



promontory
investment research

Coinbase
MP Materials
Richemont

Autumn 2021 Equity Report

Foreword

Promontory Investment Research is proud to present its tenth equity research report in print. Our Research Analysts have continued to deliver high quality reports, so we are thrilled to share our newest research with you.

Although going back to being in-person full force has presented us with many different challenges, Promontory has unwaveringly maintained the tight-knit community while producing quality research reports. Our Research Analysts delved into six companies from different industries, and we have chosen the three best to publish: Coinbase, a platform that allows for the exchange of cryptocurrency, MP Materials, a rare-earth element (REE) mining company, and Richemont, a large international luxury group.

Over the past ten weeks, each Research Analyst “pod” spent a lot of time brainstorming by themselves, working closely with our Research Committee, and creating their own quantitative models all to cultivate and support their respective investment thesis. We believe that this publication is a strong reflection of all the time and consideration our Research Analysts have put into their work and we hope you enjoy reading what they have to say. We recently began an online publication of our Research Analysts who decided to write a white paper or industry primer on any topic or industry of their choice. We encourage you to join the discourse through reading our work and discussing with us your personal thoughts.

We look forward to the future with excitement as always. Internally, we have hosted in-person engagement activities nearly every other week from poker nights to late night runs to Chinatown, along with our pod-specific engagement. We are growing in number and campus presence, but we will not lose sight of our mission to maintain a welcoming environment. We especially hope to foster a stronger sense of community between the class years through our continued mentor-mentee initiative. Externally, we hosted our first Energy Speaker Panel this quarter and we seek to continue our engagement with the campus community through similar events. Among others, major initiatives we hope to accomplish in the near future include fundraising and philanthropy. We can only promise that there is still much to come for Promontory, but we hope you will keep an eye out for us.

Victoria Gin
President

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James Chou — Head, Research
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Special Appreciation

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Basic Financial Training

Fall 2021 Class
Alejandro Morles
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Aneesh Bafna
Clara (Yingqi) Ee
Jenny Li
Josh Seidner
Marcus Brotman
Rocco Fantini
Stella Chen
Themis Frigo



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Coinbase (NASDAQ: COIN)

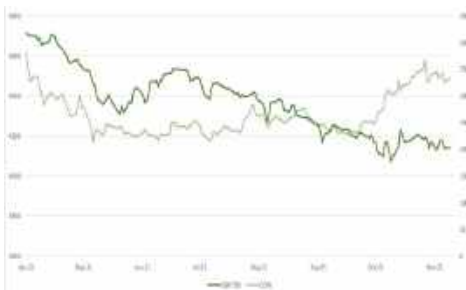
Coinbase | NASDAQ: COIN

Negative	Neutral	Positive
Share Price, 11/14/21:		\$342.98
Market Capitalization:		\$89.826B
Shares Outstanding:		155.24M
52-week Range:	\$ 208.00 -	429.54
EPS (FY17):		\$ 13.29
Average Analyst Price Target:		\$406.20

Company Overview

Founded in 2012 and IPO-ing in April 2021, Coinbase is a platform that allows for the exchange of cryptocurrency, holding over \$223 in digital assets. Coinbase posted a trading volume of \$462 billion in the second quarter of 2021, its second ever as a public company, up from \$335 billion in the first quarter. Currently, Coinbase operates as one of the largest platforms of its kind by trading volume and serves 56mm users, 8k institutions, and 134k ecosystem partners across 100+ countries. The platform offers three main services: (1) products for retail traders, (2) products for institutional traders, and (3) API services (application programming interface) for firms to build crypto-based platforms and securely accept payments. Monthly transacting users accounts for 10.89% of all users on the platform. A significant amount of trading volume on their platform is derived from a “relatively small” group of customers both on the retail and institutional side.

Price Chart



Business Lines

Retail traders use the app Coinbase to buy, sell, and trade various forms of cryptocurrency in a brokerage-based platform. Alternatively, daily traders can choose to use Coinbase Pro which provides a lower fee structure per transaction, offers multiple trade options and advanced charting, and crypto-based trading pairs. Both platforms contain many security features and insurance on cryptocurrencies in case of a Coinbase break and FDIC-insured fiat currencies (i.e. dollars, euros, etc.). Examples of these security features include offline storage of sensitive data, data encryption, and the use of 2 step verification on all accounts. Beyond these two platforms, Coinbase also offers another application called Coinbase Wallet to retail traders, even if the users do not already trade on Coinbase or Coinbase Pro. The wallet is a program that allows customers to transfer and store cryptocurrency and other digital assets.

Financial Highlights

(Dollars in millions)	2017	2018E	2019E
Revenue	1704	1795	1555
% Growth	-51.5%	-5.3%	-13.0%
EBITDA	780	897	410
% Payout	-3.9%	15.0%	-54.5%
A ratio	10.3%	10.9%	10.7%

Beginning in 2018, Coinbase began catering to institutional traders through two platforms for trading and holding cryptocurrency: Coinbase Prime and Coinbase Custody. Prime offers a standardized platform for institutions and corporate bodies to trade cryptocurrency and also covers lending, over-the-counter trading, and market research products. To differentiate between various institutional sizes, Custody presents the most secure storage of digital currency catered to firms with a high amount of digital assets.

For its ecosystem partners, Coinbase offers the technological capabilities necessary for firms and merchants to build their own applications enabled with cryptocurrency protocols, acceptance of the digital currency, and access to crypto networks.

Revenue Drivers

Coinbase generates a majority of its revenue from transaction fees levied on retail and institutional trading on Coinbase platforms. Its transaction fees generally range from between 0.04-5% depending on user location, whether they have Coinbase Pro, and the size of their transaction. In 2020, Coinbase made up 96% of its revenue from purely transaction fees, with the other 4% coming from subscription and services revenue. CEO Brian Armstrong estimates that subscription and services revenue could account for 50% or more of the company's revenue in the next five or ten years.

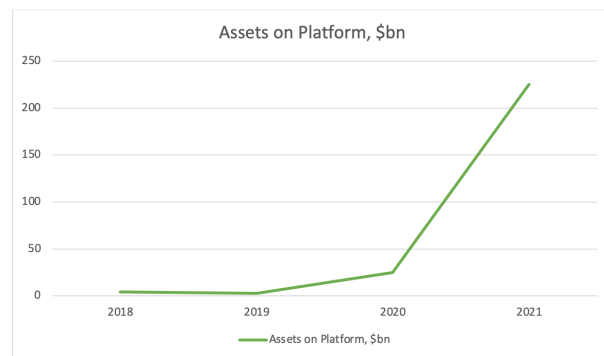
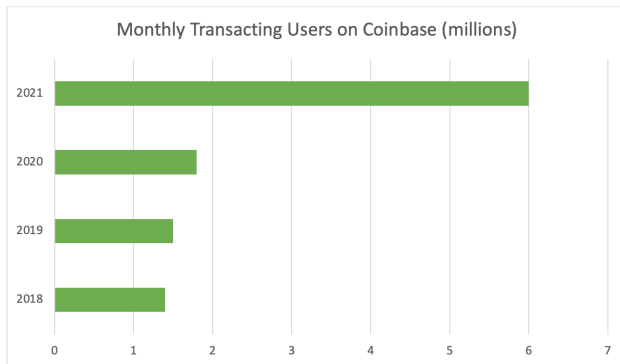
However, Coinbase has run into legal issues that have hampered the creation of new products to diversify Coinbase's revenue engagement.

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in one interface. In May 2020, Coinbase acquired Tagomi, a prime broker for cryptocurrencies, for \$41.78m and, in March 2019, Coinbase acquired the controversial Neutrino, a blockchain analytics firm that had founders associated with selling software to authoritative regimes. Despite the scandal associated with Neutrino, this purchase allowed for the building of Coinbase Analytics which entered into an agreement to sell blockchain analytics software to the U.S. Secret Service, contracted up to 2024. Similarly to Neutrino, Coinbase also acquired skew in April 2021, a U.K.-based similar blockchain analytics software that gives data to retail and institutional traders.

Recent Mergers & Acquisitions

Coinbase has made significant purchases in the cryptocurrency space to expand its offerings and capabilities. In August 2021, Coinbase purchased Zabo, a startup that allows investors to see all of their crypto accounts, wallets, and exchanges centralized in one interface. In May 2020, Coinbase acquired Tagomi, a prime broker for cryptocurrencies, for \$41.78m and, in March 2019, Coinbase acquired the controversial Neutrino, a blockchain analytics firm that had founders associated with selling software to authoritative regimes. Despite the scandal associated with Neutrino, this purchase allowed for the building of Coinbase Analytics which entered into an agreement to sell blockchain analytics software to the U.S. Secret Service, contracted up to 2024. Similar to Neutrino, Coinbase also acquired skew in April 2021, a U.K.-based similar blockchain analytics software that gives data to retail and institutional traders.

Industry Overview

Cryptocurrency exchanges are digital marketplaces where you can buy and trade crypto. A cryptocurrency exchange is a service/platform that enables clients to trade cryptocurrencies for other resources, such as other cryptocurrencies, standard FIAT cash or other digital currencies. They allow trading one cryptocurrency for another, the buying and selling of coins, and exchanging FIAT into crypto. Different crypto exchanges may have different options and features. Some are made for traders and others for fast cryptocurrency exchanges.

The cryptocurrency market size is expected to reach 4.94B by 2030, growing at a CAGR of 12.8%. As the cryptocurrency market expands, the crypto exchange market also grows. Average daily volumes on the largest cryptocurrency exchanges have grown exponentially in the past year to rival the number of transactions that take place in traditional currency markets. Key players in crypto trading are able to charge multiples of what their peers can outside digital asset markets: average fees range from 0.02% to 0.05%, compared with about 0.01% outside digital assets

Coinbase operates as one of the largest cryptocurrency trading platforms listed on the public market. With its \$223B in digital assets, it represents 11.3% of all the crypto-asset market share.

