsible for one business area each, Scandinavia, Western Europe, Eastern Europe, and e-Commerce. This allows the CEO and CFO to focus on the long-term strategy and acquisitions while the EVPs follow up on the existing portfolio companies. Mr. Hjalmarson has decided to step down as CEO and Fredrik Mueller has been recruited as successor, he is expected to start no later than May 2024. Mueller is the current CEO of Nord-Lock, a Swedish manufacturing company, and he brings M&A and consulting experience from JPMorgan and McKinsey.

Historical Financials

Despite turbulent years with the COVID-19 pandemic and the Russia-Ukrainian War, Inwido has shown proven stability over economic cycles. Revenue has consistently increased, with a 5Y CAGR of 8% and a 9Y CAGR of 9,3%. Despite a negative trend with higher COGS relative to sales, leading to a slight decrease in the gross margin in 2022, operating EBITDA margin and profit margin grew at a 2.6% CAGR and 10.7%, respectively. Inwido's liquidity position is currently very strong, with a current ratio of 1.3x. cash and equivalents grew at a 26% CAGR since 2017 and net debt decreased significantly, at a -14% CAGR since 2017. Increasing profitability and decreasing net debt led to a consistent decrease in the Net Debt/EBITDA Ratio, making Inwido more resilient against economic uncertainty and higher interest rates. The Cash Conversion Cycle has decreased significantly to 5.5 days in 2022 due to supply chain finance, lengthening their payment terms due to a bank paying the suppliers, and deferring Inwido's payments. Maintenance CapEx is relatively stable every year, while strategic CapEx

fluctuates due to differences in acquisitions from year to year. Free cash flow to the firm has been positive for the past 5 years except for 2018, however, this was largely due to this year's intense M&A activity. Free cash flow to equity was negative in 2018, again due to the high CapEx, and in 2021, due to the company's highest debt repayment in the past ten years. Still, Inwido's significant cash balance growth indicates that the company's free cash flow is resilient enough to accommodate for years when cash is under more pressure, be it due to greater than usual M&A activity or debt repayments. High and stable cash flows, low debt, and an asset-heavy balance sheet make Inwido a robust LBO target from a financial perspective.

Market Overview

Market Size, Growth Drivers & Trends

The European Windows & Doors market was estimated to have amounted to \$61 billion in 2022 and is forecasted to grow at a 4.13% CAGR until 2028, reaching a size of \$78 billion (Arizton Advisory & Intelligence 2023). There are three key trends in the window and door industry: energy efficiency, smart technology, and e-commerce. Due to higher inflation, decreased disposable income, and decreased consumer sentiment, consumers are more and more conscious about their energy consumption and where to save money. In Norway, 39% have reported that they plan to invest in triple-glazed windows, and 50% in Sweden plan to invest in solar panels in the next 10 years (Inwido Annual Report 2023), clearly showing consumer preference and the importance of energy savings. The interest in smart windows and doors that are monitored through your phone and connected to the rest of the house is another trend among customers that offers more convenience and enhanced security. The shift toward e-Commerce has hit the fenestration industry where more and more customers prefer to buy windows and doors online. This offers wider availability and an easier shopping experience. The main growth drivers for the window and door market are the construction of new buildings and renovation. Construction of new buildings, both commercial and private is the largest

driver, this is again driven by two main factors: population growth and economic cycles. As areas get more populated more buildings are built, and more windows and doors are needed. However, this is cyclical as more is invested in construction during strong economies and there is a slowing in new building during economic downturns. The other main driver, renovation & retrofitting accounts for c.70% of Inwido's sales. Due to consumer demand for energy savings, together with government incentives, there is a huge increase in demand for shifting old insulated windows and doors with new, better-insulated, and energy-saving windows. The EU considers this one of the pillars of the fight against climate change and incentivizes consumers to renovate their existing houses. Incentives are also given by local governments. In Ireland, consumers get EUR 1,500 – 4,000 for changing windows and doors, and Scotland is giving loans of up to EUR 5,000 for home renovation (Inwido 2023).

Market Segmentation

The fenestration market can be segmented into two main segments, windows, and doors. Window sales are projected to grow at a 4.3% CAGR between 2022 and 2028, and doors to grow at a 2.7% CAGR between 2021 and 2027. There are two end-use segments, residential and commercial, residential is projected in 2022 to make up for 64% of market revenues. Installation is also an important criterion, splitting the market into new construction and renovation, with 60% of the demand for windows and doors in Western Europe and 55% in Eastern Europe currently coming from the renovation space. In terms of production materials: aluminum is a strong and lightweight material and particularly suitable for larger windows and doors; composite materials are made using two or more materials, usually timber clad with aluminum; uPVC is robust and easy to clean and is especially used in the renovation; finally, timber windows and doors can be made from softwood or hardwood. The market can also be segmented into geography, with Germany being projected to be the largest European market as of 2023, followed by Turkey, the UK, and France (Ceresana Market Research, 2021).

