

Adyen

Next Generation Payments Company - Initiate at Buy

6 April 2020

Key Takeaway

We view Adyen as the benchmark for Payment Service Providers (PSPs) in Europe benefiting from class leading unit economics (€1 in S&M spend for every €1.5 in new net revenue with <1% churn) and ROCE of >25% well ahead of peers with a median of approx. 15%. Adyen's track-record of serving native e-commerce players, TAM expansion, focus on organic growth, and clean tech stack creates viable moats to sustain returns. Our 2021/22 EBITDA is 1/4% ahead of the Street.

Unique Combination of High Growth Rates *and* High Margins. Adyen has been growing net revenue at over 40% annually, we forecast it to sustain both a 35% CAGR through 2023 and operating margins above 50%, with the potential for further margin expansion beyond the company's stated targets, placing the company in rarified air. The well-publicized win of eBay (\$86b GMV) should yield substantial volume and revenue increases starting in 2H20 and persist into 2021.

Serving a "Who's Who" of Technology Brands. Adyen's existing client list is impressive, with the company serving many of the leading technology brands around the world (e.g. Airbnb, Netflix, Uber, etc), which is a testament to the strength of the company's technology solution. Adyen has been and remains highly levered to the secular growth trend of services moving online.

Class-leading Customer Acquisition Economics. We estimate for every €1 that Adyen spends in S&M, it is gaining €1.5 in new net revenue, with a <1% revenue churn. This yields class-leading unit economics, and explains the company's ability to sustain high-growth, high-margins, and also a class-leading ROCE compared to peers. A focus on large enterprises has helped yield these results thanks to lower churn characteristics.

In-Store Expansion a Positive, with Defensive Characteristics. Expansion into in-store offerings broadens the addressable market substantially from \$21b to \$95b. We view the move as also defensive in nature, as in-store offerings are harder to displace than online solutions and Adyen has combined the two into an integrated omnichannel offering. We struggle to understand the simultaneous mid-market expansion as it is at odds with the company's enterprise focus and the mid-market is less likely to fully employ omnichannel solutions.

COVID-19. We estimate that changes in spending are likely to affect the company's TPV and thus net revenue, with TPV having a high drop-through rate to profit: a €1B reduction in TPV implies a €1.6m net revenue reduction and a €1.5m operating income reduction. Web traffic data from some of Adyen's hospitality clients indicate yoy traffic reductions ranging from 67% to 77% as of late-March; we estimate a potential €10m impact to revenue in 1H20 from airlines and hospitality.

Valuation. Our €882 PT is based on our DCF analysis and implies 55x EV/2021 FCF. Shares are trading at a 45x multiple vs a peer group average of 20x. We believe Adyen's long-term opportunity for growth and further margin expansion should support a premium multiple. Risks to our PT include: 1. revenue growth decelerates or margins decline, 2. mid-market effort does not gain traction, 3. ecommerce partners act as gatekeepers, 4. premium valuation.

Initiating Coverage

Netherlands | Payments, Processors & IT Services

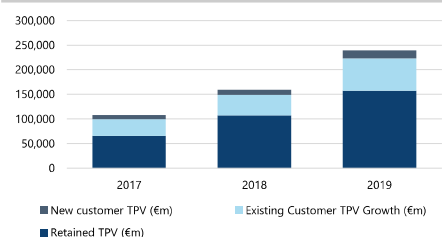
RATING	BUY
PRICE	€740.20 [^]
MARKET CAP	€22.5B / \$24.4B
PRICE TARGET (PT)	€882.00
UPSIDE SCENARIO PT	€1,771.00
DOWNSIDE SCENARIO PT	€396.00

[^]Prior trading day's closing price unless otherwise noted.

FY Dec

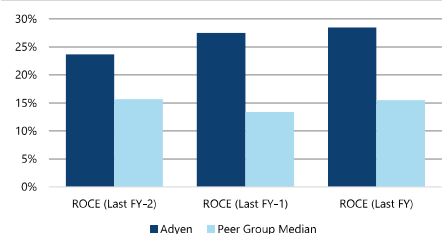
EUR	2019A	2020E	2021E	2022E
EPS	6.68	9.60	13.99	19.28
FY P/E	NM	77.1x	52.9x	38.4x

Chart 1 - Adyen TPV Composition & Growth



Source: Jefferies, company data

Chart 2 - Adyen Return on Capital Employed (ROCE) vs Peers



Source: Jefferies, company data

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Please see analyst certifications, important disclosure information, and information regarding the status of non-US analysts on pages 39 to 44 of this report.

* Jefferies International Limited

ADYEN (ADYEN NA)

Estimates				
€	2019A	2020E	2021E	2022E
Rev. (MM)	496.7	675.1	944.5	1,278.1
<i>Previous</i>				
EBITDA (MM)	279.3	386.7	566.6	787.2
<i>Previous</i>				
EPS	6.68	9.60	13.99	19.28
<i>Previous</i>				

Valuation				
	2019A	2020E	2021E	2022E
EV/Rev	41.8x	30.7x	22.0x	16.2x
EV/EBITDA	74.3x	53.7x	36.6x	26.4x
FY P/E	NM	77.1x	52.9x	38.4x

Market Data	
52-Week Range:	€897.00 - €562.80
Total Entprs. Value	€20.8B
Avg. Daily Value MM (USD)	134.85
Float (%)	65.0%

The Long View

Scenarios

Base Case

- Adyen's net revenue grows 36% in 1H20 as a result of the COVID-19 outbreak, and then recovers thereafter.
- 2020 operating margin gradually expands through 2023.
- Implied 2019-2023E revenue CAGR = 35%
- Implied average 2020-2023E operating margin = 58%
- DCF-based PT €882

Upside Scenario

- Adyen's revenue grows 45% in 2020 and then sustains a 40+% growth rate through 2023.
- 2020 operating margin gradually expands through 2023.
- Implied 2019-2023E revenue CAGR = 44%
- Implied average 2020-2023E operating margin = 58%
- DCF-based PT €1771

Downside Scenario

- Adyen's revenue grows 36% in 2020 and then decelerates to 20% in 2023.
- 2020 operating margin approximately 10 points lower and maintains underperformance in future.
- Implied 2019-2023E revenue CAGR = 28%
- Implied average 2020-2023E operating margin = 48%
- DCF-based PT €396

Investment Thesis / Where We Differ

- Unique unified technology platform provides a cost and product capability advantage to Adyen
- Class-leading unit economics and returns on capital
- Gradual expansion into card issuer market provides another growth avenue
- Mid-market expansion is contrary to greater company strategy

Catalysts

- Further large merchant wins
- Continued geographic expansion of merchant acquiring capabilities
- Continued expansion into other parts of the value chain (i.e. broader set of card issuer solutions)

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Executive Summary

An Ambitious Payment Solutions Company Expanding Along the Value Chain. Adyen started out as an online gateway company, expanded into merchant acquiring, and has now started expanding into in-store offerings with omnichannel solutions and with card issuing - all while sustaining a geographic expansion of capabilities. We expect the company to maintain its ambitious expansion along the payment value chain and in new geographies in order to capture a greater share of transaction volumes.

Class-leading Customer Acquisition Economics. We estimate that for every €1 that Adyen spends in sales & marketing, it is gaining €1.5 in net revenue, with a <1% revenue churn. This yields class-leading unit economics, and explains the company's ability to sustain high-growth, high-margins, and the business' also class-leading ROCE compared to peers. A focus on large enterprises had helped yield these results, which leads us to question the company's new focus on the mid-market.

Unique Combination of High Growth Rates *and* High Margins. Adyen has been growing net revenue at over 40% annually, we forecast it to sustain a 35% CAGR through 2023, and the company will likely sustain operating margins above 50%, with the potential for further margin expansion. The well-publicized win of eBay should yield substantial volume and revenue increases starting in 2H20 and persist into 2021.

Serving a "Who's Who" of Technology Brands. Adyen's existing client list is impressive, with the company serving many of the leading technology brands around the world, which is a testament to the strength of the company's technology solution. In turn, the business has been and remains highly levered to the secular growth trend of services moving online.

COVID-19. We estimate that changes in spending are likely to affect the company's TPV and thus net revenue, with TPV having a high drop-through rate to profit: a €1 billion reduction in TPV, implies a €1.6 million revenue reduction, which flows through to a €1.5 million operating income reduction. Web traffic data from some of Adyen's hospitality clients indicate traffic reductions ranging from 25% to 40%, we estimate a potential €15 million net revenue contribution in 2019 from airlines and hospitality.

How to Think About Potential COVID-19 Impacts

With the on-going COVID-19 infections spreading through various countries around the world, we review the potential impact to Adyen's business from the measures being taken by governments and changes in consumer behavior. Adyen has so far not quantified any impacts it may be seeing to its business in the near-term, however, we believe that the company is likely being impacted given customer exposure to the airline industry (gateway only) and hospitality industry (both processing and gateway). We believe the impacts are primarily short-term in nature and unlikely to affect the long-term potential of the business:

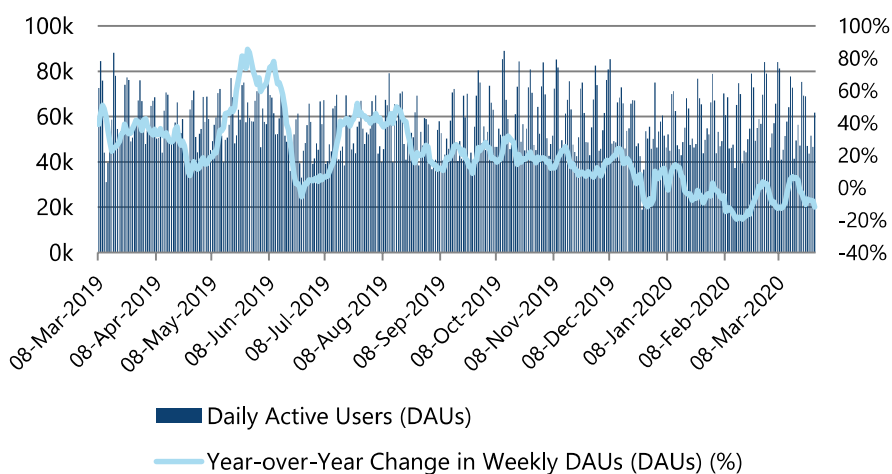
- The company has noted that a majority of its gateway- / processing-only revenue (i.e. no acquiring) stems from the airline industry. Processing revenue accounted for 28% of 2019 TPV volume and only 7% of gross revenue. Airline customers include Aeroméxico, easyJet, KLM, Transavia, and Vueling, among others.
- Adyen also offers both gateway and acquiring for numerous companies in the hospitality space, including Airbnb and booking.com (we caution that Adyen's relationship with these companies is frequently for specific geographies and not for these companies' entire businesses).

Please see our capture of web traffic data below for details on bookings declines in the hospitality industry.

Adyen's impact is difficult to quantify as Adyen does not disclose revenue by verticals nor individual customer revenue contributions, and Adyen is also exposed to numerous other verticals, including retail.

On the other hand, while we initially expected Adyen to benefit from its exposure to food delivery vendors (e.g. Deliveroo, Delivery Hero, etc.), both press reports (e.g. Financial Times "Why food delivery apps are struggling even under UK lockdown" on 30 March 2020) and app usage data indicate little benefit and a potential risk from food delivery companies as well. See Chart 3 below for Deliveroo app usage in the UK for example. We believe that Adyen is likely not seeing much impact from the remaining majority of the e-commerce businesses it also has exposure to.

Chart 3 - Deliveroo Android App Usage (UK)



Source: Jefferies, Similar Web

We can make several simplifying assumptions in order to attempt to estimate Adyen's potential impact. We realize that these estimates rely on numerous assumptions, however, we nonetheless attempt to quantify the magnitude of the impact, which we calculate as an approx. 2% revenue impact:

- We assume that two of the company's top-10 customers (the top-10 contribute 31% of net revenue) are hospitality companies and that the top-10 each represent the same share of revenue. We estimate a 40% decline in bookings.
- Assuming that all of non-acquired revenue stems from airlines, we assume a 40% decline in bookings in the airline industry in the first half of 2020 and assume no impact in the second half of the year.
- These estimates imply a €13 billion TPV decline in gateway-only volumes and a €2 billion decline in full-stack acquiring. In turn, we expect this equates to an approximate €10 million net revenue impact in the first half of the year. See Chart 4.

Chart 4 - Potential COVID-19 Impact to Adyen's Revenue

	2019	Change	COVID-19 Impact
TPV			
Total Processed Volume (\$b)	239.6	-15.5	224.1
Gateway only	66.8	-13.4	53.4
Full-stack	172.8	-2.1	170.7
Revenue			
Gross Revenue (\$m)	2548.7	-64.6	2484.1
Implied Take rate (bps)	106.4		110.8
Gateway online	176.1	-35.2	140.9
Implied Take rate (bps)	26.4		26.4
Settlement fees	2372.6	-29.4	2343.2
Implied Take rate (bps)	137.3		137.3
Costs from financial institutions	2143.5	-54.4	2089.1
Other revenue/costs	91.6	0.0	91.6
Net Revenue	496.7	-10.2	486.5

Source: Jefferies, company data

Revenue Sensitivity Analysis

We believe that the majority of the company's operating costs are fixed in nature, whereas we consider IT costs, and sales and marketing costs variable (although potentially debatable). We show that for a €1 billion reduction in overall TPV, we estimate that the company's net revenue is reduced by €1.6 million, which in turn reduces operating income by approximately €1.5 million - a very high pass-through. See Chart 3 for our analysis.

