BRYAN, GARNIER & CO

Software: debunking the myth of a valuation discount of Europe vs. the US

OPINION PIECE

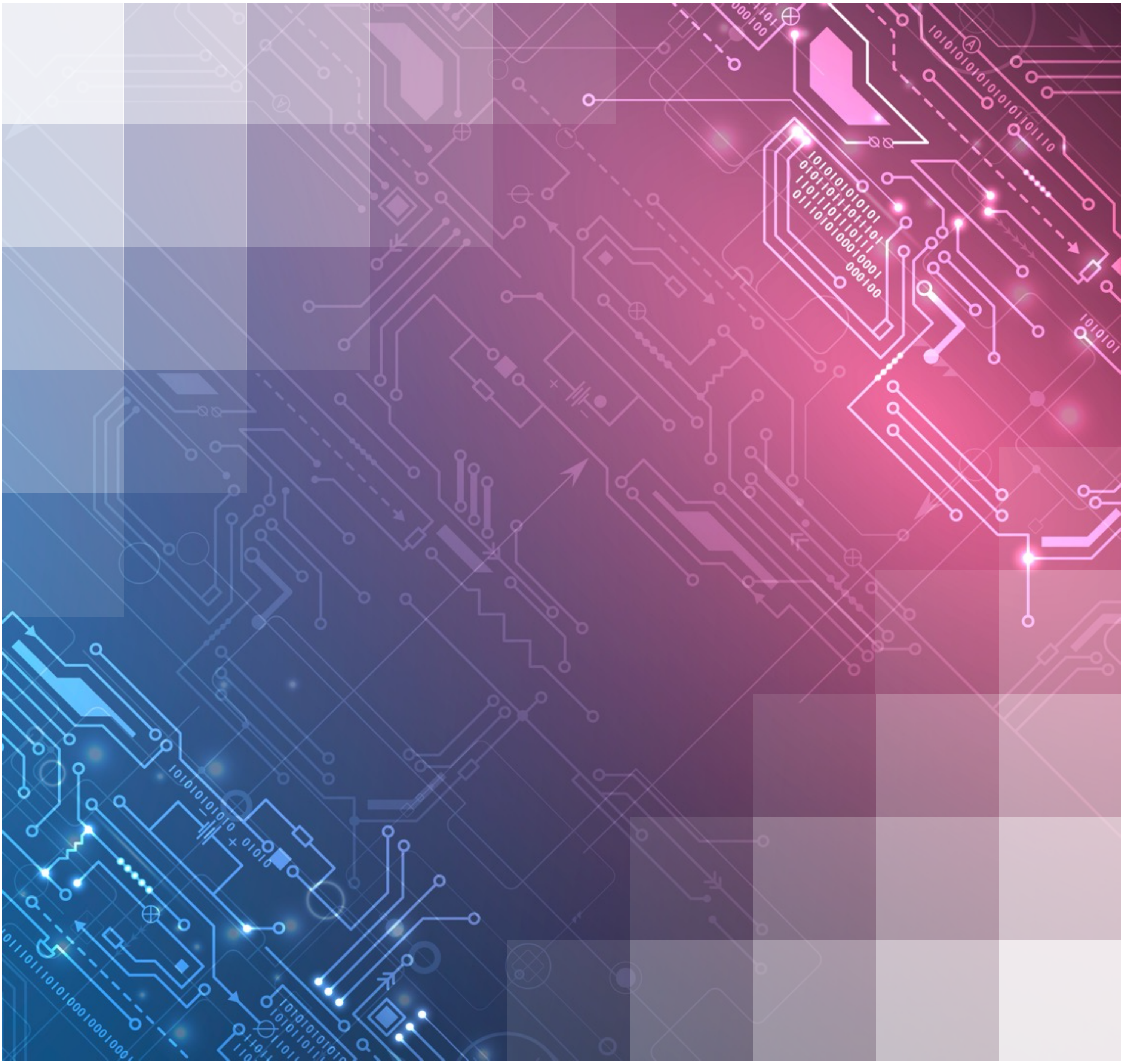

Table of contents

Executive summary

There is a common belief software vendors benefit from richer valuation multiples when they are listed in the US than when they are listed on a European stock exchange. This belief is fuelled by the stellar valuation multiples of many software-as-a-service (SaaS) players listed in the US, and the constant flow of software IPOs which has taken place on the Nasdaq (and the NYSE) over the last few years. The fact more than two-thirds of software companies listed in the US are SaaS players, while two-thirds of software firms listed in Europe still have a classic or a “hybrid” business model, adds up to the prejudice.

A European software vendor has the choice for an IPO between the Nasdaq or the NYSE if its business is global, and a local stock market in Europe if the business is primarily local or European. This is why global players such as Dassault Systèmes and Business Objects chose an IPO on Nasdaq in the nineties, followed by Talend, Elastic and Materialise a few years ago. However, in practice, as access to US markets remains difficult. So many European software vendors who would prefer a US listing drop their IPO project and prefer to stay private due to the belief that European stock markets cannot value software vendors properly.

Our study undertaken on 95 software vendors listed in Europe and 97 software vendors listed in the US undermines the idea that European stock markets undervalue software companies. Our finding is that there is no structural discount. Over the last 15 years, 12-month forward EV/sales multiples weighted by expected three-year average sales growth for software vendors listed in Europe have an average 9% premium over those of their US peers. When applied for the last four years to the 29 SaaS vendors listed in Europe and the 67 SaaS vendors listed in the US, this study leads to similar results, with an average 8% premium for Europe over the US.

