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Private Equity 4.0. at Work

Operating and strategic value creation improvements in contemporary Private Equity buyouts - the case study of Nets A/S

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Abstract

The purpose of the thesis is to fill the gap between the theoretical frameworks based on findings from quantitative studies on value creation in Private Equity investments and practical knowledge of actions actually taken by PE sponsors in pursuing value creation in their portfolio companies. The thesis focuses on operating and strategic value creation measures, which are claimed to be the most important contributors in value enhancement in contemporary Private Equity buyouts. In order to provide a deep insight into particular actions taken by such investors, a single case study approach is used in analysing the acquisition of Nets A/S by the consortium of leading, global Private Equity funds Advent International and Bain Capital. The analysed performance of Nets is further benchmarked to a group of its close industry peers. The conducted analysis allowed the author to identify the value generation principle employed in this particular transaction, which was based on implementing a broad transformation programme aimed at revamping the company's growth potential, as well as sustainably improving the business's underlying profitability. Apart from providing insight into value creation actions in this particular transaction, which largely confirmed findings from recent studies on value creation in Private Equity portfolio companies, several areas for potential further research were identified.

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1. Introduction

1.1. Motivation

The motivation for writing this thesis came from reading the book *Private Equity 4.0*, where the authors: Benoit Leleux, Hans van Swaay and Esmeralda Megally [Leleux et al., 2015] claim the ongoing transformation of the Private Equity value creation model from traditional reliance on applying extensive leverage in buyout transaction (not accidently known as leveraged buyouts), to dominance of operating and strategic improvements within portfolio companies, as a single most important value creation contributor. Such a turnaround in the industry's business model, in the author's opinion, brings Private Equity closer in its attempts to be recognized as a superior ownership structure, allowing for "taking best of the best" from invested companies, but through business groundwork rather than financial tricks.

After reviewing academic literature on that topic, the author identified a gap between well-established value creation frameworks based on findings from numerous quantitative studies on value creation within Private Equity companies and the practical knowledge what actions actually are taken by Private Equity investors in order to create extraordinary operating and strategic value in their portfolio companies.

As a result, the author decided to take a single contemporary Private Equity buyout transaction and conduct a thorough analysis of undertaken value creation attempts, with a focus on operating and strategic measures claimed to be the "crème de la crème" of nowadays Private Equity investments, in order to identify particular actions taken by the sponsors in this particular case and also differences from value creation approach in non-PE-owned company from the same industry. Based on the findings from that single study, the author attempts to form suggestions for further research allowing for obtaining statistically significant conclusions and thus contributing to the existing literature on the topic.

For the purpose of the above analysis, the author decided to use the case of Danish company Nets A/S, which was acquired by a consortium of global Private Equity firms Advent International and Bain Capital in spring 2014 and later IPOed on the Copenhagen Stock Exchange after a 2.5-year private holding period. The Nets case, in the author's view, provides a great insight into the mechanics of contemporary Private Equity-backed buyouts due to its relatively recent occurrence, large availability of public data, as well as a set of publically listed comparable companies. Apart from the technical reasons the Nets case is a very interesting transaction in a dynamic payment

processing industry, where Private Equity sponsors generated decent return through usage of multiple value creation measures.

The author believes that the thesis will be interesting not only for scholars seeking for inspiration for further research within the Private Equity value creation area, but also for business practitioners and students willing to better understand the mechanics and particular actions taken in modern Private Equity investments affected by the ongoing industry transformation.

1.2. Problem Statement

Throughout the analysis of value creation attempts within the case company – Nets A/S, the author tries to answer the following research questions:

1) *How operating and strategic value creation was approached at Nets during its Private Equity investment?*
   Or in more detail:
2) *What operating and strategic measures were taken in Nets in order to create additional value for the investing sponsors?*

At the same time, the impact and approach of strategic and operating steps taken in Nets is benchmarked to comparable peer companies operating in the same industry. This allows for formulating further questions:

3) *How Nets performed in terms of common company performance measures affecting value creation against the benchmark non-PE-backed companies?*
4) *How the strategic and operating steps taken at Nets differ from the ones taken in the benchmark non-PE-owned companies?*

1.3. Thesis Structure

The thesis is structured in the following way:

First, the overview of Private Equity investments and its historic evolution is provided. Second, the theoretical framework for analyzing the case is established and the evaluation of so far studies is conducted. Third, the used methodology of analyzing the case is described and also a detailed analytical framework for the further investigation is established. Subsequently, the overview of the analyzed case situation is provided. Further, the benchmark companies used as comparable for the case company are described and lastly, the chosen case is analyzed using previously established methodology and theoretical framework. During the analysis the main findings are summarized and items for further research are identified.

1.4. Delimitations

It is important to bear in mind that the case study is aimed to identify value creation measures in the particular Private Equity investment – acquisition of Nets by the consortium of two Private Equity funds. Therefore, the findings from the study cannot be generalized to the Private Equity overall, however, they are welcomed to be tested in further industry-wide studies.

Furthermore, scope of the study is limited to operational and strategic value creation measures, however, it cannot be excluded that other value creation measures such as governance and financial improvements played a direct or indirect role in the analyzed metrics.

The construction of the analyzed benchmark group is limited solely to publically listed companies due to availability of data, hence a potential bias in obtained relative performance of the case company cannot be excluded.

The difference between effectiveness of value creation of the case company and its peers is analyzed based on their respective performance during the analyzed period. However, it cannot be excluded that the selection of the invested company by the Private Equity sponsors was based on its potential responsiveness to operating and strategic changes. If this is the case the, relative outperformance of the analyzed company is a matter of superior selection capabilities of Private Equity sponsors rather than efficiency of implemented value creation measures (effect of value capturing rather than value creation skills).

2. Overview of Private Equity Investments

2.1. Introduction to Private Equity

Private Equity comprises a broad scope of investment types ranging from providing early-stage financing for ambitious entrepreneurs trying to scale or even establish their innovative companies (start-ups), called Venture Capital investments, to takeovers and restructurings of large and mature companies, called buyouts. Despite significant differences between the above mentioned cases, there is a common ground putting them into a single category of Private Equity investments. That is the fact that both of them are conducted by specialized investment companies – Private Equity managers (called also General Partners – GPs) that collect money from institutional investors such as e.g. pension funds, insurance companies or university endowments, as well as high-net-worth individuals into Private Equity funds. Theses institutionalized funds are created in order to invest the money on behalf of the passive investors (called Limited Partners – LPs) into low-liquidity projects. In its principle, Private Equity investment model bridges the gap between the needs of the above mentioned

LPs to commit long-term capital into high-risk and potentially high-reward projects and their limitations in pursuing such investments on their own. The limitations stem from the fact that such passive financial investors overlooking their diversified portfolios invested among many different asset classes lack the necessary skills and time availability required in active investing [Lerner et al., 2012]. This way of pursuing investments requires actively approaching potential investment targets, executing lengthy and complex transactions of acquiring significant (often controlling) stakes in private enterprises and finally supervising investee companies, which often is associated with direct selection of management teams, setting the value creation strategy, as well as frequent monitoring of specific for certain industries operating performance measures. All the above mentioned skills are the main domain of GPs. The main differentiation of Private Equity from other types of investments, such as public stock market investing, is the fact that Private Equity investors funds seek significant influence over the invested assets, which in the case of buyouts is associated with direct ownership control of an asset [Talmor et al., 2011].

Despite the fact that the term Private Equity can be used with reference to many different types of transactions such as Venture Capital, Growth Equity and even Mezzanine Debt, throughout the thesis, the author will use this term particularly with reference to buyout transactions, which are the main interest area of this dissertation.

The activity of buyout funds, is aimed at pursuing so called leveraged buyout transactions (LBOs), which include acquisitions of broad range of businesses including both public and private companies, as well as their particular divisions or subsidiaries. The LBO transactions are characterized by extensive usage of debt capital in the acquisition's financing structure, the share of debt capital in such investments typically accounted for 60-70%, depending on the characteristics of a particular target, as well current economic conditions. The debt capital used in such transactions provides the leverage effect, lowering the direct equity contribution of the fund and lifting potential returns (and on the other hand losses – increasing the risk profile of such investment), but also plays other, indirect roles mentioned later in this chapter. Due to the reliance on substantial financial leverage, GPs typically invested in mature companies with stable and predictable cash flows that supported service of incurred debt obligations, as well as relatively large assets base that was used as a collateral for institutions providing debt financing [Rosenbaum and Pearl, 2009]. Historically, Private Equity funds were seeking for a return of +20% IRR from a portfolio company over the typical 4-7 years investment period [Talmor et al., 2011].

2.2. Historic evolution of Private Equity investments

Despite the fact that the first leveraged buyout transaction was conducted in 1901, when J.P. Morgan acquired Carnegie Steel for $480m using significant portion of debt capital [Talmor et al., 2011], as well as apparent existence of several buyout funds in the US before the 1980s, (e.g. Lerner et al. [2012] points out that during the 1960s-1970s there were several funds active in the US pursuing acquisitions of mature companies, nevertheless scope of their activities was limited and their activity was classified as prevailing at the time Venture Capital investment model), many researchers (e.g. Kaplan and Stroemberg [2009]) use the 1980s as the true beginnings of Private Equity investments in their strict sense.

Leleux et al. [2015] makes an appealing division of the history of institutionalized Private Equity into the four distinct periods:

- Private Equity 1.0 was the initial boom of Private Equity investments taking advantage of organizational inefficiencies of large diversified conglomerates and acquiring their underinvested spin-offs. The rapid growth of the Private Equity market in the 1980s was started with appealing returns of first investors and propelled by the emergence of the high-yield bonds (called also "junk bonds"), invented by Michael Milken and promoted by aggressively competing investment banks such as Drexel, Burnham, Lambert. The financial instruments provided the first buyout funds such as KKR, Blackstone or Bain Capital with the increased availability of "risk-seeking" debt financing. As a result, the leverage levels employed in common investment structures at the time reached 90-95% [Lerner et al., 2012]. The magnitude of expansion of buyout investments at the time indicates the statistics used by Olsen [et al., 2003] that states that the aggregate value of such transactions grew $1.7bn in 1980 to $188bn in 1988. The burst of the "junk bonds bubble" and economic recession in the US in the wake of 1980s and 1990s put many Private Equity managers into trouble with financing their risky investment, as well as generating satisfactory results for their investors and as a result LBO market severely declined [Hurduzeu and Popescu, 2015].

- Private Equity 2.0 is associated with increased Private Equity investments in the technology sector during the late 1990s. The overheated tech market incurred extreme (and often irrational) valuations that led to the Internet Crash in the beginning of the new century and as a result another significant blow for the Private Equity markets, this time mostly its Venture Capital segment (since buyout activities were still limited after the collapse of the first iteration) [Leleux et al., 2015].

- Private Equity 3.0 puts buyout funds again at the center of interest. The LBO managers supported by slashed valuations – aftermath of the dotcom bubble, as well availability of cheap debt financing – a by-product of loose monetary policy aimed at revamping growth in the bruised global economy, started the binge investing in larger and larger assets with gradually increasing share of debt capital in financing structures [Shawn, 2007]. The size of buyout market at the peak of the cycle was far larger than the 1988 peak – in 2007 the buyout investments reached $581bn [Talmor et al., 2011]. As usually in the bubbles – pricings in buyout investments started to increase as more investors were competing for the deals. Finally curb in availability of debt financing resulting from subprime credit crisis one more time put the Private Equity markets into retreat. In 2008 the total buyout investments fell to $150bn [Talmor et al., 2011].

It can be summarized that the development of Private Equity industry was driven by booms and busts of the following iterations from 1.0 to 3.0. The pattern is confirmed by researchers as the Private Equity market cyclicality, which is reflected on both: a single Private Equity portfolio company level (increased valuations during the boom phase often propelled by availability of cheap debt financing and as a result subsequently reduced returns), as well as overall Private Equity fund level (increased amount of money committed by investors during the boom phase and as a result subsequent drop in realized returns) [Kaplan and Stroemberg, 2009].

- The latest iteration of the industry presented by Leleux et al. [2015] – Private Equity 4.0 is claimed to be a superior evolution, where the main focus of value generation, instead of financial engineering and riding the market waves (both can be associated with opportunistic value capturing, rather than fundamental value creation), are operational improvements: improving efficiency of existing operations and enabling growth of invested companies. Such a way of generating returns can be associated with real value creation, where tangible value is created not only for investors and managers, but also the economy at large, as the invested companies increase their value in a sustainable way, benefiting a broad range of their stakeholders.

3. Theoretical Background

3.1. Private Equity Value Creation Framework

There is an agreement between academics (e.g. Stowell [2012], Talmor et al. [2011], Loos [2006]), and industry practitioners (e.g. Viscio and Pushner [2014], Brigl et al. [2016]) that the mechanics of leveraged buyouts imply the three following key value drivers:

- Growth in the portfolio company's EBITDA
- Entry multiple expansion
- Repayment of debt capital used in financing the acquisition

This is given by a simple equation [Berg and Gottschalg, 2005]:

*Equity Value = Valuation multiple * EBITDA – Net Debt*

Differences appear, however, between academic frameworks distinguishing particular value creation levers engaged in a leveraged buyout transaction.

In a traditional framework established by Jensen [1989] and later structured by Kaplan and Stroemberg [2009], value in leveraged buyouts is created through:

- Financial engineering
- Governance engineering
- Operational engineering

Talmor et al. [2011], as well as Leleux et al. [2015] distinguish between three basic sources of value creation:

- Operational improvements
- Multiple expansion, which can be later decomposed into:
    - Multiple arbitrage related to market timing – in this case the acquiring fund does not create value, but benefits from favorable changes of industry-wide valuations. Nevertheless, given the increasing efficiency of capital markets, multiple arbitrage based on market timing cannot be considered a reliable source of value creation [Talmor et al., 2011].

- Multiple engineering related to improving the target's future prospects – Since current trading multiples reflect the future expected performance of the business, fund managers try to reposition the company e.g. changing its growth profile, in order to make it more attractive for potential buyers and thus achieve a higher exit multiple [Leleux et al., 2015]

- Financial leverage

More in-depth academic approach present Berg and Gottschalg [2005], who split value generation in leveraged buyouts into passive value capturing and active value creation.

Value capturing, which generates value without improvements in financial performance of the portfolio company through financial arbitrage can be further decomposed into: effects of changes in market valuation, proprietary information and superior market information obtained by fund managers, superior deal making capabilities of fund managers, as well as value generation through optimization of corporate scope (removing conglomerate discount). Loos [2006] indicates that roughly 1/3 of the total value generated in leveraged buyouts is created in the pre-buyout phase - during the acquisition and negotiation process. However, his findings are based one somewhat legacy studies of Anslinger and Copeland [1996] and Butler [2001].

Value creation, which generates real gains in the valuation of the acquired company is split into primary levers that are directly linked to the company's value, and secondary levels, which do not have direct impact on financial performance and thus valuation, but influence value creation through their positive impact on primary levers.

Primary levers are:

- Financial engineering, which includes optimizing the target's capital structure and reducing corporate tax through a tax shield positively affecting cash flows paid to equity holders
- Increasing operational effectiveness (operational improvements) including cost cutting and margin improvements, reducing capital requirements, as well as removing managerial inefficiencies
- Increasing strategic distinctiveness (strategic improvements)

Whereas secondary levers include:

- Reducing agency costs which is enabled through improving incentive alignment between managers and owners and improving monitoring and controlling

- "Mentoring" function realized through restoring entrepreneurial spirit and advising and enabling, provided by experienced Private Equity managers

For the purpose of further analyses, the author will use a combination of the above mentioned frameworks proposed by Lahmann et al. [2017], who group value creation in Private Equity investments into:

- Operating improvements,
- Strategic improvements,
- Financial improvements
- Governance improvements.

As for the importance of particular levers of value creation in Private Equity investments, it is known that during the first wave of leveraged buyouts in the 1980s the GPs relied mostly on financial and governance improvements [Kaplan and Stroemberg, 2009]. The need for stronger reliance of the industry on operating improvements appeared in the literature in the next decade (Lerner et al., 1998]. Already during the second wave of leveraged buyouts in 2000s (Private Equity 3.0) market practitioners started to see operational improvements, instead of financial engineering as the main source of value creation in Private Equity transactions [Matthews et al, 2009]. The gradual shift in value creation patterns can be observed in a joint study of consultancy firm Capital Dynamics and the Technische Universitat Munchen [Perembetov et al., 2014], where two subsets of Private Equity transactions from two different time intervals, 2001-2004 and 2005-2008 respectively, are compared. In the first time interval leverage effect still accounts for the largest part of value creation in the analyzed transactions (35% share) and EBITDA growth associated with operating improvements comes second (31% share). In the more recent time interval, however, EBITDA growth is the most significant value generator (40%), whereas leverage comes second (29%). Achleitner et al. [2014] points out that reasons for the accelerated shift in value creation fundamentals in the last 15 years are associated with increased maturity of the Private Equity industry and resulting limited opportunities to exploit market inefficiencies and also periodical restrictions in access to debt financing – e.g. as a result of the most recent financial crisis. Matthews et al. [2009] adds increased competition for deals between GPs as a reason for stronger reliance on operational value creation in order to outcompete rivals. Last but not least, industry practitioners stress that in the increasingly uncertain global economic environment and volatile financial markets they prefer to focus on the valuation creation measures they have larger influence on, namely operating performance of invested companies [Kaplan et al., 2011].

It is worth to stress at this point that both financial and governance levers are still an important part of the overall Private Equity investment framework and also they inevitably have indirect

impact on the company's operating performance and strategic decisions. As Leleux et al. [2015] points out, debt capital used in leveraged buyouts not only amplifies the return on equity through the financial leverage mechanism and creates tax shield on interest payments, but also disciplines managers, forcing them to focus on generating cash necessary for servicing the debt obligations. Additionally, a study conducted by Gompers et al. [2015] shows that in order to ensure diligent execution of developed value creation plans, Private Equity managers stress the importance of such governance measures as strong equity incentives for the management boards of portfolio companies, management replacements, as well as structuring of lean and diversified supervisory boards.

Nonetheless, given the scope of this thesis, which is aimed at investigating operating and strategic value creation measures in a particular case company, the author will focus the further analyses on the first two value creation levers as a core interest, however, referring to the other two value creation levers whenever required.

3.1.1. Operating improvements

Operating improvements in Private Equity portfolio companies are generated through increase in sales and margin improvements, which together support EBITDA growth, as well as decrease in capital requirements, which overall leads to improved cash flow generation abilities of a given company [Kaplan, 1989]. The improvements in above mentioned accounting measures are obtained through changes in configuration of the company's resources, with an aim to increase efficiency of their utilization [Berg and Gottschalg, 2005].