Chart 5 - Adyen Sensitivity to a €1 billion Change in TPV

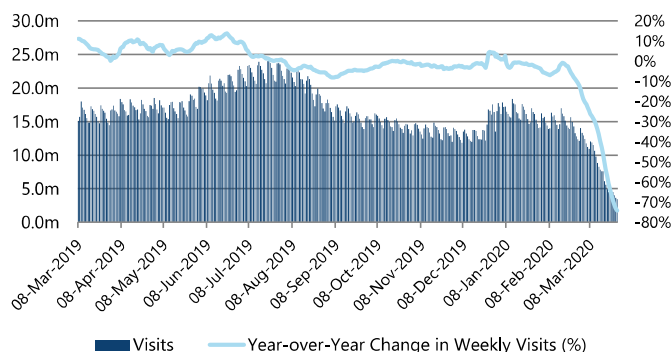
	2019	Change	\$1B TPV Reduction
TPV			
Total Processed Volume (\$b)	239.6	-1.0	238.6
Gateway only	66.8		
Full-stack	172.8		
Revenue			
Gross Revenue (\$m)	2548.7	-10.6	2538.1
Implied Take rate (bps)	106.4		106.4
Gateway online	176.1		
Implied Take rate (bps)	26.4		
Settlement fees	2372.6		
Implied Take rate (bps)	137.3		
Costs from financial institutions	2143.5		2134.6
Other revenue/costs	91.6		91.6
Net Revenue	496.7	-1.6	495.1
Fixed Costs			
Wages and salaries	100.5	0.0	100.5
Social security and pension costs	22.0	0.0	22
Housing and office costs	5.8	0.0	5.8
Travel and other staff expenses	21.7	0.0	21.7
Advisory costs	12.7	0.0	12.7
Other operating expenses	10.9	0.0	10.9
Amortization and depreciation	22.3	0.0	22.3
Other income (dividends)	-0.2	0.0	-0.2
Other gains & losses	0	0.0	0
Total Fixed Costs	195.7	0.0	195.7
Variable Costs			
IT costs	11.7	0.0	11.7
Sales and marketing costs	32.3	-0.1	32.2
Total Variable Costs	44.0	-0.1	43.9
Operating Income (\$m)	257.0	-1.5	255.5

Source: Jefferies, company data

Web Traffic Trends at Two of Adyen's Hospitality Customers

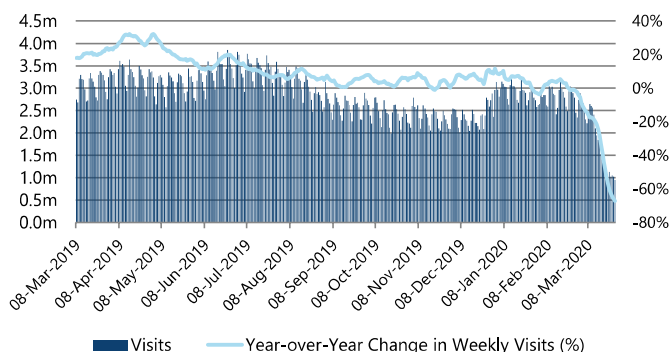
We captured web traffic data from both airbnb.com and booking.com, two known customers of Adyen. Please see Charts 6 and 7. We observe year-over-year declines in traffic of most recently 74% for booking.com and 67% for airbnb.com. We believe the declines observed by these two hospitality vendors are likely representative of overall declines being observed by the broader airline and hospitality industry given the large size of both of these companies.

Chart 6 - booking.com Website Traffic and Year-over-Year Change in Weekly Visits



Source: Jefferies, SimilarWeb

Chart 7 - airbnb.com Website Traffic and Year-over-Year Change in Weekly Visits



Source: Jefferies, SimilarWeb

Our Estimates Compared to the Street

In Chart 8 below, we highlight our estimates compared to the Street. We note that we are below the Street for 1H20 estimates, as we have cut our numbers due to potential COVID-19 impact. We highlighted above that COVID-19 is likely to have an approximately €15 billion impact on full-year TPV, as such our TPV estimates are below the Street and we are currently forecasting a recovery in 2H20, although to levels slightly lower than our estimates would have been ex-COVID-19.

Chart 8 - Jefferies Estimates Compared to the Street

Adyen NV				Adyen NV			
FY ends in December, € in millions				FY ends in December, € in millions			
Jun-20E	Jefferies	% Diff	Consensus	Dec-20E	Jefferies	% Diff	Consensus
Processed volumes (nominal value)	139,631	-6%	147,800	Processed volumes (nominal value)	192,356	1%	190,600
Net revenue	292	-1%	294	Net revenue	383	0%	385
Operating income	160	5%	153	Operating income	213	3%	207
Operating margin	54.9%	5%	52.1%	Operating margin	55.5%	3%	53.9%
EBITDA	164	2%	161	EBITDA	217	-3%	224
EBITDA margin	56.3%	3%	54.8%	EBITDA margin	56.6%	-3%	58.3%
EPS	4.13	6%	3.91	EPS	5.46	2%	5.3
Net cash flow from operations	159	34%	118	Net cash flow from operations	358	31%	273

2020E	Jefferies	% Diff	Consensus	2021E	Jefferies	% Diff	Consensus
Processed volumes (nominal value)	331,987	-1%	335,900	Processed volumes (nominal value)	482,483	1%	477,800
Net revenue	675	0%	677	Net revenue	944	1%	935
Operating income	373	3%	363	Operating income	548	6%	519
Operating margin	55.3%	3%	53.5%	Operating margin	58.1%	5%	55.5%
EBITDA	381	-2%	389	EBITDA	559	1%	554
EBITDA margin	56.5%	-2%	57.4%	EBITDA margin	59.2%	0%	59.2%
EPS	9.60	3%	9.35	EPS	13.99	4%	13.43
Net cash flow from operations	517	14%	454	Net cash flow from operations	659	4%	637

Source: Jefferies, Visible Alpha

Investment Positives

Unique Unified Technology Platform

Adyen is well-positioned to deliver a payment platform that satisfies the needs of many enterprises, which we believe is desired by many enterprises as they desire to employ a unified payment solution across geographies and sales channels (e.g. in-store, online, in-app, etc.). Adyen continues to redefine what encompasses a modern payment architecture (although undoubtedly some vendors would beg to differ). Adyen has developed its entire product offering in-house and not performed any M&A to build out its platform. The company offers a unified architecture for online, in-app, and in-store payments. The company also offers Point Of Sale (POS) terminals in 40 countries loaded with its software. This ability to offer a unified solution on a global level is unique and unmatched by any other payment vendor targeting enterprises.

While we view the move to offer in-store / omnichannel solutions to customers as a positive, we view the move as largely defensive. We note that it is substantially easier for merchants to replace online/in-app payment solutions than in-store solutions, given the latter typically requires replacing physical POSs, retraining staff, etc. Further, we believe that the majority of Adyen's POS sales have been to existing online customers. We believe that merchants adopting in-store solutions likely aids Adyen's stickiness in these merchants as replacing Adyen as a payment solutions vendor would be substantially more difficult an undertaking.

An underestimated advantage of Adyen's approach is the data that the company gathers on transactions and that it can effectively monetize either directly or indirectly. Adyen offers products to merchants to optimize card authorization rates, fraud prevention tools, and products providing insights on shoppers. Thanks to its home-grown and single platform, Adyen can employ data across geographies and shopping channels. This compares to many other large merchant acquirers that have expanded through M&A and thus operate several technology solutions with differing levels of integration.

Last, this combination of products also benefits SMBs, which the company has recently started increasingly targeted as we believe that SMBs favor a unified payment platform, rather than expending effort and resources to combine payments solutions from different vendors.

Adyen is Exposed to the Growth Trends of Online Services (incl. Upcoming eBay Platform Launch)

Adyen's roots as a business are from initially offering merchant processing services to online and in-app clients, and then expanded to also offer merchant acquiring through the same channels. The company has been extremely successful in courting many online vendors; Adyen's client list includes a "who's who" of online services. Clients include Airbnb, Booking.com, eBay, Etsy, Facebook, LinkedIn, Microsoft, Netflix, Pinterest, Spotify, TransferWise, Twitter, and Uber, among others.

We note that eBay announced its partnership with Adyen in January 2018, and expects to switch over the majority of its marketplace volumes to Adyen in 2H20 or early 1H21. While the company has already switched over some volumes in the United States, United Kingdom, and Germany to Adyen, the agreement between the companies has certain gates that limit volumes until the end of 1H20. eBay processed approximately \$86 billion in Gross Merchandise Volume (GMV) through its marketplace in 2019. As Adyen processed €240 billion in volumes in 2019 (or approx. \$274 billion), eBay stands to become one of the company's largest customers going forward.

Thanks to the company's roots in online and exposure to numerous online clients, nearly 90% of Adyen's processed volumes are from online and mobile services. This also exposes the company to the greater trend of services increasingly being digitized and delivered online. In turn, Adyen has benefited (and looks poised to continue to benefit) from the high revenue growth of numerous online services. See Chart 9 below.

Chart 9 - IDC eCommerce Market Size Estimate and Potential Adyen Addressable Market

eCommerce Spending (\$ Trillions)	2013A	2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	'13-'18 CAGR	'18-'23 CAGR
Total B2C eCommerce Spending - Mobile	1.8	1.8	2.0	2.3	3.3	3.2	3.8	3.7	4.0	4.4	4.7		
y/y growth (%)	19%	0%	13%	15%	45%	-3%	18%	-1%	8%	8%	8%	13%	8%
Total B2C eCommerce Spending - Desktop	3.9	4.1	4.4	4.7	6.6	5.7	6.7	6.9	7.3	7.7	8.1		
y/y growth (%)	14%	5%	8%	7%	41%	-15%	18%	3%	6%	5%	6%	8%	7%
Total B2C eCommerce Spending	5.6	5.8	6.4	7.0	9.9	8.9	10.5	10.6	11.3	12.0	12.8		
y/y growth (%)	15%	4%	10%	10%	42%	-11%	18%	1%	7%	6%	6%	10%	8%
Assuming Adyen's 20bps Take rate (\$ billions)	11.2	11.6	12.7	14.0	19.9	17.7	20.9	21.2	22.6	24.1	25.6		

Source: Jefferies, IDC Worldwide New Media Market Model (3Q19 Update)

If we utilize Adyen's approximately 20bps "take rate" and apply it to the total GMV of online and in-app purchases (\$10.5 trillion in 2019), we determine that Adyen's 2018 total addressable market (TAM) for online / in-app purchases was approximately \$21 billion. If we expand the definition of Adyen's TAM to include the entire global payment volume of \$43.9 trillion in 2019, we estimate that Adyen's TAM was \$88 billion.

EV to TAM Comparison

Adyen currently has a market capitalization of approximately €24 billion (or \$27 billion) and is therefore trading at a fraction of the size of its total addressable market. We do not advocate valuing the stock on a "EV/TAM" basis, however, we believe the comparison can be informative as it highlights the sheer size of Adyen's addressable market - even when only focusing on online payments (and excluding in-store payments, which Adyen has recently started addressing through its omnichannel approach to the market). We caution that the TAM estimates above include contribution from China, where realistically non-Chinese payments companies are not capable of acting as processor or acquirer for domestic Chinese payments. Some market estimates size the Chinese e-commerce market at 9.7 trillion Yuan in 2019 (\$1.4 trillion) (e.g. iResearch market estimate).

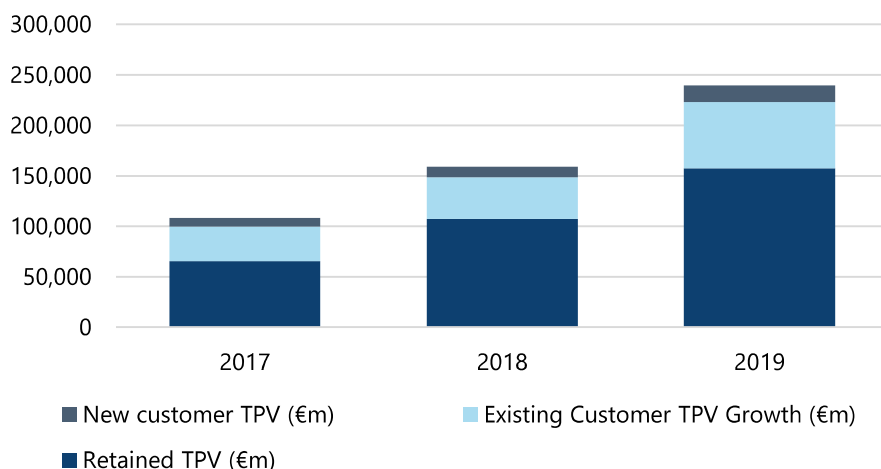
Nonetheless, if we fully exclude the Chinese e-commerce market, we estimate that the non-Chinese global e-commerce market is approximately \$9.1 trillion, which a 20bps take rate implies an \$18 billion market for e-commerce for Adyen. As such, we believe that Adyen's currently valuation is partly predicated upon the company successfully expanding into in-store commerce and also developing its card issuing business.

Impressive Customer Acquisition Economics – The Numbers Speak for Themselves

Total Process Volume (TPV)

Adyen discloses an annual Total Processed Volume (TPV) churn rate of under 1%, and that over 80% of processed volume growth has stemmed from existing merchants (instead of new merchants). Based on these metrics, we calculate that 93% of TPV in 2019 stemmed from existing merchants and that the remaining 7% was from new merchants on-boarded in the period. Of the 93% of TPV from existing merchants, 29% was growth from existing customers. See Chart 10.

Chart 10 - Adyen Total Processed Volume (TPV) Growth



Source: Jefferies, company data

Sales and Marketing (S&M) Expenses

We can estimate Adyen's total sales and marketing expense; the company discloses that approximately 40% of staff were in "Commercial" functions in 2018 (i.e. sales and account managers, partnership managers, marketing, etc.) as well as non-staff sales and marketing expenses. We assume the same ratio has persisted into 2019. We estimate that Adyen spent approximately €106 million in total sales and marketing in 2019. See Chart 11.