Competitive Landscape

The competition in the fenestration industry is heavily associated with its fragmented characteristics, with approx. 5,000 different window and door companies in Europe. Mostly being small privately owned serving their local markets. While all these compete for the same customers as Inwido's business units we have decided to only compare Inwido to similar companies of size, revenue, and geographic reach. The main competitors are chosen together with Inwido's EVP of M&A and through our evaluation and analysis. In comparison, we note that Inwido is on the larger side with EUR 895m in revenue in 2022, while the largest competitor JELD-WEN had EUR 1,221m of revenue in Europe, and the smallest, NorDan, had EUR 176m. Looking at the performance metrics, Inwido outperforms the average on many metrics with an EBITDA margin of 14.2%, the lowest Net Debt/EBITDA at 0.6x, and the lowest Cash Conversion Cycle at 5 days for 2022.

Investment Thesis

As previously stated, the European windows and doors market is facing interesting growth opportunities as the need for a green transition is growing across all societal levels, where solutions are targeted at replacing the existing building stock that is largely energy inefficient. In addition, Inwido operates in a highly fragmented market creating opportunities for acquisition-driven growth both in existing and new geographies. These factors were crucial determinants guiding the decisions to create additional value following the transaction.

Renovation segment

The ongoing energy crisis in Europe, and high energy prices, have placed energy efficiency improvements increasingly high on the agenda. While this creates opportunities for Inwido, given that windows and doors have a significant impact on energy saving, it, more importantly, increases the pace of the green transition, and this is where Inwido has the potential to contribute to a better world. A green transition within the European construction sector will be

one of the fastest ways to alleviate the energy crisis and mitigate carbon dioxide emissions from buildings. This coupled with the EU's renovation wave, aiming to improve energy efficiency, boost the economy, and deliver better living standards for Europeans, will be a major growth driver as Inwido already has a reputation as one of the pioneers in energy-efficient fenestration products. Despite an increasing demand for energy-efficient products, there is still limited consumer knowledge regarding the impact of windows and doors on domestic energy usage that must be remedied. Providing energy calculators on each business unit's website will enable consumers to understand the effect energy-efficient windows and doors have on their household consumption. To fully grasp the coming renovation wave and customer demand for sustainable products, accelerated investments in existing business units requiring additional resources to innovate their product portfolio must be made to ensure a competitive position in the renovation segment. As renovation currently accounts for 70% of Inwido's sales, it is projected to have a major impact on both organic and inorganic revenue growth through acquisitions of companies with capabilities and competitive advantages in the renovation market.

Buy & Build

Considering Inwido's asset base, liquidity, and cash generation, highly fragmented markets create opportunities for European consolidation enabling both superior growth in existing markets and further diversification of the firm's revenue streams. Initially, five targets were identified all sharing common characteristics of being profitable companies operating in the European windows and doors industry. Specific focus was directed towards Scandinavia and Western Europe given the strategic fit and favorable market conditions. In addition, we have assumed acquisitions of three more companies, all sharing characteristics with the five identified targets. The first add-on acquisitions, namely *McMullanODonell* (IR) and *Nordvestvinduet* (NO), will occur in the first year of the investment period, i.e., in 2024,

with the ambition to strengthen Inwido's position in the British Isles, as well as providing additional competitive advantage in the production and selling of energy efficient wood products in Scandinavia and across Europe. The third and fourth add-on acquisitions will happen in 2025, being the purchase of *Whiteline*, the largest independent fabricator of uPVC windows and doors in southern England, as well as the acquisition of *Profialis*, the largest company among them all and the first add-on investment in the newly entered market France, after initially entering through the E-commerce platform. The acquisition of the British uPVC specialist *Garrard Windows* will take place in 2026 together with a smaller niche add-on investment in Denmark, followed by the two last acquisitions in the UK and France that will occur in 2027. The intense acquisition strategy of British companies with competitive advantages in rapidly growing energy-efficient products will enable an accelerated consolidation of the growing UK market, as well as achieve a stronger competitive position in the renovation segment (specifically, favorable EU Green Deal subsidies in Ireland). Value-creating M&A in Norway and Denmark will strengthen the current market share in Scandinavia (principal markets) focusing on premium and niche expertise. Lastly, acquisitions in France will enable accelerated market penetration through acquisition-driven growth strengthening the business units and Inwido's market position in the French market. Moreover, through the realization of cost synergies provided by Inwido's stronger negotiation power with suppliers, targets will be able to improve their operating efficiency reducing the cost of raw materials (usually 50% of total COGS) by 10%. The acquisitions will be financed with cash, at an EV/EBITDA multiple of 5.5x, based on past acquisitions made by Inwido in the same markets.

