A Work Project presented as part of the requirements for the Award of a Master's degree in finance from the NOVA – School of Business and Economics.

VISA INC'S EQUITY RESEARCH
A dominant player in a fast-changing industry

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A Project carried out on the Master's in finance Program, under the supervision of:

Professor Rosário André

4 January 2020

Abstract: This report consists in an analysis to Visa inc and the Global Payments industry. Through an assessment of the sector recent performance and the several risk factors associated with its operational activity, it was possible to evaluate the impact of the COVID-19 outbreak on this fast-changing industry. Beyond the new trends redefining the market, 2020 shows that what really matters is the speed at which these changes are occurring and firms' ability to transform and adapt. Although the current health crisis and its harsh worldwide consequences, the sector is a nonloser and Visa does not let go its position as a dominant player

Keywords: Visa, Global Payments, Financial Services, COVID-19

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This report is part of the report (annexed) and should be read has an integral part of it.

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Company Overview

Company Profile

Headquartered in Foster City, California, Visa Inc. is an American payment service provider that operates in **more than 200 countries** worldwide. The company provides its services through **VisaNet**, a processing network that enables the clearing and settlement of fast and reliable payment transactions across the world.

Launched in 1958, Visa started as a credit card program launched by the Bank of America. It didn´t take long for the company to grow, and around 1974 the company had already expanded internationally. In 1975, Visa introduced the debit card and, in 1976, control over the program was attributed to a consortium comprised by the issuer banks, renaming it Visa. In 2008, the company went public in what became one of the largest IPOs in history.

Today, based on nominal payment volumes and number of processed transactions, Visa is the **largest payment processor** in the world with products and services available on any device.

Financial Overview

Over the past few years, revenues have been growing at a fast pace. In 2019, Visa reported revenues of **$22,977 million**, a **11.5%** increase from 2018. However, when looking at the growth from past years (Exhibit 1), we observe the largest spike in growth happening in 2017. This can be largely explained by the acquisition of Visa Europe in 2016, resulting in an outstanding revenue growth of **21.7%**.

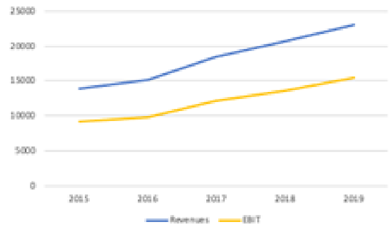

Exhibit 1. Revenue and EBIT evolution

Source: Company Data

Looking at EBIT, in 2019 Visa's reported value was **$15,401 million**, an increase of around **13.6%** when compared to the previous year. Additionally, EBIT margins have also been improving, going from **61.4%** in 2016 to **64.2%** in 2019, implying greater efficiency and profitability.

Breaking down revenues by geographical segmentation (Exhibit 2), it is noticeable that, over the past few years, revenues generated internationally have been growing at a faster pace than revenues earned on the U.S. market. As a result, while in 2015 international revenues represented **45%** of Visa's revenues, by 2019 this segment already accounted for **55%** of total revenues (Exhibit 3). This results from the fact that Visa's penetration in the U.S. market is much greater than in any other country. In fact, besides the U.S., no individual country accounted for more than 10% of net revenues. As a result, there will be more growth opportunities outside the U.S., especially in emerging areas like Latin America and Asia.

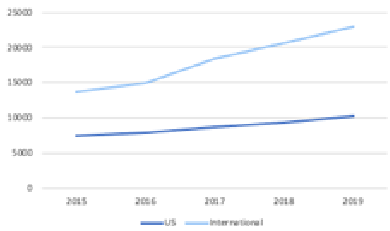

Exhibit 2. Revenue evolution by geographical segment

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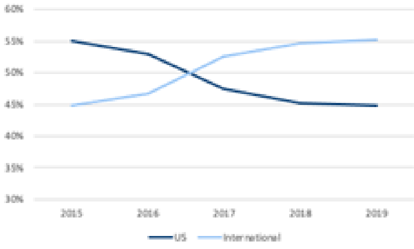


Exhibit 3. Revenue breakdown by geographical segment

Source: Company Data

license fees for the use of the Visa brand, representing a mere **4.5%** of revenues (**3.6%** in 2018). Although every source of revenue has been growing, it is worth mentioning that the data processing stream has been the one growing at the fastest pace, registering growth rates of **24.1%, 15.9%** and **14.5%,** in 2017, 2018 and 2019, respectively. Meaning that, over the next few years, this segment has the potential and stability to become the main source of revenue for the company.