There are several differentiating factors between companies in this industry. One is accessibility. Location may prevent consumers from buying and selling crypto on certain exchanges due to state or national regulations. Second is security. Crypto isn't backed by a central institution, but some exchanges have insurance policies to protect the digital currencies users hold within the exchange from hacking or fraud. Coinbase, for example, has an insurance policy worth \$255 million and is FDIC-insured.

Coinbase's most direct competitors include Kraken and Binance, both of which offer the buying and selling of solely cryptocurrency. While Kraken offers the same variety of various cryptocurrencies as Coinbase, it contains geographic constraints to exclude traders in New York and Washington, D.C., two significant markets for users. Coinbase also offers a more accessible and understandable interface for beginners than Kraken, which will be a major advantage as more and more people venture into purchasing cryptocurrency. Compared to Binance, this alternative to Coinbase also possesses significant geographical restrictions and fewer cryptocurrencies than Kraken and Coinbase. Beyond these immediate competitors, Robinhood also is a major trading platform that competes with Coinbase for its share of cryptocurrencies, though the service offers fewer coins than Coinbase. Specific to the U.S., Coinbase dominates Binance. US in terms of visibility and usage, where 67% of all adults who own or have owned have used Coinbase in comparison with 27% on Binance.

Industry Headwinds

Increased Regulatory Scrutiny: The crypto exchange industry has benefited greatly in the past from lack of regulation. Recently, however, SEC chair Gary Gensler, who became chair in April, has sought more authority for the agency to oversee digital assets and their platforms. For example, the U.S. Securities and Exchange Commission has told Coinbase that it plans to sue the cryptocurrency exchange if it goes ahead with plans to launch a programme allowing users to earn interest by lending digital assets.

Lack of Cybersecurity: There have been attacks on crypto exchanges and hacking in the past, and these attacks will likely continue in the future. In 2018, for example, hackers famously compromised several cryptocurrency exchanges by compromising a popular software library used by most exchanges on the internet. Coinbase mitigates these security threats by storing up to 97% of bitcoins in encrypted, geographically separated, offline storage. To further protect customers, all of Coinbase's Bitcoins stored in online computers are insured.

Investment Thesis

International Expansion Brings New Users and Grows Market Share

Coinbase both drives and benefits from growth in the cryptoeconomy. Cryptocurrencies are quickly gaining popularity as stores of value. The cryptocurrency market size is growing at a CAGR of 12.8%. This is occurring due to an increased desire for operational efficiency and transparency in financial payment systems, as well as an increase in demand for remittances in developing nations, and data security. There has also recently been a surge in demand from banks and financial institutions. Moreover, because of better data transparency and independence across payments in banks, financial services, insurance, and other business sectors, the cryptocurrency market is likely to grow rapidly in the future years.

As the cryptocurrency market expands, the crypto exchange market also grows. Average daily volumes on the largest cryptocurrency exchanges have grown exponentially in the past year to rival the amount of transactions that take place in traditional currency markets. Key players in crypto trading are able to charge multiples of what their peers can outside digital asset markets: average fees range from 0.02% to 0.05%, compared with about 0.01% outside digital assets.

Coinbase represents 11.3% of all the crypto-asset market share, and has grown from 4.8% market share in 2018. COIN is one of the largest crypto platforms in the US. We believe that Coinbase has certain competitive advantages that are helping it maintain and gain share. It has made itself a household name and branded itself as a one-stop shop for crypto financial services. This is demonstrated by the fact that Coinbase is the most downloaded iOS app in the US and is second on the Play Store. It provides simplified and intuitive access, allowing it to attract and introduce more young investors to the crypto economy. At the same time, it represents secure access and custody. As a result of Coinbase's dominance in market share, they've been able to maintain high transaction rates. The relatively high fees COIN charges per transaction have not had any tangible effect on the volume of its user base and increases their margins. They will continue to build market share as they make their app more approachable and as they become more of an established brand in a nascent industry and gain the trust of governments abroad.

We believe COIN will gain market share as it expands internationally. Currently, 76% of Coinbase's 2020 revenues are from the US. Their growth rate has been restricted by countries' regulations and networks, but as crypto becomes more popular and widely used, COIN can grow internationally. COIN's proven secure technology and various financial products can help it expand. Coinbase received its first crypto license in Germany in June, and recently has been receiving licenses in Japan as well. Coinbase is now expanding into Japan with the launch of a crypto exchange, enabled in part by a partnership with banking giant Mitsubishi UFJ Financial Group. This uniquely demonstrates how COIN is trusted governmentally abroad, shown by this example with Japan. The 40 million account holders at MUFG will gain the ability to easily buy and sell cryptocurrencies.

They also were recently awarded a license for crypto currency and trading from the German Federal Financial Authority. Coinbase Germany is the first company to be issued such a license, again showing how COIN is trusted by governments, which helps it expand its services. Germany is an exciting market for crypto and is the second largest country in the world in terms of number of Bitcoin nodes being run.

Cryptocurrency is a nascent market with a lot of skepticism surrounding it. This makes being an established brand with strong security measures and institutional recognition a strong position.

Opportunities for Growth as Coinbase builds ancillary services

COIN is well-positioned to take advantage of opportunities to engage users with multiple products beyond core crypto trading. In 2018, COIN launched a suite of subscription products and services including Store, Stake, and Borrow, with the goal of providing a fuller suite of services across the crypto economy. Staking allows investors to earn rewards for holding certain cryptocurrencies, as the blockchain uses that crypto to verify and secure transactions. With the borrowing services, users can now borrow up to \$100,000 from Coinbase using Bitcoin as collateral.

The subscriptions and services (S&S) segment has grown rapidly—1,487% in the second quarter of 2021, 695% in the first quarter of 2021, and 126% in 2020. According to COIN, on average, 21% of retail users who invested in crypto also engaged with at least one non-investing product per quarter in 2020. We expect this proportion to grow based on more users joining and engaging with the broader cryptocurrency market. When retail users invested and engaged with at least one non-investing product, Coinbase saw average net revenue per retail user increase by approximately 90%. However, in 2Q21, only 5% of COIN's net revenues were from these non-trading areas. In the future, COIN will focus more on diversifying and stabilizing revenue streams by further developing subscription services & products. According to Coinbase CFO Alesia Haas, Coinbase does not seek to depend on trading fees for the future of revenue streams and wants to diversify to more cryptocurrency products such as Bitcoin ETFs and launching a futures trading business.

Expansion with Institutional Firms

Institutional money is pouring into the crypto market. In a recent study, Fidelity quantified that seven in ten institutional investors plan on buying or investing in crypto assets in the future and Nickel Digital Asset Management furthered that 82% of institutions in the survey plan to increase their crypto investment allocation over the next two years. A separate survey by Nickel Digital Asset Management came to a similar conclusion, with 82 percent of respondents expecting to increase their crypto allocation in the next two years. Just over a third of respondents said the involvement of more leading corporates and fund managers has given them greater confidence to invest. Thus, as more institutional investors begin to invest in the crypto market, others will follow and cause the market to grow even more.

Currently, Coinbase derives transactional revenue from both retail traders and institutional traders. Of the total transactional revenue in Q1 2021, net retail revenue constituted \$1,455.2mm and institutional revenue constituted \$85.4mm for total transactional revenue of \$1,540.6mm. 10% of top hedge funds are their clients. With institutional revenue only representing 5.5% of total revenue, there exists room for Coinbase to expand further with institutional investors. This growth strategy has been successful for Coinbase in the past, shown in the expansion of transaction volume from Q1 2018 to Q4 2020. Coinbase grew revenue earned from institutional investors, such as hedge funds and family offices, from \$8M to \$102.43M in only a year. In Q1 2018, retail volumes were 80% of total transaction volume, falling to 36% proportionally in Q4 2020.

Already, Coinbase has improved their revenue streams from institutional investors, growing transaction revenue from \$8mm to \$102.43mm from Q2 2020 to Q2 2021. To better cater to and capture institutional trader market share, Coinbase's acquisition of Skew will provide additional services to institutional investors with access to data analytics for informed investments into crypto assets.

This expansion upon institutional involvement can be incredibly lucrative and promote further cyclical growth. Retail trading volume fluctuates by the volatility of crypto assets much more than institutional investors' transactions. Thus, as more institutional investors begin to invest in the crypto market, others will follow and cause the market to grow even more.

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Investment Risks

Fee Compression from Expansion into Crypto Trading

With the cryptocurrency space growing in popularity, many banks and new entrants to the crypto trading market pose a threat to Coinbase. Though there is any inherent risk in new competitors, these banks could drive down fees, thus undercutting Coinbase and causing significant revenue losses as revenue is mainly driven by the fee structure. In the realm of existing competition, Square's Cash App and PayPal already charge lower fees than Coinbase, making any future improvements in their cryptocurrency offerings a threat to Coinbase's ability to charge higher fees. Similarly, Robinhood offers a zero-commission service fees for buying and selling on its site, also potentially driving Coinbase's fees down if it cannot maintain market share. Regarding new entrants, banks have historically steered clear of offering cryptocurrency trading opportunities, but, as of May 2021, customers of some U.S. banks will be able to engage in these transactions. NYDIG, a crypto custody firm, partnered with Fidelity to offer Bitcoin through one's existing bank relationship, instead of having to go to Coinbase alternatively. Many small banks have signed with NYDIG, with the larger bank JP Morgan is in talks with NYDIG. However, this product by smaller banks is not FDIC-insured, in comparison to Coinbase's better security offerings. Additionally, Morgan Stanley and Goldman Sachs began letting only their ultra-wealthy investors have access to Bitcoin funds. While these cryptocurrency trading programs through banks are still in infancy, these programs still represent a strong threat to Coinbase's fee rates and their market share. However, Coinbase is still the forerunner in terms of security, as well as its accessible nature to new traders.