Chart 11 - Adyen Total Sales and Marketing Calculation

	2017	2018	2019
Wages & Salaries (€m)	55.6	72.7	100.5
Social Security & Pension Costs (€m)	9.2	14.4	22.0
Other Operating Expenses (€m)	54.2	80.0	95.1
Sales & Marketing (S&M) (€m)	14.8	21.3	32.3
Other Non-S&M Operating Expenses (€m)	39.4	58.7	62.8
S&M Headcount Percentage	41%	40%	40%
Calculated S&M Expenses (€m)	57.5	79.6	106.4

Source: Jefferies, company data

Unit Economics Calculation

We note that Adyen shows strong customer acquisition economics, for every €1 the company spends in sales and marketing expenses, it is currently capturing €155 in new customer TPV (i.e. Adyen spent €106 million in 2019 S&M and captured €16.4 billion in new customer TPV). We note that this assumes a 1% churn rate and no changes in TPV (in reality TPV could be impacted by changes in revenue at Adyen's customers such as due to economic downturns). If we compare Adyen's sales and marketing expenses to total new TPV (new customer TPV and existing customer TPV expansion), this increases to €773 million in new TPV for every €1 million in sales and marketing spend.

Given Adyen's "take rate" of approximately 20bps, this implies that every €1 in sales and marketing spend generates €1.50 in net revenue in a given year (from new customers and from expansion). If we apply the 1% churn rate to the company's new net revenue, we estimate a lifetime of the new revenue of 100 years, and thus we calculate a LTV : CAC ratio of 155x in 2019.

Chart 12 - Adyen Lifetime Value Calculation

Calculation assumes 20bps revenue take rate and 1% churn

	2017	2018	2019
Total Processed Volume (TPV) (€m)	108,300	159,000	239,600
Existing Customer TPV (€m)	99,847	148,663	223,162
Retained TPV (€m)	65,637	107,316	157,410
Growth in Existing Customer TPV (€m)	34,210	41,347	65,752
New customer TPV (€m)	8,453	10,337	16,438
S&M Headcount Percentage	41%	40%	40%
Calculated S&M Expenses (€m)	57.5	79.6	106.4
New Customer TPV : S&M Ratio	147x	130x	155x
New TPV Ratio : S&M Ratio	742x	649x	773x
Assume 20bps take rate (€m)	1.5	1.3	1.5
New Customer Net Revenue : S&M Ratio	0.3x	0.3x	0.3x
New Net Revenue : S&M Ratio	1.5x	1.3x	1.5x
LTV (€m) with 1% churn rate	8,533	10,337	16,438
LTV : CAC Ratio	148x	130x	155x

Source: Jefferies, company data

Entering Card Issuing Market

Adyen recently started entering the card issuing market, the company has started offering prepaid cards in Europe, with plans for a US rollout in 2020. The company plans to roll out these cards in the remaining markets the company operates in, in the future. In Europe, the company is a licensed bank and will issue the cards directly, whereas in the US the company relies on BIN sponsorship (Wells Fargo is the company's BIN sponsor for merchant acquiring). Similar to its other products, card issuance is entirely developed on Adyen's technology platform, with the company on relying on a third-party for card personalization services. We believe that Uber is a company that is already employing Adyen's prepaid cards to pay some of its drivers.

Adyen's value proposition is that merchants who use Adyen for acquiring and prepaid card issuing will not only gain the benefits of Adyen's single platform, but also from Adyen offering immediate settlement of sales.

Entrance into the prepaid card market also helps Adyen recapture some of the fees in the payment value chain. Adyen charges merchants on an interchange++ model, whereby Adyen charges a fixed fee per transaction and then collects a fee that is typically a percentage of the transaction value. As part of the variable fee, Adyen includes both fees paid to the card networks and an interchange fee, which is paid to the card issuer. By issuing cards, it allows Adyen to collect the interchange fee. In turn, if Adyen is suffering from fee pressure in merchant acquiring, it can thus recapture part of these fees on the other side of the value chain by issuing cards, or issuing cards could enable Adyen to become more competitive on fees in its merchant acquiring business.

We expect that over time Adyen could enter into the broader debit and credit card issuing market, and thus move beyond just prepaid card issuance.

Class Leading Economics When Benchmarked to Peers

We compare Adyen to 12 worldwide payment provider peers on the basis of ROCE (Return on Capital Employed). We note that in our ROCE calculation, we are calculating the metric as EBITDA on Capital Employed (and not EBIT on capital employed).

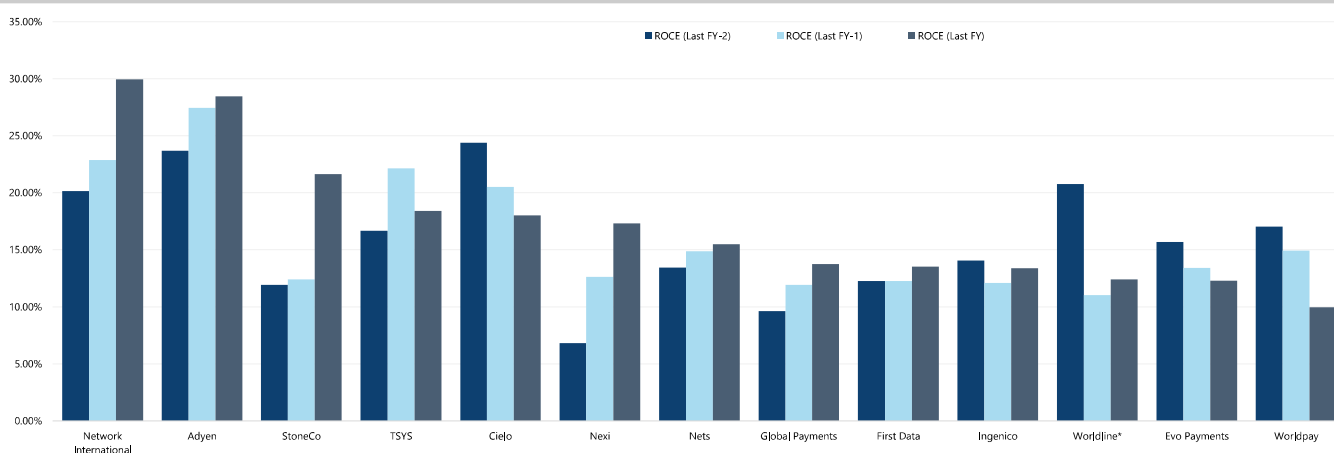
While we could focus on EBITDA margins or other measures of profitability, we prefer to focus on the ROCE metric as we believe the metric is more consistent across all compared businesses and it eliminates the effects of some of the accounting choices companies in our sample set have made (e.g. capitalization rates on R&D, capitalization rates of sales costs, differences in revenue recognition, etc.). Some of these accounting choices can heavily skew the data and we seek to avoid these discrepancies in order to generate a relevant analysis.

Please see Chart 13 for the results of the comparison. We note that Adyen consistently leads peers in the ROCE calculation, with a 28% ROCE, compared to an industry median of 15% in the last reported fiscal year. We believe that a large part of the class-leading metrics is down to Adyen's choice to:

1. Build a single unified platform across its entire product offering, which leads to technology and business efficiencies. As Adyen expands into offering both in-store and mid-market payments solutions, we question whether they will contribute towards a further ROCE expansion.
2. Avoid all M&A, which is also linked to the company's desire to maintain a single unified platform (as an aside we can note the many studies that have shown the majority of corporate M&A to be destructive to shareholder value).

We believe the strength in ROCE is also an indicated that not only is Adyen maintaining its high growth rates in a highly profitable manner, but that the company should be able to sustain its continued high profitability levels in the future.

Chart 13 - Return on Capital Employed (ROCE) Comparison



Source: Jefferies, company data

The ancillary conclusion we reach from the data is that ROCE does not necessarily improve with scale, as many other payment vendors are not only larger than Adyen, but have sought to increase their scale and reach of the businesses through M&A, rather than strictly through organic growth. We believe that the M&A activity has been a headwind for ROCE for many peers, and is likely only going to increase as a headwind given increasing M&A valuations in recent years.

Investment Negatives

Partners Can Act as Gatekeepers Rendering Adyen Pricing Uncompetitive

Adyen has entered into partnerships with numerous ecommerce platforms, such as Shopify, salesforce.com (Demandware), and Adobe (Magento). While these

partnerships are designed to smooth the adoption of Adyen's payment infrastructure by retailers utilizing these ecommerce platforms, we note that in some cases (notably Shopify) the platforms have started acting as gatekeepers imposing surcharges on retailers employing Adyen over their in-house payment systems.

In Shopify's case, the company has imposed a surcharge of ranging from 0.5% to 2.0% (depending upon which Shopify plan is employed) on all payment providers other than Shopify Payments. Shopify processed \$61 billion in GMV (Gross Merchandise Value) in 2019. We examine the surcharge strategy in Chart 14. We note that given that Adyen prices on the Interchange++ model, we estimate that the combination of interchange and network fees can range from 1.29% to 2.64% for Visa/Mastercard payments, depending upon the card employed by the consumer (different cards have different interchange fees).

Chart 14 - Shopify Payments Pricing and Surcharge Imposed on Adyen

	Basic Shopify	Shopify	Advanced Shopify
Shopify Payments (online)	\$0.30 + 2.9%	\$0.30 + 2.6%	\$0.30 + 2.4%
Adyen	\$0.12 + Interchange++ (Visa/Mastercard) \$0.12 + 3.95% (American Express)		
Shopify Surcharge	2.0%	1.0%	0.5%
Effective Adyen Rate (Visa/Mastercard)	\$0.12 + (3.29 to 4.64%)	\$0.12 + (2.29 to 3.64%)	\$0.12 + (1.79 to 3.14%)

Source: Jefferies, company data

In such a scenario, we estimate that Adyen's pricing can remain competitive up to approx. \$200 baskets in a best case scenario (i.e. lowest fees) or be uncompetitive after \$20 baskets in a worst case scenario with the highest fees.

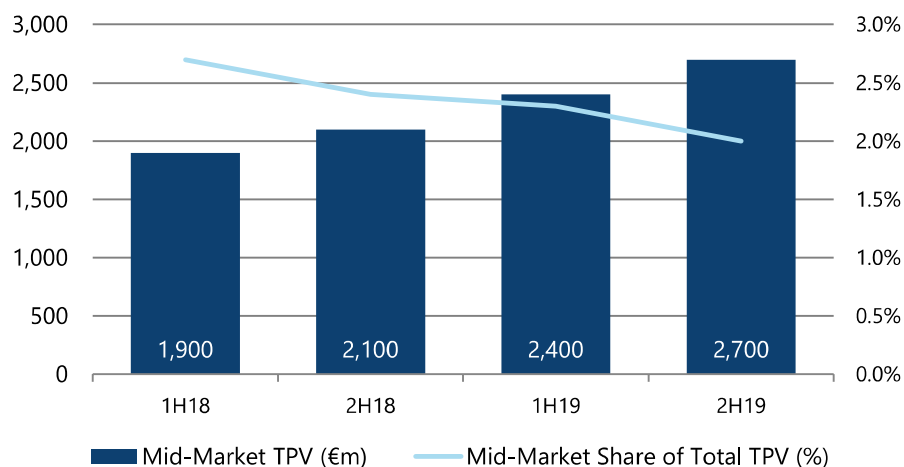
We believe the surcharge strategy from Shopify is likely to dissuade many retailers from employing Adyen (or others) for payments and instead drive retailers to employ Shopify's own payment solution.

While few online platforms currently are pursuing this strategy, there is a risk that other online ecommerce platforms also enter the payment space and favor their own solutions in a similar fashion to Shopify.

Mid-Market Focus Appears Inconsistent With Broader Company Strategy

Adyen appears to be placing a greater emphasis on mid-market customers, which the company defines as merchants generating less than €1 million per month in transaction volume. We note that as of the company's 2H19 results, it changed the definition for mid-market to now include merchants processing up to €25 million per year. While mid-market volumes have grown from €1.9 billion in 1H18 to €2.7 billion in 2H19 (under the old definition), as a percent of total processed volumes, the mid-market proportion has been declining from 2.7% to 2.0% over the same time periods (Adyen does not disclose mid-market TPV data prior to 1H18). The mid-market segment therefore appears to be underperforming the remainder of Adyen's business; management has noted as much, on the 1H19 earnings call management noted that it will "take a bit more time" prior to the performance of the mid-market segment increasing. See Chart 15.

Chart 15 - Mid-Market TPV Evolution (Under Old Definition)



Source: Jefferies, company data

We believe the targeting of the mid-market is inconsistent with Adyen's broader strategy of targeting large enterprises and the product set that the company has developed for that market. Adyen believes that it can differentiate for enterprise customers by providing a consistent product across various geographies and markets, and also highlights the data it gathers and associated analytics that it can offer customers. We believe both of those value propositions are likely to be valued more highly by enterprises, compared to the mid-market which likely has simpler payment needs and less sophistication. In addition, the company's current focus on omnichannel shopping (marrying data from online and in-store shopping) is likely to appeal to large enterprises over the mid-market and also appears inconsistent with the mid-market strategy.

Exposure to Economic Cycles and Consumer Spending

Due to the nature of Adyen's business where it accepts and processes payments, and generates revenue based on the number and size of transactions the company processes and acquires, the company is inherently exposed to spending trends in the geographies it operates in. As such, there is a risk to the company's revenue in the event of an economic downturn where consumers curtail their spending levels.

For example, Global Payments was publicly traded during the 2008-2009 economic downturn and the company disclosed that in fiscal 2009 (ending 31 May 2009) in the United States that the average dollar value of transactions declined in the "high single-digit percentage range". Similarly in Canada, the company also noted a decline in the "low single-digit range" over the same period due to economic conditions.