Internationalization

To accelerate the process of European consolidation, internationalization will play a critical role. Five target countries were identified considering factors such as market size, renovation potential, GDP per capita, and strategic fit. While Turkey and Russia are the countries with the

largest market size, the current high levels of political, legal, and reputational risks hinder any sustainable growth potential there. Italy and Spain are reasonably large markets, and both have high projected growth. However, France has arguably more potential: it is a larger market still with good growth prospects, has a higher GDP per capita, and is closer to Inwido's current geographic scope. It also has a high expected renovation market CAGR, with a large portion of houses requiring renovation and an implemented government renovation program to promote energy efficiency. In addition, the French market is heavily fragmented, favoring consolidation. The first part of the internationalization strategy is to leverage Inwido's existing e-Commerce platform to establish a new French brand under the JABS Group and distribute to France from the existing production facilities in Eastern Europe. In line with Inwido's approach in the past, operating expenses such as marketing and setting up the online platform will be outsourced to a local company familiar with the French market. This will enable a less risky, more cost-efficient, and customer-centered entry into the French market. The second part of the strategy is the acquisition of Profialis, a player with a solid presence in the market, and a second acquisition in 2027, to boost market penetration. Incorporating M&A into the strategy will allow us to build on Profialis' existing local market knowledge and resources.

As for projections, Inwido's e-commerce strategy in Germany was used as a benchmark. The company entered Germany in 2015, and revenues have been growing at roughly 33% CAGR since 2018. It was assumed that market share growth through e-Commerce would go at the same pace as in Germany. In addition, the acquisition of Profialis will result in a significant revenue increase every year, contributing to SEK 867m yearly revenue by 2029.

Forecasts & Business Plan

Inwido's revenue forecasts rely on the market analysis of specific growth drivers and trends of each individual market where the company has its operations. Due to local markets, forecasts have been conducted per country and not per business area. The overall top-line revenue growth

is forecasted by splitting standalone and incremental revenue. Standalone revenue forecasts mainly reflect current market expectations with a 4.5% CAGR ('23-'30). Conservative organic growth rates have mainly been applied in Inwido's principal markets in Scandinavia and Eastern Europe to capture the economic downturn, particularly hitting the construction industry, resulting in declining standalone revenue in 2023 and 2024 (besides from Denmark and Poland). Inwido has a relatively high proportion of sales to new construction in Sweden and Finland, thus the largest decline in those markets, even though renovation dominates when looking at the entire group. Strong outlooks for the renovation segment strengthened by the European Green Deal policy are the main growth drivers. Together with the internationalization strategy, a more geographically diversified portfolio enables Inwido to exploit the renovation wave at larger scales, as well as decrease its operational risk associated with local sentiments and individual performances of the Group's business units. Furthermore, it allows capitalization on regional trends and momentum of specific portfolio companies, mainly identified in the British Isles and Germany (note: only e-Commerce operations in Germany). Incremental revenue forecast accelerated by the *Buy & Build* strategy will have a total CAGR of 37.6% ('24-'30), mainly coming from large acquisitions in the British Isles and France. At the exit in 2029, the UK, France, and Denmark will be the markets with the largest revenue contribution driven by strong projections of both organic and inorganic growth. As for the bottom-line forecasts, a gross margin improvement will stem from cost synergies realization associated with the acquisitions of selected target companies. Inwido's size and greater negotiation power with suppliers will reduce the cost of raw materials.

OpEx will remain similar in proportion to revenues as Inwido is perceived to have sufficient competencies in the present management group. A slightly higher fraction of sales will be targeted to R&D expenses, to provide for investments in energy inefficient business units to enable greater capitalization of the growing renovation segment. In the end, organic EBITDA

growth will mainly come from the strong continuation of organic revenue growth in both principal and secondary markets. Inorganic EBITDA growth will come from the acquisition of target companies in Denmark, France, Ireland, Norway, and the UK, which will be implemented between 2024-2027, allowing Inwido to immediately capture value from add-on acquisitions. FCFE is expected to grow from SEK 708m in 2023 to 1,918m in 2029, at a CAGR of 18% during these 6 years. CapEx is the main factor dictating the free cash flow development in the forecast period, it is split between maintenance CapEx and strategic CapEx. Between 2024 and 2027 c. 65% of the forecasted Capex will come from strategic, associated with acquisitions of subsidiaries. This has a negative impact on the FCFE as it is a cash expense and all planned acquisitions are expected to be paid in cash, resulting in a slight decrease in FCFE until 2025, before it increases again. Acquisitions and therefore CapEx is expected to slow down after 2027, due to a shift in focus towards an exit and planned debt repayments.