Changes in Regulatory Environment

The regulatory environment for cryptocurrencies in the United States is generally enigmatic. This is primarily because the IRS classifies crypto as property, the Commodity Futures Trading Commission classifies it as a commodity, and the SEC circumstantially classifies digital assets as securities. Many states, such as Wyoming, Colorado, Ohio, and Oklahoma, have passed legislation exempting cryptocurrency from securities laws to stimulate their local economies with the technology. However, Coinbase was threatened with a potential lawsuit by the SEC over its Lend program in September 2021 since, according to the SEC, Lend was considered a security. Cryptocurrency movements into the banking industry have also drawn the concern of the SEC, due to the risk of hacking and banking fraud leaving customers vulnerable. This indicates that the current regulatory gray areas work against the future of Coinbase products. However, Coinbase has also tried to take advantage of this uncertainty by joining the conversation on cryptocurrency regulation; the company released a new policy proposal encouraging the U.S. to create a new regulator to oversee digital asset markets. While Coinbase clearly is building lobbying power for cryptocurrency, new regulations by the SEC may hamper the ability of Coinbase to create new products and cut into their revenue by slashing fees or taking certain coins off their platform. Regulations also threaten Coinbase's ability to enter new regions both domestically and internationally such as if Germany or Japan change their approval of Coinbase.

Valuation

Assumptions

1. **Base Case: Implied Upside of 43.66%**
 - a. Beta of 1.3, kept effective tax rate at the federal 21%, despite Coinbase applying many tax rebates to get a negative effective tax rate in 2021.
 - b. From 2021 to 2022, assume organic growth of 4mm retail consumers using upward end of 10% of the 40mm MUFJ customers.
 - c. Due to fee compression, project that the average transaction fees should go down from 2021 to 2026.
 - d. Also, assume revenue from subscription and services reaches ~30% by 2026. This growth comes from expansion into NFT space along with CEO Armstrong’s projection that revenues from Coinbase Earn, debit cards, staking, and institutional custody could account for “50% of company’s revenue in the next five to ten years.”
 - e. Though CapEx is currently less than D&A as % of revenue, projected CapEx to grow and D&A to increase so CapEx rate is higher than D&A by 2026.
2. **Bear Case: Implied Downside of -15.32%**
 - a. Increased volatility of beta to 1.5.
 - b. Decreased growth in retail users by 10 percentage points and decreased growth in institutional users.
 - c. Subscription and services revenue only reaches ~10% of total revenue by 2026.
3. **Bull Case: Implied Upside of 140.47%**
 - a. Decreased volatility of beta to 1.2.
 - b. Increased growth in retail users by 10 percentage points and increased growth in institutional users.
 - c. Subscription and services revenue reaches ~32% of total revenue by 2026.

Exchange Peers	Market Cap (\$B)	Debt/Equity Ratio	Assumed Tax Rate	Forward P/E	EV/EBITDA	EV/Revenue	Levered Beta	Unlevered Beta
Nasdaq Exchange (NDAQ)	\$32.27	0.9341	25%	26.39	80.14	27.82	0.83	0.488070212
Intercontinental Exchange (ICE)	\$74.11	0.682	24%	24.69	16.27	10.03	0.73	0.480794562
Euronext (EUXTF)	\$10.89	0.9102	30%	18.25	23.08	12.96	0.54	0.329843508
Charles Schwab Corporation (SCHW)	\$157.33	0.3392	20%	24.04	15.58	6.89	1.02	0.802290461
Tradeweb Markets Inc. (TW)	\$21.59	0.408	26%	48.78	38.77	19.45	0.83	0.637519971
CME Group (CME)	\$79.17	0.126	30%	30.58	21.99	17.47	0.44	0.404337438
Cboe Global Markets (CBOE)	\$14.36	0.371	30%	22.83	16.94	4.3	0.64	0.508057474
Median	\$32.27	0.41	26%	24.69	21.99	12.96	0.73	0.49
Mean	\$55.67	0.54	26%	27.94	30.4	14.13	0.72	0.52
Coinbase (COIN)	\$51.07	0.38	25%	45.45	21.88	9.9	0.97	0.754863813

Exhibit X: Exchange Comps

		Change from Projected Revenue per Year									
		\$431.70	-20%	-15%	-10%	-5%	0%	5%	10%	15%	20%
Implied WACC	10.00%	\$ 231.63	\$ 246.11	\$ 260.59	\$ 275.06	\$ 289.54	\$ 304.02	\$ 318.50	\$ 332.97	\$ 347.45	
	9.50%	\$ 252.77	\$ 268.57	\$ 284.36	\$ 300.16	\$ 315.96	\$ 331.76	\$ 347.56	\$ 363.35	\$ 379.15	
	9.00%	\$ 277.09	\$ 294.41	\$ 311.73	\$ 329.05	\$ 346.36	\$ 363.68	\$ 381.00	\$ 398.32	\$ 415.64	
	8.50%	\$ 305.35	\$ 324.43	\$ 343.51	\$ 362.60	\$ 381.68	\$ 400.77	\$ 419.85	\$ 438.93	\$ 458.02	
	8.00%	\$ 338.52	\$ 359.68	\$ 380.83	\$ 401.99	\$ 423.15	\$ 444.31	\$ 465.46	\$ 486.62	\$ 507.78	
	7.50%	\$ 377.96	\$ 401.59	\$ 425.21	\$ 448.83	\$ 472.45	\$ 496.08	\$ 519.70	\$ 543.32	\$ 566.94	
	7.00%	\$ 425.56	\$ 452.16	\$ 478.76	\$ 505.36	\$ 531.96	\$ 558.55	\$ 585.15	\$ 611.75	\$ 638.35	
	6.50%	\$ 484.05	\$ 514.31	\$ 544.56	\$ 574.81	\$ 605.07	\$ 635.32	\$ 665.57	\$ 695.83	\$ 726.08	
	6.00%	\$ 557.53	\$ 592.37	\$ 627.22	\$ 662.06	\$ 696.91	\$ 731.75	\$ 766.60	\$ 801.44	\$ 836.29	
5.50%	\$ 652.41	\$ 693.19	\$ 733.97	\$ 774.74	\$ 815.52	\$ 856.29	\$ 897.07	\$ 937.85	\$ 978.62		

Exhibit X: Sensitivity Analysis

WACC	
Share Price:	\$300.50
Diluted Shares Outstanding:	261.9
Market Cap:	\$78,700.95
Debt:	\$1,887.10
% of Debt:	2.34%
% of Equity:	97.66%
Cost of Equity:	7.97%
Cost of Debt:	5.18%
Implied WACC:	7.91%

Cost of Equity	
Beta:	1.300
Risk-free Rate:	1.68%
Rate of Market Return:	3.16%
Market Risk Premium:	4.84%
Implied Cost of Equity:	7.97%

Cost of Debt	
Rating:	Ba2/BB
CDS Spread:	3.50%
Cost of Debt	5.18%

Exhibit X: Calculations for WACC

Year	Projections					
	2021	2022	2023	2024	2025	2026
Retail						
Average MTUs (mm)	8.0	12.0	16.8	20.2	22.2	24.4
% Growth	185.71%	50.0%	40.0%	20.0%	10.0%	10.0%
Monthly Trading Volume per User	\$6,025	\$6,627	\$7,290	\$7,655	\$8,037	\$8,037
% Growth	-	10%	10%	5%	5%	0%
Average Transaction Fee	1.25%	1.20%	1.00%	0.90%	0.80%	0.80%
Yearly Retail Revenue (mm)	\$7,230	\$11,452	\$14,697	\$16,666	\$17,111	\$18,822
Institutional						
Users	9,000	10,080	11,290	12,419	13,660	15,026
% Growth	-	12%	12%	10%	10%	10%
Trading Volume per User	\$31,048,611.11	\$38,810,763.89	\$46,572,916.67	\$55,887,500.00	\$64,270,625.00	\$73,911,218.75
% Growth	-	25%	20%	20%	15%	15%
Average Transaction Fee	0.04%	0.04%	0.04%	0.03%	0.03%	0.03%
Yearly Retail Revenue (mm)	\$111.78	\$156.49	\$210.32	\$208.21	\$263.39	\$333.19
Total Transaction Revenue (mm)	\$7,341.66	\$11,608.62	\$14,907.22	\$16,874.50	\$17,374.11	\$19,154.98
Subscription and Services Revenue						
Revenue	405.24	769.956	1385.9208	2425.3614	4123.11438	6803.138727
% Growth	-	90%	80%	75%	70%	65%
% Of Total	5.23%	6.22%	8.51%	12.57%	19.18%	26.21%
Total						
Total Revenue (mm)	\$7,746.90	\$12,378.57	\$16,293.14	\$19,299.86	\$21,497.22	\$25,958.12

	Assumptions					
	Terminal Growth Rate:	2.00%	EV/EBITDA Exit Multiple:	21.99	Terminal Shares Outstanding:	261.9
Year:	2021	2022	2023	2024	2025	2026
EBIT Margin:	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%
CapEx (% of rev)	0.50%	0.50%	1.00%	1.00%	1.00%	1.00%
O&A (% of rev)	1.00%	1.00%	0.50%	0.50%	0.50%	0.50%
Changes in NWC (% of rev)	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%
Tax Rate	21.00%	21.00%	21.00%	21.00%	21.00%	21.00%