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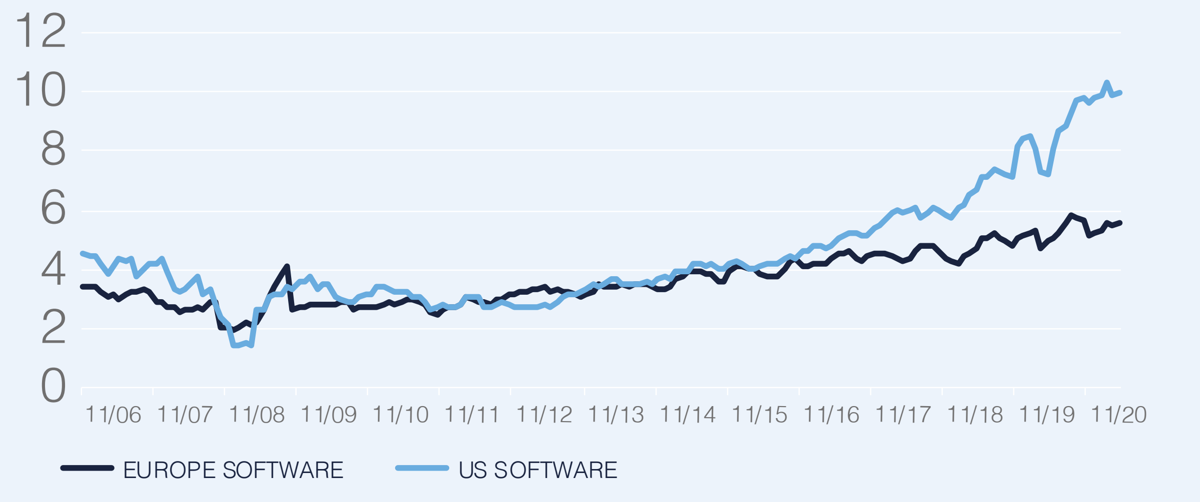
At first sight, software valuation multiples are way higher in the US than in Europe

AN AVERAGE EV/SALES DISCOUNT OF 12% FOR EUROPE OVER THE LAST 15 YEARS

At first sight, valuation multiples of European software vendors are significantly lower than those of their US peers. As shown on Fig. 1, the 12-month forward weighted average EV/sales multiple of European software vendors has been below that of US software vendors during the last 15 years. Such an apparent "valuation gap" has widened since 2016, and has reached 40-45% since September 2020**. As of April 2021, the average 12-month forward weighted average EV/sales multiple was 5.6x for software vendors listed in Europe, while it was 9.9x for those listed in the US**. These results have been obtained by comparing a sample of 95 software vendors listed in Europe[1] with 97 software vendors listed in the US (NYSE and Nasdaq). According to our calculations, **the average EV/sales gap between Europe and the US has been 12% over the last 15 years, with 3.7x for Europe and 4.5x for the US**. This gap has started to widen in 2016-2017 and exceeded 20% in 2018, 30% in 2019 and 40% in 2020.

It is worth noting that we have chosen to use the EV/sales multiple, as this ratio is always available. We could have chosen to use EV/EBITDA or EV/EBIT multiples, but the issue here is that many software companies are not profitable at all or have not been profitable at all for certain periods of time. EV/sales therefore gives us the maximum possible amount of data. In addition, with EV/EBITDA and EV/EBIT, in many other cases, the low profitability of many software companies is an issue. Those with a SaaS or a subscription model in particular have just started to be profitable, which leads to triple-digit multiples (often above 200x) which are not meaningful.

Fig. 1 : 12m forward EV/sales weighted average multiple:
Europe software vs. US software (2006-2021)



Source: Refinitiv; Bryan, Garnier & Co ests.

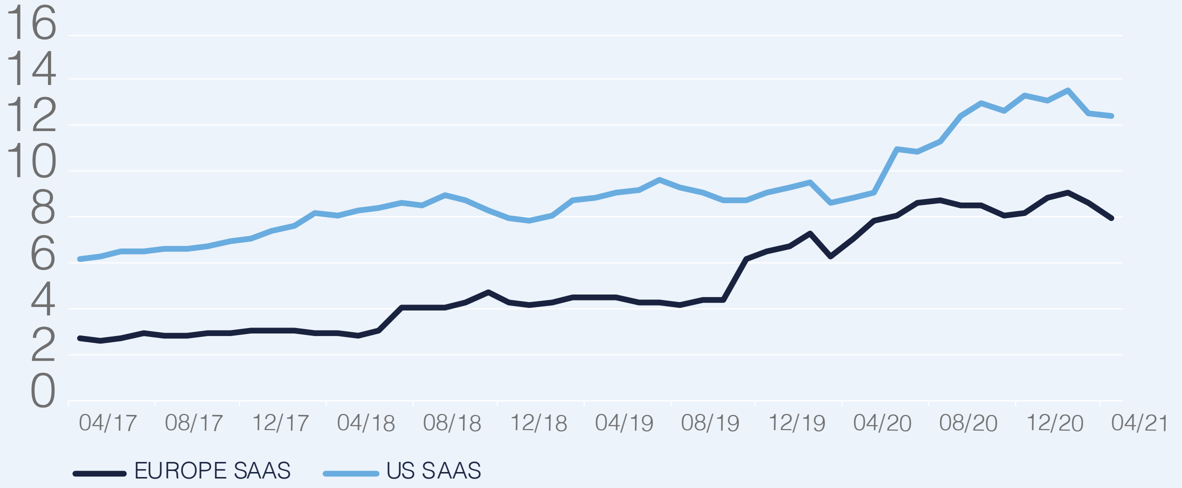
1 Out of these 95 software vendors listed in Europe, 25 were in the UK, 20 in Germany, 20 in France, 8 in Sweden, 7 in Norway, 7 in Finland, 2 in Italy, 2 in Switzerland, 2 in Denmark, 1 in Poland, and 1 in Greece.