In principle, sales growth can be obtained through increases in two factors: quantity of sold goods/services and pricing of sold goods/services Talmor et al. [2011]. These two fundamental goals can be achieved through following a market momentum, as well as numerous growth-supporting measures such as increased market shares in existing markets, entering new markets/market segments, repositioning of existing products, launching new products etc. Private Equity managers aggressively seek to boost revenue growth in their portfolio companies in order to improve their valuations during the exit process [Loos, 2006]. In a longitudinal study of 395 Western European Private Equity deals from 1991 to 2007, Acharya et al. [2012] identify outperformance of PE-backed companies over its peers in terms of sales growth. The results are consistent with findings of Boucly et al. [2011]. In a separate study, Cohn et al. [2013] identify an interesting pattern that overall sales decreases during the first year after the buyout and subsequently rebounds in the next years. This can be associated with implementation of restructuring processes, which in some cases include winding down unprofitable parts of the business, which can lead to temporary declines in the overall sales level.

Margin improvements are obtained through improving efficiency of the target company's operations, which usually results in so called "cost-cutting". According to Talmor et al. [2011] cost cutting is often the most important part of operational improvements in buyouts. However, as academics point out, a selective cost reduction approach in buyout investments is required no to harm competitive position of the target company [Esterwood and Seth, 1989]. In effect, Private Equity managers are not "blind cost-cutters" and such crucial cost positions as R&D and marketing expenses tend to even increase after a buyout [Leleux et al., 2015]. Therefore, reduced are usually those cost positions that do not directly participate in value creation process. According to Loos [2006], the cost cutting process is usually focused on trimming excessive overhead costs based on eliminating unnecessary bureaucracy, streamlining internal processes and improving quality of cost control mechanisms. Most of the existing studies confirm superior performance of buyout companies in terms of operating profitability (e.g. Boucly et al. [2011], Acharya et al [2012], Cohn and Mills [2013], among others), however some earlier studies of post 1980's deals (e.g. Leslie and Oyer [2008], Guo et al. [2011]) show no evidence on superior profitability of PE-backed companies. When it comes to efficiency improvements, Lichtenberg and Siegel [1990] show improved productivity on a plant-level during the first buyout phase. Similar results are obtained in more recent studies by Wilson et al. [2012] and Davis et al. [2014]. The latter study indicates also that PE-backed companies are more likely than their peers to shut down underperforming, inefficient operating units and also open new, outperforming ones, which evidence supports the thesis on more efficiency-oriented approach of those companies.

There are three basic ways of decreasing capital requirements in Private Equity portfolio companies: improvement in efficiency of working capital management, rationalization of capital expenditures, as well as divestment of non-core business lines [Berg and Gottschalg, 2005]. All the above mentioned measures lead to freeing up additional cash that can be further used for debt repayments, or dividend payoffs, eventually improving returns for a Private Equity sponsor, but also directly increasing the company's valuation through increased future cash conversion prospects. Working capital optimization, often includes reduced inventory levels, accelerated collection of receivables, as well as extension of the payment period to suppliers [Loos, 2006]. In effect, PE portfolio companies have, on average, significantly smaller amounts of working capital than their industry peers [Holthausen and Larcker, 1996]. Capital expenditures optimization includes redeployment of investment spending into most profitable activities, increasing overall efficiency and cutting unsatisfactory investments [Loos, 2006]. Nevertheless, despite the historically strong evidence on declining Capex in buyouts (e.g. Kaplan [1989], Smith [1990]), given the recent increased focus on enabling growth of PE invested companies, the overall capital expenditures tend to be higher than in their peers [Boucly et al., 2011]. Last but not least, Private

Equity managers tend to divest decentralized assets, in order to focus its efforts on core business and thus increase operating efficiency and free up additional cash reserves [Phan and Hill, 1995].

Given the above mentioned changes in the Private Equity model over time, Boucly et al. [2011] provide an interesting perspective on the ongoing shift in operational value creation in Private Equity deals. According to their study, contemporary transactions are largely focused on sparking growth in target companies through purposed increases in capital expenditures (Capex), enabled by substantial amounts of debt capital raised. In this way, previously unexploited growth opportunities are utilized, leading to a superior value creation. This finding stands in opposition to traditional buyout approach featured in older studies (e.g. Kaplan [1989], Jensen [1989], Lichtenberg and Siegel [1990]), where operational value creation was based on cost-cutting, which effect was bolstered through employment of financial and governance engineering. Opler and Titman [1993] claimed even a negative relation between target company's growth prospects and its likelihood of being purchased in a leveraged buyout transaction.

The increased focus on operating improvements by Private Equity managers (GPs) affected also the structure of these specialized firms. As indicated by Matthews et al. [2009] the largest and most successful Private Equity firms started to rely stronger on so called "Operating Partners" – top-level executives with previous notable careers on the operational side of business, such as top-notch consultancy firms and management boards of successful (preferably Private Equity-backed) companies. These executives focus almost entirely on the post-buyout value creation investment phase, when they are directly involved into strategic planning and supervision of portfolio companies.

When analyzing motives for Private Equity transactions, Cohn and Towery [2013] identified two basic types of Private Equity transactions. The first is acquisition and subsequent turnaround of an underperforming target company through cost cutting, capital requirements rationalization and overall improvement of operational efficiency. The other type is acquiring an underinvested, promising company, exposed to some high-growth option and exploitation of this hidden growth opportunities, enabled by a fresh capital injection.

3.1.2. Strategic improvements

Strategic angle of value creation in buyout investments goes beyond the increase of operational efficiency and includes redefinition of key strategic variables such as the company's presence in particular markets and product categories, changes in pricing, product quality, customer focus and organization of distribution channels [Berg and Gottschalg, 2005]. Phan and Hill [1995] showed that after an LBO transaction, usually a change is strategic goals takes place. Strategic efforts in value creation were often focused on corporate refocusing through divestment of non-core activities

[Easterwood and Seth, 1993]. However, such simple asset stripping strategies are nowadays more difficult to execute, due to obsolesce and scarcity of conglomerate structures in the contemporary business environment. Moreover, as indicated by Butler [2001] showing a strong growth history of a portfolio company is often crucial for a successful exit through IPO, or trade sale. Therefore, stronger emphasis of Private Equity managers is put on pursuing both internal and external growth strategies [Berg and Gottschalg, 2005].

The internal, or so called "organic" growth strategy is realized through a combination of measures identified in the beginning of this section. On the other hand, the external growth in PE investments is realized through so called "buy-and-build" strategy, where Private Equity managers acquire leading, profitable firms as so called "platforms" used for integration of subsequent follow-on acquisition of smaller companies called "add-ons" [Borell and Heger, 2013]. The add-on companies often possess some specific tangible, or intangible assets (such as access to new technology, presence in unexplored markets), which then can be used in a large-scale value enhancement within a combined entity [Buy and Build Monitor, 2010]. Additional sources of value creation in buy-and-build transactions stem from realizing revenue and cost synergies in the same way as in traditional corporate M&A transactions [Borell and Heger, 2013]. Buy-and-build strategies are most likely pursued in moderately fragmented industries, where Private Equity managers have an opportunity to consolidate the market around a clear market leader [Hammer et al., 2017]. The importance of buy-and-build strategies for increasing value of PE portfolio companies is confirmed by Nikoskelainen and Wright [2007], who argue that the external growth strategy is mainly aimed at building scale in portfolio companies operating in maturing industries and results in superior return measured performance for sponsors. Similarly Valkama et al. [2013], who find that acquisitions are the most important in divisional buyouts, supporting a "change in organizational mindset" from "managerial approach" to "entrepreneurial approach" realized during those buyouts, also point out outperformance of returns realized by buy-and-build driven deals. Acharya et al. [2013] found operating outperformance of deals supported with add-on acquisitions in terms of margins and multiple improvements. Hammer et al. [2017] support a finding form a BCG study [Brigl et al., 2016] that inorganic growth realized through buy-and-build strategy has become the single most important way of operational value creation in PE buyouts.

As indicated by Leleux et al. [2015], all the above mentioned strategic improvement measures resulting in increasing a portfolio company's growth profile can ultimately lead to multiple expansion, additionally boosting the company's valuation. The study of Acharya et al. [2013] provides empirical evidence on superior multiple improvements in Private Equity portfolio companies in comparison to publically listed companies.

At this point, it is also worth to mention that it is believed that Private Equity managers create also value in their portfolio companies through employment of a long-term strategic perspective, which allows for deeper structural changes supporting sustainable value creation (PE investment holding period takes usually 3-7 years). This is often difficult to achieve either for publically traded companies, which are scrutinized by investors based on quarterly, or semi-annually results, or for struggling, underinvested private companies [Leleux et al., 2015].

3.2. Private Equity Investment Model

Kaiser and Westrap [2010] provide an illustrative overview of the impact of all the previously mentioned value creation levers on the three most important financial statements: balance sheet, income statement and cash flow statement.

Firstly right after the Private Equity investment, a target company's balance sheet is streamlined through release of all excessive fixed and intangible assets, as well as through reducing working capital management inefficiencies, leading to unleashing frozen cash reserves.

Secondly, emphasis is put into income statement with improvements on both: revenue and cost side. On the revenue side, all the efforts are aimed at increasing the company's growth capabilities through improving customer experience, optimizing pricing, as well as sales and marketing approach. The cost-side improvements include improvements in workforce motivation and productivity, optimizing internal processes such as administration and communication, as well as renegotiation of contracts with suppliers in order to gain immediate margin boost.

Thirdly, optimization of cash flow statement aimed at maximizing free cash flow available for debt repayment, or distributions to sponsors. The focus at this stage is to ensure that the increased cash left from operating activities is reinvested only in value creating ventures, participating in strengthening long-term competitive advantage of the business and future cash generating prospects.

All the above mentioned activities are bolstered through employment of financial leverage, which increases value creation focus of the management team, reduces tax liability, directly increases return to PE fund, as well as decreases the business's demand on equity capital provided by sponsor. Furthermore, employment of strong corporate governance mechanisms provides direct incentive for managers and close controlling function for sponsors.

3.3. Critical evaluation of existing studies

The existing literature on value creation in Private Equity investments is dominated with quantitative studies conducted on large samples of realized investments ensuring reaching statistically significant conclusion regarding the changing trends of importance of particular levers, or Private Equity-backed companies performance relative to the broad market of peer companies (see e.g. Achleitner et al. [2010], Guo et al. [2011], Boucly et al. [2011], Acharya et al. [2013], Cohn et al.

[2013]. The quantitative studies are then often combined in a second prevalent type of studies – literature reviews, which based on the findings from those quantitative studies create general findings and frameworks for evaluating Private Equity investments (e.g. Berg and Gottschalg [2005], Kaplan and Stromberg [2009], Kaiser and Westrap [2010]). Such an approach of academics from all over the world results in useful insight into high-level, general trends shaping the global Private Equity industry and helps to understand how do Private Equity – backed companies perform, or how their performance changes over time.

Nevertheless, in the author's view dominance of such high-level approach to analyzing the Private Equity industry across academia results in relatively limited insight into particular actions taken by the Private Equity sponsors in order to spark extraordinary value creation in their portfolio companies. The need for a deeper insight into Private Equity investments seems especially meaningful given the recent shift of value creation measures towards operating and strategic value creation measures, which shift academics broadly agree on (e.g. Matthews et al. [2009], Talmor et al. [2011], Leleux et al. [2015], Hammer et al. [2017]). However, the shift to operating and strategic value creation measures implicates that larger variety of potential value creation strategies has to be considered, as in the author's view operating and strategic value creation measures are more dependent on a specific case company and thus less replicable and repetitive across the Private Equity investments. This, in turn implicates a stronger need for single case study research in the academic literature in order to increase granularity of analysis of those value creation measures to be able to identify particular value creation approaches to operating and strategic value creation levers and later test them on larger datasets.

When it comes to existing case studies conducted on contemporary Private Equity transactions there is a dual approach in formulating those case studies. The first group focuses on specific, narrow categories of Private Equity investments and attempts to test existing views, or reach new conclusions regarding those specific categories. Such studies include e.g. Achleitner et al.'s [2010] case study of acquisition of a family-owned German company Messer Griesheim. The case study is focused in its conclusion exclusively on buyouts of family-owned businesses. Similarly Achleitner et al.'s [2014] case study of secondary buyout of Brenntag AG focuses on approaching value creation in secondary buyouts. Lahmann et al. [2017] focuses on the other hand on value creation in small and medium companies (SMEs) using a case study of German company Qundis GmbH. The second group of case studies of Private Equity investments comprise studies devoted to value creation in Private Equity investments in particular industries. An example of such a work is a through case study of Bernstein and Sheen [2016] focusing on operating changes implemented by Private Equity sponsors in particular companies operating in the restaurant industry. Still, in the author's view, there is an existing gap in the literature regarding case studies focusing on granular analysis of operating and strategic value creation measures taken by Private Equity sponsors in contemporary buyouts without focusing on some special situations regarding characteristics of an acquired company.

4. Methodology

4.1. Research method selection

Given that the aim of the thesis is to identify value creation measures in a particular company, a single case study approach is used. Usage of a single case study method allows researchers to provide an in-depth, real world and holistic view of a specific topic [Yin, 2014]. These characteristics highly converge with the purpose of this study, which attempts to bridge a gap between scientific value creation frameworks developed through quantitative studies conducted on large samples and industry practice. The study attempts to answer the question how value creation is approached in the analyzed Private Equity transaction with emphasis on identification of specific operational and strategic steps that were taken by the GPs. As indicated by Yin [2014], case studies are most suitable research method when the research question is how or why question. Given all the above, I think that the choice of the single case study research method for this particular analysis is appropriate.

4.2. Case selection

The Nets case was used for the purpose of the study due to the exceptional availability of public data, which often is a problematic issue for investigating performance of Private Equity portfolio companies [Cohn and Towery, 2013], [Bernstein and Sheen, 2014]. The PE portfolio companies unsurprisingly usually stay private during the main part of the value creation period and do not share extensive data with general public. Nets also was kept private during the first 2.5 years after the buyout from its previous owners and subsequently was partially exited via IPO on Copenhagen Stock Exchange. However a relatively short period preceding the IPO, as well as extensive data provided for potential investors during the offering allowed the author to dig deeper into the specific actions that were taken during the initial 2.5 year holding period. This period was crucial for the buyout-related operational and strategic improvements, as it preceded the IPO, where PE sponsors presumably wanted to obtain highest valuation possible at this moment. Furthermore, Alperovych et al. [2013] indicate that major operating improvements in LBOs happen during the first two years after the transaction, supporting relevancy of the chosen timeframe. The availability of data in Nets case allowed the author to compare pre-buyout performance of the analyzed company with its development over the PE-holding period prior to IPO – identified as the main value creation phase.

Moreover, the Nets case was chosen as an interesting example of a successful and quickly executed buyout investment consistent with the Private Equity 4.0. concept proposed by Leleux et al. [2015]. In the Nets investment case there is a strong focus of the consortium of sponsors on

operational and strategic value creation levers, which will be further analyzed in detail over the course of the thesis.

4.3. Data sources and analysis

Throughout the study, the author relies solely on publically available, external data including the company's obligatory fillings such as annual and quarterly reports, circular offering and stock market announcements, as well as the analyzed company's professional analyses provided by leading brokerage firms such as Morgan Stanley and Deutsche Bank and press releases of renowned news agencies such as The Financial Times, Bloomberg, or Reuters. In the author's view including other than the analyzed company's own data sources in the conducted analyses increases objectivity of the findings and at least partially compensates lack of primary data sources, which were impossible to obtain for the study due to the strict public stock market regulations ensuring equal access to price-sensitive information.

The gathered data is analyzed through both: numerical computations of accounting figures, according to commonly used financial analysis tools described in the following section, as well as qualitative analysis of textual information provided by the analyzed company, or 3rd party analysts and journalists. The qualitative analysis supports the obtained outputs from financial analysis, often providing background and more detailed information regarding particular operating and strategic actions taken by the analyzed company's managers appointed by the consortium of sponsors. Such an approach allows the author to conduct more extensive analysis and provide deeper insights of the particular value creation measures used by the PE sponsors than quantitative studies commonly used in the academic studies.

4.4. Analytical framework

The case study is analyzed using a value creation framework proposed by Lahmann et al. [2017] with focus on two value creation levers: operational and strategic, which were previously developed throughout the theoretical part of the thesis.

4.4.1. Operating value creation

The operational value creation lever is analyzed using the Private Equity Investment Model developed by Kaiser and Westrap [2010] (also explained in the theoretical part), which focuses on the impact of particular operating measures on the analyzed company's three main financial statements: balance sheet, income statement and cash flow statement. The analysis of the operating impact is decomposed into: sales growth, operating margin improvements and capital requirements improvements, in line with the classic breakdown of operating value creation measures [Kaplan, 1989]. The appropriate financial positions, reflecting impact of operating changes are also

benchmarked to the group of comparable companies, in order to give a background for analyzing relative strength of that impact.

The historic sales growth of the case company, realized during the holding period is analyzed on both combined – group level, as well as with divisional breakdown into operating segments (as reported by the company). The focus of analysis is, however, on the organic growth instead of total sales growth. In author's view such an approach allows the researcher to better analyze changes in the underlying growth profile of the analyzed company, as organic growth eliminates the impact of extraordinary occurrences, such as acquisitions and divestments, as well as currency moves. Especially important is the impact of M&A activity of analyzed companies, as with large acquisitions/ divestments the dynamics of sales can be substantially distorted upwards/downwards and in effect the perception of future growth prospects severely biased. The author would like to remind at this point that growth through acquisitions cannot be perceived as sustainable, as the number of potential targets is limited and also such growth is usually associated with substantial cash outflows (the acquirer is usually forced to pay an equivalent of market price for the acquired target) [Koller et al., 2010]. In effect, in the author's view growth through acquisitions can only be perceived as a complementary activity supporting organic growth rather than the main source of the company's growth per se. The organic growth rates used in the analysis are reported by the analyzed companies. Calculation of the organic growth rates by the author was impossible due to limited availability of data. Growth rates realized throughout the analyzed holding period are compared using the compound annual growth rate formula (CAGR), which concept allows to smooth the periodical jumps in realized growth and provide a single and consistent measure for the entire analyzed period. CAGR is calculated according to the following formula [Rosenbaum and Pearl, 2009]:

$$CAGR = \frac{Sales\ (end)}{Sales\ (beginnig)}^{\frac{1}{(End\ year - Beginnig\ year)}} - 1$$

In line with guidelines provided by Petersen and Plenborg [2012], the numerical analysis of growth rates of the analyzed companies is supplemented with extensive qualitative analysis of growth drivers and their changes

The operating margin improvements are analyzed through comparison of evolution of EBITDA margins over the analyzed period for Nets and the group of peer companies. The adjusted EBITDA measures reported by the companies are used, as those measures exclude the impact of extraordinary occurrences such as e.g. restructuring activities, impact of winding down discontinued operations etc. In the author's view usage of adjusted rather than reported IFRS measures allows for better reflection of true economic potential of the analyzed companies. Especially given the fact that Nets – the case company, was involved in a deep restructuring process during the analyzed period, which at the end was a part of the value creation plan initiated by the Private Equity sponsors. Furthermore, a deeper analysis of particular cost positions of Nets is conducted. This analysis allows the researcher to identify the main sources of margin improvements and discuss particular actions behind them through a subsequent qualitative analysis. The improvements in particular cost positions are analyzed through using developments of these position relative to the company's total sales. Such

an sales-driven approach is widely used in both academic (e.g. Petersen and Plenborg [2012]), as well as practice-oriented sources (e.g. Rosenbaum and Pearl [2009]).