Implied Terminal Values					
Gordon Growth TV:	\$165,409.58	Exit Multiple TV:	\$345,345.51	Net Debt:	-\$2,499.10
Discount GG TV:	\$113,062.92	Discounted Exit Multiple TV:	\$236,055.08		
Enterprise Value:	\$110,563.82	Enterprise Value:	\$264,812.36		
Implied Equity Value:	\$113,062.92	Implied Equity Value:	\$267,311.46		
Implied Share Price:	\$431.70	Implied Share Price:	\$1,020.66		
Implied Up/Downside:	43.66%	Implied Up/Downside:	239.65%		

Exhibit X: Base Case

Projections						
Year	2021	2022	2023	2024	2025	2026
Retail						
Average MTUs (mm)	8.0	12.0	15.6	18.7	20.6	21.6
% Growth	185.71%	40.0%	30.0%	20.0%	10.0%	5.0%
Monthly Trading Volume per User	\$6,025	\$6,627	\$7,290	\$7,655	\$8,037	\$8,037
% Growth	-	10%	10%	5%	5%	0%
Average Transaction Fee	1.25%	1.20%	1.00%	0.90%	0.80%	0.80%
Yearly Retail Revenue (mm)	\$7,230	\$11,452	\$13,647	\$15,476	\$15,889	\$16,683
Institutional						
Users	9,000	10,080	11,088	11,975	12,694	13,201
% Growth	-	12%	10%	8%	6%	4%
Trading Volume per User	\$31,048,611.11	\$38,810,763.89	\$46,572,916.67	\$55,887,500.00	\$64,270,625.00	\$73,911,218.75
% Growth	-	25%	20%	20%	15%	15%
Average Transaction Fee	0.04%	0.04%	0.04%	0.03%	0.03%	0.03%
Yearly Retail Revenue (mm)	\$111.78	\$156.49	\$206.56	\$200.78	\$244.75	\$292.72
Total Transaction Revenue (mm)	\$7,341.66	\$11,608.62	\$13,853.68	\$15,676.61	\$16,133.27	\$16,975.67
Subscription and Services Revenue						
Revenue	405.24	607.86	911.79	1185.327	1422.3924	1564.63164
% Growth	-	50%	50%	30%	20%	10%
% Of Total	5.23%	4.98%	6.18%	7.03%	8.10%	8.44%
Total						
Total Revenue (mm)	\$7,746.90	\$12,216.48	\$14,765.47	\$16,861.94	\$17,555.67	\$18,540.30

Implied Terminal Values					
Gordon Growth TV:	\$101,842.47	Exit Multiple TV:	\$246,659.24	Net Debt:	-\$2,499.10
Discount GG TV:	\$66,641.96	Discounted Exit Multiple TV:	\$161,404.73		
Enterprise Value:	\$64,142.86	Enterprise Value:	\$185,381.68		
Implied Equity Value:	\$66,641.96	Implied Equity Value:	\$187,880.78		
Implied Share Price:	\$254.46	Implied Share Price:	\$717.38		
Implied Up/Downside:	-15.32%	Implied Up/Downside:	138.73%		

Exhibit X: Bear Case

Projections						
Year	2021	2022	2023	2024	2025	2026
Retail						
Average MTUs (mm)	8.0	12.0	18.0	23.4	28.1	33.7
% Growth	185.71%	60.0%	50.0%	30.0%	20.0%	20.0%
Monthly Trading Volume per User	\$6,025	\$6,627	\$7,290	\$7,655	\$8,037	\$8,037
% Growth	-	10%	10%	5%	5%	0%
Average Transaction Fee	1.25%	1.20%	1.00%	0.90%	0.80%	0.80%
Yearly Retail Revenue (mm)	\$7,230	\$11,452	\$15,747	\$19,345	\$21,666	\$25,999
Institutional						
Users	9,000	10,350	11,696	13,099	14,540	15,994
% Growth	-	15%	13%	12%	11%	10%
Trading Volume per User	\$31,048,611.11	\$38,810,763.89	\$46,572,916.67	\$55,887,500.00	\$64,270,625.00	\$73,911,218.75
% Growth	-	25%	20%	20%	15%	15%
Average Transaction Fee	0.04%	0.04%	0.04%	0.03%	0.03%	0.03%
Yearly Retail Revenue (mm)	\$111.78	\$160.68	\$217.88	\$219.62	\$280.35	\$354.64
Total Transaction Revenue (mm)	\$7,341.66	\$11,612.81	\$15,964.56	\$19,564.42	\$21,946.52	\$26,354.04
Subscription and Services Revenue						
Revenue	405.24	911.79	1914.759	3829.518	7084.6083	12752.29494
% Growth	-	125%	110%	100%	85%	80%
% Of Total	5.23%	7.28%	10.71%	16.37%	24.40%	32.61%
Total						
Total Revenue (mm)	\$7,746.90	\$12,524.60	\$17,879.32	\$23,393.94	\$29,031.13	\$39,106.34

Implied Terminal Values					
Gordon Growth TV:	\$270,868.00	Exit Multiple TV:	\$520,268.78	Net Debt:	-\$2,499.10
Discount GG TV:	\$189,256.10	Discounted Exit Multiple TV:	\$363,513.01		
Enterprise Value:	\$186,757.00	Enterprise Value:	\$399,726.16		
Implied Equity Value:	\$189,256.10	Implied Equity Value:	\$402,225.26		
Implied Share Price:	\$722.63	Implied Share Price:	\$1,535.80		
Implied Up/Downside:	140.47%	Implied Up/Downside:	411.08%		

Exhibit X: Bull Case



BUY | MP Materials | NYSE: MP

Investment Overview

With a targeted share price of \$38.96, we are recommending a **BUY** rating for MP Materials (NYSE: MP) because of its high level of long-term growth potential during the infancy of the Western rare earth mineral mining and processing industry. Due to the mine's strategic location as the first one of its kind in the Americas, and the influence that it has over geopolitical relations with China and other nations overseas, MP Materials is perfectly poised to maintain its status as a market incumbent. The company's progress towards vertical integration -- combining mining, processing, and production of rare earth magnets for consumers such as defense contractors and electric vehicle producers -- further makes MP Materials an attractive investment. MP Materials is a uniquely positioned player in the industry with a vast amount of potential.

Company Overview

Introduction to MP Materials

MP Materials Corp is a rare-earth element (REE) mining company headquartered in Las Vegas, Nevada. MP operates the Mountain Pass Mine, which is located 53 miles away from Las Vegas in the Clark Mountain Range. The Mountain Pass Mine is the only main source of REE in the United States and has an estimated lifespan of 24 years with a reserve of 21.1 million tons of Ore. Currently, MP Materials mostly mines Neodymium (Nd) and Praseodymium (Pr), which are essential raw materials used in high-strength permanent magnets, however, it also produces other rare earth elements such as lithium and caesium. These magnets have a wide range of commercial and industrial uses, and are crucial to building efficient motor technologies including but not limited to wind turbines, electric vehicles, and drones.

Three-Stage Strategic Plan

MP Materials is the only US mining company specializing in NdPr and currently operates the mining and refining parts of the supply chain (see diagram below). At the same time, it is looking to expand into other areas of the NdPr production process through a three stage plan. The current production facilities allow for the mining and refining of NdPr, which constitutes "Stage I" of the three stage plan. "Stage II" then aims to expand and streamline production through the building of roasters and salt refiners that will increase the prospective yield of mining and efficiency of extraction. Lastly, to achieve vertical integration of NdPr production, MP materials plans to implement "Stage III", where the aim is to use the refined NdPr to produce fully processed ore as well as target to produce magnet through magnetic recycling in the future.

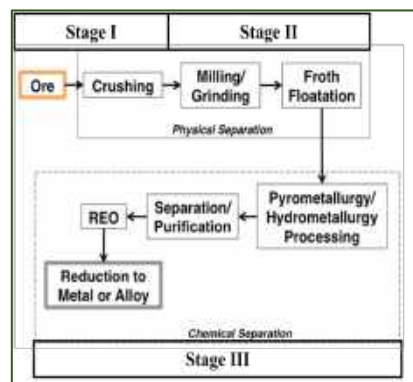


Exhibit 1: Process Flow Diagram of Ore refinement and processing aligned with MP's Three-Stage Plan



Exhibit 2: MP Material's processing facility operated in the mountain pass mine located in the Clark Valley Range in California.

MP Materials Corp (NYSE: MP)		
Negative	Neutral	Positive
Share Price 11/04/21:		\$36.61
Market Capitalization:		6.49bb
Shares Outstanding:		177.76M
52-week range:		\$16.02-51.77
EPS(TTM):		\$0.66
Beta:		0.67
Price Target:		\$38.96

Price Chart



Financial Highlights

(Dollars in millions)	2018	2019	2020
Revenue	67.4	73.4	134.3
% Growth	-N	8.9%	82.0%
EBITDA	-4.4	-0.8	44.4
EBIT	-8.9	-7.6	35.2
% Margin	-13.2%	-10.4%	26.2%

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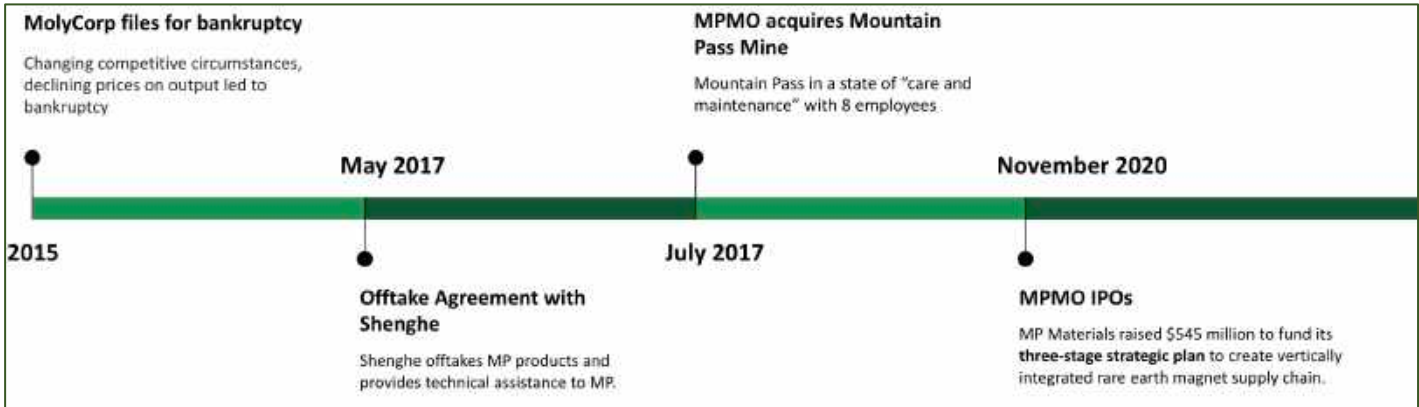
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Company Overview (Cont.)