FOR SAAS, THE AVERAGE DISCOUNT IS 45% FOR EUROPE OVER THE LAST 4 YEARS

The main reason for this widened gap is the multiplication of SaaS IPOs in the US, which have accelerated over the last four to five years. At the time of Salesforces's 2004 IPO, the SaaS model was the exception. Today, the vast majority of software vendors going public now have a SaaS or a subscription business model. What makes the difference is that SaaS vendors generate stronger revenue growth compared to traditional licence-based software vendors and their share of recurring revenues is way more significant (80-90% on average instead of 50-70%). This brings more visibility into future revenues and margins and as a consequence, offers more room for profitability improvement. Since early 2019, we have identified 28 SaaS IPOs in the US (out of 36 software IPOs), vs. 9 in Europe (out of 14 software IPOs). Today, we estimate 70% of software vendors listed in the US to be SaaS vendors, while the proportion is "only" 30% in Europe. That said, as now two-thirds of European software IPOs are now SaaS, we believe the gap will be gradually reduced.

As of April 2021, the average 12-month forward weighted average EV/sales multiple was 8.0x for SaaS vendors listed in Europe, while it was 12.4x for those listed in the US. Over the last 4 years, the average for these multiples was 5.2x for Europe and 9.1x for the US. Interestingly, as shown on Fig. 2, the valuation gap between SaaS vendors listed in Europe and those listed in the US, although being wide, has tightened over the years: it is now at 36%, while the 4-year average is 45%. Over 2017-2018 it reached 55-65%, then fell to 40-50% over 2018-2019, then oscillated to 20-40% in 2020. These results have been obtained by comparing a sample of 29 SaaS vendors listed in Europe[2] with 67 SaaS vendors listed in the US.

Fig. 2: 12-month forward EV/sales weighted average multiple:
Europe SaaS vs. US SaaS (2017-2021)



Source: Refinitiv; Bryan, Garnier & Co ests.

[2] Out of these 29 SaaS vendors listed in Europe, 9 were in the UK, 5 in Sweden, 5 in Finland, 4 in France, 2 in Germany, 2 in Norway, 1 in Denmark, and 1 in Poland.

Weighted by expected growth, multiples in Europe are even slightly above those in the US

We have pushed the analysis further to check if these valuation gaps still exist when they are weighted by expected sales growth for a certain period of time. We reused the same samples of software and SaaS vendors listed in Europe and in the US, and instead of simply measuring the evolution of the 12-month forward EV/sales multiple, we have divided it by the expected 3-year CAGR of trailing 12-month (TTM) sales consensus for the period spreading from Year N-1 to Year N+2, then divided the result by 100. As an illustrative example, if as of April 2021 Salesforce's shares are trading at a 12-month forward EV/sales multiple of 10x and its trailing 12-month expected sales CAGR over 2020-2023 is 20%, the ratio obtained is 10 / 20% /100 = 0.50.

THE WAVE OF SAAS IPOS HAS RESTORED EXPECTED SALES GROWTH TO DOUBLE DIGITS FOR US SOFTWARE VENDORS, WHILE EUROPE IS LAGGING

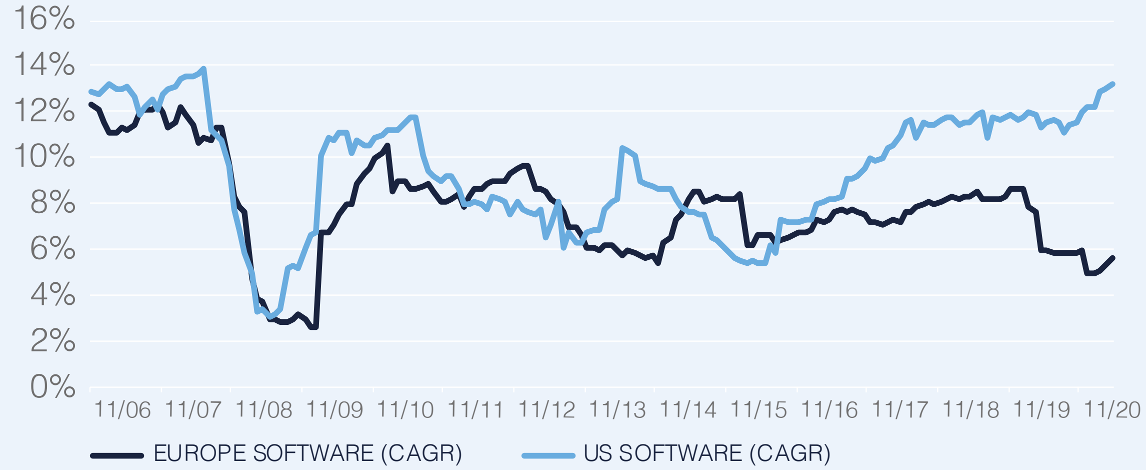
As shown on Fig. 3, the expected 3-year CAGR of trailing 12-month sales consensus for software vendors has significantly fluctuated over the last 15 years, both in Europe and in the US.

- Expected sales growth reached double-digit (11-14%) until the start of financial crisis in October 2008, then plummeted to 3% in mid-2009. It accelerated again for vendors listed in the US (from late 2009) to low double-digit, while those listed in Europe took more time to recover - this happened throughout 2010. The sovereign debt crisis, which was primarily a European issue (Portugal, Italy, Ireland, Greece and Spain were the most-impacted countries), led to lower growth expectations to mid-to-high single-digit (5-10%) over 2011-2013, then fluctuations in the same range in the US until late 2017 and in Europe until now.

- From late 2017, a clear divergence in expected sales growth took place between the US and Europe - with the US getting back to low double-digit growth (10-13%) while Europe stayed at a mid-to-high single-digit rate, for two reasons: 1) a significantly positive effect from the SaaS IPO wave in the US, including players high double-digit and even triple-digit growth (e.g. Snowflake); 2) many licence-based European software vendors (SAP, Sage, Software AG) have seen their growth expectations reduced (at least temporarily) due to their transition to a SaaS or subscription-based business model.