The author decided on using the EBITDA measure in the analysis of operating profitability throughout this thesis. This decision was made despite an existing critique of this measure by some academic sources (e.g. Petersen and Plenborg [2012]). Nevertheless, given the common usage of EBITDA measure in the industry practice (e.g. Talmor et al. [2011], Rosenbaum and Pearl [2009]), as well as that all the analyzed case companies provide adjusted operating earnings on the EBITDA level and the fact that further separate analysis of cash flow measures is conducted in the thesis (the main objections regarding the EBITDA measure are based on the fact that it ignores costs of financing a company's assets, partially included in the depreciation and amortization costs), the author believes that the use of this particular measure of operating earnings is justified.

The analysis of capital requirements is based is based on the comparison of evolution of the two main cash flow positions affecting the company's free cash flow generation: Capital expenditures (Capex) – reflecting investments in fixed and intangible assets, as well as changes in Net Working Capital – calculated as [Petersen and Plenborg, 2012], [Rosenbaum and Pearl, 2009]:

NWC = Inventories + Account Receivables – Account Payables

Both cash expenses are analyzed in relation to total sales of respective companies, consistently with the previous analysis of Income Statement-based cost position. Accordingly, the qualitative analysis of changes in the two main cash flow positions is provided for Nets. Lastly, the evolution of effective cash generation abilities of the analyzed companies are evaluated through the calculation of cash conversion ratio:

Cash conversion = FCFF/EBITDA

Where FCFF is a theoretical Free Cash Flow to the Firm measure, commonly used in valuation frameworks [Damodaran, 2012]:

*FCFF = EBIT * (1-Tax rate) – Capex – Change in Net working capital*

The cash conversion ratio can be interpreted as the ratio of quality of earnings, namely "What percentage of operating earnings before interest, taxed and depreciation and amortization (EBITDA) is effectively transformed into cash flow shared between both debt and equity investors in the analysed company?".

The potential limitation of the applied measurement of operating performance stem from the fact that only the accounting data provided by the analyzed company is used. Such high-level accounting data can be distorted to significant extent by the employed company's accounting policies regarding e.g.

recognition of extraordinary items, differentiation between capital expenditures and operating expenses etc. Moreover, due to similar reason comparison of those accounting data between companies can also be limited, especially given the fact that the research largely relies on unaudited accounting data such as adjusted EBITDA or organic growth, which remain in particular companies'.

4.4.2. Strategic value creation

The analysis of strategic value creation is conducted through a qualitative analysis of strategic actions taken by the managers appointed by the PE sponsors, in order to improve the competitive positioning of the analyzed company. Throughout the analysis, the author identifies several areas of strategic impact such as expansion into neighboring markets, as well as changes within the product portfolio (product-mix), which are investigated throughout the Case analysis part of the thesis.

Separately the company's buy-and-build strategy is analyzed, as the strategy is perceived by recent studies as one of the most important value creation levers in the contemporary Private Equity investments [Hammer et al., 2017]. The frequency, size and nature of conducted acquisitions is identified and subsequently benchmarked to similar activities of the peer group. Such an approach allows the researcher to identify differences in the importance and approach to execution of the external growth strategy.

4.4.3. Multiple expansion

Difference between the entry and exit multiple of the Private Equity portfolio company can result from all the value creation levers: operating, strategic, financial and governance, as well as pure value capturing, such as different bargaining power during the negotiations, or different current sentiment on the financial markets. Nevertheless, given the substantial divergence between the multiple evolution of Nets and its identified peers, the author found it relevant to include this measure in the further analysis. For that reason, the impact of value capturing from favorable buying terms (due to e.g. superior bargaining position of the Private Equity buyer) is ignored due to the fact that the sales of the case company was conducted through a highly competitive process with participation of 18 alternative buyers. In such processes, the value obtained by the seller is usually higher and comparable to the asset's market price, as potential buyers compete for the deal also through proposed valuation terms. As indicated by Talmor et al. [2011], Private Equity buyers usually pay a 15-50% premium to the current market price of a public company, which shows their readiness for paying prices even exceeding current valuation of a potential acquisition target. Given the above considerations, the author believes that the assumption of treating the entry valuation as close to the market value of the analyzed company cannot be deemed as irrational.

The multiple expansion analysis is conducted through calculation of the multiple growth rate (CAGR) over the holding period of the case company. Subsequently, similar growth rates are calculated for the peer group of comparable companies, using their current market valuation as a base for calculating implied entry and exit multiples. Such an approach requires an assumption that financial markets truly reflect the companies' current valuation based on the investors' expectations towards its future performance. Effectively, this implies that the semi-strong capital markets efficiency hypothesis holds [Fama, 1970]. The multiple expansion analysis is based on EV/EBITDA multiple, which is a common valuation metric used in the Private Equity industry (see e.g. Talmor et al., [2011] and Rosenbaum and Pearl [2009]). For the purpose of the analysis the Enterprise Value is calculated as [Rosenbaum and Pearl, 2009]:

EV = Equity Value + Total financial debt + Preferred stock + Minority interest – Cash and equivalents

Where:

*Equity Value = Current share price at entry/exit * Number of shares outstanding at entry/exit*

The calculated entry/exit Enterprise Value is matched with the company's EBITDA realized in the last 4 quarters prior to the EV calculation date (EBITDA LTM measure).

Further, the development of the main multiple drivers is analyzed for the case company, as well as representatives of the peer group. The multiple drivers are identified from the EV/EBITDA theoretical formula proposed by Damodaran [2015]:

EV/EBITDA = (1-T)/(WACC – g) + (Depr (T)/EBITDA)/(WACC – g) – (Capex/EBITDA)/(WACC - g) – (delta NWC/EBITDA)/(WACC – g)

Which is based on the perpetuity formula:

EV =FCFF(t1) / (WACC – g)

And FCFF formula:

FCFF = EBITDA (1-t) + Depr (t) – Capex – delta NWC

Where:

T = corporate income tax rate of the analyzed company

g = expected long-term EBITDA growth rate of the analyzed company

WACC = weighted average cost of capital of the analyzed company

t1 = year 1

The above EV/EBITDA formula can be simplified to:

EV/EBITDA = Cash conversion / (WACC – g)

Where:

Cash conversion = FCFF / EBITDA

Hence, the EV/EBITDA multiple is driven by the three main variables:

- Expected, long-term EBITDA growth of the analyzed company
- Cash conversion ratio of the analyzed company
- Weighted average cost of capital (WACC) of the analyzed company

Given that the two first identified drivers are directly affected by the strategic and operating changes implemented in the analyzed business, they will be of the main focus throughout this section.

The long-term EBITDA growth can be decomposed into expected sales growth and expected EBITDA margin expansion. The expected values are obtained as a consensus (average) from the broker estimates available in the Thomson One Banker database available during the investment exit. The estimates used cover a 2016-2019 period. The obtained expected growth profile is than compared with obtained historic growth profile (2013-2015 period) of the case company and then also compared with respective changes in growth profiles of the peer companies.

Similar approach is used for the analysis of changes in cash conversion profiles of the case company and the group of peer companies. The only difference is that unlike Revenues and EBITDA estimates, which are directly provided by brokers, the FCFF future expected values are calculated by the author using the FCFF formula presented above from the brokers' explicit estimates of Capex, changes in NWC and depreciation and amortization expenses, as well as assuming a constant tax rate over the forecast period, consistent with a current corporate income tax rates (CIT) in the domicile countries of the respective companies.

It is worth to note that the focus of the above mentioned multiple drivers is on the future expected performance rather than historic performance realized over the investment period. The reason for such an approach is that, as known from the valuation theory, the current valuation is a reflection of the future expected performance of a company, with past performance serving only as a guideline for obtaining reliable forecast of the future performance [Koller et al., 2010]. Therefore, in the attempt of explaining evolution of valuation multiples to their current form, it is necessary to rely on the future expected performance of the analyzed company as of now (in the analyzed case "now" refers to the

chosen end of the holding period, which is the date of the IPO of Nets). Nonetheless, it can be still believed that the future expected company's performance is largely the result of the past and current actions taken by the managers, therefore the current multiple analysis is part of the analysis of value creation measures implemented during the investigated holding period.

Given that the focus of the thesis is on the operational and strategic value creation measures the third factor affecting the analyzed company's multiple, namely its Weighted Average Cost of Capital (WACC), which is affected by the financial value creation lever, is not included in the analysis. However, it is important to note that this particular factor could also contribute to evolution of the company's multiple, given that as in most Private Equtiy buyouts the capital structure of Nets was significantly changed.

Another limitation of employed multiple analysis stem from the fact that assessment of expected changes in company's growth, profitability and cash conversion highly relies on broker research estimates. Despite the fact that the author tried to mitigate bias of a single broker's forecast through employment of consensus of at least several brokers, still the reliability of those measures may be limited given that broker firms are most often large investment banks that may seek for doing business in analyzed companies in other areas of their business and thus may potentially have incentives for showing the companies in more favorable terms.

5. Case description

In this section, the background for the further analysis of the operating and strategic value creation levers in the Nets case is provided. First, the introduction to the company is made with evolution of its history, as well as overview of the business activities. Secondly, the author identifies key facts and motivations behind the Nets acquisitions by the consortium of Private Equity funds in March 2014. Thirdly, the key occurrences during the company's 2.5-years holding period by the Private Equity sponsors are analysed. As indicated by Alperovych et al. [2013], the 2 years period after the acquisition is crucial for the operating value creation in Private Equity investments. Fourthly, the author presents details of the company's initial public offering (IPO) on Copenhagen Stock Exchange in September 2016. Lastly, the author briefly presents profiles of the peer companies used as the benchmark for evaluating impact of operating and strategic changes in the Nets case.

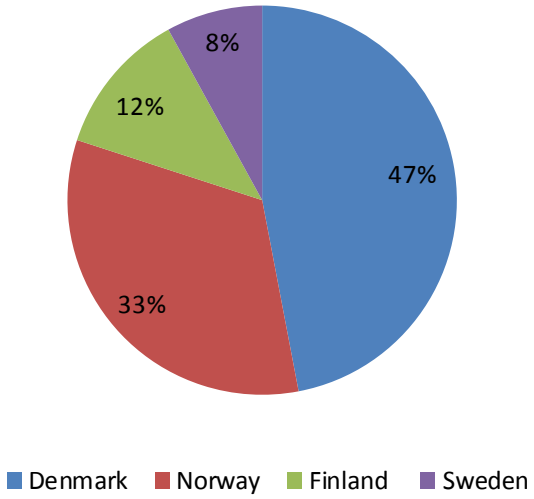
5.1. Introduction to Nets A/S

5.1.1. Business overview

The analysed case company – Nets A/S is the leading payment processing provider in the Nordics region. The company headquartered in Copenhagen, Denmark operates across all the

Nordic countries with the leading position in its historically core markets Denmark and Norway, also market leadership in Finland, as well as 2nd market position in the largest Nordic market Sweden (based on card transactions processed and acquired) [Morgan Stanley, 2016]. As of December 2015, Nets employed more than 2,400 full-time employees (FTEs). As of 2015, the majority of sales (c. 80%) was generated across its core Danish and Norwegian markets (see figure below).

Figure 1: Nets sales breakdown by country in 2015



Source: Nets 2016a

Nets operates through the three divisional segments: Merchant Services, Financial & Network Services and Corporate Services.

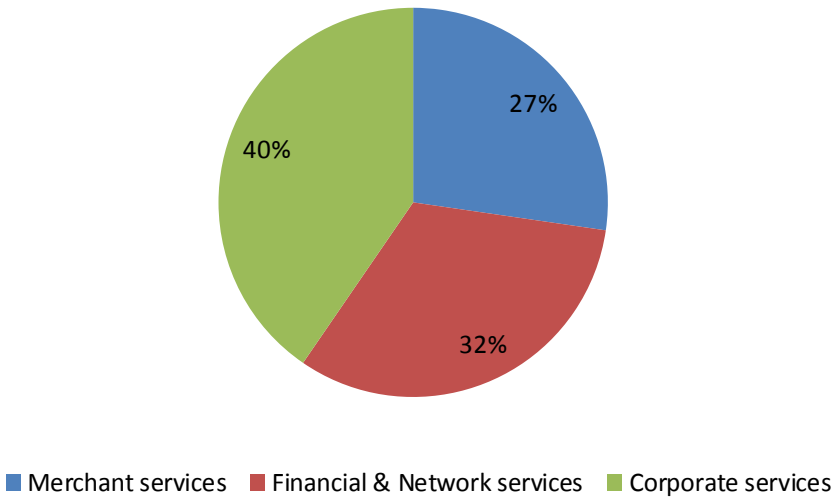
Merchant services segment generated c. 27.% of the company's total sales in 2015 (see figure below). Throughout this segment Nets provides payment acceptance solutions to merchants, covering all the major distribution channels: in-store, online and mobile. The services offered include merchant acquiring, POS terminal solutions and value-added services. Customers of Nets merchant services include both SMEs and large corporate customers such as H&M, IKEA, Circle K and Radisson.

Financial & Network Services segment generated c. 32% of total sales in 2015 (see figure below). The services in this segment are aimed at issuers of payment cards, mainly banks and include outsourcing of payment processing, as well as complementary services including CMS, fraud and dispute solutions and mobile wallet technology. Moreover, the company issues its own national debit card schemes in Denamrk (under Dankort brand) and operates similar scheme in Norway

(under BankAxept brand). Major customers of Nets in this segment are the leading Nordic banks such as Nordea, Danske Bank and DNB.

Corporate services segment accounted for c. 41% of the company's sales in 2015 (see figure below). Throughout its corporate services segment Nets provides a platform for automated payments of recurring transactions such as e.g. utility bills. Furthermore, the business line provides national integrated Digital ID solutions in Denmark (NemID) and Norway (BankID). The main customers in this segment include utility providers such as Dong Energy and Tryg, telecommunication carriers such as TDC and Telenor, as well as other corporate clients such as Lindorff or Yara.

Figure 2: Nets sales breakdown by division in 2015

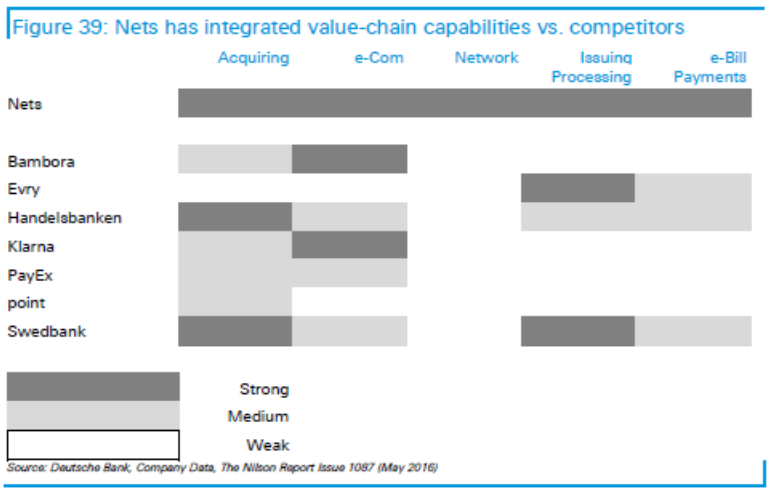


Source: Nets 2016a

Such a divisional split makes the company a one-stop-shop for the payment processing solutions, with a diversified client base of more than 300k merchants, 240k corporate customers and 240 banks. The company's leading position in the Nordics region can be summarized with the facts that in 2015 its services were used in c. 98% of Danish merchant payments, c. 88% of Norwegian domestic card transactions and 85% transactions of cards issued in Finland. Furthermore, more than 90% of Danish households used its recurring payments systems to pay their utility and other recurring bills and 80% of Norwegians access online banking services using the company's e-ID platform (BankID). In 2015 the company processed a total of 7.3bn total card transactions initiated by 35.1m cards [Nets, 2016a].

Furthermore, the company's unique selling point is its strong presence across all the Nordic countries, as well as the entire value chain from payment capturing and authorisation to processing, clearing and settlement (see figure below).

Figure 3: Nets competitive benchmarking



Source: Deutsche Bank, 2016

5.2. Development history

The company was formed in 2010 as a result of a merger between the Danish and Norwegian payment processing-specialized bank entities PBS, BBS and Norwegian Teller. The predecessors of Nets developed its payment processing capabilities since 1968 when PBS was established in Denmark and 1972 when BBS was formed in Norway. Both bank entities were among the earliest institutions worldwide developing digital payment solutions. In the following years both institutions among other activities separately developed and operated their own recurring payment systems (Betalingsservice in Denmark and AvtaleGiro in Norway) and launched their own debit card schemes (Dankort in Denmark and BankAxept in Norway). After the successful merger, the combined entity acquired also the largest Finnish payment card company Luottokunta in 2012, in an attempt to create a pan-Nordics payment processing leader [Nets, 2016a]. At the time, the company was operated as a co-operative of 188 Danish and Norwegian banks [Morgan Stanley, 2016]. The largest single shareholders were Nordea, Danske Bank, DNB and Denmark's Central Bank.

5.3. Acquisition of Nets A/S by the consortium of Private Equity funds

In March 2014, a consortium formed by the two leading global Private Equity funds Bain Capital and Advent International, as well as Danish pension fund ATP as a co-investor announced acquisition of Nets A/S from its so far owners. The consideration paid for 100% stake in Nets equity amounted to DKK 17bn (c. $3.1bn), corresponding to a DKK 92.37 share price. Additionally, the acquirers obliged to pay a DKK 498m dividend for 2013 to the previous owners [Financier, 2014].

The decision of Nets' sales was made after a strategic review conducted in 2013, when different strategic alternatives of the future company's development were considered. Despite a robust performance in 2013, the company's previous owners decided to divest the asset due to increasing challenges within the payment processing industry, mainly resulting from the ongoing shift from credit and debit cards to online and mobile payments and increasing competitiveness of global payment processing facilitators. The owners agreed that the company needs a new owner providing expertise within the field, as well as capabilities to efficiently deal with the ongoing industry transformation [Financier, 2014].

As stated by Peter Lybecker – Nets chairman at the time [Advent International, 2014]:

Today's announcement has been preceded by an extensive review of Nets' strategic alternatives. The outcome of this review was that Nets needs a new owner with the expertise, commitment and financial resources to develop the business in a rapidly changing payments industry.