Valuation

Inwido is valued at an EV/EBITDA multiple of 8.4x which gives an enterprise value of SEK 11,069m. This is calculated using three valuation methods, a Discounted Cash Flow model (DCF), Comparable Transaction Analysis (CTA), and Comparable Company Analysis (CCA). The DCF yields the highest valuation at 19x using the Gordon Growth Terminal Value approach, with a terminal growth rate of 1,5%, and WACC of 8,4%. DCF using exit multiple for terminal value of 8.4x EV/EBITDA yields a multiple of 15.4x. CTA is done by comparing recent transactions of similar companies and analyzing their purchase multiple. Companies have been selected on size, location, financial metrics, and time of transactions. This gives a multiple of 8.4x and represents a realistic purchase price as it includes premiums paid in the past. CCA looks at other peers, chosen based on similar criteria as CTA, and current trading metrics, and suggests an EV/EBITDA of 8.1x. Looking at the transaction price of peers, current

trading levels, and the value of our predicted cash flows, we believe that Inwido can be acquired at a multiple of 8.4x which results in a total enterprise value of SEK 11,069m.

LBO Model

Capital Structure:

The credit market today is particularly challenging, with record-high inflation having led to increased interest rates around the world. According to professionals in the Swedish bank and private equity environment, interest spreads on bank debt range between 400 and 600bps, depending on firm-specific factors. In Inwido's case, since it is a large company, with SEK 9.2b in revenue and 1.3b EBITDA at entry, size is a factor that should drive the spread down. Its leverage level should also inspire confidence in banks since it has strong liquidity and solvency ratios. However, two factors that could weaken negotiations and drive the spread upward are low diversification linked to the fact that, even though Inwido's sales are widespread across Europe, they are still very much dependent on fenestration products, and the challenging macro environment featuring high-interest rates and inflation. In conclusion, given Inwido's size, leadership across several markets, cash generation, strong solvency, and liquidity, it should be possible to rely on cheaper, senior bank debt from major Swedish banks to achieve the desired returns rather than resort to more expensive, subordinated debt. In the end, the chosen capital structure includes 3 senior debt facilities, TLA (amortizing) priced at 3m SOFR + 425bps, TLB (bullet) priced at 3m SOFR + 480bps, and TLC (bullet) priced at 3m SOFR + 525bps, amounting to a total of SEK 5,798m, 4.4x EBITDA. Equity includes a Fixed Return Instrument of SEK 5,008m, with a 10% PIK element accrued annually. Ordinary shares are split between an institutional strip of SEK 730m and a Sweet Equity instrument of SEK 30m, vesting to 4% of total ordinary shares. Total equity contribution is thus SEK 5,769m (4.4x EBITDA). The buyout is structured with an earnout, investing 80% of the equity at entry and

20% in December 2025 if the EBITDA margin recovers to 2022 levels after predicted declines in '23 and '24. This creates alignment in the incentives between management and the fund.

Returns

Under a holding period of 6 years and no multiple arbitrages, exiting in 2029 at an 8.4x EV/EBITDA multiple, the investment case yields a money multiple of 3.8x and an IRR)of 26.3% for the fund. EBITDA in 2029 is projected to be c. SEK 2,688m, leading to an enterprise value of SEK 21,395m at exit. Net Debt amounts to a negative SEK 601m, thus, total Equity proceeds amount to SEK 21,996m. Management will receive proceeds of SEK 460m, corresponding to a 15.1x MM and an IRR of 57.3%. The main source of value creation is cash generation achieved through the deleveraging effect, amounting to SEK 5,312m. Inorganic and organic revenue contributions are SEK 5,045m and SEK 3,712m respectively, due to growing operations in Inwido's principal and secondary markets capitalizing on the European renovation wave and the *Buy & Build* strategy. Finally, SEK 2,655m of value results from EBITDA margin expansion, stemming from increased synergies and economies of scale associated with M&A and the further consolidation of the European market.