- **In 2020, the Covid-19 crisis has had a negative impact on growth expectations for software vendors listed in Europe due to their still strong reliance on perpetual licence sales**, which fell significantly in 2020. **This phenomenon did not really happen in the US**, due to the strong resilience of the SaaS model, which has seen only a slowdown in growth. The US market was also buoyed by the sustained pace of large SaaS IPOs (Snowflake, C3.ai, Palantir…) and the need for digital and cloud solutions - primarily developed by US software vendors – to deal with the issues caused by the enforcement of lockdowns and travel restrictions. Working from home or remotely, for example, means buying digital security, communication and workflow solutions, as well cloud data management and integration software.

Fig. 3: 3-year CAGR TTM sales consensus estimates for (Year N-1 - Year N+2):
Europe software vs. US software (2006-2021)

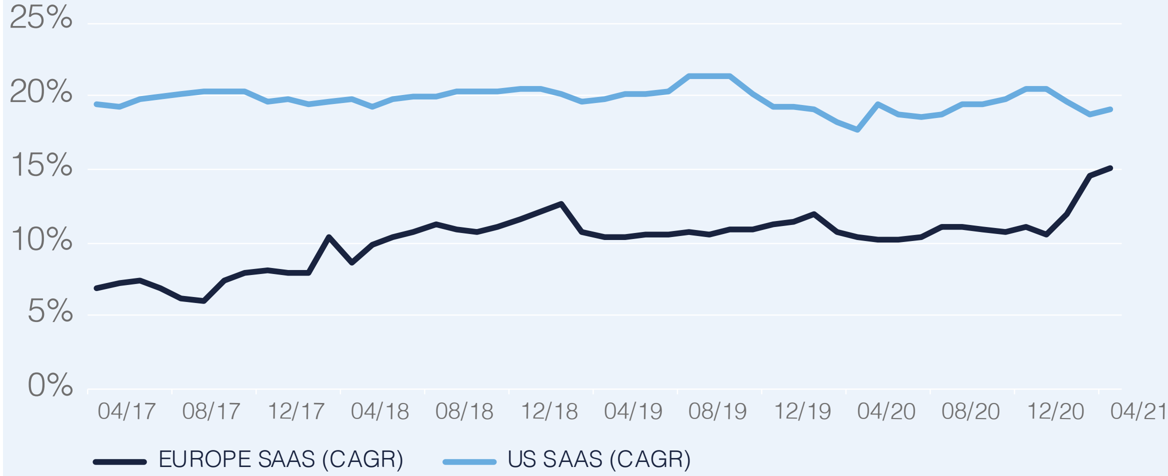


Source: Refinitiv; Bryan, Garnier & Co ests.

EXPECTED SALES GROWTH FOR LISTED EUROPEAN SAAS VENDORS IN CATCHING UP COMPARED TO THEIR US PEERS

Fig. 4 shows the evolution of expected sales growth for SaaS vendors listed in Europe and in the US, only over the last four years given the lack of SaaS vendors listed in Europe before 2017. In the US, growth has remained quite stable between 18% and 20%, with the slowdown for some players offset by new SaaS IPOs producing higher growth. Growth for European players was still low in 2017 (c. 8%) as many software players that are now seen as SaaS vendors were on-premise software vendors that had not had achieved their transition to a SaaS or a subscription model yet. **With the ramp-up of SaaS IPOs in 2018-2019 and their acceleration in 2020-2021, Europe has been catching up, with expected growth of 15% as of April 2021.**

Fig. 4: 3-year CAGR TTM sales consensus estimates for (Year N-1 - Year N+2):
Europe SaaS vs. US SaaS (2006-2021)



Source: Refinitiv; Bryan, Garnier & Co ests.

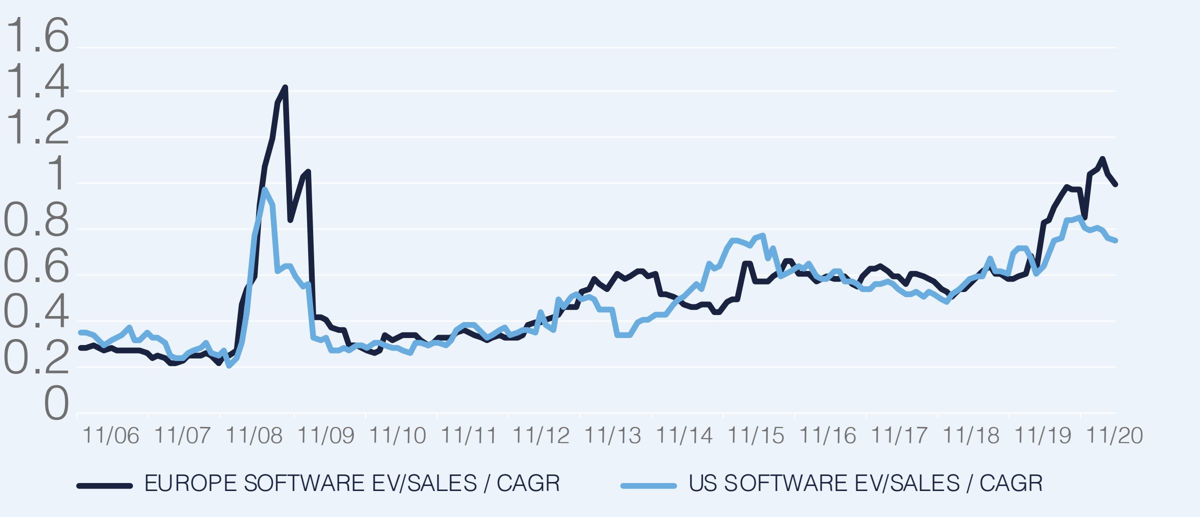
WEIGHTED BY EXPECTED GROWTH, THE VALUATION OF EUROPEAN SOFTWARE VENDORS IS 8-9% ABOVE THAT OF US PEERS ON AVERAGE

Taking into account these considerations, the calculation of the 12-month forward EV/sales multiple weighted average multiple divided by the three-year trailing 12-month sales consensus average over 2006-2021 for software vendors (SaaS or non-SaaS) and over 2017-2021 for SaaS players, has led to the conclusion that **over time the average obtained ratio, for both categories, is not only similar between companies listed in Europe and those listed in the US, but it is even slightly higher**. Obviously, this ratio fluctuates, with Europe being more expensive than the US over certain periods of time, and vice versa.