Shareholder Structure

Prior to 2007, Visa was comprised by four separate companies: Visa International Service Association (Visa), Visa USA Inc, Visa Canada Association and Visa Europe LTD. While these companies had the status of group members, unincorporated regions like Visa Latin America (LAC), Visa Asia Pacific and Visa Central and Eastern Europe, Middle East and Africa (CEMEA) were simply divisions within Visa.

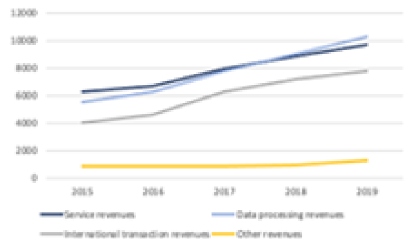


Exhibit 4. Revenue breakdown by segment

Source: Company Data

In 2007, due to corporate restructuring, Visa Inc was formed by merging Visa International, Visa USA and Visa Canada. Visa Europe, on the other hand, became a separate company with a minority stake in Visa Inc.

In 2008, Visa went ahead with what was the largest IPO in U.S. history, selling **406 million** shares at **$44** per share, raising **$17.9 billion**. The IPO was such a success that, a few days later, the IPO underwriters exercised their overallotment option, raising Visa´s total IPO proceeds to **$19.1 billion**, with the purchase of **40.6 million** additional shares. Visa now trades on the New York Stock Exchange under the ticker symbol “V”.

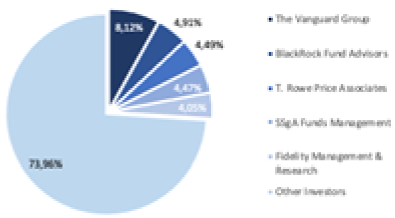


Exhibit 5. Visa's Ownership Structure

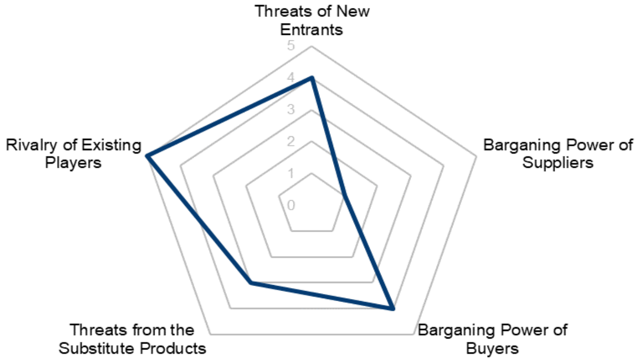
As of today, due to its size, Visa’s ownership structure is mainly comprised by institutional investors and mutual funds, where the majority stakeholder is the Vanguard Group with an 8.15% stake in the company (Exhibit 5). Being mainly owned by institutional investors has both advantages and disadvantages. While Institutional investors usually have access to large sums of money and an abundant number of resources, like analysts and market data, their involvement in a company is often perceived as being “smart money”. On the other hand, since this investor has the ability to own thousands, if not millions, of shares, if he decides to sell, a large number of shares will be sold and, as a result, the share price will drop.

Regarding transactions with shareholders, both dividends and share repurchases have increased over the previous year, considering both, Visa reported **$10.9 billion** in transactions, resulting in an increase of **19%** compared to 2018. In 2020, despite the uncertainty surrounding the COVID-19 pandemic, the company is planning to continue its dividend distribution, showing that, contrary to most, Visa has been able to resist the current economic recession.

Industry Overview

Global Payments Industry

Global Payments is a very dynamic and highly competitive industry. Constant developments in technology and innovation on payment solutions, shift consumers’ preferences creating growth opportunities for existing firms and new entrants. Through a 5 Forces Porter’s Analysis, we conclude that the main characteristics to describe the sector are a very intense rivalry between existing players and a high threat of new entrants. On the opposite side, the industry shows low bargaining power from suppliers and high from buyers, and low to moderate threat of substitute's products.