Exit

After evaluating four different exit opportunities, we have found three feasible options, all with their pros and cons. Selling to a strategic buyer is considered the best option due to its high valuation and value of potential synergies. Potential buyers might be industrial manufacturing companies who seek to enter vertical into the window and door industry, or other larger window and door manufacturers who want to strengthen their foothold in Northern Europe. Inwido's expected large size limits potential buyers, but we have found two promising candidates, French Saint-Gobain, and Swiss Holcim. Both have done recent acquisitions of around EUR 2b, the expected value of Inwido at the exit, and both have portfolio companies that operate in the fenestration industry with opportunities for synergies. A secondary sale to another private

equity firm is another potential exit, an expected faster and cheaper exit, but often at a lower valuation. Interest from potential buyers is expected to be high as Inwido's cash flow is high and stable with a leveragable balance sheet in a continuously fragmented industry that has consolidation potential. PE funds with the potential of a large equity ticket are needed and we have found CVC and EQT as potential buyers due to their large funds size, previous acquisitions, and expertise in the industry. The last potential exit option is an IPO in the Stockholm Nasdaq Stock Exchange. Inwido will be a highly attractive IPO case and would most likely attract both local and international investors. This is however very dependent on market timing, but an exit on the top of a cycle has the potential to deliver very high returns.

Due Diligence

To validate the analysis and assumptions made in this ICP, thorough due diligence should be conducted in the commercial, financial, operational, and ESG fields. Commercial and operational DDs should assess the strategic fit, operational capabilities, and growth potential of our proposed M&A targets; as well as the French market's competitive landscape and Inwido's ability to integrate it into the existing e-commerce supply chain. These points are critical for the success of the *Buy & Build* and Internationalization strategies, respectively. A financial DD is also essential to validate the assumptions made in the forecasts and evaluate the impact that both market trends and the Investment Thesis strategies will have on the business plan. Finally, it's important to conduct an ESG DD into the impact that national and EU incentives to improve the energy efficiency of buildings will have on consumers and businesses. An essential part of the Investment Thesis rests on the hypothesis that these incentives will become increasingly relevant, boosting demand for energy-efficient windows and doors as well as allowing Inwido to capitalize on this trend and, through Green Transition, *Buy and build* and Internationalization, further consolidate its position in the European fenestration market.

Individual part - Return Analysis

Introduction

According to the Global Private Equity Report 2023, published by one of the leading consulting firms in private equity, Bain & Company, while the post-Covid rally in global private equity demonstrated exceptional strength and resilience, it ultimately could not withstand the impact of the Federal Reserve. For the initial six months of 2022, the PE industry continued the remarkable surge in deal activity witnessed in 2021 despite ongoing challenges such as persistent inflation and geopolitical instability. However, a pivotal shift occurred in June, marked by actions from the Federal Reserve. The decision to initiate a 75-basis-point (bps) increase in interest rates, coupled with subsequent increments, echoed globally. This move symbolized the termination of an era characterized by easily accessible debt in buyout markets, starting significant concerns regarding persistent inflation. The escalating interest rates triggered speculations about an appearing recession, prompting banks to show reluctance in extending leveraged loans, leading to a sharp decline in dealmaking which, in turn, significantly impacted exit and fundraising figures. Despite the substantial decrease from previous levels, buyout deal value (\$654 billion), exits (\$565 billion), and fundraising (\$347 billion) all finished 2022 with respectable totals in a historical context. Yet, this abrupt turnaround marked the end of an upcycle that persisted (with a brief pause during the COVID-19 pandemic) since 2010, when the industry emerged from the global financial crisis and created a 12-year run of great performance (Bain & Company 2023).

Globally, buyout funds yielded \$202 billion in transaction value throughout the initial half of 2023, marking a 58% decline compared to the corresponding period a year ago. Annualized, this amounts to \$403 billion, reflecting a 41% reduction from the total recorded in 2022. Essentially, 2023 has seamlessly continued the trend initiated by 2022, extending the decline

in deal activity to a full year (Bain & Company 2023). In the current context of decelerated dealmaking and fundraising activities, the volume of uninvested capital, commonly referred to as “dry powder”, has reached a record high at \$3.7 trillion (\$1.1 trillion in buyout funds) providing a significant incentive for alternative asset managers to get moving. In July, the value of un-exited portfolio assets was four times higher than it was during the depths of the global financial crisis. Buyout funds recently held approx. 26,000 companies in their portfolios, representing a \$2.8 trillion in unrealized value, where most assets have been detained beyond the typical five-year time frame for a private equity exit. However, sitting on the sidelines because the market is down has never proven to be a notably effective strategy in private equity. In times when investors want to cash out, savvy investment managers are finding ways to divest aging assets at good profits while also figuring out how to boost the value of companies they plan to keep. Historically, private equity funds always find ways to make the most of changes in the business cycle. The key is to keep moving forward instead of staying still (Bain & Company 2023).