Adyen Rents its Acquiring License in North America and Brazil

Adyen has not been able to procure local acquiring licenses in both North America and Brazil, and thus has had to rely on renting an acquiring license from local banks in those geographies in order to offer merchant acquiring capabilities. We believe that this is primarily due to the payment networks limiting the amount of acquiring licenses that they issue in a given market and Adyen not being able to obtain such a license. Adyen relies on BIN (Banking Identification Number) sponsorship and we believe is relying on Wells Fargo in North America and on Banco Bonsucesso in Brazil, and employing their acquiring licenses.

This renting of the license does not come at no cost and is therefore likely reducing the economics of the company's acquiring business in those markets. We believe that the BIN sponsorship is the form of an annual fee, rather than a transactional or volume

based fee. Unfortunately, Adyen does not disclose the fees it is paying for the renting of licenses.

High Valuation Implies Continued Both High Growth and Continued High Margins

While Adyen has many (previously outlined) traits that make it an attractive business to invest in, we note that the valuation for Adyen is very high regardless of which metrics an investor values the stock on. While the company's growth rates remain robust and are expected to remain strong going forward (i.e. Street estimates imply a 35% revenue CAGR from 2019 through 2024), Adyen is valued at 22x EV/2021 net revenue and 36x EV/2021 FCF - we note that this FCF definition includes the merchant liabilities and balances and as Adyen has been growing merchant balances faster than offsetting liabilities (i.e. building cash), this metric would be much higher if Street estimates were adjusted. On Jefferies' numbers, adjusting for merchant liabilities and balances, we estimate that Adyen is trading at 44x EV/2021 FCF. See Chart 16.

In addition, the assumptions required in a discounted cash flow analysis to reach its current valuation assume a continuation of strong revenue growth and continued strong leverage in the business or growth in cash flow in future years, which may not be realized. While this is a risk, we currently do not see anything in this business model that would preclude Adyen from continuing to gain leverage as the business grows in scale.

Chart 16 - Adyen Implied Valuation

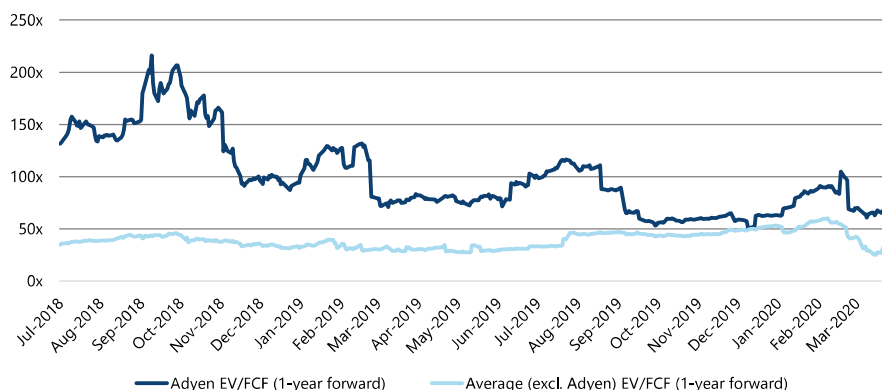
€ millions, unless stated otherwise	2019	2020	2021	2022	2023	2024
Net Revenue	497	677	935	1,250	1,643	2,190
<i>y/y growth (%)</i>	42%	36%	38%	34%	31%	33%
EBITDA	279	389	554	767	998	1,338
EBITDA Margin (%)	56%	57%	59%	61%	61%	61%
FCF (OCF - CapEx)	514	363	565	798	1,247	2,100
FCF Margin (%)	104%	54%	60%	64%	76%	96%
Adyen Stock Price (€)	725					
Adyen Enterprise Value (EV)	20,294					
EV/Net Revenue	41x	30x	22x	16x	12x	9x
EV/EBITDA	73x	52x	37x	26x	20x	15x
EV/FCF	39x	56x	36x	25x	16x	10x

Source: Jefferies, Visible Alpha

We show Adyen's historical EV/FCF (on a 1-year forward basis) and compare it to peers in Chart 17. We note that Adyen has historically been trading at a large premium to the remainder of the sector, however valuation appears to be gradually converging towards that of the sector. We believe this premium is due to the high growth rates exhibited by the company as well as the technology differentiation compared to many of its peers.

Chart 17 - Adyen vs Payments Sector Average EV/FCF Valuation

Note: Average includes Ingenico, Network Internatioal, Nexi, Wirecard, and Worldline



Source: Jefferies, FactSet

Valuation Summary

Our €882 price target was derived via a discounted cash flow (DCF) analysis. We employ conservative assumptions where appropriate since we believe this to be the best valuation methodology to approximate the intrinsic value of a stock.

However, we acknowledge the potential for extreme variability in assumptions among practitioners of DCFs, so we complement our analysis with a discussion of the value of Adyen relative to its existing free cash flow (FCF). Our price target assumes an EV/2021 FCF multiple of 52x, versus the 43x forward multiple Adyen trades at today.

We also analyze relative multiples of comparables in the payments vertical. Adyen trades at a significant premium to most payment companies both EV/Revenue and EV/FCF bases, however the company also boasts both some of the strongest revenue growth rates and margin profiles. See Chart 18 for a summary.

Chart 18 - Adyen Comparables

Company	Ticker	Price	Rating	Price Target	Market Cap	Enterprise Value	2019A	Revenue 2020E	2021E	2019A	FCF 2020E	2021E	2019A	EV/Revenue 2020E	2021E	2019A	EV/FCF 2020E	2021E	
Payments Companies - Europe Listed																			
Network International Holdings Plc	NETW-GB	\$3.46	Hold	\$3.90	\$2,152	\$2,485	335	368	419	60	54	113	7.4x	6.8x	5.9x	41.7x	45.9x	21.9x	
Nexi S.p.A.	NEXI-IT	€ 12.12	Buy	€ 18.00	€ 7,606	€ 11,282	€ 984	€ 1,092	€ 1,182	€ 222	€ 261	€ 318	11.5x	10.3x	9.5x	50.7x	43.2x	35.5x	
Wirecard AG	WDH-DE	€ 101.76	NC	-	€ 12,574	€ 10,268	€ 2,800	€ 3,450	€ 4,410	€ 449	€ 649	€ 893	3.7x	3.0x	2.3x	22.9x	15.8x	11.5x	
Worldline SA	WLN-FR	€ 52.20	Buy	€ 73.00	€ 9,485	€ 10,181	€ 2,382	€ 2,482	€ 2,673	€ 288	€ 344	€ 460	4.3x	4.1x	3.8x	35.4x	29.6x	22.2x	
Median					€ 10,225								5.8x	5.4x	4.9x	38.5x	36.4x	22.0x	
Mean					€ 8,502								6.7x	6.0x	5.4x	37.7x	33.6x	22.8x	
Payments Companies - US Listed																			
EVO Payments, Inc. Class A	EVOP	\$13.49	NC	-	\$510	\$988	598	484	610	23	160	141	1.7x	2.0x	1.6x	43.0x	6.2x	7.0x	
Global Payments Inc.	GPN	\$133.23	Buy	\$235.00	\$40,281	\$48,678	5,267	7,606	8,326	853	2,179	2,506	9.2x	6.4x	5.8x	57.0x	22.3x	19.4x	
PAR Technology Corporation	PAR	\$11.54	Buy	\$35.00	\$191	\$229	187	233	-	(8)	(11)	-	1.2x	1.0x	0.0x	-29.8x	-21.2x	0.0x	
PayPal Holdings Inc	PYPL	\$93.82	Buy	\$140.00	\$111,364	\$102,705	17,772	20,791	24,245	3,857	4,610	5,306	5.8x	4.9x	4.2x	26.6x	22.3x	19.4x	
Square, Inc. Class A	SQ	\$46.89	Hold	\$85.00	\$22,760	\$21,599	2,274	2,607	3,317	338	179	780	9.5x	8.3x	6.5x	63.9x	120.7x	27.7x	
StoneCo Ltd. Class A	STNE	\$20.58	NC	-	\$25,234	\$28,034	2,576	3,215	4,331	(366)	858	1,737	10.9x	8.7x	6.5x	-76.7x	32.7x	16.1x	
Payments Companies - Other Listings																			
Cielo	CIEL3-BR	4.26	NC	-	11,571	15,809	12,199	12,133	12,946	3,418	3,465	1,956	1.3x	1.3x	1.2x	4.6x	4.6x	8.1x	
Median													7.5x	5.7x	5.0x	34.8x	22.3x	17.7x	
Mean													6.4x	5.2x	4.1x	14.0x	30.5x	14.9x	
Adyen NV	ADYEN-NL	€ 740			€ 21,910	€ 20,678	€ 497	€ 678	€ 932	€ 423	€ 319	€ 480	41.6x	30.5x	22.2x	48.8x	64.7x	43.1x	
Adyen NV (at Price Target)		€ 882			€ 26,107	€ 24,875	€ 497	€ 678	€ 932	€ 423	€ 319	€ 480	50.1x	36.7x	26.7x	58.7x	77.9x	51.8x	

Source: Jefferies, FactSet

A detailed discussion of Adyen's valuation and our valuation methodology is included in the "Valuation" section later in this report.

Addressable Market

Adyen offers merchant processing and merchant acquiring solutions on a global basis. The company has also recently entered the card issuing segment of the market,

although its offerings in card issuing are currently limited and primarily centered on prepaid cards.

Adyen's Addressable Market

We review the size of the global payments market in Chart 19. According to the Nilson Report, global payments volumes totaled \$41 trillion in 2018 and have grown at an 11% CAGR from 2011 through 2018. Global payments are forecast to total \$72 trillion in 2027, a 7% CAGR.

Chart 19 - Global Payments Volumes

	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	2024E	2025E
Total Volume (\$ trillions)	31.3	31.9	34.5	40.6	43.9	47.4	50.8	53.9	57.1	60.3	63.6
y/y growth (%)	9%	2%	8%	18%	8%	8%	7%	6%	6%	6%	6%
Assuming Adyen's 20bps Take rate (\$ billions)	62.6	63.8	68.9	81.2	87.8	94.8	101.5	107.8	114.2	120.6	127.2

Source: Jefferies, The Nilson Report

Adyen operates on a global basis, and offers merchant processing services in nearly every country around the world (exceptions are primarily for countries where the company can not operate in, such as processing domestic payments in China, North Korea, etc.). For merchant processing, the company charges a flat €0.10 fee per transaction in Europe and Africa (and \$0.12 in the rest of the world) at list prices.

Chart 20 - Merchant Processing (Gateway) Global Market Size

Purchase Transactions (billions)	2018	2028	'18-'23 CAGR
Canada	6	12	7%
United States	104	173	5%
Latin America	23	72	12%
Europe	79	173	8%
Middle East & Africa	8	38	17%
Asia Pacific	149	386	10%
Purchase Transactions (billions)	369	854	9%
x Adyen Processing Fee (€0.10)	€ 0.10	€ 0.10	
Adyen Addressable Market - Processing (€b)	€ 36.9	€ 85.4	

Source: Jefferies, The Nilson Report

Adyen has however expanded its offering to now also include merchant acquiring in many geographies (Europe, North America, Brazil, Australia, etc). We expect the company to continue expanding the geographic reach of its merchant acquiring business overtime and to cover additional countries in the future. Through this shift, Adyen is now expanding up the payments value chain, and thus able to capture greater fees.

Adyen's business predominantly serves businesses for online/in-app payments; 88% of Adyen's processed volumes stems from these channels, although this is decreasing as Adyen continues expanding into in-store payments. We therefore review estimates for online eCommerce spending

IDC estimates that worldwide B2C eCommerce spending (desktop and mobile) totaled \$8.9 trillion in 2018 and will grow to \$12.8 trillion in 2023 (8% CAGR), which is a slower growth rate than then 10% CAGR from 2013 through 2018. See Chart 21.

Chart 21 - Global eCommerce Market Size

eCommerce Spending (\$ Trillions)	2013A	2014A	2015A	2016A	2017A	2018A	2019E	2020E	2021E	2022E	2023E	'13-'18 CAGR	'18-'23 CAGR
Total B2C eCommerce Spending - Mobile	1.8	1.8	2.0	2.3	3.3	3.2	3.8	3.7	4.0	4.4	4.7		
y/y growth (%)	19%	0%	13%	15%	45%	-3%	18%	-1%	8%	8%	8%	13%	8%
Total B2C eCommerce Spending - Desktop	3.9	4.1	4.4	4.7	6.6	5.7	6.7	6.9	7.3	7.7	8.1		
y/y growth (%)	14%	5%	8%	7%	41%	-15%	18%	3%	6%	5%	6%	8%	7%
Total B2C eCommerce Spending	5.6	5.8	6.4	7.0	9.9	8.9	10.5	10.6	11.3	12.0	12.8		
y/y growth (%)	15%	4%	10%	10%	42%	-11%	18%	1%	7%	6%	6%	10%	8%
Assuming Adyen's 20bps Take rate (\$ billions)	11.2	11.6	12.7	14.0	19.9	17.7	20.9	21.2	22.6	24.1	25.6		

Source: Jefferies, IDC Worldwide New Media Market Model (3Q19 Update)

On a net basis, Adyen is currently capturing approximately 20bps of the total processed volume (TPV) on its platform (this also accounts for 72% of Adyen's processed volumes being acquired and for the remaining 28% Adyen is only acting as a gateway). We can therefore estimate that the net revenue potential of the global payments market to Adyen was \$81 billion in 2018 if Adyen maintained this 20bps take rate.