Exploring each force individually, **buyers**, composed by financial institution clients and merchants, exercise their power on payments facilitators by forcing them to charge competitive prices and low service fees. They can do this due to the wide range of firms providing similar services in a global scale, all competing for the customer base that each merchant/institution can provide to increase dissemination of firms' products. **Suppliers**, on the other hand, that are mostly software providers and human resources, do not have much control over firms. The lack of power comes from the high supply of IT services in the market, together with the fact that most firms tend to develop much of their software internally, as their intellectual property is key for product differentiation. The fear of new **substitute's products** is real but not very troubling. Cash is less of a threat each day, as preferences continue to shift for cards usage. But, a new reality of digital, mobile and disintermediated payments methods is a constant reminder to the industry that is imperative for firms to accelerate transformations to a digital and more agile organization, to avoid losing their competitive positioning. These constant and innovative transformations create opportunities for **new entrants**. With technology developments and the emerging of new payments methods, from old payments procedures, new players, like *fintechs* and technology companies, join the market by developing payments systems enabled trough online activity and mobile channels. Partnering with these new players is a valuable strategy that some firms are adopting to overcome this threat and provides double wins to the industry. From one side, new entrants can take advantage of the reach, capability and security that dominant players can provide, overcoming the barrier of capitalization costs, accelerating the launch of their programs and scaling them. From the other side, firms benefit from new payments experiences and flows, brought by their partners, and reduce direct competitors. Rivalry in the sector is not exclusive with new entrants, but also very intense with existing players. The Global Payments space is intensively **competitive**, as firms strive hard to increase their customer base and provide new services before peers. Industry revenues depend in their majority on the volumes of transactions processed by firms, which are consequently higher the wider their range of clients is. Firms in the industry compete to offer the more effective, innovative and wider variety of products and services; to use the more effective advertising and marketing strategy that will better improve their brand recognition; to develop better security solutions; and provide the most favourable pricing arrangements, all to increase their products acceptance and, as a result, their market share.

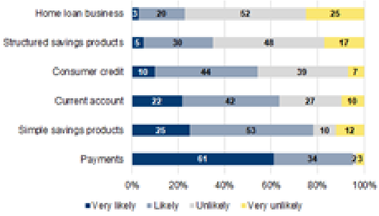


Exhibit 6. Fintech seen as threat to existing retail banks

Source: Statista

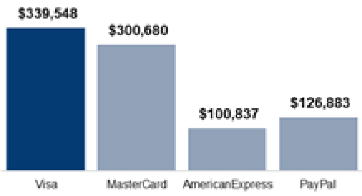


Exhibit 7. Visa and peers' market cap in millions

Source: Bloomberg

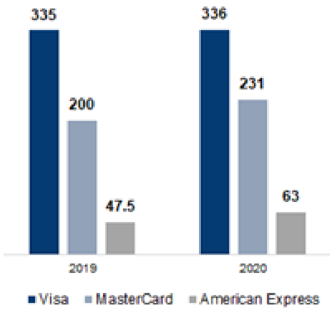


Exhibit 8. Visa and peers' number of cards in circulation, in millions

Source: Statista

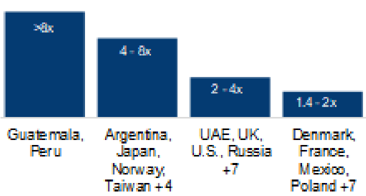


Exhibit 9. Visa's Brand preference advantage worldwide

Source: Brand Health Measurement (BHM)

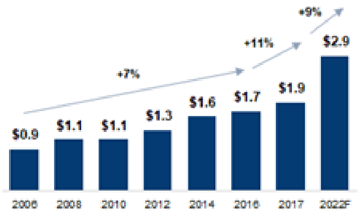


Exhibit 10. Global Payments industry revenues, in trillions, and annual average growth rates

Source: McKinsey's Global Payments Map

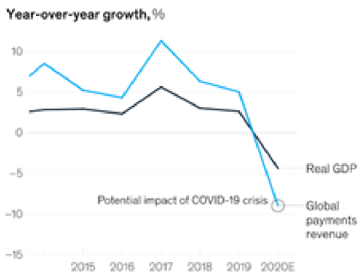


Exhibit 11. Economic impact of COVID-19 on Real GDP and Global Payments Industry

Source: McKinsey's Global Payments Map

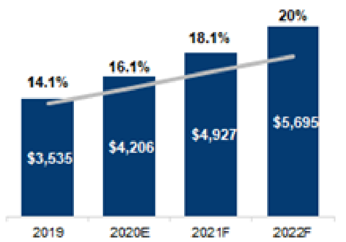


Exhibit 12. Retail e-commerce sales worldwide, in billions, and e-commerce share of total global retail sales

Source: Statista

Firms in the sector compete against all forms of payments, from cash and checks to electronic funds and virtual currency payments, and from closed loop payment systems to global networks. Considering Visa, their main competitors based on their main operational activity and close figures, are MasterCard, American Express and PayPal. Although both Visa and Mastercard do not issue credit cards, unlike American Express, these two are considered Visa direct competitors, as they are global networks like Visa, providing a very similar range of services, with huge global client bases. MasterCard has the closest values with revenues of **$16 billion**, a growth rate of **13%** and a market cap of **$300 billion**, for 2019. Followed by American Express with **$43 billion** in revenues, a growth of **8%** and a market cap of **$100 billion**, for the same year. Last, PayPal is a disruptive alternative to these payments providers that have reach their global presence and, consequently, their volumes. In 2019, its revenues were of **17 billion** with a growth of **15%** and a market cap of **$126 billion**. These figures prove that Visa is well positioned competitively in the market, being one of the world's leaders in digital payments with the higher market cap of **$339 billion**. The key to their success in mainly associated to the global brand they have constructed and its portrait of reliability, speed, security and acceptance at a global scale, but never neglecting individual markets necessities neither the providence of tailored solutions through valuable partnerships.