Definitions and Differentiation

Private equity is an asset class within the alternative investment universe. In the absence of a unified definition of investments in alternative asset classes, this report will follow the definition of Jobman (2002, 141) being “*a comprehensive term that represents all types of equity investments in non-public companies*”. Furthermore, alternative investments are different from traditional investments in terms of their risk, return, and liquidity profile. Although there are different classifications within the alternative investment landscape. Firstly, they are considered as illiquid assets, meaning investments that cannot easily or quickly be converted into cash without substantial impact on their value. Secondly, they have a low or negative correlation with traditional assets such as stocks or bonds. Alternative investment assets are more complex than traditional financial instruments, thus the analysis of risk factors

associated with the alternative investment market is complicated and difficult (Sokolowska 2016).

The traditional way of private equity investment has a relatively extensive time horizon of five to seven years and requires a large amount of cash. Private equity funds secure funding from private sources, which include contributions from mutual funds and institutional investors known as limited partners (LPs). These funds are then utilized to purchase publicly traded companies, transition them into private firms, or acquire private companies not listed on any stock exchange. Specifically, private equity is associated with investment, including, (1) venture capital - investment in early-stage ventures with high growth potential, (2) leveraged buyouts (LBOs) - investment in mature companies with established operations but potential for improvement, (3) private debt - debt financing to private firms, (4) special situations - investment in distressed companies, aiming to turn them around (Jobman 2002). Given that this paper is a complementary resource to the leveraged buyout investment committee paper of Inwido, it will solely focus on leveraged buyout investments. When acquiring a company, private equity investors commonly aim to generate returns through a dual approach, including the implementation of operational enhancements to boost profitability and financial engineering, such as optimizing the acquired company's balance sheet. The overarching objective is to subsequently sell their common stock or ownership stake in the company at a higher valuation in the future (Gompers and Kaplan 2022).

Return Analysis

According to Kaplan and Strömberg (2009), the evidence gathered at the company level strongly indicates that buyout funds generate value, accounting for industry and market considerations. Moreover, by deriving a data set from the holdings of more than 200 institutional investors (LPs) in the U.S. that represent over \$1 trillion in committed capital, Harris, Jenkinson and Kaplan (2014) analyzed the performance of approx. 1,400 private equity

funds. Their findings showed that buyout funds consistently outperformed the S&P 500 by more than 3% per year and on average 20% to 27% over the fund's life cycle. They elaborate that this may not come as a surprise given that some argue that private equity funds have historically offered investors a premium compared to investing in public markets. This is partly because of the relatively illiquid nature of private equity investments and the "commitment risk" that LPs assume that is tied to the uncertainty surrounding the timing of capital calls and distributions, controlled by the General Partners (GPs). It stands in contrast to public market investments, where there is no difference between committed and invested capital, and trading always occurs (Harris, Jenkinson and Kaplan 2014). The costs associated with illiquidity and commitment risk are likely to vary among investors. While the average return premium observed for buyout funds (ranging from 3% to 4% per year above public markets) may appear attractive to some, it may not hold the same appeal for others who face higher illiquidity costs.

Return Metrics

There are several standard metrics used to measure returns in private equity, such as the internal rate of return (IRR), the multiple of invested capital (MOIC), the total value paid in (TVI), or the distributed capital paid in (DVPI). IRR is a measure of the annualized rate of return that an investment is expected to generate over its holding period. It considers the entire timeline of cashflows, offering a comprehensive perspective of the investment's performance. MOIC measures the total return generated on an investment relative to the initial amount of capital invested (Korteweg, Sorensen 2023). For simplicity reasons, the upcoming analysis will be conducted focusing on IRR and MOIC, as it has been assumed that the IRR and MOIC together offer a sufficiently holistic view to assess the performance of private equity investment from multiple perspectives.

Financing Structure in Leveraged Buyouts

Securing and obtaining adequate financial resources from available markets, utilizing an optimal and sustainable combination of equity and debt, is one of the fundamental aspects of the entire LBO transaction to fund and complete the acquisition. This funding setup usually includes four main sources: (1) equity capital, (2) senior debt, (3) subordinated debt, (4) quasi-equity.