It is also believed that the dispersed ownership structure of more than 180 Danish and Norwegian banks brought unnecessary complexity to the critical decision-making processes, which substantially decreased the company's ability to adapt to the turbulent market environment [Morgan Stanley, 2016].

As reported by Financial Times [2014], another rationale for divestment of Nets were attempts of Scandinavian banks to bolster their capital ratios – a common trend observed across the European financial institutions at the time. Largest shareholders of Nets at the time Nordea and Danske Bank received c. DKK 2.7bn and c. DKK 1bn, respectively, of after-tax proceeds as a result of the deal.

The consortium of Advent, Bain Capital and ATP ("The Consortium") won the highly competitive process with 18 other PE funds involved [Infima.no]. The three other bidders involved in the final part of the auction were: global PE firm Permira, partnering with CPP – the largest Canadian pension fund, French strategic player Atos, who already owned Worldline – a similar asset to Nets, but operating in France, as well as a consortium led by Nordic Capital – one of the leading Private Equity firms with the main focus on the Nordics region [Finextra, 2014]. The

decision of sales of Nets to The Consortium was unanimously approved by all the incumbent board members of the target. Both Bain Capital and Advent International have a strong track record of more than 20 years of direct investments in the Nordics region. The local foothold was strengthened by the co- participation of ATP – Denmark-based pension fund managing DKK 593bn savings of 4.8m Danish citizens at the time. Furthermore, both Private Equity players participating in the transaction possessed a deep expertise in investments within the global payments sector. To date, both investors combined completed more than 20 transactions in the payment sector across the globe, which allegedly made them the single most experienced investor in this particular business field [Advent International, 2014]. In 2010 both firms formed a consortium to pursue a similar acquisition of payment processing business of The Royal Bank of Scotland (RBS), which was successfully carved-out from the bank's structure and later IPOed in 2015, more than doubling its valuation over the holding period [Reuters, 2015].

As further stated by Lybecker [Advent International, 2014]:

..I am confident that we have found a highly qualified owner of Nets in The Consortium (...), which balances strong local support with extensive global expertise in the payments sector. On behalf of the shareholders, we look forward to working with the new owner as ongoing customers and strategic partners

It was also underlined that strong emphasis in the transaction process was put on ensuring that a potential acquirer understands and is capable of complying with the strong social impact of Nets' operations, e.g. regarding a strong need for ensuring safety and data protection [Financier, 2014].

The Consortium planned to continue the already initiated strategy of creation the pan-Nordics leading payment processor through executing growth opportunities and operational improvements and also bringing in a leaner, concentrated ownership structure, directly focused on further value creation [Advent International, 2014]. Furthermore, the focus of the buyers was to selectively invest in the company's development in order to secure the leading position within the Nordics payment landscape, ensuring safety and reliability of the offered services [Bain Capital, 2014]. The company's development was intended to be limited to Nordic countries and the buyers already suggested a 5-7 years total holding period and a preferred exit route through IPO on a local stock exchange [Advent International, 2014].

The analysed investment was a leveraged buyout of a relatively mature company. Hence, the acquisition was in a large part financed by debt capital. Financial Times [2014] estimates that the total senior debt used for financing the transaction accounted for c. 5.5 times of the company's EBITDA, which was supported by a Pay-in-kind (PIK), high-yield facility provided by the co-investing ATP. Overall, the total debt used in financing the acquisition was estimated at an

equivalent of 7.5 times of the company's EBITDA. As the entry EV/EBITDA multiple paid by The Consortium was estimated by the author at c. 10.6 times (please refer to the following Case Analysis part), this implies a c. 70% of debt capital used in the acquisition financing structure.

5.4. The "value creation period"

Right after the acquisition the company's transformation programme was implemented on a manner similar to the "100-day" value creation plan described by Matthews et al. [2009]. The transformation programme was based on the four following pillars [Nets, 2016a]:

1) Increased customer-orientation of the company, driving increased commercialization of the business
2) Improving competitive positioning of the most prospective Merchant Services business line through executing growth initiatives such as increased presence and improved value proposition in the fast growing e-commerce segment, constant product development, selective acquisitions bringing exposure to high-growth areas, as well as increased focus on customer retention
3) Increased focus on strategic investments into the company's technology platforms, in order to strengthen their stability and security, as well as enable increased product innovation and faster marketability of new products/services (reduction of time-to-market)
4) Obtaining significant recurring cost savings through increasing operational efficiencies e.g. reduction in costs of acquired services through procurement initiatives, as well as reducing IT costs associated with running the technology platforms, obtained through e.g. broader automation of processes and more efficient sourcing mix

To ensure execution of the value creation plan the new management of Nets was appointed after the acquisition throughout the 2014 and 2015:

- Bo Nilsson was appointed as a CEO of Nets in August 2014. He previously had served as a CFO of Nets since 2013. Prior to that, in 2007 he co-founded Grupo Leya – an international educational business with operations across southern Europe, Brazil and Africa and from 2000 to 2007 served as a CFO and board member of Media Capital – one of the leading media companies in southern Europe.
- Klaus Pedersen became a new CFO of the Company in March 2015. Before joining Nets, he served as CFO of several large Danish comapnies such as Christian Hansen Holding, DSB and TDC Switzerland.
- Niels Mortensen became a COO of Nets in May 2015, when he joined the company after three years spent as a COO of Codan/Trygg-Hansa in Denmark.

- Asgar Hattel was appointed as a Head of Merchant Services division in April 2015. Previously, he worked for five years as a Head of Wholesale and Nordic businesses at TDC – the largest Danish mobile carrier and prior to that pursued a consulting career in McKinsey & Co.

The appointed experienced management team was incentivized through performance-based cash bonuses paid for respective years of their work for the company, as well as received rights to be granted stock options after the company's IPO. Moreover, it can be identified that all the key managers held direct and indirect stakes in the company's parent holding company already before the IPO with CEO and COO holding largest stakes 2.45% and 0.63%, respectively [Nets, 2016a].

At the same time the governance function of the company was strengthened with appointment of the new supervisory board consisting of members with diversified backgrounds:

- Five representatives of The Consortium of acquirers: two from Advent International, two from Bain Capital and one from ATP
- Three independent representatives with extensive experience in holding board and management positions in large Scandinavian and international companies
- Four representatives of Nets long-term employees

Given that the acquisition of Nets was largely financed by debt capital, as indicated earlier in this section, we can infer that servicing the debt obligations was also an important part of the management's focus over the analysed value creation period. Indeed, the analysis of the company's debt profile already shows reduced Net Debt/EBITDA ratio to 5.8x at the end of 2015 from the previous reported 6.4x at the end of June 2015 [UBS, 2016]. Nets management committed itself during the IPO to further reduce the ratio to 2.0-2.5x over the next two years [Bloomberg, 2016b]. We can assume that the substantial debt capital employed not only directly increased returns for the sponsors, but also provided additional upside from generated tax shield, as well as acted as a performance-catalyst for the management team as indicated by Leleux et al. [2015].

From the above description we can see that all the value creation measures recognized by Lahmann et al. [2017], namely: operational, strategic, financial and governance, were employed in this particular Private Equity transaction during the analysed 2.5 year period preceding the IPO. Nevertheless, the detailed analysis of the value creation measures employed in the Nets acquisitions presented in the following Case analysis section will be limited to operating and strategic measures, consistently with the main focus of the thesis.

5.5. The partial exit through IPO

As indicated by Bloomberg [2016a], the company was already exploring initial public offering options in February 2016. Eventually, it was floated on Copenhagen Stock Exchange on 23 September 2016. The company's shares offered at DKK 150 were oversubscribed by investors, showing high demand on the stocks of the Nordics leading payment company [Bloomberg, 2016b]. The company was valued at c. DKK 30bn (c. $4.5bn), representing c. 1.8x the entry valuation paid by The Consortium. The total proceeds from the IPO amounted to c. DKK 15.75bn, of which c. DKK 5.5bn came from newly issued shares and the rest - slightly above DKK 10bn were received by the selling shareholders (mainly The Consortium, but in a small part also existing managers of the company). As a result of the IPO, the ownership of The Consortium decreased to slightly above the 40% of the total share capital [The London Stock Exchange, 2016].

In the published press releases after the IPO representatives of the consortium emphasizes successfulness of the company's transformation process, as well as merits of the management team.

James Brocklebank – Managing Director of Advent International and Nets supervisory board member stated [Altassets, 2016]:

We have been very encouraged by the positive reception that the IPO of Nets has received. This is testament to the successful development of the business under the leadership of Bo [Nilsson] *and his management team.*

Similarly Robin Marshall – Managing Director of Bain Capital and also Nets supervisory board member [Altassets, 2016]:

Nets has transformed itself since our investment in 2014, fulfilling our ambition of creating a Nordics Payment Champion. It is now one of the best payment companies in the world and this successful IPO on Nasdaq Copenhagen is both the next great step forward and the next great achievement in the Nets journey.

It is worth to remind at this point that after the IPO The Consortium was still partially invested in the company (c. 40% remaining stake) and continued to benefit from the company's further development, however, from now on sharing the benefits with the public investors in the Nets equity.

As Brocklebank continues [Altassets, 2016]:

We believe that there is considerable scope for future growth in the Nordic payments sector and that the company is now well positioned to capitalise on these opportunities. As major shareholders, we look forward to continuing to support Nets in its next phase of growth as a listed company.

After the IPO the management team stated that proceeds from the new shares' issuance will be used in further investments in growth areas through both organic attempts, as well as small acquisitions. The focus of growth initiatives will continue to be on the Nordics region and the company's core payment processing business. Moreover, the management team announced that any excess cash will be distributed to shareholders as dividends [Bloomberg, 2016b].

Despite the highly positive market reaction during the IPO, subsequently the company's share price underperformed, declining more than 30% since the IPO until March 2017. Only recently, in July 2017, the share price re-rated to the levels exceeding the IPO price of DKK 150.

6. Presentation of the peer companies included in the benchmark group

In order to analyse the relative performance of the value creation measures implemented at Nets, the benchmark group of peer companies is identified. The selected companies include the largest European, publically-traded companies: Wirecard, Worldline, Ingenico and PaySafe. Such a construction of the benchmark group allows the author to compare depth and impact of the operating and strategic value creation measures implemented at Nets with companies of a comparable size, operating in the same industry. Despite the existing limitations of such an approach e.g. exposure to different national markets, as well as segments of the payment processing industry resulting in different growth and risk profiles of the respective companies, the author believes that showing relative changes in particular operating measures such as changes in realized organic growth rates, operating margins and relative size of capital investments, as well as differences in employed strategies, allows him to come up with valid conclusions.

Below the short descriptions of the peer companies forming the benchmark group are presented, in order to provide the reader with some background information and context regarding their subsequent comparison with the main case company – Nets.

6.1. Wirecard

Wirecard is a Germany-based leading international online payment processor and acquirer with almost 100% exposure to the fast growing e-commerce segment. In 2015 the company processed around 3% of the global e-commerce transaction volume and reported EUR 771m of revenues [Morgan Stanley, 2016b]. Wirecard operates through the two core divisions: Payment Processing and Risk Management (c. 69% of sales in 2015) and Acquiring and Issuing (c. 30% of sales in 2015), as well as supporting Call Center & Communications services (c. 1% of sales in 2015). The company differentiates its offering through providing services dedicated to internet merchants operating in specific industry verticals such as Consumer Goods, Digital Goods and Travel & Mobility [Morgan Stanley, 2016b]. When it comes to the geographic scope of activities, the company operates on a truly global scale with existing operations across all the continents. In

2015 c. 43% of total sales was generated in the company's home German market, c. 27% in other European countries and c. 30% in countries outside Europe. Over the recent years the company attempted to increase its exposure to fastest growing emerging markets in Asia Pacific (APAC) region, Latin America and Africa. The company mostly relies on organic growth in its expansion strategy, however occasional acquisitions of small companies, mainly in the APAC region are pursued. As for the shareholder structure, there is no controlling shareholder – the company has a dispersed ownership with c. 94% of free float with global financial institutions accounting for the largest share [Wirecard, 2016].

6.2. Worldline

Worldline is one of the largest European providers of electronic payment and transactional services with over 40 years market experience in the field. The company, similarly to Nets covers the whole value chain of payment services including merchant acquiring, payment processing, and business solutions services aimed at financial institutions, merchants, corporations and government entities. Worldline reported EUR 1,227m revenues in 2015. The group operates through the three core business segments: Merchant Services and Terminals (c. 33% of total sales in 2015), Financial Processing and Software Licensing (c. 34%) and Mobility and e-Transactional Services (c. 33%). Worldline operates in 17 countries worldwide with France and Benelux as its core markets constituting c. 35% and 29% of sales, respectively. Other European markets account for c. 27% of sales and rest of the world (mainly Asia and Latin America) for the rest 10%. Previously the company was an electronic payment and transactional services division of the larger French software group Atos, which was spun-off from the parent and subsequently IPOed in 2013. Atos is still a controlling shareholder of the company holding more than 70% of share capital as of 2015 [Worldline, 2016].

6.3. Ingenico

Ingenico is a France-based payment processing company with a truly global reach. The company operates in 170 countries across the world and reported EUR 2,197m of sales in 2015. Its revenue-base is highly diversified across the geographic markets including: European & African (35% of total sales in 2015), Asia, Pacific & Middle East (20%), North America (15%), Latin America (10%) and separately reported global ePayments segment. Ingenico was established in 1980 as a developer and manufacturer of card-based payment terminals and after subsequent organic growth and M&A activities, it became a global leader in the payment terminals market. In the second half of 2000s, the company changed its business model through outsourcing of the manufacturing of payment terminals and focusing its further development on payment processing (both in-store and online) and value-added services provided to the existing merchants' base with further acquisitions of smaller specialized players in the targeted areas. As of 2015, the traditional terminal services accounted for c. 70% of revenues, while the transaction processing activities

constituted the other 30%. The company has no controlling shareholders, as the ownership is highly dispersed. Most of the company's major investors include global financial institutions [Ingenico, 2016].

6.4. Paysafe

PaySafe is a UK-based payment processing company specializing in handling online transaction and reported an equivalent of EUR 522m of sales in 2015. The company has a relatively large exposure (c. 55% of total revenue in 2015) at the dynamically growing, but partially unregulated online gaming and gambling industry. Such a characteristic exposed the company to above-average growth opportunities, however entailing increased risk of the operating activities [UBS, 2017]. The other part of revenues is mostly obtained from other e-commerce verticals and consumer fees. PaySafe operates on a global scale with 45% of 2015 sales generated in Europe, 29% in North America and 26% in other markets (mainly Asia). The company has no controlling shareholders, as the ownership is highly dispersed. Most of the company's major investors include equity investment funds [PaySafe, 2016].

As previously mentioned, there are obvious differences between the analysed companies. One of the most visible are substantial differences in growth rates between the integrated players covering the whole payments value chain such as Nets and Worldline and specialized players focused on particular, high-growth areas of the payments global landscape such as Wirecard and PaySafe. The differences originate from different maturity of the analysed businesses and resulting different stages in particular companies life-cycle [Lynch, 2015]. For example, integrated players such as Nets and Worldline date back their first operations to 1960s and one can call them industry precursors, who over the course of the years gradually increased their innovativeness, in line with the entire industry. On the other hand, relatively young businesses such as PaySafe and Wirecard, both established in the late 1990s, where from the beginning solely-oriented on the single most innovative at the time online payments segment, which still substantially outgrows the broad electronic payments industry. As a result, they are still on a relatively steep growth curve in the life-cycle model. The last of the analysed companies, Ingenico, established in the 1980s, is currently under a transformation process from the leader of a mature terminals business to the integrated service provider. However, the company maintains relatively high growth momentum due to its vast exposure to overall rapidly growing emerging markets. The last point indicates also differences of the analysed companies in their geographical orientation strategy. Whereas Nets limits its operations to the relatively narrow Nordics market, Worldline still concentrates most of its activities on its core European area, Ingenico is on the other hand a truly global player with highly diversified revenue streams across the continents. Pure online players: PaySafe and Wirecard also operate on a global scale, as the Internet economy has much less limited boundaries than traditional, brick-and-mortar economy.

The identified differences make the comparison of performance of the analysed companies inappropriate in nominal terms. Nevertheless, in the author's view the comparison can still be robust in terms of the depth and direction of the relative changes in the companies' performance such as changes in the growth profile and development of margins and cash generation abilities, analysis of particular strategic measures taken, as well as relative valuation assigned by investors.

7. Case analysis

As indicated in the methodology part, the analysis of value creation measures implemented at Nets will be divided into operating improvements, strategic improvements and multiple expansion, which combines the impact of all the value creation measures identified in Private Equity investments: operating, strategic, governance and financial improvements.

The below analysis is based on publically available data provided by the analysed companies including their annual and quarterly reports, IPO prospectus of Nets and broker estimates available in Thomson One Baker Database.

7.1. Operating improvements

The analysis of operating improvements implemented at Nets is further divided into: sales growth, margin improvements and capital requirements improvements. First the performance of Nets in respective financial metrics is benchmarked to the selected comparable peers and subsequently the identified particular actions taken by the company and affecting the analysed metrics are discussed.