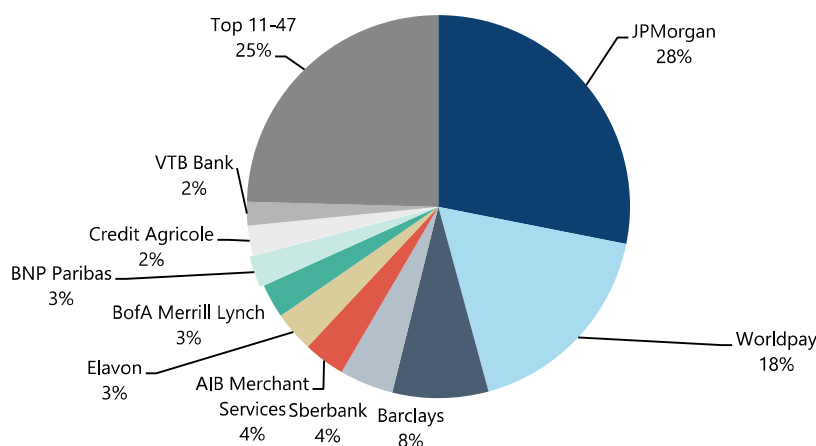
Acquiring Market Share

As approximately 88% of Adyen's 2019 payment volumes stemmed from online and mobile channels, we review the market share of leading web acquirers in the United States, Europe and Asia. Web acquiring includes e-commerce (i.e. online payments) as well as in-app payments. We note that the United States data is for Card Not Present (CNP) transactions, and thus also includes telephone and mail orders, however we believe those volumes to be small in comparison to web and in-app volumes.

We note that Adyen is not present in any of the groupings as the company's European acquiring volumes were not sufficient for inclusion in the list. It is only over the last several years that Adyen has focused on in-house acquiring, rather than relying on third-party party banks for acquiring of payment volumes, acquiring volumes represented over 70% of Adyen's payment volumes in 2019. We believe that volumes that Adyen generates for international customers are frequently also not counted as local volumes. See Charts 22, 23, and 24.

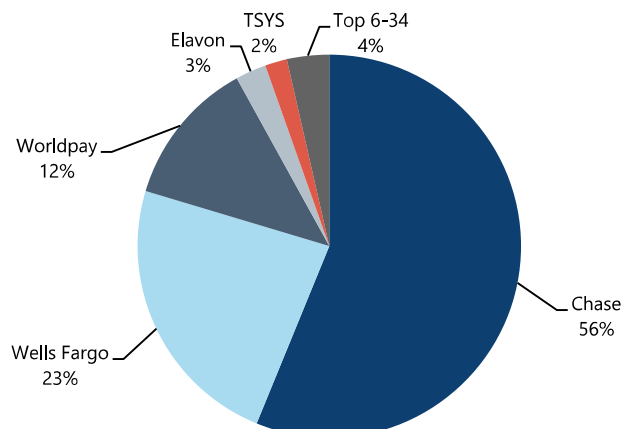
The top-10 web acquirers in Europe acquired 9.8 billion transactions in 2018, with a total volumes of \$553 billion. The top-10 web acquirers in the United States acquired 22.5 billion transactions in 2018, with a total volume of \$1.7 trillion. The top-10 web acquirers in Asia acquired 2.8 billion transactions in 2018.

Chart 22 - Top Web Merchant Acquirers by Transaction Count in Europe (2018)



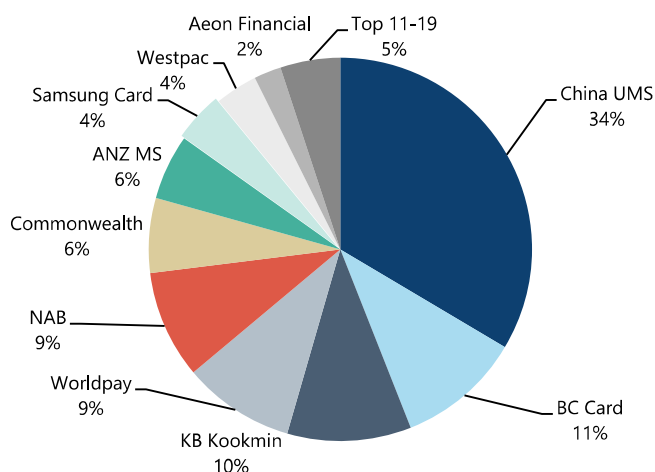
Source: Jefferies, The Nilson Report

Chart 23 - Top Web Merchant Acquirers by Transaction Count in the United States (2018)



Source: Jefferies, The Nilson Report

Chart 24 - Top Web Merchant Acquirers by Transaction Count in Asia (2018)



Source: Jefferies, The Nilson Report

Company Profile and Historical Perspective

Adyen was founded in 2006 by Dutch entrepreneurs, including Pieter van der Does (current Adyen President and CEO) and Arnout Schuijff (current CTO), who both previously worked at Bibit, a company they sold in 2004. Adyen signed its first global merchant in 2009. Adyen is focused on building a modern payment infrastructure directly connected to card networks and supporting local payment methods across the world.

The company had over 3,500 customers as of 2018, has 987 employees as of 1H19, and is headquartered in Amsterdam, The Netherlands, with offices across the world.

It went public in June 2018, issuing 3.9 million shares at a price of €240.

Corporate Overview and Business Model Discussion

Adyen is a leading payments solutions vendor, which has developed its own technology in-house. The company's focus has primarily been on online and in-app payment methods, it has only recently started offering omnichannel solutions (whereby it offers in-store payment solutions). Adyen has typically targeted large enterprises, but recently

also started targeting mid-market customers. The company offers merchant solutions, which include merchant processing and acquiring, and has only recently started to enter the card issuing business by issuing prepaid cards.

Acquirers such as Adyen are required to obtain licenses from the card networks in order to underwrite merchants and for the merchants to be able to accept payments via the card networks. This also enables the acquirers to settle funds to the merchants via the acquirer's processing platform. We note that acquirers are financially liable to the card networks for the settlement risk in the event of a merchant default, if the merchant can then not provide products or services to shoppers.

Obtaining acquiring licenses has enabled Adyen to process payments domestically in a market, which in turn typically leads to higher authorization rates on transactions and lower processing costs, and can also lead to faster merchant payouts. In addition, local acquiring licenses for domestic payment networks frequently result in lower interchange fees and card network fees, which benefits the merchants that Adyen serves thanks to the company's cost-plus pricing model.

Adyen has been gradually increasing the number of acquiring licenses that it has obtained from the card networks. The company's acquiring markets include: the United States, Canada, Brazil, Australia, New Zealand, Hong Kong, Singapore and Europe.

In addition, Adyen has chosen to only offer gateway services to certain industries and merchants, which are often those that sell goods or services far in advance of delivery of the goods or services. By providing gateway services to these, merchants, Adyen has sought to reduce its financial risk exposure in the event of merchants defaults. One notable industry that we are aware of that Adyen only offers gateway services to is the airline industry.

Pricing Model

Adyen earns the majority of its revenue from merchants on a per transaction basis by charging processing and settlement fees. The company charges a processing fee, which is a fixed fee per transaction. Where Adyen offers acquiring services (e.g. authorization, reconciliation, and risk management), Adyen charges a settlement fee using the interchange++ model, which is usually a percentage of the transaction value, and typically includes the interchange and payment network fees, as well as a mark-up for Adyen. 73% of processed volumes in 2H19 were "full stack", where Adyen is acting as an acquirer.

Adyen's net revenue is not impacted by increases in interchange and payment network fees as the company passes these fees on to merchants and structures its contracts as such.

In markets where Adyen offers acquiring services but does not hold a full acquiring license (e.g. United States, Brazil), the company relies on a BIN sponsorship license, and thus the company's net revenue is lower in these markets due to the fees paid to local acquiring banks. We believe the BIN sponsorship is in the form of an annual fee, rather than a fee based on volumes.

The company's fees consist of two components:

- A processing fee: the company charges €0.10 in Europe and Africa or \$0.12 in the rest-of-world.
- A settlement fee: Adyen charges this fee in markets where the company acts as an acquirer (and not just a processor). This fee is typically a variable component based on

the transaction value and follows either the interchange++ model or is a percentage of the total transaction value.

Adyen also charges fees for chargebacks, refunds, and reconciliations, however it no longer discloses those fees. The company does not charge fees for set-up, early contract termination, annual or monthly fees, or gateway fees.

As volumes increase, merchants are able to negotiate lower fees per transaction with Adyen, which in turn decreases Adyen's net revenue as a percentage of processed volumes (i.e. "take rate"). Adyen's goal is to ensure that each additional Euro processed increases its net revenue such that the positive impact from increases in processed volumes outweigh the negative impact from fee decreases related to volume discounts. In turn, this should lead to increases in total operating income.

As a consequence of this strategy, mid-market merchants, which are being increasingly targeted by Adyen, will generally pay higher fees compared to large merchants due to the differences in processed volumes. Adyen defines mid-market merchants as those generating less than €25 million per year in volume (Adyen changed its definition of mid-market as part of its 2H19 earnings from the prior €1 million per month in volume). The mid-market represented 3.6% of total processed volume (TPV) in the second half of 2019 (or 2.0% of TPV under the old definition).

Revenue Components

Adyen earns revenue on a per transaction basis; revenue reflects payments made to Adyen for services performed, which include any interchange and other fees that Adyen passes on. Adyen's gross revenue consists of processing fees and settlement fees charged to merchants, as well as revenue from sales of POS solutions and other services. Revenue sources are as follows:

- Processing fees: fixed fees per transaction paid by merchants, including where Adyen only acts as a gateway. These fees are recognized as revenue by the initiation of a payment transaction on Adyen's platform.
- Settlement fees: fees paid by merchants, typically as a percentage of transaction value where Adyen offers acquiring services. These fees are recognized as revenue when a payment transaction has been completed (settled with a merchant) and include interchange and payment network fees.
- Sales of goods: revenue from sales of POS goods/inventory that are typically recognized at the point in time when Adyen has delivered the POS terminal/accessories and the transfer of control to the merchant has been completed
- Other services: other services revenue includes foreign exchange service fees, chargeback letter fees, refund fees, among others.

Net revenue consists of gross revenue, net of costs of inventory and costs incurred from financial institutions. In turn, costs of inventory primarily consists of the purchase of products for resale, such as POS terminals. Costs from financial institutions are comprised of interchange and payment network fees. Interchange fees are paid to card issuers via the payment networks for each card transaction and the payment network fees are fees from the payment networks to operate their networks.

We believe that Adyen's reported net revenue most closely represents gross income for the business as net revenue also excludes all cost of goods sold (e.g. for POS terminals).

Renewal Rates

Adyen has disclosed that the churn rate of its merchant base has been below 1% since 2015. We note that merchant additions or losses can have significant impacts on the number of transactions and processed volumes, particularly in the case of larger merchants.

Channel Presence

Adyen primarily distributes its products through its own sales force. The company has largely avoided reseller relationships; we believe that the only notable reseller relationship that the company has is with Barclays.

Adyen has also entered into relationships with ecommerce platform vendors (e.g. Magento, Salesforce/Demandware, etc.) in order to be distributed through and integrated into these platforms.

Relevant Partnerships

Adyen's primary partnerships are with its acquiring and local payment partners. Adyen also partners with banks, POS terminal providers that produce the terminals that Adyen provides to merchants using Adyen's POS solution.

In order for Adyen to engage in the acquiring of payments, Adyen requires an acquiring license in each market from the card networks. In some markets, Adyen does not possess a license from the card networks and thus rents a license from a local acquiring bank (BIN sponsor). In North America, Adyen rents Wells Fargo's license and in Brazil it rents

Banco Bonsucesso's license.

In the United States, Adyen is also a third party payment processor for Wells Fargo Bank and Deutsche Bank.

In addition, Adyen also partners with numerous technology and software companies to provide integrations of its solutions with those of the partners.

Competition

Adyen competes against a number of businesses along the payment value chain, including the following:

- Incumbent payment service providers as well as banks (and their joint ventures). On a world-wide basis, this includes PayPal, Bank of America Merchant Services, Worldpay, First Data Corporation, Chase Paymentech, Barclaycard, Global Payments, Cielo, Elavon, Ingenico, Wirecard, and Worldline.
- Non-traditional payments processors and other parties entering the digital payments industry, such as Stripe, Klarna, Square and Braintree (PayPal), which may compete in one or more of the functions performed in processing merchant transactions.
- Merchants and merchant associations providing proprietary payment networks to facilitate payments within their own retail network, such as Amazon and Alibaba.
- Gateways, including POS gateways or providers of card readers for mobile devices or point of sale ("POS") and multi-channel technologies (e.g. Ingenico and Oracle).
- Services that provide online merchants the ability to offer their shoppers the option of paying for purchases from their bank account or paying on credit (e.g. PayPal).
- Issuers or providers of "digital wallets" which offer shoppers the ability to pay online and/or on mobile devices the ability to send and receive payments through their bank

account and mobile payment services between bank accounts, such as Monzo and Venmo.

Seasonality and Linearity

The last quarter of the year typically features higher transaction volumes thanks to the holiday period in many markets. As a consequence, this period is generally a higher revenue period for Adyen compared to the other quarters.

Beyond this seasonality, revenue tends to be driven by the on-boarding (or loss) of merchants in a given period.

Vertical Distribution

Adyen operates does not provide information regarding the vertical distribution of its customers. The company operates across industries, most notably in retail, travel, digital services, hospitality, and marketplaces.

In terms of concentration, Adyen's top-10 merchants provided 47% of gross revenue in 2018 (and 31% of net revenue). Adyen's largest two customers each provided more than 10% of gross revenue (both of these customers provided less than 10% of net revenue). These revenue concentrations indicate that the largest customers pay lower fees to Adyen.

Operating Expenses

Adyen does not disclose exposures by functional category (e.g. research & development, sales & marketing, etc), rather by nature (e.g. personnel expenses, etc.). Nonetheless, Adyen discloses that approximately 41% of the company's employees are "Tech" related and 40% are "Commercial" (sales & marketing). Adyen's expenses are comprised of the following:

- **Wages and salaries:** Wages and salaries consist of salary and wage-based compensation paid to employees (including stock-based compensation).
- **Social securities and pension costs:** Social securities and pension costs consist of social security contribution and pension contribution paid by Adyen. Adyen's pension plans are defined contribution plans, thus pension contributions result in no further payment obligations once paid and expenses are recognized when due.
- **Amortization and depreciation of tangible and intangible fixed assets:** Amortization and depreciation of tangible and intangible fixed assets consist of amortization of intangible assets as well as the depreciation of plan and equipment.
- **Other operating expenses:** Other expenses includes office rent, office costs, IT expenses, sales and marketing, travel and staff expenses, advisory and consulting costs, insurance, and merchant default costs.