The equity portion of an LBO is the amount of money that the providers contribute to the deal, usually in the form of cash or shares. *“Equity capital is the primary source of financing and the cornerstone of any leverage buyout transaction as the relative providers are the originators, sponsors, and drivers of the transaction. Without such core basis of capital, the transaction would never have been originated and brought to life.”* (Baldi 2015, 34). In general, all other alternative sources of capital are used to minimize the use of equity capital as it characterizes the most expensive source of capital. The providers of equity capital are typically financial investors, institutional investors, corporates, the target company’s management team, or outside management teams with certain knowledge and/or expertise of an industry or business. They play a crucial role in value creation, as they take ownership of the business and implement operational improvements, financial restructuring, and strategic initiatives to increase the company’s value. Equity investors bear the risk of losses if the company’s performance does not meet expectations, but they also stand to benefit from the company’s growth and success. The fraction of deal value covered by equity capital has seen significant fluctuations over the years, ranging from approx. 10% in the 1980s to around 50% today (Gompers, Kaplan 2022). The equity portion can be structured in various ways, depending on the sources of equity, the alignment of interests, and the exit strategy. To determine an investment’s profitability, private equity investors must assess and estimate the enterprise value of the acquisition target both at entry and by the time they plan to exit the investment. There

are numerous ways of proceeding with this assessment, such as using the value of similar companies listed on the stock market, and/or using the value of comparable precedent transactions. The primary focus lies in evaluating a company based on its IRR, aiming for a target IRR ranging between 20% and 25%. Analyzing historical U.S buyout IRRS spanning from 1991 to 2017 reveals fluctuating annual averages, with some exceeding 20% and others dipping below 10%. Despite economic downturns, they have consistently yielded returns of at least 1.3x the invested capital since 1995, with average MOIC ranging from 1.5x to 2.0x (Gompers and Kaplan 2022).

Debt providers such as banks or other lenders, play a crucial role as the second significant source of capital in LBOs, alongside equity providers. These providers are instrumental in reducing the amount of equity required to complete the acquisition. In exchange for the capital provided, debt providers anticipate a fixed, non-performance-related return, typically manifested through regular interest payments. This, however, affects the company's future cash flows, constraining the available funds that could otherwise be allocated to future growth initiatives or the repayment of capital. Once again, since this paper is a complementary resource to the Investment Committee Paper of Inwido and the proposed capital structure only includes senior debt, the focus will be on bank debt also considering subordinated debt since that is a common type of debt financing in LBOs. Senior debt, provided by commercial banking institutions, is the principal credit facility that a company is granted as debt financing, usually representing more than 50% of total funding sources in an LBO transaction. Informed by the outcomes of due diligence, a comprehensive assessment encompassing cash flow projections, target company valuation, accounting reviews, legal evaluations, and collateral assessment, the bank establishes the extent of senior debt it is prepared to grant. The claimed securities typically involve tangible assets, such as real estate or production facilities belonging to the acquisition target. These assets possess an intrinsic value that is largely separated from the existence of the

target and can promptly be liquidated if needed. Given the economic and financial attributes of senior debt, lenders will demand additional fees such as arrangement fees, funding fees, early repayment fees, or waiver fees. Essentially, senior debt lenders' objective is to have an assurance of reimbursement (i.e., no loss of capital) while gaining a net return on capital above their benchmark cost of capital (Baldi 2015).

Subordinated debt, also referred to as mezzanine- or junior debt, represents a useful form of additional capital to finance acquisitions. Several underwriters provide subordinated debt, typically, insurance companies (mostly in the U.S.), commercial banks, investment banks, pension funds, and venture capital institutions. In contrast to senior debt, which takes precedence in repayment before shareholders realize returns, mezzanine capital holds a subordinate position to equity and can be reimbursed after shareholders receive their returns. Mezzanine funding serves as a bridge between senior debt and equity, allowing private equity funds to secure additional funding without diminishing their ownership stake, known as dilution, in the portfolio company. In the event of default, holders of subordinated debt are repaid after senior debt holders but before common shareholders, thereby assuming a greater financial risk relative to senior debt. Consequently, mezzanine debt typically entails a higher interest rate, providing a correspondingly higher return to the lender. The category of mezzanine investors ready to take on a higher risk-return profile usually seek to improve their returns by negotiating for equity participation together with their debt investments, known as an "equity kicker". Since they seek higher returns, it is relatively expensive compared to bank debt, and on average accounts for 10-15% of the total transaction value (Baldi 2015).