History of Ownership

Although MP materials is a US company, it is partially owned by Shenghe Resources Holding CO. Ltd, a state-owned enterprise of the Government of China, which has an 8.0% stake in the business. As a result, MP Materials exports a large amount of NdPr to China as well as to United States manufacturers. Additionally, the Chicago-based investment group JHL Capital Group owns a controlling stake in the company. JHL was able to bring MP public via a SPAC (Special Purpose Acquisition Company), which allowed for quicker integration into the market and gave proceeds of 545 million which was used to continue construction on mine operations. Additionally to gain more capital, MP utilized \$500 million of green bonds which will further go towards construction.

MP Materials plans to grow through both the construction of the remaining two stages of their construction plan as well as contracts for REE. The most significant recent contract was issued by the US Department of Defense which was issued in November of 2020 for 9.6 million. 2.6 of this served as a reimbursement while the remaining 7 million was a part of the Defense Production Act Title III Technology in Investment Agreement (TIA).



Relationship With Shenghe

MP's close relationship with Shenghe involves the three specified agreements listed below. Although the funding and expertise from Shenghe provided MP with large growth in the early years of the business, their relationship has stunted current growth and MP has made the termination of their relationship a priority. Thus, the continuation of this relationship provides a significant risk to MP's future growth and will highly impact revenue growth during the next 5 years.

Original Offtake Agreement	Distribution, Marketing, Technical Services	Amended and Restated Offtake Agreement
- Initial Investment: 110 million Dollars	- Two separate Agreement:	- 3 rd party sales by MP → Shenghe gets % of sale
- Exclusive sales on a "take" or "pay" basis	1) Distribution and Marketing (DMA)	- Shenghe pays for MP products at a market-determined discount
- Any Gross profit credited against Prepaid Balance	2) Technical Services (TSA)	-MP must pay their net income annually until prepaid balance is reduced to zero
- Terminated in Q2 2020	- Shenghe controls ALL distribution and marketing	
	- Must provide technical expertise for production	

Industry Overview

Rare Earth

The Rare-Earth mining industry is characterized by high barriers to entry and extreme selectivity as ore-rich mines and deposits are needed to produce NdPr, as well as a large amount of capital needed to construct mining and processing equipment. As a result, very few companies vertically integrate this process, relying on contractors overseas to refine the minerals and produce NdPr magnets. Similar to traditional mining, ore saturation plays a key role in determining the longevity of a mine. Once mines are depleted, if the company is unable to acquire enough funds, it often goes bankrupt or is forced to sell its assets. For Rare Earth Minerals, most of the prominent deposits are in East and South-East Asia with Mountain Pass serving as the only deposit in the United States.

This industry is projected to grow as a result of the growing popularity of electric vehicles and drones in the United States and has an estimated CAGR of 5.9%. Sales in this industry are often based on contracts that span on average 5-10 years, however these contracts often have clauses which allow them to be breached if the concentration of ore falls under a certain threshold. As a result, imaging technology which allows mining companies to understand the enrichment concentration is important to managing and dictating these contracts. Competition to mining companies also comes from a global scale and in the case of MP Materials and American based mining corporations, the biggest competitors are located in China. However, recent policies have increased tariffs on REE imported from China which may pave the way for more American sales. Furthermore, the Department of Energy announced a \$30 million initiative to research and increase the U.S. domestic supply chain for rare earths in March, setting the stage for an increase in growth within the U.S. market.

Industry Overview (Cont.)

Electric Vehicle

The Electric Vehicle (EV) Industry is the most prominent consumer base for the materials processed from the Rare Earth mining industry. Nd, Pr, Li, and Cs are all both used in the magnets and batteries in these electric vehicles as well as motor and structural components. Current manufacturing for EV has begun to shift to North America and Europe, indicating that the ability to shift production from Chinese powerhouses to domestic companies has recently become a point of prioritization. For Western automakers, there are a multitude of reasons behind this markedly important industry trend: geopolitical influence from the trade war, hedging against unpredictable price fluctuations, and supply chain efficiency. China controls 90% of the supply of rare earth magnets made of neodymium, which is widely recognized by automotive manufacturers as the most effective power source for electric vehicles. Recently, the price of neodymium oxide has almost doubled over the past year; in an effort to not put all their eggs in one basket, electric vehicle automakers (including popular domestic ones like Tesla Motors) have been looking for alternatives. Although some EV producers have been looking to move away from rare earth metals for their motors, MP Materials is poised to provide these types of companies on the fence with inexpensive rare earth magnets that maintain the same level of effectiveness as ones produced in China.

Magnet Recycling

The Magnet Recycling industry is a recently growing industry that will largely impact the future of how REE's are produced and circulated. Magnet recycling is the process of converting old, consumer magnetic products into high powered industrial magnets through the addition of certain rare earth metals. These processes will allow for Rare Earth producers to grow and diversify into magnet production as there is almost no additional construction needed. The primary barriers to entry of this industry are the ability to secure and obtain a large supply of magnets and the ability to process at a highly efficient rate. Distribution location is also extremely important as positioning processing facilities close to distribution networks will greatly reduce the typically high cost of transportation and collection. Globally, Magnet Recycling is currently being widely implemented in China as part of their recent push to become more sustainable in production, and this works well with China's already optimized network for the production of Rare Earth Materials.

Investment Thesis

Thesis Point 1: Location (literally)

MP Materials is able to separate itself from other rare earth mining and processing companies in the industry due to the fact that the company is the sole player in the American market -- and even the entire Western hemisphere. The reason behind the lack of players from the United States can mainly be attributed to the country's geography. Compared to other nations such as China and Australia, the United States (and the rest of North America, for that matter) does not have the type of rare earth element repositories necessary to create a successful mine. However, members of the MP Materials leadership team were able to capitalize on one of the very few viable options for this type of business in 2017: purchasing the Mountain Pass Rare Earth Mine from Molycorp in Las Vegas, Nevada, after Molycorp filed for bankruptcy. Nearly five years after the company's inception, efficiency had greatly improved-- the company's Mountain Pass Rare Earth Mine has been accompanied with a processing facility so that processing does not have to be done overseas. As a result, the Western market now has strong geographical barriers to entry because of MP Materials' dominance thus far. MP materials was not only able to establish an optimized mining facility but have also done this on a deposit within the Western Hemisphere that is quite lucrative compared to the rest of the global mining industry: the Mountain Pass Rare Earth mine produces 7% rare earth content relative to .1% to 4% for most global deposits, which allows the company to also enjoy the benefits of a leading cost position, allowing them to offer lower prices. Distribution is also prioritized -- the mine was also built so that it would be directly adjacent to an interstate highway with additional access to rail and port facilities. Ultimately, this means that MP Materials will not only be able to mine at a higher rate but distribute materials to North American companies more cost effectively.

Thesis Point 2: (figuratively)

MP Materials also benefits from location in a more figurative sense: their geopolitical location/standing and the implications that their actions have with regards to the international market. The company has had explosive growth since going public in 2020, yet it is not only because of MP Materials' competitive advantage of being the first major Western player. Around the same time, President Donald Trump started pushing for the domestication of mining and processing of rare earth elements due to the trade war with China; China threatened to stop exporting the processed rare earth elements that were useful to the international market for things such as magnets and critical defense components. United States lawmakers did not want to rely on China for these types of goods moving forward, on which President Biden has not shifted his stance. As a result, MP Materials is poised to receive U.S. government support for domestic production. In the past, the United States Department of Defense gave funding to MP Materials in April of 2020 for a facility to process heavy rare earth metals, a type of specialized minerals that is far less common than regular rare earth elements. It is also important to note that the company is partially owned by Shenghe Resources, a Chinese state-owned holding company, which has an 8.0% stake in the business. However, instead of this leading to a potential competitive threat, it provides MP Materials with a constant stream of revenue because of their inherent relationship with China. In 2020, Chinese customers actually accounted for \$100 million in MP Materials' annual revenue. The company previously sent their unprocessed metals (upwards of 50,000 metric tons) to Chinese companies before their processing facilities were up and running, which also contributed to a budding relationship with the country. Since the company's revenue structure is mainly based on contractual arrangements, MP Materials also enjoys the benefits of having a strong international presence.



Exhibit 3: Map of the current Rare Earth Mineral Mines and the production rates in 2018

Source: *Clearworld US*

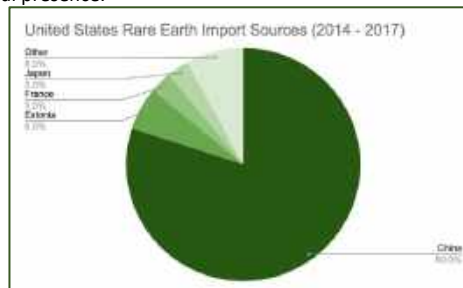


Exhibit 4: United States Rare Earth Important Sources (2014-2017)

Source: *United States Geological Survey*

Investment Thesis (Cont.)