Capitalized Costs

Adyen capitalizes internally generated software costs and amortizes them on a straight-line basis with an estimated useful life of five years. As of the end of 2018, Adyen was carrying a net book value of €5m in capitalized software costs on its balance sheet.

Long-Term Financial Model

Adyen has provided the following ambitions:

- **Revenue:** Adyen aims to continue growing its net revenue and achieving a revenue growth CAGR in the mid-twenties to low-thirties range over the medium term.
- **EBITDA margin:** Adyen expects to increase its EBITDA margin to over 55% long-term.

- **Capital expenditures:** Adyen expects to have capital expenditures of up to 5% of net revenue over the medium term.

Dividend policy

Adyen does not currently pay a dividend as the company is using retained earnings to support its growth strategy going forward.

As Adyen obtained a banking license in 2017, the company is subject to capital and liquidity requirements. We note that any distribution of dividends is subject to regulatory restrictions set out in CRR (Capital Requirements Regulation) and CRD IV (Capital Requirements Directive 2013/36/EU, as implemented in Dutch law). Adyen will be prevented from distributing dividends in circumstances where the relevant dividend payment would cause its CET1 (Common Equity Tier 1) to:

1. reach a level where Adyen no longer meets its CBR (combined buffer requirement),
2. would cause its distributable items (as defined in CRR) to be exceeded or
3. 3) if Adyen no longer meets its CBR and when aggregated together with other distributions of the kind referred to in article 3:62b Dutch Financial Supervision Act implementing article 141(2) of CRD IV, would cause the relevant maximum distributable amount to be exceeded.

Adyen currently has a CBR of 2.5% imposed on it by the Dutch Central Bank.

Last, the law implementing CRD IV and CRR allows the Dutch Central Bank to restrict or prohibit dividend payments if it views such a measure as needed to strengthen Adyen's capital in view of prudential requirements.

Patents

Adyen does not have any patents of note.

Legal Issues

Adyen has no notable legal issues outstanding.

IPO / Secondary Terms

Adyen went public on 13 June 2018, raising €947 million in net cash for existing shareholders (before an estimated €25.2 million in fees). No new shares were issued. 3.9 million shares of common stock (including a 408 thousand over-allotment option exercised by the underwriters) were sold to the public at €240 per share.

M&A Strategy and History

Adyen has not engaged in any M&A (or disposals) and has instead focused on organically developing its platform and offering.

Management and Supervisory Board Profiles

We provide details on Adyen's management board and supervisory board members below.

Chart 25 - Adyen Management Board

Name / Title	Age	Year Joined Mgmt Board	2019 Cash Compensation Salary (€)	2019 Cash Compensation Bonus (€)	2019 Stock & Option Awards	Beneficial Ownership (# shares)	Experience
Pieter van der Does <i>Co-founder / CEO</i>	50	2006	€ 523,001	N/A	--	1,202,987	Co-founded Adyen in 2006 Previously Chief Commercial Officer at Bibit
Arnout Schuijff <i>Co-founder / CTO</i>	52	2006	€ 261,093	N/A	--	1,613,589	Co-founded Adyen in 2006 Previously co-founder and responsible for technology at Bibit
Ingo Uytendaele <i>CFO</i>	46	2011	€ 493,001	N/A	--	229,570	Previously finance director at Royal KPN MBA in accounting & finance from Maastricht University, MBA in from Aarhus Business School
Roelant Prins <i>CCO</i>	44	2009	€ 427,001	N/A	--	338,011	Previously held international management roles in sales & business development in payment industry Started career as a consultant
Kamran Zaki <i>COO</i>	N/A	2019	N/A	N/A	--	N/A	N/A
Mariëtte Swart <i>Chief Legal & Compliance Officer</i>	N/A	2019	N/A	N/A	--	N/A	N/A

Source: Jefferies, company data

Chart 26 - Adyen Supervisory Board

Name / Title	Age	Year Joined Supervisory Board	Audit	Nomination	Beneficial Ownership (# shares)	Experience
Piero Overmars <i>Chairman of Supervisory Board</i>	55	2017	X	X	1094	Member of supervisory board of AMC Academic Medical Center and Dura Vermeer Groep Previous member of management board of Randstad Beheer Previously served as chairman of supervisory boards of Nutrco and SNS Reaal, President of Nyenrode Foundation MBA from Nyenrode Business University
Delfin Rueda Arroyo	55	2017	X		0	Head of Audit Committee Serves as CFO and member of the executive board of NN Group Previously member of supervisory board of Delta Lloyd, Movir, and CFO of ING Insurance MBA from the Wharton School, University of Pennsylvania
Joep van Beurden	59	2017		X	1719	Head of Nomination and Remuneration Committee CEO and member of executive board of Kendrion, supervisory board member of Twente University Previously served as CEO of CSR Plc and NexWave
Pamela Ann Joseph	60	2019	X	X	0	Degree in Applied Physics from Twente University of Technology CEO and member of management board of Clearnet Board member of Paychex, Transunion, and Spelman College Previously served as Payment Services Vice-Chairman at US Bankcorp and President and COO of Elavon Degree in Business Administration from University of Illinois

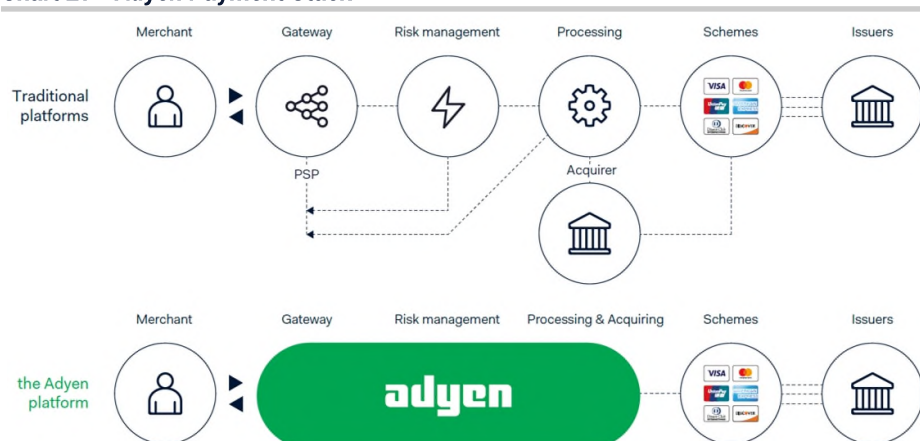
Source: Jefferies, company data

Products and Technology

Platform

Adyen's platform integrates the full payments stack, it integrates the gateway (or POS), risk management, and acquiring and processing into a single integrated platform. This approach is designed to provide Adyen with insights into the payments flow. Adyen employs machine learning technologies and performs data mining in order to generate insights to merchants on transactions from the payments flow. See Chart 27 for a depiction of Adyen's payment stack.

Chart 27 - Adyen Payment Stack



Source: Jefferies, company data

Adyen's single platform simplifies management of the platform, offers operational efficiencies, and enables increased agility in quickly launching new features. The platform has been fully developed, and is run, in-house, and all new features have been designed with the ability to scale in mind. Adyen's proprietary software for its platform runs on open source technology and remains largely independent of software commercially licensed from third parties.

Adyen believes that not being limited by third party software in its core operations has been a key factor behind its ability to rapidly increase the number of transactions that the platform can process. Adyen also believes that managing all operations in-house helps to maintain a high level of security and performance. The end-to-end control further enables flexibility for Adyen to combine platform components in different configurations to meet the various needs of its merchants and allow for scalability.

As part of its platform, Adyen offers direct credit and debit card acquiring and processing capabilities, whereby Adyen connects directly to the major card networks. Adyen platform is also connected to local payment methods, such as AliPay, WeChat Pay and iDeal. Adyen integrates local payment solutions directly into the same platform as the rest of the company's offerings. This enables merchants to implement a single solution to provide their offerings to shoppers across sales channels and on a worldwide basis.

Additional Products and Services

Adyen offers its merchants tools to integrate Adyen's processing and settling services into their various sales channels via Adyen Checkout. Adyen Checkout functions as a front-end to Adyen's platform and caters to online, mobile and in-store transactions.

Adyen Checkout

Adyen Checkout is designed to generate higher shopper conversion through built-in personalization and localization tools, shopper preferences, and risk profiles. Adyen Checkout also provides traceability of where shoppers are in the payment flow.

Adyen Checkout supports Adyen's full range of payment methods, including major card networks and local payment methods, as well as conversion optimization features. Adyen Checkout is designed to support a wide range of devices, screen sizes and software development environments. Adyen Checkout supports numerous ways of integration into a merchant's architecture: it can be integrated with full control on an API level, or by leveraging Adyen's software development kits (SDK).

Terminal API

Adyen Checkout can be used for online, mobile and in-store payments. Adyen offers a terminal API (Application programming interface) as part of Adyen Checkout, which enables Adyen Checkout to be integrated in-store.

Adyen provides its terminals (which are produced by a third party) directly to merchants for out-of-the box use with Adyen's terminal API. The terminal API communicates directly to the terminal, as well as to Adyen's platform, which allows for the unification of all payment processing activities. The terminal API enables the integration of all payment methods, payment processing features, and terminals the merchant is using via Adyen.

For merchants that only use Adyen's processing services in-store, the terminal API can be integrated on a stand-alone basis. The terminal API is also part of Adyen Checkout, so merchants accepting payments on multiple channels have direct access via Adyen Checkout.

Adyen's terminals are NFC (nearfield communication) enabled and support a wide range of key mobile and local payment methods, including AliPay, WeChat Pay, Apple Pay and Google Pay.

Marketplace Solutions (Adyen MarketPay)

Adyen MarketPay is a payment and payout solution for marketplaces (i.e. enabling marketplaces to pay out to users/merchants). Adyen MarketPay is designed to be a "one-stop-shop" solution for marketplaces to offer their services globally. This solution is an extension of the Adyen platform; it includes automated and secured onboarding of sub-merchants, the ability to automatically split payments between merchant funds and sub-merchant payouts, optimized payout facilitation, and managed compliance.

Through Adyen MarketPay, Adyen executes KYC and anti-money laundering checks in compliance with global regulatory requirements. We note that although Adyen supports marketplaces in their regulation and compliance requirements, the primary responsibility remains with the marketplaces.

Data-enabled Products

Adyen offers several data enabled products, which include the three main offerings: RevenueAccelerate, RevenueProtect, and Shopper Insights.

Authorization Rate Optimization ("RevenueAccelerate")

RevenueAccelerate is a data driven suite of automated tools, which work in the background of each payment to increase authorization rates and revenue.

RevenueAccelerate uses machine learning and data mining techniques to build logic to adapt both the format and route of each payment request in real-time, targeting the highest chance of an approval from the issuing bank. RevenueAccelerate's features

include intelligent payment routing, dynamic card validation, auto-retries and account updating. All of these features work automatically and in tandem to provide merchants with increased authorization rates. RevenueAccelerate is designed to automatically adapt to changes that are made in the payment ecosystem.

Fraud Prevention ("RevenueProtect")

RevenueProtect also uses machine learning and data mining to screen transactions for fraud. RevenueProtect performs a number of checks resulting in a total score for every transaction, which gives an indication of the likelihood of the transaction being fraudulent.

Merchants can configure scoring rules, and Adyen also offers manual review interfaces and outsourcing services. As part of RevenueProtect, Adyen's has implemented ShopperDNA, a proprietary transaction-linking algorithm.

ShopperDNA creates a holistic view of related transactions across a merchant's entire history, allowing Adyen to identify fraudulent transactions and shoppers. ShopperDNA is aimed at reducing fraud rates.

Shopper Insights

Adyen offers data-driven reporting via its merchant user interface, its reporting service, and through general data enablement in the payment responses Adyen's merchants receive via APIs. Adyen's enables merchants to analyze their payments and shopper data and it provides 'out-of-the-box' insights tools for merchants.

Banking Products

Adyen obtained a European banking license in 2017, which enables the company to offer payment processing services with direct settlement of funds from an Adyen account to the merchant accounts.

Adyen also intends to offer multi-currency accounts to merchants, however they will only be offered in conjunction with Adyen's payment processing service, with the aim of improving the settlement flow to merchants.

Adyen also plans to offer Sales Day Payout, a pre-financing service for merchants where Adyen credits merchant bank accounts with respect to the payment transactions that have been approved, but not yet settled through the relevant card networks or acquirers. Adyen currently only supports Sales Day Payout for payment methods contracted and settled through Adyen.

Technology

Adyen's technology platform started development when the company was founded and has been entirely built in-house. Some of the key focus areas for the company were scalability, security, and performance. The company has met each of those three key points as follows:

- **Scalability:** Adyen's technology stack is built on open-source software and thus largely independent from commercial third-party software vendors. The platform employs a modular approach (using a service oriented architecture) and is also designed such that transactions can be processed over multiple independent servers, providing scalability to the platform. This modular approach is designed to enable Adyen to selectively develop individual parts of its services.
- **Security:** Adyen's platform continuously monitors activity and anomalous data is analyzed for potential unauthorized activity. Adyen's platform is compliant with PCI DSS (Payment Card Industry Data Security Standards).

- Performance: Adyen's technology runs in six data centers around the world, in order for payment requests to be handled by the servers that are closest to the merchant or shopper. Systems are in separate data centers in Europe, the United States, and Australia. Adyen does not employ public cloud services for payment processing.