7.1.1. Sales growth

7.1.1.1. Benchmarking

Sales growth analysis

EUR m	2013 -Entry	FY2014	FY2015	LTM H1 2016 - Exit	CAGR
Nets					
Total Net Sales	905	880	919	946	*1.8%*
% growth	*12.8%*	*-2.7%*	*4.4%*	*2.8%*	
% organic growth	*-1.5%*	*1.3%*	*5.9%*	*3.3%*	4.2%
Wirecard					
Total Net Sales	482	601	771	883	*27.4%*
% growth	*22.1%*	*24.8%*	*28.3%*	*14.5%*	
% organic growth	*16.9%*	*22.4%*	*23.2%*	*9.8%*	22.3%
Worldline					
Total Net Sales	1,118	1,149	1,227	1,262	*5.0%*
% growth	*1.0%*	*2.8%*	*6.8%*	*2.9%*	

% organic growth	*4.1%*	*2.8%*	*4.4%*	*2.9%*	4.0%
Ingenico					
Total Net Sales	1,371	1,607	2,197	2,273	*22.4%*
% growth	*13.6%*	*17.2%*	*36.7%*	*3.4%*	
% organic growth	*14.0%*	*19.0%*	*14.0%*	*7.2%*	16.2%
Paysafe					
Total Net Sales	216	311	522	746	*64.3%*
% growth	*41.5%*	*44.0%*	*68.1%*	*43.0%*	
% organic growth	*n.a.*	*18.0%*	*13.0%*	*13.2%*	17.9%

Source: Own analysis based on the companies' data

Nets experienced lowest total sales growth from all the comparable companies during the analysed period (1.8% CAGR vs. 5%-64% of the benchmark peers). Moreover, at the first glance, its growth profile deteriorated over time from 12.8% realized total sales growth in the year preceding the entrance of Private Equity sponsors to low-single digit during the holding period. Nonetheless, the picture changes when solely organic growth is taken into account. According to the author, organic growth better reflects the true growth profile of an analysed company due the fact that it ignores the impact of acquisitions, divestments and foreign exchange fluctuations, which can largely be treated as one-offs. Organic growth of Nets over the holding period amounted to 4.2% CAGR and was slightly better than respective growth of its closes market peer Worldline (as indicated in the case description section, both companies are in the similar stage of the company life cycle and hence share a similar growth profile). Understandably, Nets experienced lower organic growth during the analysed period than market peers exposed to more dynamic segments of the payment processing market, particularly Wirecard, Ingenico and PaySafe, who reported 22.3%, 16.2% and 17.9% organic CAGR over the 2.5-year period. What seems to be of a larger importance for the operating improvements analysis is how the organic growth profile changed over the analysed period. Nets improved its organic growth capabilities from the negative -1.5% growth rate realized in 2013 (the large disparity between the organic and total growth realized in this particular year was closing of the large acquisition of the Finnish company Luottokunta) to 4.2% CAGR realized during the holding period. This was much more pronounced change than the closest peer Worldline, which experience almost flat growth rate over the analysed period (4% CAGR vs. 4.1% annual growth rate in 2013). On the other hand, visible improvements in growth profiles experienced Wirecard and Ingenico, 22.3% CAGR over the holding period vs. 16.9% in 2013 and 16.2% CAGR over the holding period vs. 14% in 2013, respectively. Similar analysis cannot be conducted for PaySafe, which does not report organic growth rate for 2013.

7.1.1.2. Qualitative analysis

Throughout the analysis of the Nets case the following drivers impacting the change of the company's underlying growth profile has been identified:

- Ownership structure change
- Bolder expansion to an unexplored Swedish market
- Segmental repositioning
- Increased sales efficiency
- Increased business commercialization
- Acquired new capabilities

Of the above growth initiatives only increased sales efficiency and related increased business commercialization can be treated as mostly operating value creation measures. The identified increase in sales efficiency affected the most prospective (highest underlying growth potential) Merchants Services business segment. As a result of streamlining the company's internal processes, the time of on-boarding new merchants to the platform was shortened from more than 20 days to a matter of minutes [Morgan Stanley, 2016]. The increased business commercialization affected all the company's business lines and was implemented through employment of a customer-centric approach (strategic measure) executed thorough such operating initiatives as increased investments in product development, sales infrastructure and customer service [Nets, 2016a].

It is important to note that other identified growth initiatives also indirectly included some operational improvements. For example, change of the company's ownership structure from a complex and inefficient co-operative of 188 local banks to concentrated and value creation-focused ownership of the Consortium of investment funds (governance improvement) triggered increased actionability resulting from reduced bureaucracy. Furthermore, appointment of the new management team, resulting from the above ownership change, triggered implementation of an execution mode in the company's culture, which facilitated quick implementation of the operating transformation process.

7.1.2. Margin improvements

7.1.2.1. Benchmarking

Margin improvement analysis					
EUR m	**2013 -Entry**	**FY2014**	**FY2015**	**LTM H1 2016 - Exit**	**CAGR**

Nets					
EBITDA	205	224	302	321	*19.7%*
% margin	*22.7%*	*25.4%*	*32.9%*	*34.0%*	*17.6%*
Wirecard					
EBITDA	126	173	227	261	*33.9%*
% margin	*26.1%*	*28.8%*	*29.5%*	*29.6%*	*5.1%*
Worldline					
EBITDA	203	215	235	247	*8.1%*
% margin	*18.2%*	*18.7%*	*19.2%*	*19.6%*	*3.0%*
Ingenico					
EBITDA	258	352	487	476	*27.7%*
% margin	*18.8%*	*21.9%*	*22.1%*	*20.9%*	*4.3%*
Paysafe					
EBITDA	52	86	153	186	*66.1%*
% margin	*20.6%*	*23.6%*	*24.9%*	*21.2%*	*1.1%*

Source: Own analysis based on the companies' data

Growth in Earnings before interests, taxes and depreciation (EBITDA) can be obtained in two ways: through growth of the company's Sales (assuming constant margin), as well as EBITDA margin improvements (assuming constant Sales). Among the analysed group of companies the high-growth peers: Wirecard, Ingenico and PaySafe obtained highest EBITDA growth rates over the 2.5-year period: 33.9%, 27.7% and 66.1% CAGR respectively. However, the obtained EBITDA growth for those peers was mainly achieved as a consequence of the rapid top-line expansion resulting from their large exposure on the high-growth segments of the payment processing markets. The companies with larger exposure on mature segments of the market: Nets and Worldline achieved slower EBITDA growth rates: 19.7% and 8.1%, respectively. However, when the analysis is narrowed down solely to the margin improvements: Nets achieved the most pronounced margin expansion from the analysed group: from 22.7% EBITDA margin in 2013 to 34% in H1 2016 (17.6% CAGR) over the analysed period. It is important to stress that at entry Nets already reported a relatively strong margin when compared to its peers (2nd highest margin in the analysed group), so the outperformance in terms of margin expansion cannot be explained by an initial low-base effect. All of the other companies experienced modest margin expansion over the analysed period ranging from 1.1% to 5.1% CAGR. The highest improvement in that group obtained Worldline, which grew its margin from 26.1% (reported highest margin in 2013 from all the analysed companies) to 29.6%. Nets with its 34% EBITDA margin obtained in the last twelve months ending in June 2016 became a clear market leader in terms of operating profitability.

7.1.2.2. Operating costs improvement analysis

Nets: operating cost analysis

EUR m	2013 -Entry	FY2014	FY2015	LTM H1 2016 - Exit	CAGR
Cost of sales	153	145	132	130	*-6.2%*
as % of revenue	*16.9%*	*16.5%*	*14.4%*	*13.8%*	*-7.9%*
External expenses	268	248	233	239	*-4.4%*
as % of revenue	*29.6%*	*28.2%*	*25.3%*	*25.3%*	*-6.1%*
Staff costs	279	263	252	255	*-3.6%*
as % of revenue	*30.8%*	*29.9%*	*27.4%*	*27.0%*	*-5.2%*
Special items	201	411	538	442	*37.1%*
as % of revenue	*3.0%*	*6.3%*	*7.9%*	*6.3%*	*34.7%*

Source: Own analysis based on the companies' data

Throughout the analysed period Nets reported significant decreases in all of its major cost positions, despite subsequent accelerated organic sales growth. The only increasing cost category were Special items, which grew by 37% CAGR on a nominal basis and at the same time increased their share in revenues from 3.0% in 2013 to 6.3% in LTM H1 2016. The special items grew as a result of the ongoing transformation process and included such costs as remunerations of external management consultants and employee severance costs.

Of the other operating cost positions, the steepest reduction the company achieved in Cost of sales, which declined by -6.2% CAGR over the analysed period and reduced its relative size (share in revenues) from 16.9% in 2013 to 13.8% in LTM H1 2016. Cost of sales of Nets includes mostly cost of terminals sold to merchants, as well as postage costs and fees paid to banks. Significant of Cost of sales reduction was obtained through the company's move from purchased to rental-based terminals (which decreased up-front fees paid to hardware suppliers). Further identified source are favourable exchange rates, which, however, should be treated as an extraordinary one-off rather than part of value creation initiatives.

Both other operating cost positions: External costs and Staff costs also declined materially over the analysed period: -4.4% and -3.6% CAGR, respectively. External expenses decreased its relative size from 29.6% of revenue in 2013 to 25.3% in LTM H1 2016, whereas Staff costs similarly reduced its share in revenues from 30.8% to 27% over the same time span. Improvements in both above mentioned cost positions were strongly aimed during the transformation process initiated after the

purchase by The Consortium. Staff costs, which include such expenses as wages, salaries, pension contributions, social security payments and bonuses were affected by such implemented initiatives as off-shoring and near-shoring programmes, overhead and capacity optimisation. As part of the above optimization improving attempts, over the analysed period some 120 job positions were terminated. Similarly External costs, which include such positions as IT operations, operating leases for software and other operating leases, maintenance & development costs and sales and marketing costs, were affected by the transformation programme in such areas as process redesign, capacity optimisation, automation and technology rationalisation. All in all, most of the changes in both operating cost positions were implemented in order to improve productivity of the company's assets and human capital and their successful implementation resulted in material gains in the company's cost efficiency reflected in declining shares of particular cost position in the company's sales.

7.1.3. Capital requirements improvements

7.1.3.1. Benchmarking

Capital requirements improvement analysis

EUR m	**2013 - Entry**	**FY2014**	**FY2015**	**LTM H1 2016 - Exit**	**CAGR**
Nets					
Capex	44	54	72	74	*23.1%*
% of sales	*4.9%*	*6.2%*	*7.9%*	*7.8%*	*21.0%*
Net Working Capital (excl. clearing balances)	-21	-46	-64	-47	*38.6%*
% of sales	*-2.3%*	*-5.2%*	*-6.9%*	*-5.0%*	*36.1%*
Wirecard					
Capex	51	75	64	69	*12.8%*
% of sales	*10.7%*	*12.5%*	*8.3%*	*7.9%*	*-11.4%*
Net Working Capital	24	59	91	131	*95.9%*
% of sales	*5.0%*	*9.7%*	*11.8%*	*14.8%*	*53.7%*
Worldline					
Capex	62	69	67	75	*8.1%*
% of sales	*5.5%*	*6.0%*	*5.5%*	*5.9%*	*3.0%*
Net Working Capital	66	62	48	15	*-45.0%*
% of sales	*5.9%*	*5.4%*	*3.9%*	*1.2%*	*-47.6%*
Ingenico					
Capex	40	52	62	62	*19.1%*
% of sales	*2.9%*	*3.2%*	*2.8%*	*2.7%*	*-2.7%*
Net Working Capital	54	24	58	n.a.	*2.4%*
% of sales	*4.0%*	*1.5%*	*2.6%*	*n.a.*	*-15.2%*
Paysafe					
Capex	12	9	20	38	*60.4%*
% of sales	*5.4%*	*3.0%*	*3.9%*	*5.0%*	*-2.4%*
Net Working Capital	-5	-8	-6	-36	*122.0%*
% of sales	*-2.2%*	*-2.6%*	*-1.2%*	*-4.8%*	*35.1%*

Source: Own analysis based on the companies' data

As for the analysis of capital requirements improvement, two main associated metrics are analysed: Capital Expenditures (Capex) and Net Working Capital.

Nets experienced 2nd largest nominal Capex increase over the analysed period – 23.1% CAGR. More pronounced nominal Capex growth obtained only PaySafe – 60.4% CAGR, however the increase was highly associated with overall expansion of scale of operations, as Capex relative to revenues slightly decreased for that company from 5.4% of revenues in 2013 to 5% in LTM H1 2016. When relative Capex increase are taken into account, Nets shows the most significant expansion: from 4.9% of sales in 2013 to 7.8% in LTM H1 2016. Of the analysed peers only one company besides Nets increased relative size of Capital Expenditures: Worldline slightly increased the ratio from 5.5% of sales in 2013 to 5.9% in the last analysed period. Both Wirecard and Ingenico decreased their relative Capex: from 10.7% to 7.9% and from 2.9% to 2.7%, respectively.

When it comes to Net Working Capital, Nets decreased the relative size of that form of capital: from -2.3% of sales in 2013 to -5% in LTM H1 2016. Slightly more pronounced improvement in this measure obtained Worldline, which decreased its Net Working Capital from 5.9% of sales in 2013 to 1.2% in LTM H1 2016. Smilar change to Nets obtained PaySafe, decreasing its Net Working Capital from -2.2% of sales to -4.8%, respectively. Ingenico also improved its working capital requirements, form 4% in 2013 to 2.6% in 2015 (LTM H1 2016 data not available). Wirecard, as the only company from the analysed group, increased its Net Working Capital relative size: from 5% of sales in 2013 to 14.8% in LTM H1 2016.

7.1.3.2. Qualitative analysis

The substantial Capex increases at Nets resulted from the ongoing transformation programme and following increased investments in commercialization of the business units and improvements of the technology platforms. As stated by the company, all the Capex increases were associated with intangible assets rather than physical fixed assets. The expenses on intangible assets included such positions as capitalization of development costs and design and testing of identifiable projects. When it comes particularly to technology-related investments: the company reports that Capex on IT platforms increased almost 4x from 2013 to 2015 and similarly spending on cyber security increase c. 3x only from 2014 to 2015.

Despite the visible large increases in Capital expenditures over the analysed period, strong emphasis was also put on efficiency of those investments. In effect, the company reports that IT base

costs were reduced by 10% year-on-year in 2015 and hourly development rate was reduced by 13% in 2014 and further by 8% in 2015. The savings were obtained through more flexible cost base and stronger reliance on IT outsourcing. The attempts to increase Capex efficiency resulted also in reduced development time of new projects.

As for the working capital efficiency improvements, the company initiated its procurement excellence programme aimed at reducing inventory levels. Scope of the programmed encompassed: constant reviewing inventory of vendors, optimising procurement terms and enhancing its demand management process.

7.1.3.3. Cash conversion analysis

Cash conversion improvement analysis

EUR m	2013 -Entry	FY2014	FY2015	LTM H1 2016 - Exit	CAGR
Nets					
FCFF	118	151	196	197	*22.9%*
Cash conversion %	*57.3%*	*67.7%*	*64.8%*	*61.3%*	*2.7%*
Wirecard					
FCFF	40	7	55	39	*-0.1%*
Cash conversion %	*31.4%*	*4.1%*	*24.2%*	*15.1%*	*-25.4%*
Worldline					
FCFF	103	114	125	137	*12.1%*
Cash conversion %	*50.8%*	*53.0%*	*53.1%*	*55.7%*	*3.7%*
Ingenico					
FCFF	194	249	283	274	*14.9%*
Cash conversion %	*75.1%*	*70.8%*	*58.2%*	*57.6%*	*-10.0%*
Paysafe					
FCFF	60	53	87	83	*14.2%*
Cash conversion %	*134.0%*	*72.1%*	*67.2%*	*52.4%*	*-31.3%*

Source: Own analysis based on the companies' data

Nets was one of the two companies from the analysed group that increased its cash conversion abilities defined as share of Free Cash Flow to the Firm (FCFF) in the respective year's EBITDA. Nets increased the ratio from 57.3% in 2013 to 61.3% in LTM H1 2016, despite its largely increased Capital expenditures. Slightly more pronounced change in cash conversion abilities over the analysed period achieved Worldline, which improved the ratio from 50.8% in 2013 to 55.7% in LTM H1 2016. All other peers from the analysed group experienced deterioration in their cash conversion abilities:

the ratio for Wirecard decreased from 31.4% to 15.1%, for Ingencio from 75.1% to 57.6^ and for PaySafe from 134% to 52.4%.

7.1.4. Operating improvements summary

From the above analysis, the author can conclude that Nets during its 2.5-year Private Equity holding period experienced the most extensive operating changes from the analysed peer group.

First, the company revamped its organic growth profile through exploitation of numerous strategic measures that will be explained in the following section, but also increased focus on efficiency of sales processes. In effect, Nets was the only company from the analysed group that materially increased its growth capabilities. The findings are in line with the statement of Loos [2006] that Private Equity managers seek to boost growth in their portfolio companies (however, not supported by any empirical evidence). On the other hand, the longitudinal studies conducted by Acharya et al. [2013] and Boucly et al. [2011] show evidence on overall superior growth of PE-backed companies in comparison to publically listed peers, which is not the case in the Nets case. Hence, the author suggests for further research the following propositions concentrating particularly on improving growth capabilities of PE-backed companies:

P1: Increasing the portfolio company's growth capabilities is an important part of contemporary Private Equity investments in mature companies (buyouts)

P2: *Private Equity – backed companies are more likely to improve their growth profiles over time than non-PE backed companies*

The findings from the Nets case are also in line with Cohn et al.'s [2013] evidence that overall sales of Private Equity-backed companies tend to decrease in the first investment year, which was actually the case at Nets.

Second, Nets achieved the most pronounced margin improvements from the analysed companies, which is in line with findings of Boucly et al. [2011], Acharya et al. [2012] and Cohn and Mills [2013]. The margin improvement process was realized through implementation of the cost efficiency enhancement programme based on improving operational efficiency, which resulted in lowering the major operating cost positions, including staff costs, partially reduced through lay-offs. These findings are in line with evidence provided by Davis et al. [2014] that Private Equity buyout investors realize operating efficiency gains through increased productivity and also net job losses.

Third, Nets substantially increased its Capital expenditures both in nominal terms and relatively to sales, while most of the peers reduced the relative investments. These findings are in line with empirical study of Boucly et al. [2011] showing larger Capex among PE-backed companies. The increased Capex at Nets was mostly devoted to technology and product development investments supporting the company's attempts to increase its growth capabilities. The increased technology spending and simultaneous headcount reduction and claimed increased automation suggests increased human labour replacement by automated processes. Such an approach leads to temporary increased Capital expenditures (required investments in relevant technology), but in the long-term secures

recurring savings in operating costs, which overall can have a larger positive impact on the company's long-term value creation. Moreover, Nets was one of only two companies that did not experience cash conversion deterioration over the analysed period. The two last findings seem as interesting proposition for further quantitative research in order to obtain some empirical evidence.

P3: *Replacing human labour by increased automation of processes is an important part of value creation in contemporary Private Equity investments, resulting on the one hand in increased Capital expenditures in the short-term, but on the other hand, recurring, long-term savings in operating costs*

P4: *Private Equity buyout companies are less likely to decrease their cash conversion abilities than their non-PE-backed industry peers*

7.2. Strategic improvements

Throughout the analysis of the Nets case, the author identified three major strategic improvement areas implemented by the managers appointed by The Consortium: enhanced expansion into neighbouring markets, business portfolio reorganization with segmental refocus and restructuring (asset stripping), as well as implementation of a buy-and-build strategy (external growth) supporting both previous strategic initiatives.

7.2.1. International expansion

Before the acquisition of The Consortium, Nets already offered its merchant solutions in Sweden, however the country's operations accounted only for c. 8% of total sales of Nets. Sweden represented an appealing opportunity for Nets, as it is the single largest payments market in the Nordics with c. 40% share of total non-cash transactions. One of the key strategic pillars of the new owners and newly appointed management team was to increase the company's market presence in Merchants segment in Sweden. To enable bolder foothold in this country, Nets acquired a strong local player – Nordea's merchants acquiring business line Kortaccept. After completing the acquisition in December 2015, Nets has become a 2nd market player in merchant business in Sweden (after local Swedebank's operations) with largest market share (market leader) in the fast growing e-commerce segment. Furthermore, an additional upside came from the fact that Kortaccept was a non-core, underdeveloped business line for Nordea – its payment solutions covered only 16% of the bank's business clients in Sweden, creating an opportunity to capture this unexplored niche by the payments focusing Nets. All in all, the acquisition of Kortaccept was crucial for Nets in securing a strong competitive position for further expansion of merchants payments solution in the attractive Swedish market.