Thesis Point 3: Evolving from mining activities to the downstream integration of high-strength rare earth magnets

MP Materials is currently implementing a three-step development plan to increase efficiency through vertical integration and ultimately to work towards producing rare earth magnets. This plan will bolster MP Material's geographic advantage as it aims to become the leading rare earth magnet provider in the American market.

The first stage of the plan has already been completed and involves commissioning processes to produce rare earth concentrates. Compared to its predecessor Molycorp, MP Materials produces 2.6x its production volume as it streamlined the concentrate production process. Stage 2 of the plan builds on Stage 1 as MP Materials aims to improve the existing processing facility workflow to make separated rare earth oxides more reliably and at a lower cost. This stage will be complete by 2022, at which point the company will begin expanding downstream production to magnets. Tapping into the rare earth magnet production market effectively allows MP Materials to capitalize on the recent surge in EVs and renewables. With rare earth magnets forming the core of the EV production process, MP Materials will see promising growth.

Investment Risks

Customer Acquisition

MP materials currently only has 1 primary customer: Shenghe, their parent company. Once they are able to terminate their agreement, however, they will be able to sell their partially and fully processed materials both directly to production factories as well as to processing facilities which can then distribute to these production plants. If MP materials is unable to secure contracts immediately after termination with Shenghe, future revenue growth is at great risk as they will have a large amount of inventory and no method to liquidate this. Furthermore, the Electric Vehicle industry, one of the largest consumers of Rare Earth Elements, is currently looking for developments that will allow production to move away from reliance on Rare Earth. This trend may decrease the demand for these materials and force MP materials to hold on to even more inventory.

Mitigating Factor

With the increasing Tariffs on Chinese imports to the United States, production facilities will be looking to find cheaper ways to find these critical materials. Furthermore, MP has located itself such that distribution costs are lower than their competitors overseas as well as in Latin America. Additionally, MP materials is looking to expand its consumer base past the Electric Vehicle market, with its development into magnet recycling as well as supply to wind turbine manufacturers. Lastly, one of the most recent contracts is with the department of defense which is another industry to which MP can greatly profit from.

Inability to separate from Shenghe

The close ties MP materials has to Shenghe may be a large source of risk because, although the initial relationship was inherently beneficial to the opening of the mine, lasting ties may syphon off cash, cause issues with US governmental contracts in the future, and ultimately inhibit revenue growth. The biggest source of risk in the relationship between Shenghe and MP is in the updated A&R agreement as MP is unable to sell to other customers without giving a percent of sales to Shenghe, and sales that are to Shenghe are at a discount which has greatly reduced the current revenue.

Mitigating Factor

MP materials has already worked to terminate their ties with Shenghe, working on debt reduction as well as implementing their own distribution and marketing teams that will be able to operate once the current DMA is terminated. Furthermore, with the recent contracts with the Department of Defense, MP has

Valuation

Assumptions:

Revenue:

- Base: Continued growth over 50% until 2023 due to the company's plan to ramp production to 6,037 metric tons
- Bull: Growth rate remains over 50% until 2024 in anticipation for vertical integration/production of magnets
- Bear: Growth rate remains over 50% until 2023, yet the company might experience a sharp drop off if cutting agreements with Shenghe negatively affects revenue

EBIT: Constant at 30% margin such that future year projections will have a margin slightly lower than 2020 and about two-thirds of 2021 to reflect high price fluctuation in 2021

Capital expenditures and D&A: Gradually increase/decrease to similar levels so that investment corresponds to depreciation

Terminal growth rate: Set at 2% to reflect stable, yet low, growth rate in perpetuity

With these assumptions, we calculated a WACC of 5%. The Gordon Growth method led to an implied share price at \$38.96 in the base case, with an implied upside of 6.4%. In the bull case, it was an implied share price of \$49.78, with an implied upside of 63.3%. In the bear case, it was an implied share price of \$23.04, with an implied downside of -37.1%.

	Historical			Projection						Growth Rate
	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Revenue	67.40	73.40	134.30	309.33	556.80	835.20	1002.24	1152.58	1344.78	
% growth	-%	0.09	0.83	1.30	0.80	0.50	0.20	0.15	0.08	
EBIT	-8.90	-7.60	35.20	144.36	167.04	250.56	300.67	345.77	373.43	Net Debt
% margin	-0.13	-0.10	0.26	0.47	0.30	0.30	0.30	0.30	0.30	Shares Outstanding
Effective Tax	0.00	0.00	-0.50	0.21	0.21	0.21	0.21	0.21	0.21	
NOPAT	-8.90	-7.60	52.80	114.04	131.96	197.94	237.53	273.16	295.01	
D&A	2.50	4.70	6.90	26.36	47.33	75.17	100.22	126.78	149.37	
% revenue	0.04	0.06	0.05	0.09	0.09	0.09	0.10	0.11	0.12	Market Cap (Million)
CapEx	-7.80	-2.30	-22.40	-109.89	-111.36	-125.28	-120.27	-115.26	-124.48	
% revenue	-0.12	-0.03	-0.17	-0.36	-0.20	-0.15	-0.12	-0.10	-0.10	Beta
NWC	-2.90	-1.70	23.50	48.50	59.64	76.34	96.38	119.44	144.33	Risk-free Rate
Change in NWC	-%	1.20	25.20	25.00	11.14	16.70	20.04	23.05	24.90	Market Return
change as % revenue	-%	0.02	0.19	0.08	0.02	0.02	0.02	0.02	0.02	Equity Risk Premium
Unlevered FCF	-%	-1.80	56.90	5.50	56.79	131.13	197.44	261.63	295.01	
% growth	-%	-	52.61	-0.90	9.32	1.31	0.51	0.33	0.13	Cost of Equity
DCF				5.50	53.88	118.00	168.55	211.88	226.64	Cost of Debt
										% of Debt
										% of Equity
					557.81	6328.75				WACC
						38.96	36.61	0.06		
						Implied Share Price	Current Share Price	Downside		

Exhibit 5: Base DCF case

WACC	Terminal Growth					WACC	EV/EBIT				
	0.02	0.02	0.02	0.02	0.03		0.04	10.20	11.20	12.20	13.20
0.04	44.61	48.60	53.41	59.33	66.80	0.04	19.30	20.87	22.44	24.00	25.57
0.05	37.67	40.48	43.78	47.69	52.41	0.05	18.87	20.40	21.93	23.46	24.99
0.06	32.52	34.59	36.97	39.73	42.96	0.06	18.44	19.94	21.43	22.93	24.42
0.06	28.53	30.12	31.92	33.96	36.29	0.06	18.03	19.49	20.95	22.41	23.87
0.06	25.37	26.62	28.01	29.57	31.33	0.06	17.63	19.06	20.48	21.91	23.33

Exhibit 6: Sensitivity Analysis by Terminal Growth (Left) and EV/EBIT(Right)

	Historical			Projection						Growth Rate
	2018	2019	2020	2021	2022	2023	2024	2025	2026	
Revenue	67.40	73.40	134.30	309.33	464.00	556.80	612.48	673.73	727.63	
% growth	-%	0.09	0.83	1.30	0.50	0.20	0.10	0.10	0.08	
EBIT	-8.90	-7.60	35.20	144.36	139.20	167.04	183.74	202.12	218.29	Net Debt
% margin	-0.13	-0.10	0.26	0.47	0.30	0.30	0.30	0.30	0.30	Shares Outstanding
Effective Tax	0.00	0.00	-0.50	0.21	0.21	0.21	0.21	0.21	0.21	
NOPAT	-8.90	-7.60	52.80	114.04	109.97	131.96	145.16	159.67	172.45	
D&A	2.50	4.70	6.90	26.36	39.44	50.11	61.25	74.11	87.32	
% revenue	0.04	0.06	0.05	0.09	0.09	0.09	0.10	0.11	0.12	Market Cap (Million)
CapEx	-7.80	-2.30	-22.40	-109.89	-92.80	-83.32	-73.50	-67.37	-72.76	
% revenue	-0.12	-0.03	-0.17	-0.36	-0.20	-0.15	-0.12	-0.10	-0.10	Beta
NWC	-2.90	-1.70	23.50	48.50	57.78	68.92	81.17	94.64	109.19	Risk-free Rate
Change in NWC	-%	1.20	25.20	25.00	9.28	11.14	12.25	13.47	14.55	Market Return
change as % revenue	-%	0.02	0.19	0.08	0.02	0.02	0.02	0.02	0.02	Equity Risk Premium
Unlevered FCF	-%	-1.80	56.90	5.50	47.33	87.42	120.66	152.94	172.45	
% growth	-%	-	52.61	-0.90	7.60	0.85	0.38	0.27	0.13	Cost of Equity
DCF				5.50	44.90	78.67	103.00	123.85	132.48	Cost of Debt
										% of Debt
										% of Equity
					355.92	3699.42				WACC
						23.04	36.61	-0.37		
						Implied Share Price	Current Share Price	Downside		