Recent performance of the industry, over the past several years, show an average **7%** annually growth rate on payments revenues. Current health crisis is expected to lower 2020 revenues by the same amount of recent years' annual gains. Full-year figures from 2020 will exhibit a **$140 billion** decline on the industry revenues, **11% to 13%** below last year projections[1]. It is also important to review this year performance in two semesters, as the decline of **22%** in the first half is expected to be compensated by a stronger performance in the second half, resulting in a reduced overall decrease of **7%** over 2019. In contrast with prior year solid revenue growth, following previous years' performance, 2020 experienced a steep reduction in discretionary spending, initially around **40%** globally, and a severe demand side shock, that will deviate revenues from their previously projected growth trajectory. This was softened by a sharp decline on the use of cash, which is expected to be **4% to 5%** lower in relation to previous years, which reinforce that this temporary volume decline due to COVID-19 should not be misinterpreted as a decelerator to the industry, but a catalyst in an already fast-moving landscape.

The Future and COVID-19 Impact

The year of 2020 has transformed Global Payments Industry context in a way that goes beyond the importance of the new trends redefining the market, but the speed at which they are occurring, putting under pressure firms' ability to transform and adapt to protect their own results. Direct consequences from the current health crisis are the already mentioned decrease on consumers overall spending and decline on cross border transactions, which directly reduce nominal payments volumes and international processed transactions. Although long-term forecasting is remarkably difficult in the current scenario, given the uncertainty of multiple factors, there are three, not new, key trends that quickly enhanced their importance: shift in consumer behaviour, cashless society and the need for fraud protection. Social distancing led to new purchasing habits, shifting consumers' preferences to e-commerce and boosting the demand for digital services in a way that most traditional

[1] According to McKinsey's Global Payments Map

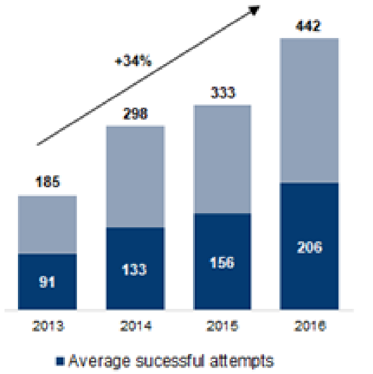


Exhibit 13. Average number of fraudulent transactions attempts per merchant, per month

Source: McKinsey

payments providers were not fully prepared, pressuring for quick digital innovation efforts. Fraud protection and prevention is one of these crucial digital services that require further investment by firms, due to the new loopholes opened for fraudulent payment scams through the sharp increase in online transactions. The pandemic crisis also undercut the use of cash due to the fear of banknotes spreading the virus and enabled a wider adoption of cards and contactless payments, with higher limits, that favoured firms, like Visa and MasterCard, already providing this service.

The important events to monitor in the close future are the borders opening and the countries proximity, that could facilitate traveling corridors and boost the cross-border spending; a new infection peak that could force further shutdowns and the global distribution and administration of the vaccines and how long will it take for group immunity to be reached. These will be the main factors to consider when forecasting the recovery of the industry.

Risk Factors

The Global Payments Industry has several risk factors associated with its operational activity that are common to all the firms that operate in the sector. The most recent events associated with the COVID-19 outbreak and the consequent actions to limit the spread of the virus, have resulted in a reduction on economic activity that is responsible for many closings and failures of merchants and partners. Firms in the industry can experience possible settlement failures caused by financial distress situations that could increase costs with indemnification obligations. Adverse **macroeconomic conditions** like the one we are living nowadays can also reduce consumer and corporate spending and the volume of cards, accounts and credit lines, which has a direct impact on payment facilitators' revenues.

A key asset on this sector is the firms' **brand**. The success of each company depends on the ability to preserve the value and reputation of their brand and to constantly reflect an idea of trust, security and reliability. Negative impacts to a brand reputation can result from data security breaches, compliance failures and facilitation of fraudulent and illegal activities through its services and can be very difficult and expensive to recover from.