Our findings are the following:

- As shown on Fig. 5, **for software vendors (SaaS and non-SaaS), the average ratio over 2006-2021 is 0.69 for those listed in Europe and 0.63 for those listed in the US. This equates to an average premium of 9% for Europe over the US**. Since early 2020, the premium fluctuated between -16% (January 2020) and 37% (March 2021), which means the gap is very volatile, even from one month to another. However, there have been many periods when the premium or the discount was below 10%. This happened in February and March 2020 (1-2% premium, admittedly in a panic stock market context due to the Covid outbreak), from November 2018 to October 2019 (between a 4% discount and a 9% premium), from February to May 2018 (5-9% premium), from August 2016 to September 2017 (between a 7% discount and an 8% premium), in November and December 2013 (6% premium), and so on. These frequent periods of low premium or discount were unrelated to particular stock market conditions or economic conditions.

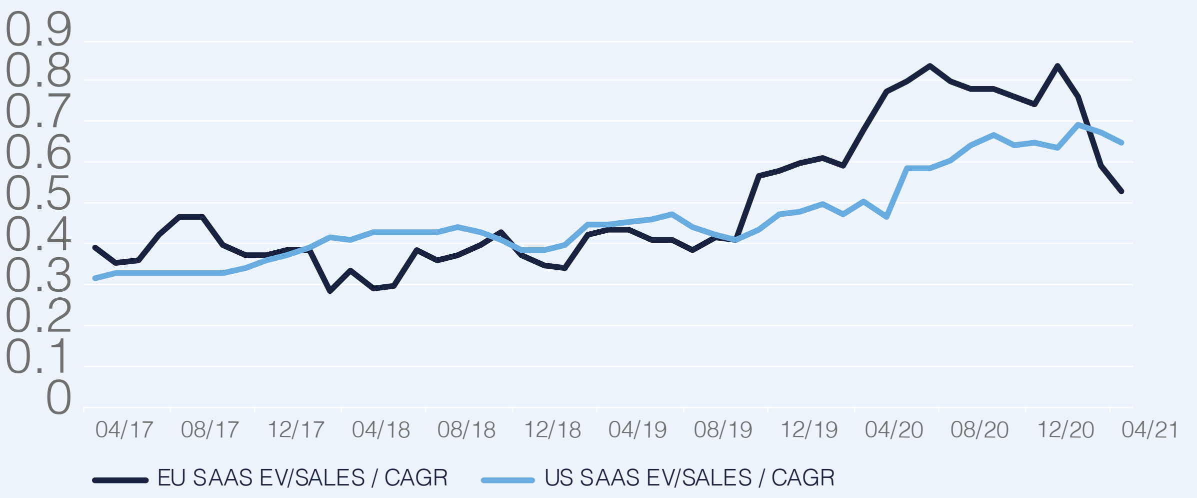
Fig. 5: 12-month forward EV/sales weighted average multiple / 3-year CAGR TTM sales consensus estimates for (Year N-1 - Year N+2):
Europe software vs. US software (2006-2021)



Source: Refinitiv; Bryan, Garnier & Co ests.

- As shown on Fig. 6, for SaaS vendors, **the average ratio over 2017-2021 is 0.50 for those listed in Europe and 0.46 for those listed in the US. This corresponds to an average premium of 8% for Europe over the US.** Since early 2020, the premium fluctuated between -19% (April 2021) and 65% (May 2020), which means the gap has been even more volatile than for software vendors. The double-digit premium (between 10% and 65%) which prevailed between November 2019 and February 2021 has turned into a double-digit discount since March 2021 (12% in March and 19% in April), essentially due, in our view, to the stock market correction which occurred between mid-February and the end of March primarily in the US for technology companies. There have been four periods of time when the premium or the discount was below 10%. This happened in September and October 2019 (0-2% premium), from March to May 2019 (3-5% discount), from October to December 2018 (between a 7% discount and a 4% premium), and from December 2017 to February 2018 (between a 1% discount and a 7% premium). Here again, these periods of low premium or discount were unrelated to particular stock market conditions or economic conditions.

Fig. 6: 12-month forward EV/sales weighted average multiple / 3-year CAGR TTM sales consensus estimates for (Year N-1 - Year N+2):
Europe SaaS vs. US SaaS (2006-2021)



Source: Refinitiv; Bryan, Garnier & Co ests.