The Classic LBO, the Entrepreneurial LBO, and Timing Tactics

To better understand the source of LBO returns, Ayash, Bartlett, and Poulsen (2017) investigated two main transaction strategies seen as common approaches when running the business and creating value after the buyout has taken place. The researchers additionally

explore the various timing tactics that are commonly credited to LBO sponsors as a tool to improve their reported IRR, which applies to any LBO type. The analysis provides an in-depth perspective of 92 leveraged buyouts between 1995-2006. The first transaction strategy represents “The Classic LBO model” with initiatives modifying the company’s capital structure to include substantial debt. This often accompanies a shift in executive management. Furthermore, these firms commonly divest significant assets post-transaction, getting rid of underperforming elements in the portfolio to enable a stronger operating performance. According to the second transaction strategy, known as the “Entrepreneurial LBO Model”, LBOs should be anticipated to express greater emphasis on revenue growth through expansion and strategic acquisitions. For instance, this can take the form of incremental revenue growth through adopting a buy-and-build strategy in which the LBO sponsors use an existing portfolio company to pursue additional strategic acquisitions. Moreover, the model suggests that LBO sponsors should collaborate more with strategic bidders to benefit from their operational expertise and explore potential cost savings. Combining several businesses in one company should improve operating efficiencies if the acquiring firm effectively integrates the operations. However, the limited time available for LBO sponsors to consolidate operations may hinder realizing these efficiencies. LBOs following an entrepreneurial model are expected to show substantial sales growth, but operating efficiencies may not necessarily increase during the LBO. Consequently, LBO sponsor returns depend largely on the portfolio company’s success in growing revenue, with either improved or constant operating margins. Lastly, “Timing Tactics” suggest that in any LBO, the sponsor is motivated to produce significant IRRs by simply employing various tactics to speed up the exit or increase the cash flows. This may include strategies like a “quick flip” where the private equity fund quickly exits its investment in the portfolio company shortly after acquiring it or issuing stock dividends. In the case of the latter, funds from these distributions can come from selling portfolio company assets or

executing a dividend recapitalization, where the company issues new debt to pay dividends to equity investors (Ayash, Bartlett, Poulsen 2017).

For successfully exited LBOs, the report generally presents significant positive returns for sponsor equity investors. Findings indicate a shift from operating margin focus toward transaction strategies that aim for equity returns through aggressive revenue growth, often involving multiple acquisitions, and capitalizing opportunistically on favorable cycles in credit or equity markets to produce accelerated equity payments. Moreover, the study underscores the crucial importance of differentiating between unrealized gains at the time of an LBO exit and the actual gains realized by an LBO sponsor. The challenge of liquidating a sponsor's securities position post-exit can significantly impact realized IRRs. Consequently, LBO sponsors have strong incentives to accelerate cash payouts, such as through mid-stream dividend payments. A notable negative association between IPO exits and sponsor's realized IRRs, relative to acquisition exits, raises the possibility that investors may prefer navigating portfolio companies toward acquisition exits rather than IPOs (Ayash, Bartlett and Poulsen 2017).

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It is important to note that the success of the investment is an uncertain approach that depends on several factors, such as firm-specific and macroeconomic dynamics. By allowing for sensitivities in the expectations, both at a firm-specific and macroeconomic level, it is possible to critically assess the returns at exit. The LBO of Inwido assumes an Investment Case including strategic M&A and market expansion as the main initiatives for significant value creation. This case is projected to yield a money multiple (MM) of 3.8x and an internal rate of return (IRR) of 26.3% for the fund. Then, there is a Base Case that assumes more conservative growth rates and market developments, expected to yield an MM of 2.9x and an IRR of 20.9%, while keeping the holding period of six years and the EV/EBITDA multiple of 8.4x constant.

Furthermore, there is a Bank Case, that assumes the most pessimistic view of top-line development, less synergies from the buy & build strategies (reflected in the higher COGS relative to revenue), and less operating efficiencies. This case is expected to yield a lower MM of 2.8x and thus an IRR of 19.8%, keeping the holding period and EV/EBITDA multiple constant. An alternative outcome is also explored in which the buy & build strategy is less significant. This is a critical aspect to examine, as it indicates whether Inwido is an attractive target on a more standalone basis, or if the add-on acquisitions are critical components of the deal. With less M&A, excluding 4 acquisitions, the IC yields an IRR of 21.2%, suggesting that the investment still generates significant returns despite less acquisition activity. One important consideration on this aspect is that Inwido has a long history of successful M&A, thus it would not be realistic to assume a case where no acquisition would take place. Lastly, as large amounts of debt are used in the LBO, the outcomes also depend on the development of the Secured Overnight Financing Rate (SOFR). Another crucial analysis is then to stress test different scenarios in which the underlying base rate is assumed to increase in the future. If the SOFR were to increase by 250bps, the IC would yield an IRR of 25.6%. Given the current debt market conditions, this scenario is unlikely, however, it is an important practice to perform.

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