Additional opportunity for expansion in the Swedish market created Financial & Network Services business line. Previously, Nets as a co-operative of Danish and Norwegian banks was not a preferable partner for local Swedish banks in handling their payment operations, as both Swedish banks and Nets' owners competed in other fields of financial services market across the Nordics region. After ownership change, Nets became a natural partner for the Swedish banks as the leading payments outsourcing player in the region. Moreover, the Swedish outsourcing market was relatively underdeveloped in comparison to Denmark and Norway, creating a sizeable upside potential for Nets's Financial & Network Services business line. The thesis was confirmed with first deals with mid-size Swedish banks secured in the wake of 2015 and 2016.

As a result of increased focus on the development of the Swedish market opportunity Nets already increased its share of sales to this country to 10% of the company's total sales in 2nd half of 2016 with strong potential for further increases.

It is worth to note that during the analysed timeframe and afterwards the company did not show any intent for entering new international markets, stressing its focus on the core Nordics market.

7.2.2. Business portfolio reorganization

Results by segment (m DKK)	FY 2013	FY2014	FY2015	LTM as of H1 2016
Merchant services				
Organic Revenue	1,408	1,397	1,493	1,597
% growth	*n.a.*	*-0.8%*	*6.9%*	*7.0%*
EBITDA before special items	427	426	560	673
% margin	*23.0%*	*25.3%*	*30.0%*	*32.6%*
% growth	*n.a.*	*-0.2%*	*31.5%*	*20.2%*
Financial & Network services				
Organic Revenue	1,869	1,888	2,103	2,190
% growth	*n.a.*	*1.0%*	*11.4%*	*4.1%*
EBITDA before special items	469	517	811	836
% margin	*21.9%*	*24.7%*	*36.8%*	*37.8%*
% growth	*n.a.*	*10.2%*	*56.9%*	*3.1%*
Corporate services				
Organic Revenue	2,598	2,668	2,706	2,722
% growth	*n.a.*	*2.7%*	*1.4%*	*0.6%*
EBITDA before special items	629	719	880	883
% margin	*23.1%*	*26.0%*	*31.8%*	*32.1%*
% growth	*n.a.*	*14.3%*	*22.4%*	*0.3%*

Source: Own analysis based on the companies' data

Before the Private Equity sponsors' entry in spring 2014 Nets was primarily a company focused on its legacy (small growth opportunity) Corporate Services business, slowly growing with a broad economy (2.7% organic revenue growth). At the same time, Merchant Services segment offering largest growth potential due to ongoing trend of payments shift to online was underdeveloped by the previous owners and even experienced organic decline in 2014 (-0.8%). As a result of the ownership change and subsequent change of the company's focus on the fastest growing Merchant Services activities, the segment's growth accelerated to 7% in LTM H1 2016. At the same time Financial & Network Services segment also increased the pace of revenue growth from 1% in 2014 to 4.1% in LTM H1 2016 and Corporates Services segment slowed down from 2.7% in 2014 to 0.6% in LTM H1 2016

Simultaneously, the new management team initiated a process of restructuring underperforming assets within the company's business portfolio, mostly concentrated within the Financial & Network Services segment. In effect, several smaller businesses from that segment

characterized with below-average profitability (mostly remnants from the acquisition of Finnish company Luottokunta completed by the previous owners) were divested. The asset stripping process resulted in substantially increased profitability within the Financial & Network Services segment, which from the least profitable segment (21.9% EBITDA margin reported in 2013), has become a top portfolio performer in terms of EBITDA margin (37.8% in LTM H1 2016, respectively).

7.2.3. Buy-and-build strategy

Company acquired	Date	Business	Segment	Price	Revenues annual
Kortaccept (Nordea)	Dec-15	Merchant Acquiring	Merchant Services	DKK 1,715	c.DKK 330m
Payzone Nordic	Jul-14	POS Transfer Network	Merchant Services	c.DKK 173m	DKK 56m
DIBS	Dec-14	Payment Solutions	Merchant Services	c.DKK 614m	DKK 140m
Storebox	Jan-16	E-Reciepts and Loyalty	Merchant Services	c.DKK 100m	
Paytrail	Dec-14	Online Payments	Merchant Services	c.DKK 121m	DKK 39m
SignaturGruppen	Jul-15	Digital Identity	Corporate Services	c.DKK 184m	DKK 33m
EDIGard AS	Jul-14	Document/Billlings Solution	Corporate Services		c. DKK 70m

Source: Company Data, Morgan Stanley Research

Over the analysed period Nets completed seven acquisitions for a total consideration of c. DKK 2.5bn (EUR 340m). Most of the acquisitions (5 of 7) were relatively small transactions with a price below DKK 200m (EUR 25m). As a result the estimated average acquisition size amounts to c. EUR 50m. The completed transactions can be decomposed into acquisitions of market position (customers) in expanding markets (Kortaccept and DIBS in Sweden and Payzone in Finland), as well as acquisitions of certain capabilities for particular business lines (Paytrail and Storebox for e-commerce segment within the Merchant Servies divison and Signatur Gruppen and EDIGard for Corporate Services division).

Below acquisitions completed by the peer companies are summarized:

Wirecard completed a total of six acquisitions over the analysed timeframe. All the acquisitions were aimed at increasing the company's foothold in international markets. In 2014 the company acquired small targets in Turkey (EUR 25m consideration paid), South Africa (EUR 33m) and New Zealand (EUR 33m). In 2015 Wirecard pursued one larger acquisition in India (EUR 315m consideration paid) and in the first half of 2016 acquired two additional companies in Brazil (EUR 37m) and Romania (EUR 32m). Overall, Wirecard paid a total of EUR 475m for targets acquired during the analysed period, which implies an average consideration paid of c. EUR 80m.

Worldline announced in the wake of 2015 and 2016 a merger of its European operations with the Dutch company Equens (c. EUR 300m annual sales). The merger was completed in the 2nd half of 2016 through creation of a new subsidiary with c. 60/40 share split between Worldline and Equens' owners and additionally direct acquisition of one subsidiary of Equens, for which Worldline paid a cash consideration of EUR 70m.

Ingenico completed a single, large acquisition of the global leader in full service online payment solutions – GlobalCollect. The transaction was a transformational deal for Ingenico,

substantially increasing its exposure to fast-growing online payments segment. The consideration paid for GlobalCollect amounted to c. EUR 820m

PaySafe completed a total of 5 acquisitions over the analysed period. In 2014, the company acquired Meritus Payment Solutions for c. EUR 180m and Global Merchants Advisors (GMA) for c. EUR 13m. In 2015, PaySafe completed a large acquisition of Skril for c. EUR 1.2bn. This transformational transaction doubled the company's size and provided exposure into a new digital wallets segment. In addition, PaySafe acquired FANS Entertainment for c. EUR 11m in 2015 and MeritCard Solutions for c. EUR 17m in the first half of 2016. Overall, the company spent on acquisitions a total consideration of c. EUR 1420m over the analysed period, implying an average target's price of c. EUR 280m.

7.2.4. Strategic improvements summary

The above analysis allowed the author to identify several strategic steps taken by Nets after the ownership change. First, the company took an active approach in order to increase its exposure into more attractive Swedish market. Hence a tentative hypothesis to test in further research is:

P5: *Private Equity buyout companies are likely to increase their exposure into foreign markets providing additional upside potential*

Second, Nets pursued an active business portfolio reshuffling, increasing its focus on the Merchants Services business line providing largest growth opportunities. Additionally, portfolio restructuring was implemented and as a result, several underperforming, non-core assets were divested, which is in line with traditional Private Equity "asset stripping" approach provided by Seth and Easterwood [1993].

P6: *Private Equity buyout companies are likely to take an active approach in refocusing their business towards high-growth market segments*

P7: *Divestments of underperforming business operations is still a common value creation measure in contemporary Private Equity buyouts*

Third, the analysis of business acquisitions completed by Nets is in line with Buy and Build Monitor [2010] study featured in the theoretical framework, which state that PE-backed companies tend to acquire specific capabilities such as new technologies and bolder access to specific markets through pursuing the external growth strategy. Furthermore, the analysis of Nets buy-and-build strategy against the backdrop of its comparable peers, allowed the author to identify that Nets pursued the highest number of M&A transactions over the analysed period and at the same time, the acquisitions were on average smaller than the ones completed by the other companies. It is worth to note that one of the peer companies – Wirecard pursued a very similar M&A strategy to Nets with relatively large number of small acquisitions completed. Nevertheless, the other peers tend to acquire less firms, but on average in a much larger size. Given that the area of M&A strategies pursued by Private Equity-backed companies is still relatively underdeveloped across the academia [Borell and Heger, 2013], the above findings from the Nets case can be used in further empirical research.

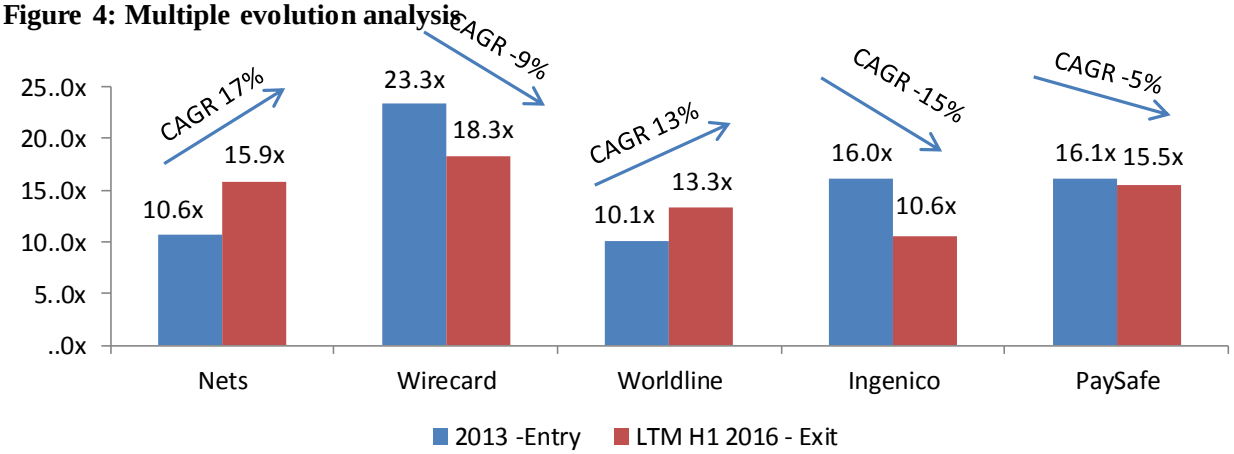
P8: *Private Equity-backed companies tend to pursue an M&A strategy with more acquisitions in a smaller size than non-PE-backed companies, who tend to acquire less firms but in a larger size*

7.3. Multiple analysis

Final part of the Case Analysis part is the comparison of changes of the valuation multiples of Nets against the backdrop of respective changes in the peer companies' group and subsequent analysis of value creation factors affecting the analysed multiple evolution.

7.3.1. Benchmarking

Figure 4: Multiple evolution analysis



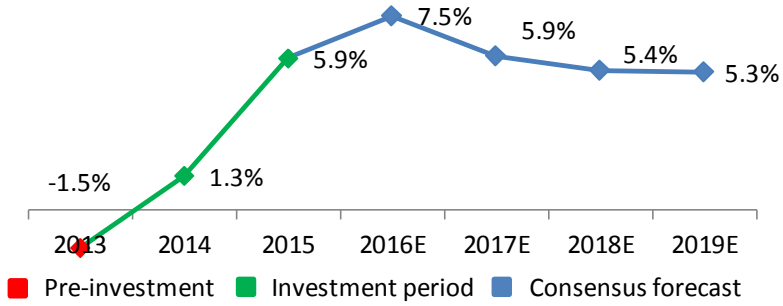
Source: Own analysis

From the picture above it can be observed that Nets experienced largest multiple expansion over the analysed period: from 10.6x EBITDA at entry to 15.9x during the partial exit through IPO, implying a 17% CAGR over that timespan. The only company from the analysed group, besides Nets, that achieved multiple expansion over the same period was Worldline, which improved its EV/EBITDA ratio from 10.1x in March 2014 to 13.3x in September 2016 (c. 13% CAGR). Other peers experienced multiple contraction: PaySafe by 5% CAGR from 16.1x to 15.5x, Wirecard by 9% CAGR from 23.3x to 18.3x and Ingenico by -15% CAGR from 16x to 10.6x.

7.3.2. Nets multiple analysis

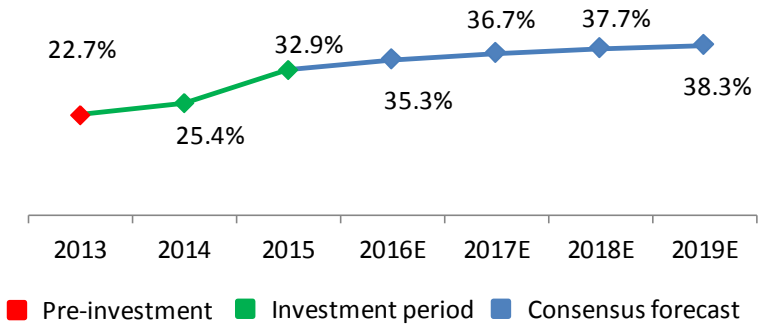
The factors supporting the expansion of Nets valuation multiple are the following:

a) Organic sales growth



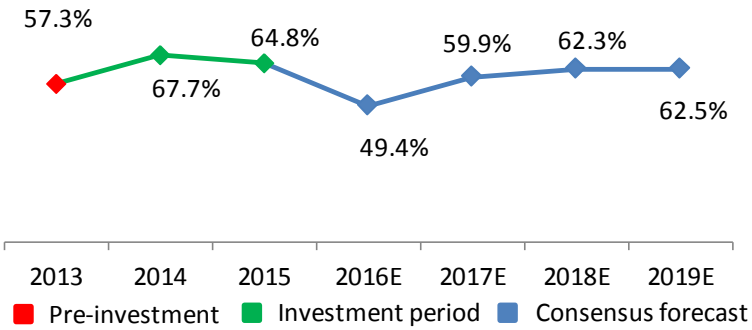
The company substantially improved its growth profile: from contracting organic sales in 2013 and mediocre 1.3% growth in 2014, during the IPO the investors' expectations for the future growth in 2017-2019 were well above 5%.

b) EBITDA margin expansion



The expectations regarding strong sales growth were supported by simultaneous positive prospects for the company's EBITDA margin. During the IPO it was expected that Nets is able to further expand its margin to above 38% in a 3-year perspective, whereas during The Consortium's entry the margin levels were much lower: 22.7% in 2013 and 25.4% in 2014. This implies more than 15 p.p. margin improvement over the 6 years period.

c) Cash conversion

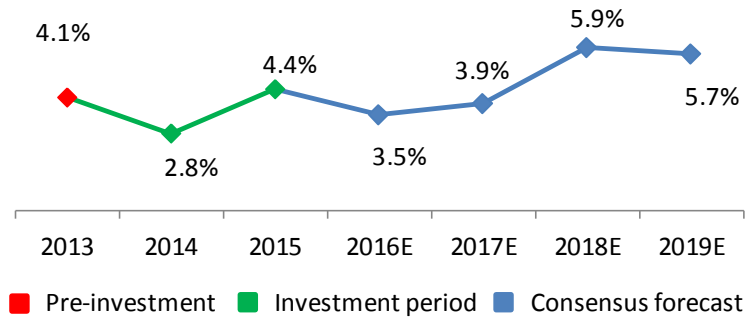


The cash conversion levels were expected to remain relatively stable around 60% with expected periodical deterioration in 2016 due to Capital Expenditure increases reaching top.

7.3.3. Worldline multiple analysis

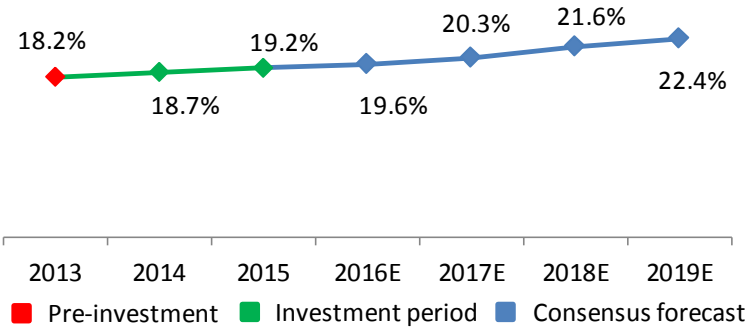
Similarly the expansion of EV/EBITDA multiple of Worldline was driven by:

a) Organic sales growth



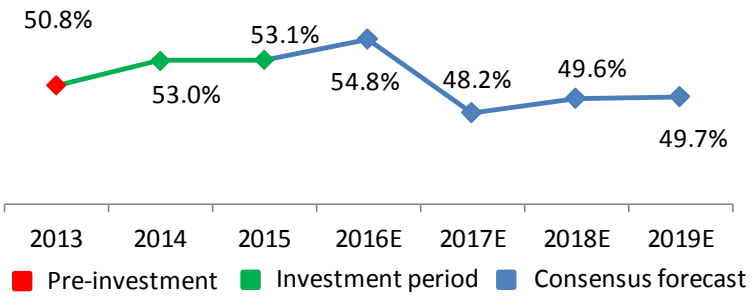
Organic sales growth profile of the company was expected to improve from 3-4% in 2013-2017 to slightly below 6% in 2018-2019.

b) EBITDA margin expansion



Improvement in sales growth profile was expected to be supported by gradual growth of EBITDA margin from 18.2% in 2013 to 22.4% in 2019 (growth by c. 4 p.p.over the 6 years timespan).

c) Cash conversion

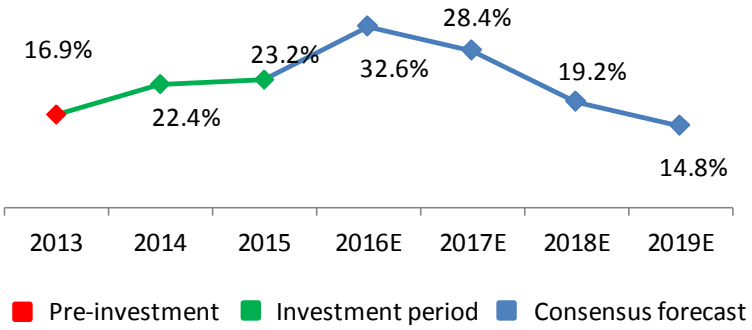


Expected slight deterioration of cash conversion as a result of increased capital expenditures fuelling the company's growth expansion.