Based on these elements, we clearly see that unlike the popular misconception of an unfavourable structural "valuation gap" between the Europe and the US, **the valuation multiples of software and SaaS vendors listed in Europe, once weighted by expected growth, are slightly above those of their peers listed in the US over the long term**. In other words: **there is no discount.**

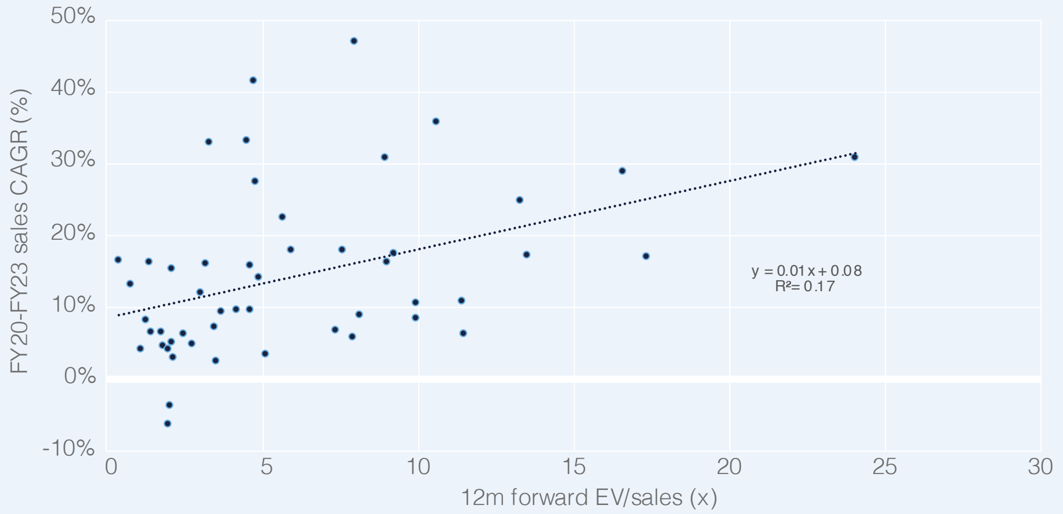
Track record and governance still differing between Europe and the US

STRONGER VALUATION DISPERSION IN EUROPE THAN IN THE US

Now we have established the absence of discount over the long term, we have looked at the dispersion of data between all the components of our samples of software and SaaS companies between Europe and the US, in order to identify a specific pattern which could explain this absence of average discount. Such a specific pattern would be measured by the coefficient of determination (R^2) of the linear regression of our samples in a scatter plot.

As seen on Fig. 7, as of April 2021 the exercise is not conclusive for software vendors listed in Europe, as we observe a weak correlation between the 12-month forward EV/sales multiple and the 3-year CAGR TTM sales consensus estimates for (Year N-1 – Year N+2) for Europe (R^2 = 0.17). In several cases, EV/sales multiples are low while expected sales growth is strong, and *vice versa*. However, as seen on Fig. 8, correlation is much stronger for those listed in the US (R^2 = 0.60). The finding of this exercise is that **valuation is more dispersed for software vendors listed in Europe than for their US peers.**

Fig. 7: Correlation between 12m forward EV/sales and 2020-2023 sales CAGR:
software companies listed in Europe



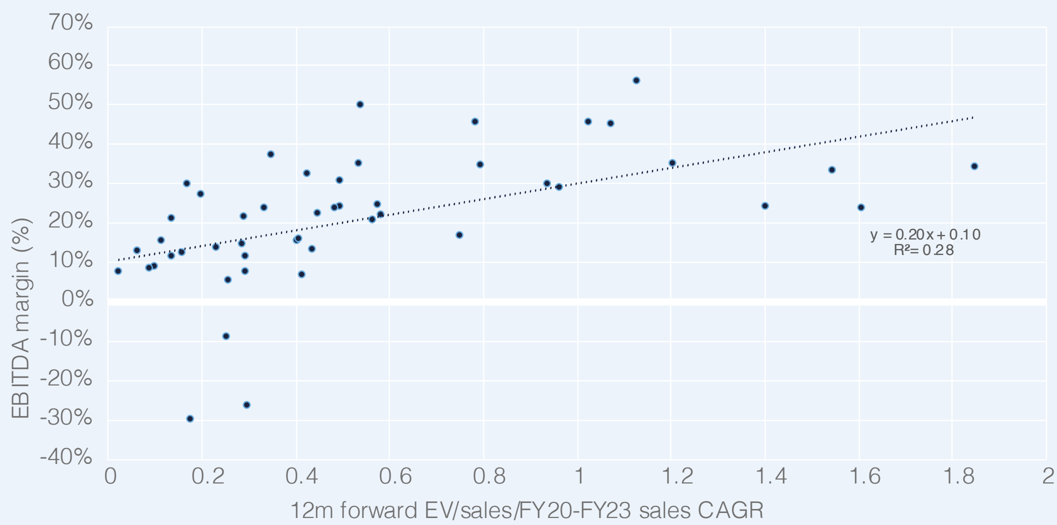
Source: Refinitiv; Bryan, Garnier & Co ests.

Fig. 8: Correlation between 12m forward EV/sales and 2020-2023 sales CAGR:
software companies listed in the US

Source: Refinitiv; Bryan, Garnier & Co ests.

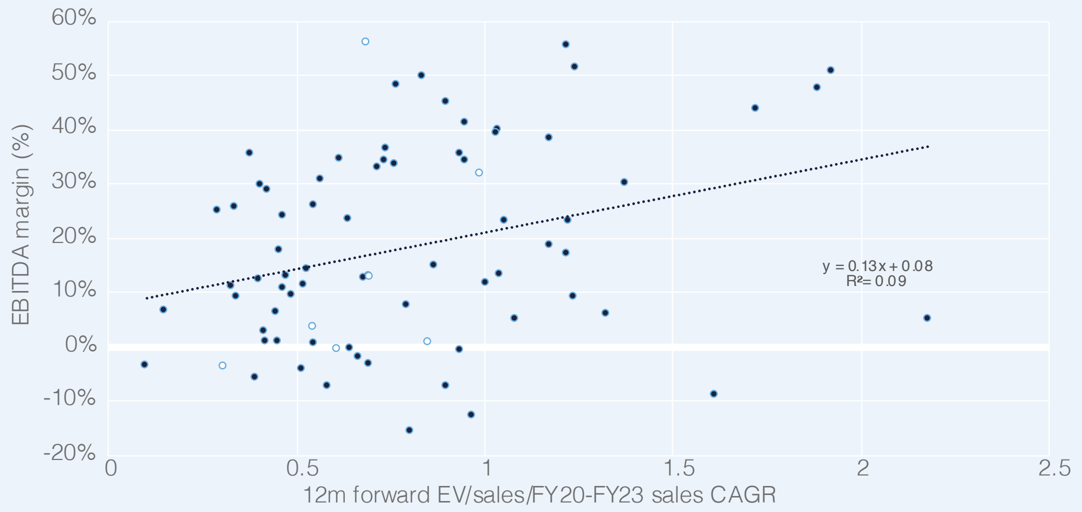
As shown on Figs. 9 and 10, **this stronger valuation dispersion is Europe is even not related to a significant number of loss-making companies**, since an overwhelming portion of our sample is made of profitable software vendors (94% of them, while only 6% are loss-making on an EBITDA standpoint), and the correlation between the 12-month forward EV/sales multiple and the next 12-month EBITDA margin is weak (R^2 = 0.28). In addition, for software firms listed in the US, this correlation is even weaker (R^2 = 0.09) despite stronger EBITDA margin dispersion (85% are profitable and 15% are loss-making).