Adyen's technology strategy revolves around following a merchant-driven strategy, whereby Adyen prioritizes new developments that can serve leading businesses in a given vertical and then be rolled out to Adyen's entire platform and user base. Adyen follows a development process whereby it continuously improves its products and quickly launches new features, and subsequently iterates upon them. The company typically releases improvements to its core system on a weekly basis.

Ownership

Approximately 28% of outstanding Adyen shares are currently held by institutional investors who invested in Adyen prior to the company's IPO.

We highlight that the two co-founders of Adyen currently hold 9.5% of shares outstanding in the company on a combined basis. In addition, Mr. Prins, who joined Adyen in 2009, holds approximately 1% of shares outstanding. See Chart 28.

Chart 28 - Adyen Ownership

Notable Institutional Shareholders	Number of Shares	Percent of Shares Outstanding	As of
Temasek Holdings	2,395,000	8.09%	Dec-2018
Partners in Equity	1,282,000	4.33%	Dec-2018
Iconiq Strategic Management	1,268,000	4.28%	Dec-2018
Ark B Holding	900,000	3.04%	Jan-2020
Bridford Music	876,000	2.96%	Sep-2019
General Atlantic	853,000	2.88%	Jan-2020
Index Ventures	817,000	2.76%	Feb-2020

Executive Officers and Directors	Number of Shares	Percent of Shares Outstanding	As of
Arnout Schuijff	1,614,000	5.45%	Aug-2019
Pieter van der Does	1,203,000	4.06%	Aug-2019
Roelant Prins	338,000	1.14%	Feb-2020

Total Shares Outstanding (Basic)	29,596,056		
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Source: Jefferies, company data

In addition, Adyen has granted eBay four tranches of warrants giving it the ability to acquire 1.25% of the company's diluted outstanding shares (as of 31 January 2018) per tranche, for a total of 5.00%. Each tranche is linked to eBay meeting certain milestones related to processed volume on a calendar basis. When the milestone is met, the tranche becomes exercisable, until the warrants expire on 31 January 2025. A maximum of two tranches can vest any calendar year. We do not believe that any of the milestones have yet to be met.

The exercise price for the first two tranches is equal to the company's IPO price and the exercise price for the latter two tranches is equal to the price of Adyen's stock on the date that eBay meets its commitments relating to the second tranche.

The tranches also contain specific exercise clauses if Adyen is acquired by a non-strategic acquirer through 2021. We do not believe that Adyen is likely to enter into similar agreements with other merchants.

Chart 30 - Adyen Comparables

Values in Millions																		
Company	Ticker	Price	Rating	Price Target	Market Cap	Enterprise Value	2019A	Revenue 2020E	2021E	2019A	FCF 2020E	2021E	2019A	EV/Revenue 2020E	2021E	2019A	EV/FCF 2020E	2021E
Payments Companies - Europe Listed																		
Network International Holdings Plc	NETW-GB	\$3.46	Hold	\$3.90	\$2,152	\$2,485	335	368	419	60	54	113	7.4x	6.8x	5.9x	41.7x	45.9x	21.9x
Nexi S.p.A.	NEXI-IT	€ 12.12	Buy	€ 18.00	€ 7,606	€ 11,282	€ 984	€ 1,092	€ 1,182	€ 222	€ 261	€ 318	11.5x	10.3x	9.5x	50.7x	43.2x	35.5x
Wirecard AG	WDI-DE	€ 101.76	NC	-	€ 12,574	€ 10,268	€ 2,800	€ 3,450	€ 4,410	€ 449	€ 649	€ 893	3.7x	3.0x	2.3x	22.9x	15.8x	11.5x
Worldline SA	WLN-FR	€ 52.20	Buy	€ 73.00	€ 9,485	€ 10,181	€ 2,382	€ 2,482	€ 2,673	€ 288	€ 344	€ 460	4.3x	4.1x	3.8x	35.4x	29.6x	22.2x
Median						€ 10,225							5.8x	5.4x	4.9x	38.5x	36.4x	22.0x
Mean						€ 8,502							6.7x	6.0x	5.4x	37.7x	33.6x	22.8x
Payments Companies - US Listed																		
EVO Payments, Inc. Class A	EVOP	\$13.49	NC	-	\$510	\$988	598	484	610	23	160	141	1.7x	2.0x	1.6x	43.0x	6.2x	7.0x
Global Payments Inc.	GPN	\$133.23	Buy	\$235.00	\$40,281	\$48,678	5,267	7,606	8,326	853	2,179	2,506	9.2x	6.4x	5.8x	57.0x	22.3x	19.4x
PAR Technology Corporation	PAR	\$11.54	Buy	\$35.00	\$191	\$229	187	233	-	(8)	(11)	--	1.2x	1.0x	0.0x	-29.8x	-21.2x	0.0x
PayPal Holdings Inc	PYPL	\$93.82	Buy	\$140.00	\$111,364	\$102,705	17,772	20,791	24,245	3,857	4,610	5,306	5.8x	4.9x	4.2x	26.6x	22.3x	19.4x
Square, Inc. Class A	SQ	\$46.89	Hold	\$85.00	\$22,760	\$21,599	2,274	2,607	3,317	338	179	780	9.5x	8.3x	6.5x	63.9x	120.7x	27.7x
StoneCo Ltd. Class A	STNE	\$20.58	NC	-	\$25,234	\$28,034	2,576	3,215	4,331	(366)	858	1,737	10.9x	8.7x	6.5x	-76.7x	32.7x	16.1x
Payments Companies - Other Listings																		
Cielo	CIEL3-BR	4.26	NC	-	11,571	15,809	12,199	12,133	12,946	3,418	3,465	1,956	1.3x	1.3x	1.2x	4.6x	4.6x	8.1x
Median													7.5x	5.7x	5.0x	34.8x	22.3x	17.7x
Mean													6.4x	5.2x	4.1x	14.0x	30.5x	14.9x
Adyen NV	ADYEN-NL	€ 740			€ 21,910	€ 20,678	€ 497	€ 678	€ 932	€ 423	€ 319	€ 480	41.6x	30.5x	22.2x	48.8x	64.7x	43.1x
Adyen NV (at Price Target)		€ 882			€ 26,107	€ 24,875	€ 497	€ 678	€ 932	€ 423	€ 319	€ 480	50.1x	36.7x	26.7x	58.7x	77.9x	51.8x

Source: Jefferies, FactSet

Our forecast for total revenue growth of 36% and 40% in 2020 and 2021, respectively, is above the above group average total revenue growth of 14% and 18% in 2020 and 2021, respectively.

Chart 31 - Adyen IFRS Income Statement

Adyen NV Income Statement FY ends in December, € in millions	Units															
	2019A		2020E		2021E		2022E		2019A		2020E		2021E		2022E	
	Jun-19A	Dec-19A	Jun-20E	Dec-20E	Jun-21E	Dec-21E	Jun-22E	Dec-22E	Jun-19A	Dec-19A	Jun-20E	Dec-20E	Jun-21E	Dec-21E	Jun-22E	Dec-22E
Revenue	€m	1,144.2	1,512.6	1,617.9	2,115.5	2,316.4	3,076.3	3,733.4	2,656.8	3,733.4	3,733.4	5,392.7	7,887.2	5,392.7	7,887.2	7,887.2
h/h growth	%	19.7%	32.2%	7.0%	30.8%	9.5%	32.8%	30.8%	32.2%	30.8%	30.8%	32.8%	32.8%	32.8%	32.8%	32.8%
y/y growth	%	64.1%	58.2%	41.4%	39.9%	40.5%	44.4%	40.5%	60.7%	40.5%	40.5%	44.4%	46.3%	44.4%	44.4%	46.3%
Cost incurred from financial institutions	€m	915.1	1,228.5	1,317.0	1,720.5	1,893.7	2,527.8	3,037.5	2,143.5	3,037.5	3,037.5	4,421.6	6,575.9	4,421.6	6,575.9	6,575.9
Cost of inventory	€m	8.0	8.5	8.9	11.9	11.3	15.4	20.8	16.5	20.8	20.8	26.7	33.2	26.7	33.2	33.2
Net revenue	€m	221.1	275.6	292.0	383.1	411.4	533.1	675.1	496.7	675.1	675.1	944.5	1,278.1	944.5	1,278.1	1,278.1
h/h growth	%	14.9%	24.6%	6.0%	31.2%	7.4%	29.6%	31.2%	24.6%	31.2%	31.2%	29.6%	29.6%	29.6%	29.6%	29.6%
y/y growth	%	41.3%	43.2%	32.1%	39.0%	40.9%	39.2%	35.9%	42.4%	35.9%	35.9%	39.9%	35.3%	39.9%	35.3%	35.3%
Wages and salaries	€m	45.0	55.4	58.4	76.6	78.2	101.3	135.0	100.5	135.0	135.0	179.5	236.5	179.5	236.5	236.5
Social security and pension costs	€m	9.8	12.2	12.8	16.9	17.2	22.3	29.7	22.0	29.7	29.7	39.5	52.0	39.5	52.0	52.0
Amortization and depreciation	€m	10.3	12.0	6.4	7.2	8.4	9.7	13.6	22.3	13.6	13.6	18.1	24.6	18.1	24.6	24.6
Other operating expenses	€m	40.5	54.7	54.1	69.8	69.8	89.3	123.8	95.1	123.8	123.8	159.1	202.6	159.1	202.6	202.6
Other income (dividends)	€m	0.0	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
Other gains & losses	€m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total operating expenses	€m	105.6	134.1	131.6	170.4	173.5	222.5	302.0	239.7	302.0	302.0	396.0	515.6	396.0	515.6	515.6
Operating income	€m	115.5	141.5	160.4	212.7	237.9	310.6	373.1	257.0	373.1	373.1	548.5	762.6	548.5	762.6	762.6
Operating margin	%	52.2%	51.3%	54.9%	55.5%	57.8%	58.3%	55.3%	51.7%	55.3%	55.3%	58.1%	59.7%	58.1%	59.7%	59.7%
Finance income	€m	0.0	0.3	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3
Finance expenses	€m	(2.3)	(2.3)	(1.9)	(2.0)	(2.4)	(2.5)	(3.9)	(4.6)	(3.9)	(3.9)	(4.9)	(6.1)	(4.9)	(6.1)	(6.1)
Other financial results	€m	1.7	2.9	-	-	-	-	-	4.6	-	-	-	-	-	-	-
Net finance income	€m	(0.6)	0.8	(1.8)	(1.9)	(2.3)	(2.3)	(3.7)	0.3	(3.7)	(3.7)	(4.6)	(5.8)	(4.6)	(5.8)	(5.8)
Profit before tax	€m	114.9	142.4	158.5	210.8	235.6	308.3	369.4	257.3	369.4	369.4	543.9	756.7	543.9	756.7	756.7
Income taxes	€m	(22.4)	(30.8)	(31.7)	(42.2)	(47.1)	(61.7)	(73.9)	(53.2)	(73.9)	(73.9)	(108.8)	(151.3)	(108.8)	(151.3)	(151.3)
Tax rate	%	19.5%	21.7%	20.0%	20.0%	20.0%	20.0%	20.0%	20.7%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%
Net income (IFRS)	€m	92.5	111.5	126.8	168.6	188.5	246.6	295.5	204.0	295.5	295.5	435.1	605.4	435.1	605.4	605.4
Net margin	%	41.8%	40.5%	43.4%	44.0%	45.8%	46.3%	43.8%	41.1%	43.8%	43.8%	46.1%	47.4%	46.1%	47.4%	47.4%
EPS	c	3.02	3.67	4.13	5.46	6.08	7.91	9.60	6.68	9.60	9.60	13.99	19.28	13.99	19.28	19.28
Basic shares outstanding	m	29.6	29.7	29.8	30.0	30.1	30.3	30.2	29.6	30.2	30.2	30.2	30.5	30.2	30.5	30.5
Diluted shares outstanding	m	30.7	30.4	30.7	30.9	31.0	31.2	31.1	30.5	31.1	31.1	31.1	31.4	31.1	31.4	31.4
Extraordinary items	€m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adjusted EBITDA	€m	125.8	153.5	166.8	219.9	246.3	320.3	386.7	279.3	386.7	386.7	566.6	787.234	566.6	787.234	787.234
Operating income	€m	115.5	141.5	160.4	212.7	237.9	310.6	373.1	257.0	373.1	373.1	548.5	762.6	548.5	762.6	762.6
Depreciation & Amortisation	€m	10.3	12.0	6.4	7.2	8.4	9.7	13.6	22.3	13.6	13.6	18.1	24.6	18.1	24.6	24.6
Goodwill impairment (net of expense)	€m	125.8	153.5	166.8	219.9	246.3	320.3	386.7	279.3	386.7	386.7	566.6	787.234	566.6	787.234	787.234
Extraordinary items	€m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adjusted EBITDA	€m	125.8	153.5	166.8	219.9	246.3	320.3	386.7	279.3	386.7	386.7	566.6	787.234	566.6	787.234	787.234