Exhibit 9: Bear DCF Case

	Historical			Projection						Growth Rate	
	2018	2019	2020	2021	2022	2023	2024	2025	2026		
Revenue	67.40	73.40	134.30	309.33	556.80	918.72	1378.08	1791.50	2149.80		0.02
% growth	-%	0.09	0.83	1.30	0.80	0.65	0.50	0.30	0.20		
EBIT	-8.90	-7.60	35.20	144.36	167.04	275.62	413.42	537.45	644.94	Net Debt	-39.80
% margin	-0.13	-0.10	0.26	0.47	0.30	0.30	0.30	0.30	0.30	Shares Outstanding	177.76
Effective Tax	0.00	0.00	-0.50	0.21	0.21	0.21	0.21	0.21	0.21		
NOPAT	-8.90	-7.60	32.80	114.04	131.96	217.74	326.60	424.59	509.50		
D&A	2.50	4.70	6.90	26.36	47.33	82.68	137.81	197.07	257.98		
<i>Revenue</i>	0.04	0.06	0.05	0.09	0.09	0.09	0.10	0.11	0.12	Market Cap (Million)	6490.00
CapEx	-7.80	-2.30	-22.40	-109.89	-111.36	-137.81	-165.37	-179.15	-214.98		
<i>Revenue</i>	-0.12	-0.03	-0.17	-0.36	-0.20	-0.15	-0.12	-0.10	-0.10	Beta	0.67
NWC	-2.90	-1.70	23.50	48.50	59.64	78.01	105.57	141.40	184.40	Risk-free Rate	0.02
Change in NWC	-%	1.20	25.20	25.00	11.14	18.37	27.56	35.83	43.00	Market Return	0.09
<i>change in % revenue</i>	-%	0.02	0.19	0.08	0.02	0.02	0.02	0.02	0.02	Equity Risk Premium	0.06
Unlevered FCF	-%	-1.80	56.90	5.50	56.79	144.24	271.48	406.67	509.50		
% growth	-%	-	32.61	-0.90	9.32	1.54	0.88	0.50	0.25	Cost of Equity	0.06
DCF				5.50	53.88	129.80	231.76	329.33	391.42	Cost of Debt	0.01
										% of Debt	0.17
										% of Equity	0.83
					750.27	9837.08				WACC	0.05
						59.78	35.61	0.63			
						Implied Share Price	Current Share Price	Upside			

Exhibit 10: Bull DCF Case

Statement about Comparative Companies Analysis

Due to the lack of players in the American market, the comparative companies analysis was not as robust as desired. In an effort to accommodate for the lack of players in the Western market, Chinese and Australian companies were used instead. Companies in both of these regions, however, pose some issues when they are compared to MP Materials. For Chinese companies, much of their supply chain is broken into many parts, and some of these components will be state owned/majority controlled. As for Australian companies, comparison is difficult due to the vast geographical differences and a lack of similarities in trading partners. As a result, we place a heavier emphasis on the discounted cash flow when considering the company's valuation



Compagnie Financière Richemont S.A

Compagnie Financière Richemont S.A		
Negative	Neutral	Positive
Share price, 11/08/21:	CHF 122.65	
Market capitalization:	CHF 69.377B	
Shares outstanding:	520mm	
52-week range:	CHF 126.55 / 73.22	
Beta	1.28	
Average analyst opinion:	CHF 133	
Price target:	CHF 106-134	

Investment Overview

Richemont's business outlook is very interesting. 1. They own two incredibly strong jewelry brands which are benefiting from powerful tailwinds. 2. Their specialist watches business has significant margin expansion potential. 3. Yoox Net-A-Porter (online distributors) and soft luxury may be underappreciated, and their P&L drag could reduce. 4. Most importantly, there positive cultural developments with their jewelers, Cartier, and Van Cleef, becoming more independent and dynamic.

Company Overview

Richemont group is the third largest luxury group after LVMH and Kering. Richemont has four key business areas: (i) Jewelry Maisons, (ii) Specialist Watchmakers, (iii) Online Distributors (primarily YNAP), and (iv) Other (consisting largely of soft luxury, i.e., apparel and leather goods).

Before we delve into the business areas at greater length, we want to provide quick context for revenue breakdowns by geography and distribution channel. We have two points we wish to highlight here. First, China (APAC was 45% of revenue last year), Middle East (7%), and USA (Americas 18%) have been important sources of growth. Second, there has been a shift from wholesale (down 27% in covid) to DTC, with online retail sales (which grew 6%) accounting for 19% of total sales.

Price Chart



Blue – Richemont; Yellow – S&P500



Fig. 1 Geographic breakdown

Financial Highlights

(Euros in millions)	2021	2022E	2023E
Revenue	13,248	14,800	16,045
% Growth	-7%	12%	8%
EBIT	1582	2521	2785
% margin	12%	17%	17%
NWC	5193	5324	5467
Change as % of revenue	-10%	1%	1%

Richemont's Business Areas

Jewelry Maisons

Richemont owns the two most successful jewellery brands in the world: Cartier and Van Cleef. These leading hard luxury brands have 100+ years of heritage, aspirational value resulting from high prices and exclusivity, and instantly recognizable signature products. Jewelry Maisons underpin Richemont's performance, making up 95% of profits. Especially during Covid, this was the only business segment that continued to perform. Jewelry accounted for 57% of revenue and had 31% EBIT margins in the year ended March 2021.

Richemont's Maisons

Cartier – Founded in Paris in 1847, Cartier is the world's leading branded jeweler. Cartier has 269 stores globally and generates the equivalent of 100% of group EBIT. Although Cartier is under the Jewelry Maisons business area, watches account for a significant part of their business.

Van Cleef & Arpels – The world's second biggest jewelry brand (after Cartier). Van Cleef has 139 stores and generates the equivalent of 33% of group EBIT. As a smaller, more niche player Van Cleef is growing faster; in the last eight years, Van Cleef store count grew 7% annually whereas Cartier was flat.

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Buccellati – In 2019, Richemont acquired Buccellati, a Jewelry Maison founded in Milan in 1919. As a niche, small player Buccellati could be a growth driver for the jewelry business area going forward. Indeed, Buccellati’s store count grew circa 17% last year. Even now, Buccellati has only 55 stores.

Note on high jewelry

High jewelry is an important part of the Jewelry Maisons business. This is because (i) it sustains and strengthens aspirational brand image, and (ii) contributes 20% of Maison revenue on a normalized basis. High jewelry should boost growth significantly post-covid as travel resumes and events can be held.

Specialist Watchmakers

Richemont owns a handful of strong brands (eg. Panerai, IWC, and Jaeger-LeCoultre) and now sells 70%+ of watches through mono-brand stores. The strength of these brands is evidenced by the popularity of their iconic products at a Philips auction. Note, however, that Richemont’s specialist watchmakers are below category leaders like Rolex in desirability. Additionally, there are laggards in Richemont’s specialist watchmaker portfolio. Baume & Mercier, for example, has been lossmaking for a decade. Overall, Specialist Watchmakers have consistently been Richemont’s second most significant business area. This segment accounted for 17% of revenues in the year ending March 2021 (down 22%). Operating margin was approximately 6% vs. 11% pre-covid.

Online Distributors

Online distributors account for 17% of revenues but are loss making with -10.2% OPM. This segment is driven by YNAP which operates in a competitive online luxury market and has been ceding market share to peers for several years. Richemont arguably has no business running a multibrand ecommerce portal.

Other (soft luxury)

This segment accounted for 10% of revenues but had a -17% OPM in year ended March 2021. Although the group has struggled in this business area, Mont Blanc and Peter Millar are two brands that historically performed well.

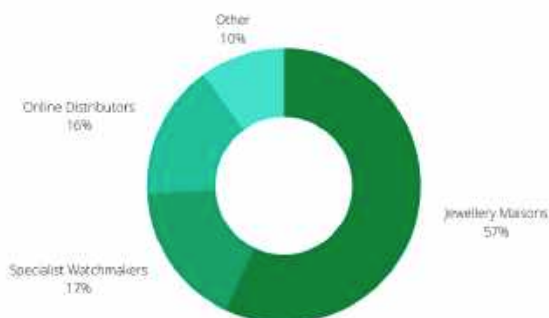


Fig. 2 Segment breakdown

Key Industry Trends

Rise of the female hard luxury consumer: Process of “educating” customers is underway. This should result in a shift away from men gifting to women (bridal heavy) towards women buying for themselves (impulse). The increasing number of young females engaging in self-purchases is driving two other trends: (i) the rise of branded jewellery, and (ii) a preference for iconic pieces. This is because these customers want to purchase timeless items which are perceived to hold generational value.

Branded jewelry has a runway for growth: The jewelry industry is highly fragmented with many unbranded players. Larger marketing budgets, growing incomes, and female self-purchasing are leading to a shift from unbranded to branded jewelers. Given low branded penetration of only 20% in jewelry (versus 60% for watches and 50% for leather goods), McKinsey expects 8%+ per annum growth for branded jewelers as a category.

Potential rebound of iconic, timeless luxury: During the pandemic, luxury customers preferred to “buy less, buy better.” This led to a rebound of iconic, timeless luxury items. Additionally, it seems like people may be tired of constant newness/ collaborations and going back to the classics. Cartier has benefited significantly from this; they have always stuck closely to their heritage and their most iconic pieces are also the highest margin ones.

Investment Theses

Positive stewardship trajectory

Historically, there have been two different descriptions of Richemont's culture: the group presentation and reality. The presentation emphasises collegiality, freedom, solidarity, and loyalty. But they don't discuss culture elsewhere. In reality, Richemont has always been a stodgy, un-innovative financial institution run by an okay capital allocator. Although the company is financially disciplined, has a fortress net cash balance sheet, and never overexposes its brands, they were late to online and failed to do collaborations which served other luxury players well. Additionally, their acquisition of YNAP was disastrous and they continue to invest in soft luxury despite lackluster performance.

More recently, there have been some positive developments on this front. It is important to note that Richemont recently reorganized its senior executive committee, streamlining more of administrative duties and preventing bureaucratic obstacles. These moves are especially significant as they will allow Nicholas Bos of Van Cleef and Cyrille Vigneron of Cartier to focus on their powerhouse brands. Cartier and Van Cleef will have greater independence. This has enabled positive developments on customer engagement, as well as evidence of some professionalization. Cyrille Vigneron has been pushing through some of these changes at Cartier. This is significant because changes that improve Cartier results are likely to be implemented through the rest of the organization.