Fig. 9: Correlation between 12m forward EV/sales and EBITDA margin:
software companies listed in Europe



Source: Refinitiv; Bryan, Garnier & Co ests.

Fig. 10: Correlation between 12m forward EV/sales and EBITDA margin: software companies listed in the US



Source: Refinitiv; Bryan, Garnier & Co ests.

Finally, **we cannot even explain the dispersion of valuation multiples by liquidity.**

- **In Europe, the most highly valued software stocks are not systematically the most liquid ones nor those listed on the most liquid markets** (London Stock Exchange Main Market, Prime Standard Frankfurt, Euronext…). For instance, as of April 2021, Fortnox (EV/sales of 24x) is listed on the Nordic Growth Market, Admicom (EV/sales of 17x) is listed on First North Growth Market Finland, and Qt Group (EV/sales of 17x) is listed on Nasdaq Helsinki: these are all small and midcap companies, and some of them primarily address local markets (e.g. Nordic countries, France, DACH), most of the time due to the country-specific features of their products. For example, accounting and HR are dependent to national laws and some countries have strict regulations on public cloud providers. The only large software vendors trading at an EV/sales of at least 10x in Europe are Dassault Systèmes (Euronext Paris), Temenos (Swiss Stock Exchange), Aveva (LSE Main Market), TeamViewer (Prime Standard Frankfurt), and Nemetschek (Prime Standard Frankfurt), and only TeamViewer is a pure SaaS vendor . Other software vendors with market cap above EUR5bn – SAP, Sage and Avast, all of which existed before SaaS – are trading below 10x.

- **In the US, the average market cap for software companies is way bigger than in Europe, and valuation multiples look to be more in line with market cap.** Software vendors listed in the US have an average market cap way above that of their peers listed in Europe. There are around 100 vendors listed in the US with a market cap above USD1bn, with Microsoft accounting for approximately 40% of the aggregated market cap, vs. just above 20 in Europe with SAP and Dassault Systèmes altogether accounting for approximately 70% of the aggregated market cap. With a few exceptions (very large vendors Salesforce, Oracle, IBM and VMware are trading below 10x), EV/sales multiples tend to be lower as market cap gets lower in the US. We can therefore assume valuation multiples are more aligned with stock liquidity in the US than in Europe, where heterogeneity prevails.

SOLID TRACK RECORD AND GOVERNANCE MATTER FOR VALUATION

In our view, stronger valuation dispersion in Europe than in the US stems from management-related factors. We identified four of them: business model, financial track record, pre-IPO development, and governance. Before examining them, it is worth mentioning that the average tenure as a public software company is around 10 years in the US (with only 20% of vendors listed before 2001), while it is around 15 years in Europe (with 25% of vendors listed before 2001). This results from the faster renewal of the public software company universe in the US than in Europe, with more M&A activity and IPOs, and all of this relates to the four factors mentioned above.

- Business model. As we have seen before, around 70% of software vendors listed in the US have a SaaS model, while only 30% of software vendors listed in Europe have a SaaS or a subscription model. Europe is looking to catch up with the US, but the predominance of the perpetual licensing model for most of the players listed today is a handicap for acceleration. In addition, in Europe some software vendors have a “non-standard” business model, which includes a significant percentage of revenues generated through professional services, service bureaux (the ancestor of SaaS), and even hardware sales. This may be related to company history, the absence of adequate systems integrators or resellers, or specific customer demand. In the US, with a few exceptions, business models are more or less homogeneous.

- Financial track record. A SaaS vendor able to generate 30-40% growth has serious chances to get richer valuation multiples than another SaaS vendor able to deliver 10-15% growth. It may be loss-making, but one condition to deserve such high multiples is that there are credible prospects of significantly reducing these losses until the company becomes profitable and significantly improves its margins thereafter. We currently have “extreme” cases like these in the US (Snowflake, Crowdstrike and Bill.com), which are trading, as of April 2021, at EV/sales multiples above 50x for 2021. Conversely, EV/sales multiples have more chances to be lower, and even way lower, if profitability never comes or stagnates to low levels.

- Pre-IPO development. Software and SaaS vendors listed in the US have often followed a long maturation process for financing before going public: seed capital, venture capital, then private equity with one to six financing rounds. This lengthy and structured pre-IPO process has the advantage of “preselecting” which software vendor is mature enough for an IPO and which vendor is not. If some European software vendors have followed the same process, many others in Europe have gone public without it - in some cases because it failed to be funded before. As a result, without benefiting from the investor skills and experience from funds – as well as funding – the management teams of these vendors often have to learn by themselves, which leads to results missing expectations, bumpy stock market performance, and low valuation multiples.