		Units															
		2019A		2020E		2021E		2022E		2019A		2020E		2021E		2022E	
Adyen NV		Jun-19A	Dec-19A	Jun-20E	Dec-20E	Jun-21E	Dec-21E	Jun-22E	Dec-22E	Jun-19A	Dec-19A	Jun-20E	Dec-20E	Jun-21E	Dec-21E	Jun-22E	Dec-22E
Income Statement																	
FY ends in December, € in millions																	
Revenue	€m	1,144.2	1,512.6	2,656.8	1,617.9	2,115.5	3,733.4	2,316.4	3,076.3	5,392.7	7,887.2						
h/h growth	%	19.7%	32.2%		7.0%	30.8%		9.5%	32.8%								
y/y growth	%	64.1%	58.2%	60.7%	41.4%	39.9%	40.5%	43.2%	45.4%	44.4%	46.3%						
Cost incurred from financial institutions	€m	915.1	1,228.5	2,143.5	1,317.0	1,720.5	3,037.5	1,893.7	2,527.8	4,421.6	6,575.9						
Cost of inventory	€m	8.0	8.5	16.5	8.9	11.9	20.8	11.3	15.4	26.7	33.2						
Net revenue	€m	221.1	275.6	496.7	292.0	383.1	675.1	411.4	533.1	944.5	1,278.1						
h/h growth	%	14.9%	24.6%		6.0%	31.2%		7.4%	29.6%								
y/y growth	%	41.3%	43.2%	42.4%	32.1%	39.0%	35.9%	40.9%	39.2%	39.9%	35.3%						
Wages and salaries	€m	45.0	55.4	100.5	58.4	76.6	135.0	78.2	101.3	179.5	236.5						
Social security and pension costs	€m	9.8	12.2	22.0	12.8	16.9	29.7	17.2	22.3	39.5	52.0						
Amortization and depreciation	€m	10.3	12.0	22.3	6.4	7.2	13.6	8.4	9.7	18.1	24.6						
Other operating expenses	€m	40.5	54.7	95.1	54.1	69.8	123.8	69.8	89.3	159.1	202.6						
Other income (dividends)	€m	0.0	(0.2)	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)						
Other gains & losses	€m	-	-	-	-	-	-	-	-	-	-						
Total operating expenses	€m	105.6	134.1	239.7	131.6	170.4	302.0	173.5	222.5	396.0	515.6						
Operating income	€m	115.5	141.5	257.0	160.4	212.7	373.1	237.9	310.6	548.5	762.6						
Operating margin	%	52.2%	51.3%	51.7%	54.9%	55.5%	55.3%	57.8%	58.3%	58.1%	59.7%						
Finance income	€m	0.0	0.3	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.3						
Finance expenses	€m	(2.3)	(2.3)	(4.6)	(1.9)	(2.0)	(3.9)	(2.4)	(2.5)	(4.9)	(6.1)						
Other financial results	€m	1.7	2.9	4.6	-	-	-	-	-	-	-						
Net finance income	€m	(0.6)	0.8	0.3	(1.8)	(1.9)	(3.7)	(2.3)	(2.3)	(4.6)	(5.8)						
Profit before tax	€m	114.9	142.4	257.3	158.5	210.8	369.4	235.6	308.3	543.9	756.7						
Income taxes	€m	(22.4)	(30.8)	(53.2)	(31.7)	(42.2)	(73.9)	(47.1)	(61.7)	(108.8)	(151.3)						
Tax rate	%	19.5%	21.7%	20.7%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%						
Net income (IFRS)	€m	92.5	111.5	204.0	126.8	168.6	295.5	188.5	246.6	435.1	605.4						
Net margin	%	41.8%	40.5%	41.1%	43.4%	44.0%	43.8%	45.8%	46.3%	46.1%	47.4%						
EPS	c	3.02	3.67	6.68	4.13	5.46	9.60	6.08	7.91	13.99	19.28						
Basic shares outstanding	m	29.6	29.7	29.6	29.8	30.0	29.9	30.1	30.3	30.2	30.5						
Diluted shares outstanding	m	30.7	30.4	30.5	30.7	30.9	30.8	31.0	31.2	31.1	31.4						
Items & Adjustments																	
Operating income	€m	115.5	141.5	257.0	160.4	212.7	373.1	237.9	310.6	548.5	762.6						
Depreciation & Amortisation	€m	10.3	12.0	22.3	6.4	7.2	13.6	8.4	9.7	18.1	24.6						
EBITDA	€m	125.8	153.5	279.3	166.8	219.9	386.7	246.3	320.3	566.6	787.2						
EBITDA impairment (net of expense)	€m	56.9%	55.7%	56.2%	57.1%	57.4%	57.3%	59.9%	60.1%	60.0%	61.6%						
Please refer to Appendix (net of expense) information on pages 39 - 44 of this report																	
Extraordinary items	€m	-	-	-	-	-	-	-	-	-	-						
Adjusted EBITDA	€m	125.8	153.5	279.3	166.8	219.9	386.7	246.3	320.3	566.6	787.2						

Chart 33 - Adyen Cash Flow Statement

	Units															
	2019A		2020E		2021E		2022E		2019A		2020E		2021E		2022E	
	Jun-19A	Dec-19A	Jun-20E	Dec-20E	Jun-21E	Dec-21E	Jun-22E	Dec-22E	Jun-19A	Dec-19A	Jun-20E	Dec-20E	Jun-21E	Dec-21E	Jun-22E	Dec-22E
Cash Flow Statement	FY ends in December, € in millions															
Cash flow from operations																
Profit before tax	114.9	142.4	257.3	158.5	210.8	369.4	235.6	308.3	543.9	756.7	(0.0)	(0.3)	(0.1)	(0.1)	(0.2)	(0.3)
Finance income	(0.0)	(0.3)	(0.3)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)	(0.2)	(0.3)	2.3	2.0	2.4	2.5	4.9	6.1
Finance expenses	2.3	2.3	4.6	1.9	2.0	3.9	2.4	2.5	4.9	6.1	(1.7)	(2.9)	-	-	-	-
Other financial results	(1.7)	(2.9)	(4.6)	-	-	-	-	-	-	-	4.2	4.9	6.6	7.6	14.2	19.3
Depreciation of PP&E	4.2	4.9	9.0	5.0	5.7	10.7	6.6	7.6	14.2	19.3	1.0	1.2	1.4	2.1	3.9	5.3
Amortization of intangible fixed assets	1.0	1.2	2.2	1.4	1.5	2.9	1.8	2.1	3.9	5.3	5.2	6.0	6.0	6.0	11.9	11.9
Depreciation of right-of-use assets	5.2	6.0	11.1	6.0	6.0	11.9	6.0	6.0	11.9	11.9	1.3	1.8	4.1	5.3	9.4	12.8
Share-based payments	1.3	1.8	3.1	2.9	3.8	6.8	4.1	5.3	9.4	12.8	-	-	-	-	-	-
Financial assets at amortized cost	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Receivables	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changes working capital																
Inventories	(0.0)	0.9	0.8	(1.8)	(3.0)	(4.7)	0.6	(4.0)	(3.4)	(3.7)	(4.4)	(0.2)	(4.7)	(20.0)	(24.7)	(28.5)
Trade and other receivables	(4.4)	(0.2)	(4.6)	(1.1)	(15.0)	(16.0)	(4.7)	(20.0)	(24.7)	(28.5)	(5.7)	(82.1)	(69.3)	(246.4)	(315.7)	(440.8)
Receivables from financial institutions	(5.7)	(82.1)	(87.7)	(75.0)	(148.1)	(223.2)	(91.4)	(312.8)	(404.1)	(603.2)	42.3	292.2	36.8	438.7	475.5	603.2
Payables to merchants and financial institutions	42.3	292.2	334.5	91.4	312.8	404.1	36.8	438.7	475.5	603.2	9.6	46.0	12.3	45.5	57.8	82.0
Trade and other payables	9.6	46.0	55.6	6.3	29.0	35.3	12.3	45.5	57.8	82.0	(0.4)	-	(0.4)	(4.4)	(6.0)	(6.0)
Deferred revenue	(0.4)	-	(0.4)	(3.1)	(3.1)	(6.2)	(0.4)	(4.4)	(6.0)	(6.0)	0.8	0.8	0.6	(4.0)	(3.4)	(3.7)
Financial asset at amortized cost	4.4	-	4.4	(3.1)	(3.1)	(6.2)	(0.4)	(4.4)	(6.0)	(6.0)	0.8	0.8	0.6	(4.0)	(3.4)	(3.7)
Contract asset	0.8	1.3	2.1	-	-	-	-	-	-	-	173.9	413.4	587.3	540.9	772.7	1,018.0
Cash generated from operations	173.9	413.4	587.3	192.4	402.2	594.6	231.7	540.9	772.7	1,018.0	0.0	0.3	0.1	0.1	0.2	0.3
Interest received	0.0	0.3	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.3	(2.3)	(2.3)	(2.4)	(2.5)	(4.9)	(6.1)
Interest paid	(2.3)	(2.3)	(4.6)	(1.9)	(2.0)	(3.9)	(2.4)	(2.5)	(4.9)	(6.1)	(34.7)	(18.8)	(31.7)	(61.7)	(108.8)	(151.3)
Income taxes paid	(34.7)	(18.8)	(53.5)	(31.7)	(42.2)	(73.9)	(47.1)	(61.7)	(108.8)	(151.3)	136.8	392.6	529.5	476.9	659.3	860.8
Net cash flow from operations	136.8	392.6	529.5	158.8	358.1	517.0	182.3	476.9	659.3	860.8	(10.1)	-	-	-	-	-
Cash flow from investing activities																
Purchases of financial assets at amortized cost	(10.1)	-	(10.1)	-	-	-	-	-	-	-	(5.8)	(9.4)	(8.8)	(11.5)	(20.3)	(38.3)
Redemption of financial assets at amortized cost	7.3	-	7.3	-	-	-	-	-	-	-	(2.4)	(2.4)	(2.3)	(4.3)	(7.6)	(10.2)
Purchases of property, plant & equipment	(5.8)	(9.4)	(15.2)	(8.8)	(11.5)	(20.3)	(12.3)	(16.0)	(28.3)	(38.3)	-	-	-	-	-	-
Capitalization of intangible assets	(2.4)	(2.4)	(4.8)	(2.3)	(3.1)	(5.4)	(3.3)	(4.3)	(7.6)	(10.2)	-	-	-	-	-	-
Disposal of plant and equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Receivables	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest received	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dividends received	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	-	0.1	0.1	0.1	0.1
Net cash generated from investing activities	(11.0)	(11.8)	(22.8)	(11.0)	(14.5)	(25.5)	(15.6)	(20.2)	(35.7)	(48.4)	(11.0)	(14.5)	(15.6)	(20.2)	(35.7)	(48.4)
Cash flow from financing activities																
Proceeds from issuance of ordinary shares	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Share premium paid by shareholders	3.3	12.1	15.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Other movement resulting from depository receipts (treasury shares)	-	22.3	22.3	-	-	-	-	-	-	-	-	-	-	-	-	-
Change of depository receipts (treasury shares)	(18.3)	-	(18.3)	(4.7)	(4.7)	(9.5)	(4.7)	(4.7)	(9.5)	(9.5)	(18.3)	-	(4.7)	(4.7)	(9.5)	(9.5)
Net cash generated from financing activities	(20.2)	29.6	9.4	(4.7)	(4.7)	(9.5)	(4.7)	(4.7)	(9.5)	(9.5)	(20.2)	29.6	9.4	(4.7)	(4.7)	(9.5)

Company Description

Adyen

Adyen was founded in 2006 and focused on building a modern infrastructure directly connected to card networks and local payment methods across the world, allowing for unified commerce and providing shopper data insights to merchants. The Adyen platform enables merchants to accept payments in a single system, enabling revenue growth online, on mobile devices and at the point of sale.

Company Valuation/Risks

Adyen

Our €882 PT is based on our DCF analysis. Risks to our price target include: 1. revenue growth decelerates or margins decline, 2. mid-market effort does not gain traction (and impacts ROCE), 3. ecommerce partners act as gatekeepers, 4. premium valuation.

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Investment Recommendation Record

(Article 3(1)e and Article 7 of MAR)

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Explanation of Jefferies Ratings

Buy - Describes securities that we expect to provide a total return (price appreciation plus yield) of 15% or more within a 12-month period.

Hold - Describes securities that we expect to provide a total return (price appreciation plus yield) of plus 15% or minus 10% within a 12-month period.

Underperform - Describes securities that we expect to provide a total return (price appreciation plus yield) of minus 10% or less within a 12-month period.

The expected total return (price appreciation plus yield) for Buy rated securities with an average security price consistently below \$10 is 20% or more within a 12-month period as these companies are typically more volatile than the overall stock market. For Hold rated securities with an average security price consistently below \$10, the expected total return (price appreciation plus yield) is plus or minus 20% within a 12-month period. For Underperform rated securities with an average security price consistently below \$10, the expected total return (price appreciation plus yield) is minus 20% or less within a 12-month period.

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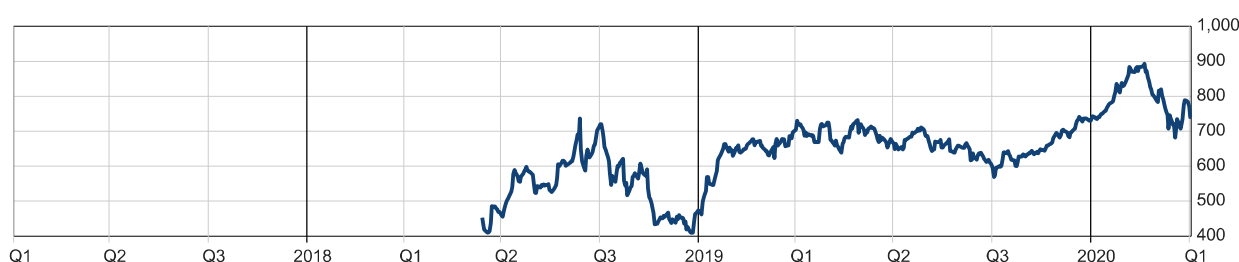
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Rating and Price Target History for: Adyen N.V. (ADYEN NA) as of 04-02-2020



Notes: Each box in the Rating and Price Target History chart above represents actions over the past three years in which an analyst initiated on a company, made a change to a rating or price target of a company or discontinued coverage of a company.

Legend:

I: Initiating Coverage

D: Dropped Coverage

B: Buy

H: Hold

UP: Underperform

Distribution of Ratings

Distribution of Ratings						
			IB Serv./Past12 Mos.		JIL Mkt Serv./Past12 Mos.	
	Count	Percent	Count	Percent	Count	Percent
BUY	1304	54.58%	111	8.51%	12	0.92%
HOLD	939	39.31%	33	3.51%	2	0.21%
UNDERPERFORM	146	6.11%	1	0.68%	0	0.00%

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