7.3.4. Wirecard multiple analysis

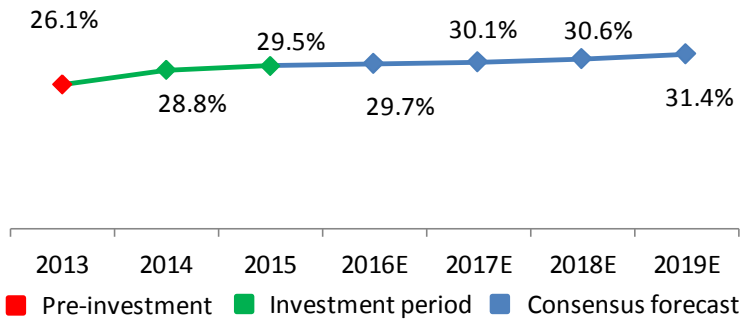
The contraction of valuation multiple of Wirecard was affected by:

a) Organic sales growth



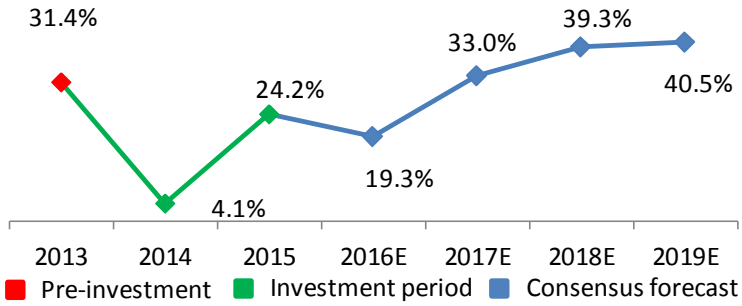
Expected re-rating of organic growth capabilities from +20% levels in 2014-2018 timeframe back to mid-teens by 2019.

b) EBITDA margin expansion



Deterioration of Wirecard's growth profile partially alleviated by gradually increasing operating profitability: EBITDA margin increasing from 26.1% in 2013 to 31.4% in 2019 (slightly below 5.5 p.p. improvement over the 6-year period)

c) Cash conversion

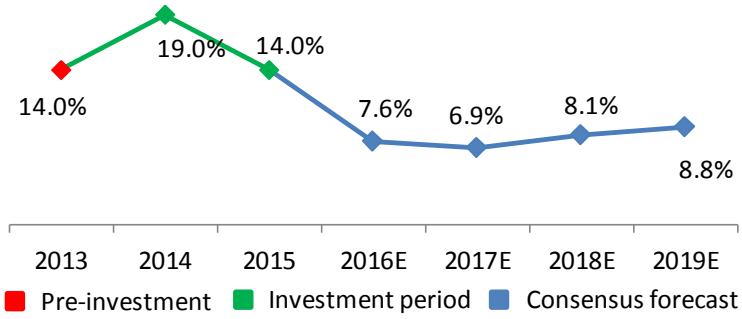


Additionally, cash conversion expected to re-rate to +30% levels after periodical deterioration due to increased investment requirements supporting the company's abnormal revenue growth.

7.3.5. Ingenico multiple analysis

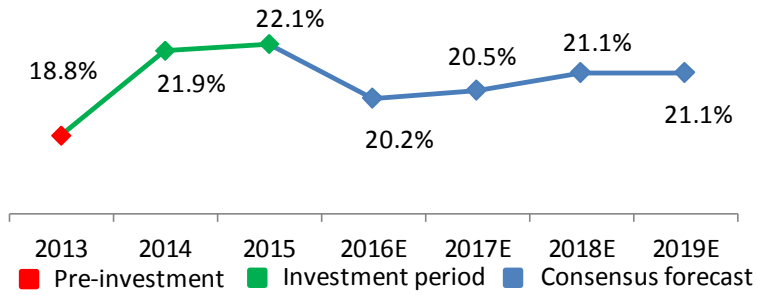
The substantial contraction of Ingenico's EV/EBITDA multiple was affected by:

a) Organic sales growth



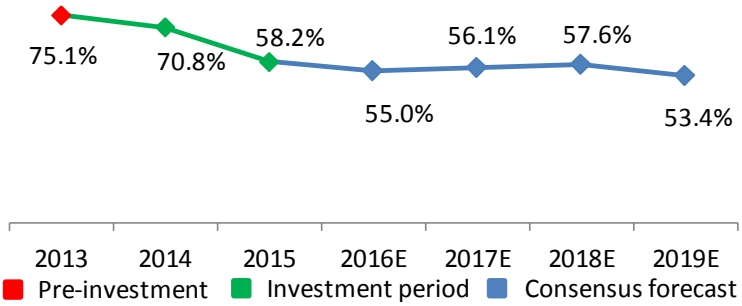
Rapidly decreasing the company's organic growth capabilities: from mid-teens in 2013-2015 period to high-single digit in 2017-2019 projections.

b) EBITDA margin expansion



Additionally, expected periodical margin deteriorations with EBITDA margin falling to 20-21% levels from c. 22% in 2014-2015.

c) Cash conversion

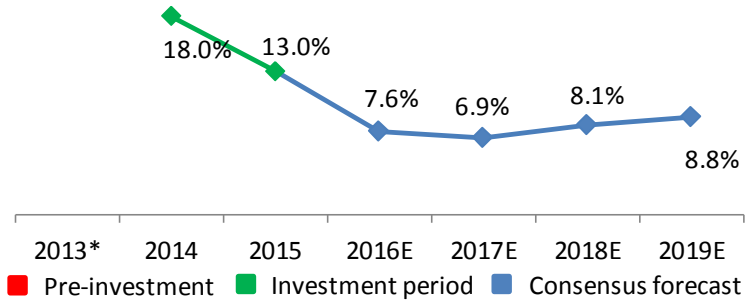


Last but not least, the valuation multiple was negatively affected by gradually decreasing Ingenico's cash conversion abilities.

7.3.6. PaySafe multiple analysis

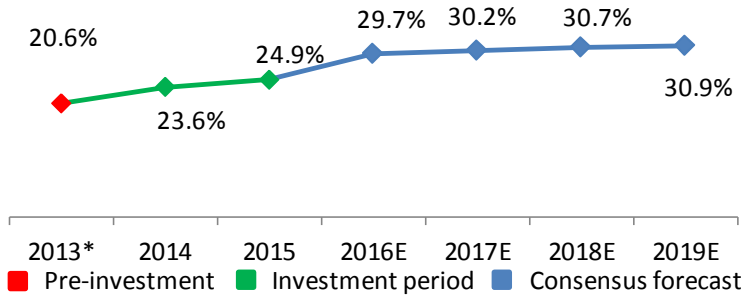
Deterioration of the valuation multiple of PaySafe was affected by:

a) Organic sales growth



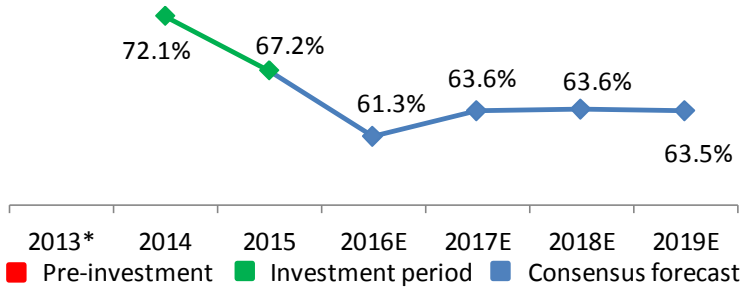
Expected decrease of the company's growth abilities from mid-teens in 2014-2015 to high-single digit in 2016-2019.

b) EBITDA margin expansion



Negative underlying growth trends are expected to be partially alleviated by gradually improving operating profitability: EBITDA margin expected to expand from 20.6% in 2013 to 30.9% in 2019 (>10 p.p. increase over the year period).

c) Cash conversion



The market expects also deterioration in cash conversion ratio – the ratio is expected to fall from c. 70% levels and stabilize around the 63.5% level.

7.3.7. Multiple analysis – summary

The above analysis indicates the superior dynamics of multiple expansion of Nets in comparison to its close market peers. This is in line with the empirical evidence provided by Acharya et al. [2013]. The operating and strategic drivers of the company's multiple expansion were: substantially improved organic growth capabilities and deep changes in the profitability of underlying operations, reflected in rapidly expanding EBITDA margin. The sole impact of these measures on a valuation multiple cannot

be quantified, however , due to potential impact of other value creation levers such as financial and governance improvements. Nevertheless, in the author's view the overall changes in the company's relative valuation can be strongly associated with the transformation programme initiated by The Consortium of Private Equity sponsors, implemented after the buyout. The author would like to remind that the aim of the transformation programme was: 1) to improve the company's long-term growth profile through improving business commercialization and innovativeness and bolstering the most prospective, but underdeveloped Merchant Services segment, enabling the company for exploiting its full growth potential; 2) to improve the business's underlying profitability through obtaining recurring cost savings based on such measures as increased operating efficiency, capacity optimization, as well as increased automation. Overall the analysis allowed the author to form an additional tentative hypothesis to be tested in future research attempts:

P9: *Operating and strategic value creation measures resulting in increased growth capabilities and operating margin improvements are important drivers of multiple expansion in Private Equity buyout companies*

8. Conclusion and discussion

There is an agreement between scholars and practitioners that strategic and operating changes play an increased role in contemporary Private Equity transactions due to industry maturing and resulting commoditization of traditional value creation levers such as financial and governance engineering and simple actions such as asset stripping, or minor cost cutting. Instead, increased role play more sophisticated strategies including on-boarding of operating excellence reflected in superior operations efficiency, increasing innovativeness of acquired businesses, expanding into new and more promising market segments or stronger reliance on buy-and-build strategies allowing for quicker build-up of certain capabilities ensuring competitiveness.

At the same time, existing literature focuses rather on general trends within the industry operations, which, in the author's opinion do not provide a "flavour" how actually those new strategies are pursued, what specific actions are taken by Private Equity sponsors in order to boost superior value creation in their portfolio companies.

The Case Study of Nets A/S provides a deeper insight into particular operating and strategic value creation measures implemented by Private Equity sponsors in this particular transaction. The Consortium of buyers comprising leading global Private Equity firms Advent International and Bain Capital, as well as Danish pension fund ATP as a co-investor, implemented a deep transformation program aimed at increasing underlying growth profile of the acquired asset, as well as improving profitability across the company's business lines. In the attempt of sparking additional growth potential, the increased focus on the most prospective, yet underdeveloped business segment was put and further strategic and operating moves such as bolder expansion to neighbouring markets and increased commercialization and sales efficiency were initiated. The thorough profitability improvement was achieved through a deep efficiency enhancement program, which resulted in decreases in all major operating cost positions. The achieved cost effectiveness were also possible due to increased reliance on technology and automation, which together with growth-fuelling capital resulted in increases in required Capital investments. Nevertheless, due to simultaneous improvements

in working capital management efficiency, the cash generation abilities of the company remained stable.

The study recognizes several patterns already identified and confirmed by the so far academic studies. Those patterns include e.g. prevalence of margin improvements as the single most important source of operating value creation in Private Equity buy-outs [Talmor, 2011], common industry outperformance by PE-backed companies in terms of operating margins [Acharya et al., 2013], tendency for increased Capital expenditures in contemporary Private Equity deals [Boucly et al., 2011], or reliance on M&A activities in acquiring new capabilities supporting pursued transformation strategies [Buy and Build Monitor, 2010].

Apart from that, the study allows to identify some unexplored areas, potentially interesting for further scientific research. The propositions are presented below in the Further Research section.

Last but not least, the conducted study identifies also some limitations of the established frameworks for analysis of particular value creation levers in Private Equity investments. The limitations stem mostly from the fact that strategies employed in such investments are often based on interconnections between several value creation levers. Such as in the presented Nets case the exploitation of a strategic lever based on increased penetration of the attractive Swedish market was possible only due to the ownership change from the sub-optimal co-operative structure of Danish and Norwegian banks, which prevented the company from exploiting commercial relation with local Swedish banks. Furthermore, analysis of valuation multiple expansion, which in the Nets case was a particularly important value creation lever, is also difficult to split into particular levers, as the investor's perception of the company's investment attractiveness can be a function of many different interconnected factors, thus an exact quantification of particular levers affecting this measure seems to be impossible.

9. Further Research

As indicated above, the study allowed the author to identify several areas, which could be used in further academic research on operating and strategic value creation measures in Private Equity investments. The following propositions could potentially be tested on large samples of contemporary Private Equity deals using quantitative methods, in order to check their significance and potential for further build-up of scientific knowledge on Private Equity industry.

1) *Increasing the portfolio company's growth capabilities is an important part of contemporary Private Equity investments in mature companies (buyouts)*

2) *Private Equity – backed companies are more likely to improve their growth profiles over time than non-PE backed companies*

3) *Replacing human labour by increased automation of processes is an important part of value creation in contemporary Private Equity investments, resulting on the one hand in increased Capital expenditures in the short-term, but on the other hand, recurring, long-term savings in operating costs*

4) *Private Equity buyout companies are less likely to decrease their cash conversion abilities than their non-PE-backed industry peers*

5) *Private Equity buyout companies are likely to increase their exposure into foreign markets providing additional upside potential*

6) *Private Equity buyout companies are likely to take an active approach in refocusing their business towards high-growth market segments*

7) *Divestments of underperforming business operations is still a common value creation measure in contemporary Private Equity buyouts*

8) *Private Equity-backed companies tend to pursue an M&A strategy with more acquisitions in a smaller size than non-PE-backed companies, who tend to acquire less firms but in a larger size*

9) *Operating and strategic value creation measures resulting in increased growth capabilities and operating margin improvements are important drivers of multiple expansion in Private Equity buyout companies*

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11. Appendix

Nets – key financial data

	Pre-PE		Private			Public	Forecast				
Nets financials (m DKK)	**FY2012**	**FY2013**	**FY2014**	**FY2015**	**LTM H1 2016**	**FY2016**	**2016E**	**2017E**	**2018E**	**2019E**	**2020E**
P&L											
Revenue, gross	7,436	8,686	8,607	9,040	9,540	10,084	Broker consensus forecast				
% growth	*n.a.*	*16.8%*	*-0.9%*	*5.0%*	*5.5%*	*11.5%*					
Interchange and processing fees	-1,474	-1,959	-2,061	-2,204	-2,510	-2,699					
Revenue, net	**5,962**	**6,727**	**6,546**	**6,836**	**7,030**	**7,385**	**7,350**	**7,786**	**8,204**	**8,643**	**9,161**
% growth	*n.a.*	*12.8%*	*-2.7%*	*4.4%*	*2.8%*	*8.0%*	*7.5%*	*5.9%*	*5.4%*	*5.3%*	*6.0%*
Cost of sales	-1,082	-1,138	-1,081	-983	-969	-963					
as % of sales	*18.1%*	*16.9%*	*16.5%*	*14.4%*	*13.8%*	*13.0%*					
Gross Profit	**4,880**	**5,589**	**5,465**	**5,853**	**6,061**	**6,422**	**6,340**	**6,813**	**7,229**	**7,634**	**8,061**
% margin	*81.9%*	*83.1%*	*83.5%*	*85.6%*	*86.2%*	*87.0%*	*86.3%*	*87.5%*	*88.1%*	*88.3%*	*88.0%*
External expenses	-1,817	-1,989	-1,846	-1,732	-1,777	-1,769					
as % of sales	*30.5%*	*29.6%*	*28.2%*	*25.3%*	*25.3%*	*24.0%*					
Staff costs	-1,988	-2,075	-1,956	-1,873	-1,895	-2,034					
as % of sales	*33.3%*	*30.8%*	*29.9%*	*27.4%*	*27.0%*	*27.5%*					
EBITDA adjusted	**1,075**	**1,525**	**1,663**	**2,248**	**2,389**	**2,619**	**2,594**	**2,857**	**3,096**	**3,312**	**3,574**
% margin	*18.0%*	*22.7%*	*25.4%*	*32.9%*	*34.0%*	*35.5%*	*35.3%*	*36.7%*	*37.7%*	*38.3%*	*39.0%*
% growth	*n.a.*	*41.9%*	*9.0%*	*35.2%*	*6.3%*	*16.5%*	*15.4%*	*10.1%*	*8.4%*	*6.9%*	*7.9%*
Special items	2	-201	-411	-538	-442	-606	-828	-155	-31	0	0
as % of sales	*0.0%*	*3.0%*	*6.3%*	*7.9%*	*6.3%*	*8.2%*					
EBITDA reported	**1,077**	**1,324**	**1,252**	**1,710**	**1,947**	**2,013**	**1,765**	**2,702**	**3,065**	**3,312**	**3,574**
% margin	*18.1%*	*19.7%*	*19.1%*	*25.0%*	*27.7%*	*27.3%*	*24.0%*	*34.7%*	*37.4%*	*38.3%*	*39.0%*
% growth	*n.a.*	*22.9%*	*-5.4%*	*36.6%*	*13.9%*	*17.7%*					
Amortisation & depreciation	-336	-448	-408	-898	-937	-1,070					
as % of sales	*5.6%*	*6.7%*	*6.2%*	*13.1%*	*13.3%*	*14.5%*					
EBIT	**741**	**876**	**844**	**812**	**1,010**	**943**	**679**	**1,705**	**2,185**	**2,541**	**2,918**
% margin	*12.4%*	*13.0%*	*12.9%*	*11.9%*	*14.4%*	*12.8%*	*9.2%*	*21.9%*	*26.6%*	*29.4%*	*31.8%*
% growth	*n.a.*	*18.2%*	*-3.7%*	*-3.8%*	*24.4%*	*16.1%*					
Free Cash Flow											
EBITDA adj	1,075	1,525	1,663	2,248	2,389	2,619	2,594	2,857	3,096	3,312	3,574
Tax rate		*25.0%*	*24.5%*	*23.5%*	*22.8%*	*22.0%*	22.0%	22.0%	22.0%	22.0%	22.0%
NOPAT		**1144**	**1256**	**1720**	**1846**	**2043**	**2,023**	**2,228**	**2,415**	**2,583**	**2,788**
D&A*t		112	100	211	213	235	89	98	107	113	121
Change in NWC (-)		-55	173	64	-45	67	-40	-10	-16	-33	-24
Cash from operating activities		**1,201**	**1,529**	**1,995**	**2,014**	**2,345**	**2,071**	**2,317**	**2,506**	**2,663**	**2,885**
Total Capex		-327	-403	-539	-550	-646	-791	-606	-577	-593	-593
Free Cash Flow		**874**	**1,126**	**1,456**	**1,464**	**1,699**	**1,280**	**1,711**	**1,929**	**2,070**	**2,292**
as % of sales		*13.0%*	*17.2%*	*21.3%*	*20.8%*	*23.0%*	17.4%	22.0%	23.5%	24.0%	25.0%
% cash conversion		*57.3%*	*67.7%*	*64.8%*	*61.3%*	*64.9%*	49.4%	59.9%	62.3%	62.5%	64.1%