Richemont owns leading jewellery brands

Good luxury brands have heritage (100+ yrs) and aspirational positioning. Richemont owns best in class jewelry brands as evidenced by the prices their items command at auctions. Indeed, according to Christie's, a signature product of Cartier or Van Cleef could add 50%-100%, or even up to 300% to the auctioned jewelry value, depending on the rarity of the item. These already strong brands are getting stronger. Indeed, Cartier & Van Cleef brands have benefited from slightly more dynamic product innovation. For example, Van Cleef had launched the relatively new Alhambra collection which has seen good traction. Cartier also launched a new 15-piece *Cartier Clash* collection with much fanfare to add to its *Trinity* and *Juste un Clou* collections. Additionally, Richemont is finally improving its marketing methods; Cartier recently hired its first brand ambassador and increased its online advertising presence.

It must be noted that the two key competitors, Bulgari, and Tiffany, are becoming better under LVMH's stewardship. Bulgari has already turned around, and Tiffany is supposedly being led by a dream team. That said, this does not concern us for two reasons. First, Bulgari has a niche target market that skews older and is growing less fast. They are also less present in the fast-growing US market. Second, Tiffany has long been an underperformer and it will take time for LVMH's efforts to bear fruit. Indeed, this is reflected in social media & consumer engagement being much higher for Cartier and Van Cleef than for Bulgari and Tiffany. Regardless of how successful LVMH is with Bulgari and Tiffany, the shift from branded to unbranded jewelry is significant and their growth is unlikely to hurt Richemont's Jewellery Maisons. As leading jewellery brands, which continue to grow quickly, Cartier and Van Cleef should benefit more from the rise of branded jewellery than brands which must turn around.

Good inventory and cost management at watchmakers

Richemont's specialist watchmakers have historically underperformed for two reasons. First, Swiss watches have not seen volume growth in the last 15 years (25-26m watches sold p.a.) except for a short-lived boom in China, which ended when the government cracked down on political gifts in 2014. Secondly, Richemont's specialist watchmakers lag category leading luxury watch brands such as Rolex, Patek Philippe, and Audemars Piguet in desirability.

That said, the group recently undertook a restructuring of the watchmaker division to reduce the number of over-qualified staff at small brands. They have also started renegotiating rents and reducing other costs by leveraging the group's collective bargaining power.

We also think that the outlook is more positive than the history. Richemont has some strong brands and has preserved them by ensuring sell-outs exceeded sell-ins for the last four years. This created scarcity and helped create exclusivity. As sell-out/sell-in converge, operating metrics will improve. This will be bolstered by the restructuring of this division highlighted in the business overview. As a result, there is potential for margin expansion from 6% up to mid-teens over the next few years.

Reduced drag from YNAP and Soft Lux

As mentioned above, YNAP has been ceding market share to peers for several years. Richemont arguably has no business running a multi brand ecommerce portal. That said, this segment may be under-appreciated. YNAP is shifting from a wholesale model to a hybrid e-concessions model where they will be able to display more products and take on less inventory. This should not only accelerate growth but is also expected to be beneficial in terms of incremental margins. Prada just signed a contract with this model and Kering is expected to follow. Most recently, Richemont announced Farfetch, a true online retailer, will have more control over YNAP. We are early in the journey of YNAP's turnaround, but Richemont has taken promising actions.

Although the "Other" business area has historically underperformed, Peter Millar and Mont Blanc are very strong brands. They depend heavily on travel and should revive as the pandemic ends. It is also interesting to mention AZ factory (women's fashion) and Delvaux (very small, classic Belgian leather goods business on the verge of bankruptcy), Richemont's latest acquisitions in this area. They are both small units with growth potential. The restructuring of the executive committee and the appointment of a Hermes executive to the board suggests efforts here may improve.

Risks

Significant China exposure

APAC (primarily China) accounts for 45% of revenue. This means that Richemont is exposed to significant China risk. First, they are exposed to political risk; if the Chinese government turns against international luxury brands, that will hurt Richemont. Additionally, a lot of China sales happen through Hong Kong, so Richemont is also exposed to the geopolitical situation there.

Management fails to improve

Thus far, it may be said that Johann Rupert is a reasonable capital allocator who lacks vision. Additionally, the current reorganization, though it has some positive elements, requires Nicholas and Cyrille to step down from the board. This takes the group's outlook off their plate but could mean that they are less able to push changes through to the rest of the group.

Valuation

Segment-wise projections

Jewellery Maisons

Revenue growth of 8% is the expected growth rate for branded jewellery. This is a conservative estimate for two reasons. First, the shift to branded jewellery is accelerating. Second, given their leading branded jewelers and continued investment, Richemont should gain share over time. Exit EBIT margin of 35% reflects benefit from leveraging of group bargaining power and the popularity of timeless classics (which are higher margin).

Watchmakers

Revenue growth high initially given weak, covid-impacted base. Thereafter, we assume 3% expecting no material change in swiss watch sales over time. Expect margins to improve given tight historical inventory management, reduced management costs, and expectation that collective bargaining power will lead to lower rents. Again, we believe our projections are relatively conservative.

Others

Again, initial revenue growth is high given low, covid-impacted base. Thereafter, revenue growth is conservative in the low single digits. We also project continued losses (albeit we expect incremental margin improvement).

Online

Expect high initial revenue growth and then a slow down. Also expect losses to taper. This is because hybrid e concessions business will allow them to display lots of items and is incrementally margin accretive. The recently announced involvement of Farfetch in YNAP is also seen as a positive by us.

By segment	2018	2019	2020	2021	2022	2023	2024	2025	2026
year									
in millions EUR									
Jewellery									
Revenues	6452	7083	7215	7459	8056	8700	9396	10148	10960
growth	9%	10%	2%	3%	8%	8%	8%	8%	8%
EBIT	1926	2229	2077	2309	2578	2871	3195	3552	3836
% margin	30%	31%	29%	31%	32%	33%	34%	35%	35%
Watchmakers									
Revenues	2714	2980	2856	2247	2359	2477	2552	2628	2707
growth	-6%	10%	-4%	-21%	5%	5%	3%	3%	3%
EBIT	262	378	304	132	260	273	332	394	460
% margin	10%	13%	11%	6%	11%	11%	13%	15%	17%
Other/Soft Lux									
Revenues	1847	1881	1740	1345	1749	1836	1891	1929	1967
growth	0%	2%	-7%	-23%	30%	5%	3%	2%	2%
EBIT	-65	-100	-141	-241	-52	-55	-57	-39	-39
% margin	-4%	-5%	-8%	-18%	-3%	-3%	-3%	-2%	-2%
Online									
Revenues	0	2105	2427	2197	2636	3032	3335	3502	3607
growth	-	0	15%	-9%	20%	15%	10%	5%	3%
EBIT	0	-264	-241	-223	-264	-303	-233	-175	-72
% margin	-	-13%	-10%	-10%	-10%	-10%	-7%	-5%	-2%

Total business									
year	2018	2019	2020	2021	2022	2023	2024	2025	2026
Revenues	11013	14049	14238	13248	14800	16045	17174	18207	19241
<i>growth</i>	3%	28%	1%	-7%	12%	8%	7%	6%	6%
Operating Profit (EBIT)	1844	2003	1518	1582	2521	2785	3236	3732	4185
<i>% margin</i>	17%	14%	11%	12%	17%	17%	19%	20%	22%
Income Tax Expense	432	381	267	226	378	418	485	560	628
<i>Effective Tax Rate</i>	23%	19%	18%	14%	15%	15%	15%	15%	15%
NOPAT	1412	1622	1251	1356	2143	2368	2751	3172	3557
(+) D&A	437	708	1286	1328	1480	1605	1717	1821	1924
<i>% revenue</i>	4%	5%	9%	10%	10%	10%	10%	10%	10%
(-) Capex	657	720	574	387	592	642	859	910	962
<i>% revenue</i>	6%	5%	4%	3%	4%	4%	5%	5%	5%
NWC	4872	6278	6465	5193	5324	5467	5620	5781	5952
(-) Change in NWC	-1264	1406	187	-1272	131	143	153	162	171
<i>Change as % of revenue</i>	-11%	10%	1%	-10%	1%	1%	1%	1%	1%
Unlevered FCF	2456	204	1776	3569	2900	3188	3457	3921	4348
<i>% growth</i>	848%	-92%	771%	101%	-19%	10%	8%	13%	11%
Discounted Cash Flow					2673	2939	3187	3615	4009

Weighted Average Cost of Capital		
Current Share Price	104.82	EUR
Shares Outstanding	513	millions
Market Capitalization	53773	millions
Total Debt	5937	millions
Cash & Cash Equivalents	7877	millions
Net Debt	-1940	millions
Percent Equity	90%	
Percent Debt	10%	
Risk-Free Rate	1.48%	
Beta	1.28	
Equity Risk Premium	6%	
Cost of Equity	9.2%	
Cost of Debt	2.53%	
Tax Rate	15%	
WACC	8.46%	

Perpetuity growth rate		
Terminal Growth Rate	2%	
Terminal Value	68624	millions
Discounted Terminal Value	45717	millions
Sum of Discounted Cashflows	16423	millions
Implied Enterprise Value	62140	millions
Implied Equity Value	64080	millions
Fair Value per Share (15% conglomerate discount)	106	
Implied Premium (%)	1%	

Exit Multiples Method				
Exit Multiple	22.42			
Terminal Value (EV/EBIT)	93819	Comps	EV/EBIT	
Discounted Terminal Value	62501	LV		25.84
Sum of Discounted Cash Flows	16423	Kering		19
Implied Enterprise Value	78925	Mean		22.42
Implied Equity Value	80865			
Fair Value per Share	134			
Implied Premium (%)	28%			



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