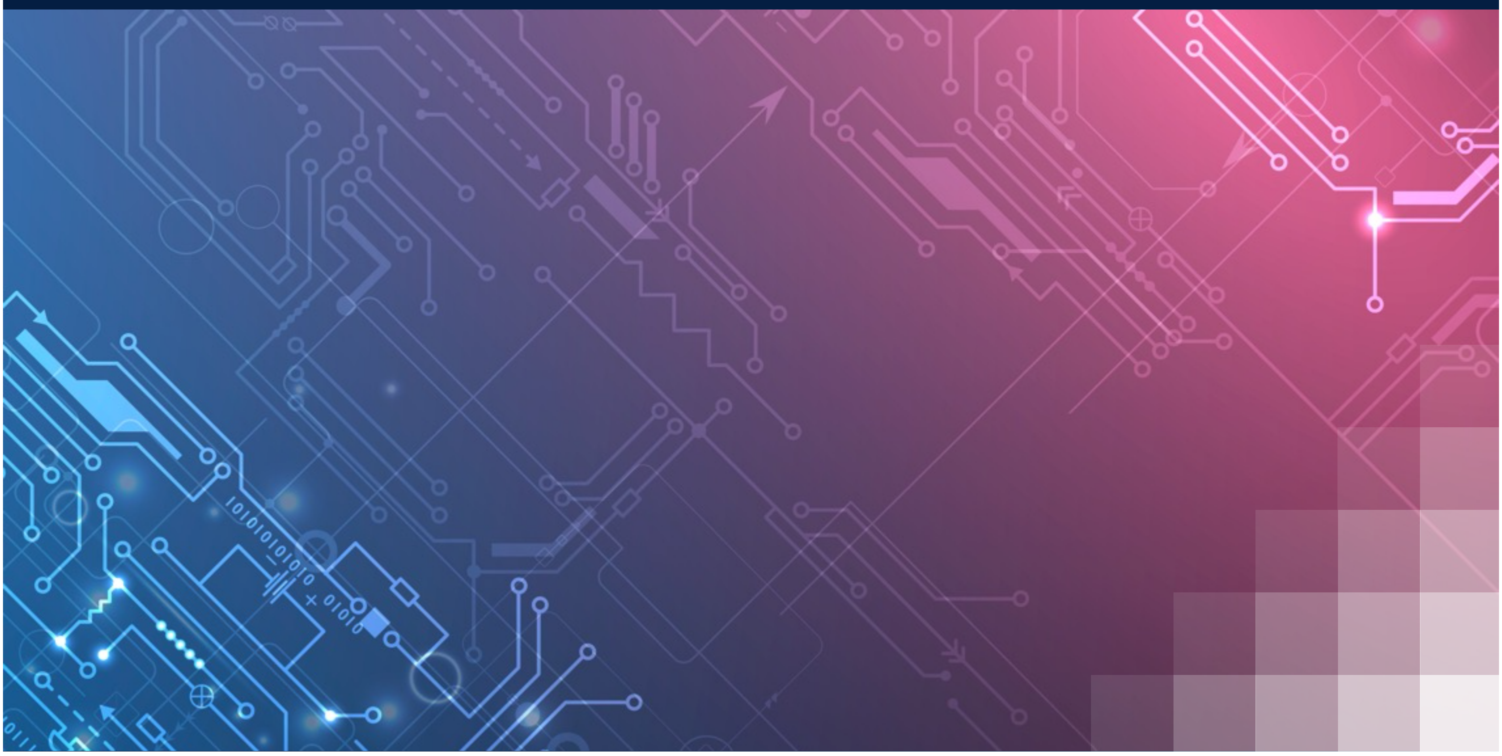
- Governance. Some software vendors owe their success story and market leadership to visionary entrepreneurs (e.g. Marc Benioff for Salesforce, Larry Ellison for Oracle, Hasso Plattner and Dietmar Hopp for SAP, Bill Gates and Paul Allen for Microsoft) or outstanding non-founding managers (e.g. Bernard Charlès for Dassault Systèmes). However, many other success stories owe to the arrival of a new CEO and successions of CEOs: Shantanu Narayen for Adobe, Satya Nadella for Microsoft, Carl Bass then Andrew Anagnost for Autodesk, Bill McDermott then Christian Klein for SAP, Andreas Andreades then David Arnott then Max Chuard for Temenos. We know from the history of IT that there are only a few very successful public software companies with founders are still at the helm. In the US, many of them stepped down from their CEO or COO position a few years after the IPO, and even some have passed the baton to more seasoned executives beforehand. In Europe, where family heritage and stability are strong values, founders often stay as majority shareholders, and are very reluctant to step down even in the event of a structurally poor stock market performance.

Conclusion

This study has revealed that once we weight it by expected growth, the valuation of European Software and SaaS vendors is slightly above that of US players on average – and clearly not below. These findings debunk the popular misconception that European software vendors are trading at a structural discount – and even a huge structural discount – compared to their US peers.

In addition, valuation is more dispersed for software vendors listed in Europe than for their US peers. This stronger dispersion cannot be explained by a significant number of loss-making companies among European software vendors nor by liquidity. Instead, we believe that the heterogeneity of the European software sample is related to management factors such as the business model, the financial track record, pre-IPO development, and governance. We note in particular the long maturation process for financing before going public in the US, which has the advantage of “preselecting” which software vendor is mature enough for an IPO.

This absence of valuation discount in Europe compared to the US hints that for a European software or SaaS company, an IPO in a US stock market is not such a good idea. It would not bring greater EV/sales multiples without strongly growing SaaS revenues, excellent financial track record, a mature pre-IPO development, and solid governance. Instead, it looks more sensible for a European player to go public in Europe. If these management factors are respected, there are opportunities for high valuation multiple even for software stocks with relatively limited liquidity.



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