Nets –multiple calculation

Transaction details	m DKK
Entry	
Entry date	24.03.2014
Share price paid (DKK)	92.37
NOSH (m) as of 01.01.2014	184
Equity purchase price	**16,996**
Total financial debt	1,468
Cash & equivalents (-)	-2,374
Unfunded pension obligations	71
Minority interest	15
Investment in associates (-)	22
Enterprise value	**16,198**
Entry multiple (LTM)	10.6x
Exit	
Exit Date	23.09.2016
NOSH (pre-IPO)	162.07
Share Price at offering (DKK)	150
Market Cap (Sponsor's Equity)	**24,310**
Total financial debt	14,699
Cash & equivalents (-)	-1,371
Unfunded pension obligations	62
Minority interest	184
Investment in associates (-)	-10
Enterprise Value	**37,874**
Exit multiple (LTM)	15.9x

Wirecard – key financial data

P&L (m EUR)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
Revenues	**395**	**482**	**601**	**771**	**883**	**1,023**	**1,313**	**1,566**	**1,798**	**2,051**
% growth	*n.a.*	*22.1%*	*24.8%*	*28.3%*	*14.5%*	*32.6%*	*28.4%*	*19.2%*	*14.8%*	*14.1%*
Cost of materials	-230	-288	-341	-419	-464					
as % of sales	*58.2%*	*59.8%*	*56.7%*	*54.3%*	*52.5%*					
Own work capitalised	10	21	25	28	27					
Gross profit	**175**	**214**	**285**	**381**	**446**					
% margin	*44.4%*	*44.5%*	*47.5%*	*49.4%*	*50.5%*					
Personnel expenses	-37	-48	-66	-96	-113					
as % of sales	*9.4%*	*10.0%*	*11.1%*	*12.5%*	*12.7%*					
Other operating items	-29	-40	-46	-57	-72					
as % of sales	*7.3%*	*8.3%*	*7.7%*	*7.4%*	*8.2%*					
EBITDA	**109**	**126**	**173**	**227**	**261**	**304**	**395**	**479**	**565**	**672**
% margin	*27.7%*	*26.1%*	*28.8%*	*29.5%*	*29.6%*	*29.7%*	*30.1%*	*30.6%*	*31.4%*	*32.7%*
% growth	*n.a.*	*15.3%*	*37.3%*	*31.4%*	*15.0%*	*33.7%*	*30.1%*	*21.3%*	*17.9%*	*18.8%*
Amortisation and depreciation	-16	-27	-40	-54	-61	-69	-76	-81	-92	-129
as % of sales	*4.0%*	*5.7%*	*6.7%*	*7.1%*	*7.0%*	*6.7%*	*5.8%*	*5.1%*	*5.1%*	*6.3%*
EBIT	**94**	**99**	**133**	**173**	**200**					
% margin	*23.7%*	*20.5%*	*22.1%*	*22.4%*	*22.6%*					
Financial income	3	2	1	2	94					
Financial expenses	-5	-6	-8	-9	-14					
Earnings before tax	**91**	**94**	**126**	**166**	**280**					
Income tax expense	-18	-12	-18	-23	-31					
Effective tax rate	*19.6%*	*12.3%*	*14.4%*	*13.9%*	*11.2%*					
Earnings after tax	**73**	**83**	**108**	**143**	**249**					

Free Cash Flow (m EUR)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
EBITDA adj	109	126	173	227	261	304	395	479	565	672
Tax rate	*30%*	*30%*	*30%*	*30%*	*30%*	*30%*	*30%*	*30%*	*30%*	*30%*
NOPAT	**76**	**88**	**121**	**159**	**183**	**213**	**277**	**336**	**396**	**470**
D&A*t	-5	-8	-12	-16	-18	-21	-23	-24	-28	-39
Change in NWC (-)	-3	11	-27	-24	-56	-46	-27	-23	-34	-40
Cash from operating activities	**69**	**91**	**82**	**119**	**109**	**146**	**226**	**289**	**334**	**392**
Total Capex	-51	-51	-75	-64	-69	-88	-96	-100	-105	-123
Free Cash Flow	**18**	**40**	**7**	**55**	**39**	**59**	**130**	**188**	**229**	**269**
as % of sales	*4.7%*	*8.2%*	*1.2%*	*7.1%*	*4.5%*	*5.7%*	*9.9%*	*12.0%*	*12.7%*	*13.1%*
% cash conversion	*16.9%*	*31.4%*	*4.1%*	*24.2%*	*15.1%*	*19.3%*	*33.0%*	*39.3%*	*40.5%*	*40.0%*

Wirecard – multiple calculation

Transaction details	**m EUR**
Entry	
Entry date	24.03.2014
Share price paid (EUR)	30.09
NOSH (m) as of 01.01.2014	112.29
Equity purchase price	**3,379**
Total financial debt	233
Cash & equivalents (-)	-479
Unfunded pension obligations	0
Minority interest	0
Investment in associates (-)	-127
Other cash-like items (-)	-68
Enterprise value	**2,937**
Entry multiple (LTM)	23.3x
Exit	
Exit Date	23.09.2016
NOSH as of 1.07.2016	123.57
Share Price (EUR)	46.88
Market Cap (Sponsor's Equity)	**5,793**
Total financial debt	587
Cash & equivalents (-)	-1,173
Unfunded pension obligations	0
Minority interest	0
Investment in associates (-)	-211
Other cash-like items (-)	-206
Enterprise Value	**4,790**
Exit multiple (LTM)	18.3x

Worldline – key financial data

P&L (m EUR)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
Revenues	**1,107**	**1,118**	**1,149**	**1,227**	**1,262**	**1,309**	**1,600**	**1,695**	**1,801**	**1,899**
% growth	*n.a.*	*1.0%*	*2.8%*	*6.8%*	*2.9%*	*6.7%*	*22.3%*	*5.9%*	*6.3%*	*5.4%*
Personnel expenses	-455	-466	-475	-504	-509					
as % of sales	*41.1%*	*41.7%*	*41.3%*	*41.1%*	*40.3%*					
Operating expenses	-500	-505	-504	-548	-551					
as % of sales	*45.2%*	*45.2%*	*43.9%*	*44.7%*	*43.6%*					
Other operating items	-2	6	-20	-27	21					
as % of sales	*0.2%*	*-0.5%*	*1.7%*	*2.2%*	*-1.6%*					
EBITDA adjusted (OMDA)	**192**	**203**	**215**	**235**	**247**	**256**	**325**	**366**	**403**	**439**
% margin	*17.3%*	*18.2%*	*18.7%*	*19.2%*	*19.6%*	*19.6%*	*20.3%*	*21.6%*	*22.4%*	*23.1%*
% growth	*n.a.*	*5.8%*	*5.9%*	*9.4%*	*4.9%*	*9.0%*	*26.9%*	*12.5%*	*10.0%*	*8.9%*
Amortisation and depreciation	-42	-40	-50	-69	-66	-62	-79	-82	-89	-105
as % of sales	*3.8%*	*3.6%*	*4.3%*	*5.6%*	*5.2%*	*4.8%*	*4.9%*	*4.8%*	*5.0%*	*5.5%*
EBIT	**150**	**153**	**151**	**148**	**223**					
% margin	*13.5%*	*13.7%*	*13.1%*	*12.1%*	*17.6%*					
Net financials	-10	-13	-7	-6	-9					
Earnings before tax	**139**	**140**	**143**	**142**	**214**					
Income tax expense	-44	-36	-41	-39	-52					
Effective tax rate	*31.4%*	*25.9%*	*28.6%*	*27.3%*	*24.2%*					
Profit/loss form associates	-2	-2	-2	0	0					
Earnings after tax	**94**	**102**	**100**	**103**	**162**					

Free Cash Flow (m EUR)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
EBITDA adj	192	203	215	235	247	256	325	366	403	439
Tax rate	33%	*33%*	*33%*	*33%*	*33%*	33%	33%	33%	33%	33%
NOPAT	**128**	**135**	**143**	**157**	**165**	**171**	**217**	**244**	**269**	**292**
D&A*t	14	13	17	23	22	21	26	27	30	35
Change in NWC (-)	n.a.	16	23	12	26	28	8	5	5	4
Cash from operating activities	**n.a.**	**165**	**183**	**192**	**212**	**220**	**251**	**276**	**303**	**331**
Total Capex	n.a.	-62	-69	-67	-75	-79	-94	-95	-103	-114
Free Cash Flow	**n.a.**	**103**	**114**	**125**	**137**	**141**	**157**	**182**	**200**	**217**
% cash conversion	*n.a.*	*50.8%*	*53.0%*	*53.1%*	*55.7%*	54.8%	48.2%	49.6%	49.7%	49.5%

Worldline – multiple calculation

Transaction details	m EUR
Entry	
Entry date	24.03.2014
Share price paid (EUR)	16.4
NOSH (m) as of 01.01.2014	116.22
Equity purchase price	**1,906**
Total financial debt	642
Cash & equivalents (-)	-542
Unfunded pension obligations	61
Other cash-like items (-)	-7
Enterprise value	**2,060**
Entry multiple (LTM)	10.1x
Exit	
Exit Date	23.09.2016
NOSH as of 1.07.2016	132.41
Share Price (EUR)	27.57
Market Cap (Sponsor's Equity)	**3,650**
Total financial debt	22
Cash & equivalents (-)	-457
Unfunded pension obligations	97
Other cash-like items (-)	-24
Enterprise Value	**3,289**
Exit multiple (LTM)	13.3x

Ingenico – key financial data

P&L (m EUR)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
Revenues	**1,206**	**1,371**	**1,607**	**2,197**	**2,273**	**2,294**	**2,455**	**2,675**	**2,906**	**3,172**
% growth	*n.a.*	*13.6%*	*17.2%*	*36.7%*	*3.4%*	*4.4%*	*7.0%*	*9.0%*	*8.7%*	*9.1%*
Cost of sales	-694	-771	-877	-1,237	-1,296					
as % of sales	*57.5%*	*56.3%*	*54.6%*	*56.3%*	*57.0%*					
Gross Profit	**513**	**600**	**730**	**960**	**976**					
% margin	*42.5%*	*43.7%*	*45.4%*	*43.7%*	*43.0%*					
Distribution and marketing costs	-122	-143	-157	-203	-202					
as % of sales	*10.1%*	*10.4%*	*9.8%*	*9.2%*	*8.9%*					
R&D expenses	-93	-102	-115	-157	-174					
as % of sales	*7.7%*	*7.5%*	*7.1%*	*7.1%*	*7.7%*					
Administrative expenses	-133	-146	-166	-212	-224					
as % of sales	*11.1%*	*10.7%*	*10.4%*	*9.7%*	*9.9%*					
Other operating items	1	-21	-18	-8	-5					
EBITDA	**219**	**258**	**352**	**487**	**476**	**463**	**503**	**565**	**613**	**682**
% margin	*18.1%*	*18.8%*	*21.9%*	*22.1%*	*20.9%*	*20.2%*	*20.5%*	*21.1%*	*21.1%*	*21.5%*
% growth	*n.a.*	*18.0%*	*36.4%*	*38.2%*	*-2.2%*	*-4.9%*	*8.6%*	*12.4%*	*8.6%*	*11.2%*
Amortisation and depreciation	-54	-71	-79	-106	-105	-74	-75	-78	-70	-71
as % of sales	*4.5%*	*5.2%*	*4.9%*	*4.8%*	*4.6%*	*3.2%*	*3.1%*	*2.9%*	*2.4%*	*2.2%*
EBIT	**164**	**187**	**273**	**381**	**371**					
% margin	*13.6%*	*13.6%*	*17.0%*	*17.3%*	*16.3%*					
Net financials	-14	-18	-20	-19	-13					
Share of profit from associates	0	0	-1	-3	-3					
Earnings before tax	**150**	**169**	**252**	**360**	**355**					
Income tax expense	-50	-56	-81	-125	-117					
Effective tax rate	*33.2%*	*33.2%*	*32.0%*	*34.7%*	*32.9%*					
Earnings after tax	**100**	**113**	**172**	**235**	**238**					
Attributable to non-controlling interest	3	-1	0	4	8					

Free Cash Flow (m EUR)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
EBITDA adjusted	219	258	352	487	476	463	503	565	613	682
Tax rate	*33%*	*33%*	*33%*	*33%*	*33%*	*33%*	*33%*	*33%*	*33%*	*33%*
NOPAT	**146**	**172**	**235**	**324**	**317**	**309**	**335**	**377**	**409**	**455**
D&A*t	18	24	26	35	35	25	25	26	23	24
Change in NWC (-)	3	38	40	-14	-16	-10	-2	4	-21	-22
Cash from operating activities	**167**	**234**	**301**	**346**	**337**	**323**	**358**	**406**	**411**	**456**
Total Capex	-50	-40	-52	-62	-62	-69	-76	-81	-84	-90
Free Cash Flow	**117**	**194**	**249**	**283**	**274**	**254**	**282**	**325**	**327**	**366**
% cash conversion	*53.5%*	*75.1%*	*70.8%*	*58.2%*	*57.6%*	*55.0%*	*56.1%*	*57.6%*	*53.4%*	*53.6%*

Ingenico – multiple calculation

Transaction details	m EUR
Entry	
Entry date	24.03.2014
Share price paid (EUR)	64.78
NOSH (m) as of 01.01.2014	59.53
Equity purchase price	**3,857**
Total financial debt	653
Cash & equivalents (-)	-353
Unfunded pension obligations	11
Other cash-like items (-)	-23
Enterprise value	**4,144**
Entry multiple (LTM)	16.0x
Exit	
Exit Date	23.09.2016
NOSH as of 1.07.2016	61.22
Share Price (EUR)	78.81
Market Cap (Sponsor's Equity)	**4,825**
Total financial debt	1,088
Cash & equivalents (-)	-869
Unfunded pension obligations	19
Other cash-like items (-)	-20
Enterprise Value	**5,042**
Exit multiple (LTM)	10.6x

PaySafe – key financial data

P&L (m USD)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
Payment processing fees	138.874	193.033	274.713	375.077	433.278					
Digital wallets fees	38.824	59.793	89.572	159.135	256.033					
Prepaid fees	0	0	0	76.4	181.883					
Investment income	1.376	0.541	0.669	2.78	5.914					
Revenues	**179**	**253**	**365**	**613**	**877**	**995**	**1,105**	**1,217**	**1,377**	**1,476**
% growth	*n.a.*	*41.5%*	*44.0%*	*68.1%*	*43.0%*	*62.1%*	*11.1%*	*10.2%*	*13.1%*	*7.2%*
Payment processing	-81	-112	-162	-237	-270					
Digital wallets	-8	-10	-25	-43	-64		-1			
Prepaid	0	0	0	-37	-87					
Total cost of sales	-89	-121	-187	-317	-421					
as % of sales	*49.9%*	*47.9%*	*51.3%*	*51.7%*	*48.0%*					
Gross Profit	**90**	**132**	**178**	**296**	**456**					
% margin	*50.1%*	*52.1%*	*48.7%*	*48.3%*	*52.0%*					
Salaries and employee expenses	-36	-41	-55	-90	-124					
as % of sales	*20.2%*	*16.2%*	*15.0%*	*14.6%*	*14.1%*					
Other operating expenses excl. D&A	-36	-44	-41	-129	-147					
as % of sales	*20.3%*	*17.2%*	*11.2%*	*21.1%*	*16.7%*					
EBITDA adjusted	**28**	**52**	**86**	**153**	**186**	**295**	**334**	**373**	**425**	**468**
% margin	*15.4%*	*20.6%*	*23.6%*	*24.9%*	*21.2%*	*29.7%*	*30.2%*	*30.7%*	*30.9%*	*31.7%*
% growth	*n.a.*	*89.1%*	*64.9%*	*77.3%*	*21.7%*	*93.5%*	*13.2%*	*11.8%*	*13.8%*	*10.1%*
Amortisation and depreciation	-12	-14	-21	-51	-77	-57	-48	-50	-54	-68
as % of sales	*6.6%*	*5.3%*	*5.8%*	*8.4%*	*8.8%*	*5.7%*	*4.3%*	*4.1%*	*3.9%*	*4.6%*
EBIT	**16**	**39**	**65**	**101**	**109**					
% margin	*8.8%*	*15.3%*	*17.8%*	*16.5%*	*12.4%*					
Net financials	-2	-1	-2	-14	-27					
Earnings before tax	**14**	**38**	**63**	**87**	**82**					
Income tax expense	-2	-1	-1	-4	-12					
Effective tax rate	*17.5%*	*3.3%*	*2.1%*	*5.1%*	*15.0%*					
Earnings after tax	**12**	**36**	**62**	**82**	**70**					

Free Cash Flow (m EUR)	FY 2012	FY 2013	FY2014	FY2015	LTM H1 2016	2016E	2017E	2018E	2019E	2020E
EBITDA adj	28	52	86	153	186	295	334	373	425	468
Tax rate	23%	*23%*	*21%*	*20%*	*20%*	20%	20%	20%	20%	20%
NOPAT	**21**	**40**	**68**	**122**	**149**	**236**	**267**	**299**	**340**	**374**
D&A*t	3	3	4	10	15	11	10	10	11	14
Change in NWC (-)	13	40	1	-6	-22	-12	-7	-8	-15	-8
Cash from operating activities	**36**	**84**	**73**	**126**	**142**	**236**	**270**	**301**	**336**	**380**
Total Capex	-6	-14	-11	-24	-44	-55	-58	-63	-66	-68
Free Cash Flow	**30**	**70**	**62**	**103**	**97**	**181**	**212**	**238**	**270**	**312**
% cash conversion	*108.8%*	*134.0%*	*72.1%*	*67.2%*	*52.4%*	61.3%	63.6%	63.6%	63.5%	66.7%

PaySafe – multiple calculation

Transaction details	m USD
Entry	
Entry date	24.03.2014
Share price paid (GBP)	3.82
NOSH (m) as of 01.01.2014	154.96
Equity purchase price (GBP)	**592**
Equity purchase price (USD)	**879**
Total financial debt	10
Cash & equivalents (-)	-11
Unfunded pension obligations	0
Associates (-)	-38
Other cash-like items (-)	0
Enterprise value	**840**
Entry multiple (LTM)	16.1x
Exit	
Exit Date	23.09.2016
NOSH as of 1.07.2016	504.60
Share Price (EUR)	3.92
Market Cap (Sponsor's Equity) (GDP)	**1,978**
Market Cap (Sponsor's Equity) (USD)	**2,565**
Total financial debt	524
Cash & equivalents (-)	-160
Unfunded pension obligations	0
Associates (-)	0
Other cash-like items (-)	-51
Enterprise Value	**2,879**
Exit multiple (LTM)	15.5x