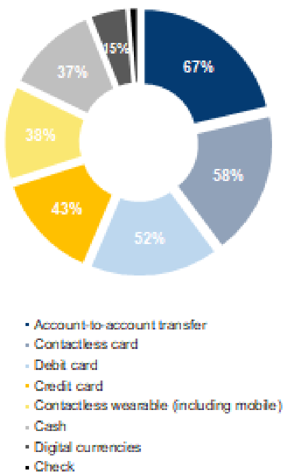


Exhibit 14. Payments instruments that will dominate in 2022

Source: Statista

Payments Industry is subject to complex **regulation** that governs the way firms operate, limiting their business models by increasing the complexity of their compliance operations and its costs, restraining the range of services offered and forcing the availability of their intellectual property and technology to third parties, in an undesirable way. Regulators worldwide have been increasing their authority in a rising sector that is part of the financial services and increasingly dependent on the digital world, that still lacks tighter safety rules. As this is a global sector, where most of the firms operate in various regions, regulation may differ from country to country, making it harder for firms to continually adjust the main aspects of their core business to the each country where they operate and reducing revenue opportunities. Besides the difficulty to adjust to different regulation at the same time, the risk of replication of a negative outcome in one jurisdiction to a global context is very high, as regulators tend to follow each other approaches. Firms need to continually improve their compliance controls to avoid the payment of fines and litigation and consequent civil and criminal penalties, which will ultimately hurt their brand and reputation, besides the financial damage. Also, they face the risk of losing their competitive position by not being able to differentiate their products through their own intellectual property.

As stated before, the sector increasing dependency on the digital world leads to an ongoing significant and rapid **technological** change on the payments industry products and services. Besides the big pressure to keep pace with the new technologies, due to the emerging technologies and consequent new payments methods, there is a risk of disintermediation with bilateral agreements directly between merchants and issuers, with no need for payments network processing the transactions.

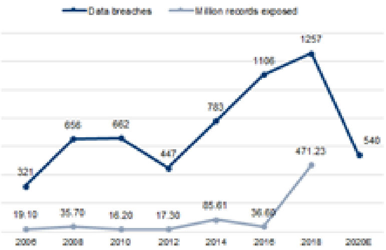


Exhibit 15. Number of data breaches and exposed records in the United States, in millions

Source: Statista

Cybersecurity risk is also a hot topic in the current years that is especially sensible to the payment industry, due to the nominal values transacted and the sensitive consumer data that firms detain. Firms with higher visibility in the industry, which consequently have higher nominal transactions volumes and clients, face a higher risk of cyber-attacks, but the growing concern with security measures and procedures is common to every firm in the sector. Also, with the pandemic outbreak and the consequent shift to online banking and e-commerce, cybercrimes and attempts have increased, raising fear that the ecosystems in place are not enough to protect from counter security breaches. Events like these could significantly disrupt operations, result in litigation and penalties and damage brand reputation, decreasing volumes, revenues and future growth prospects. Besides that, even with insurance, most are not enough to cover for losses that may arise, endangering business continuity.

Appendix

MASTER IN FINANCE

VISA INC

COMPANY REPORT

GLOBAL PAYMENTS INDUSTRY

4 JANUARY 2021

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Visa as a global leader of the Payments Industry

The COVID-19 outbreak nonlosers

- Revenues have been growing at a fast pace, with growth rates of **11.5%, in 2019, 12.3% in 2018 and an outstanding revenues growth of 21.7%, in 2017**.
- Contrarily to past years' trend, core revenues suffered **a 4.92% decrease in 2020**. Year of 2021 will be of slow recovery, almost reaching pre-pandemic values, **$22.8 billion and a yearly growth rate of 4.24%.** For the next years, revenues are expected to **be $25.5 billion** and **$28.3 billion**, for 2022 and 2023.
- Visa adopted an **overall cost reduction strategy in 2020** that result in a **cut to a 2.35% growth**, over prior year expenses. This strategy will remain at least until 2021, with small annual growth rate of **3.81% and a total of $8 billion costs**. Following years are estimated to exhibit total expenses of **$8.7 billion** and **9.5 billion**, for 2022 and 2023.
- We estimate a **share price of $242.93, for 31 Dec 2021**, and consequent **annual return of the stock of 9.867%,** based on a **WACC of 7.958% and a TV growth of 2.7%.**
- Our final recommendation is to **buy** Visa's stock, as the long-term **outlook remains solid** and it is expected to continue to **outperform its peers in a rising sector**.

Company description

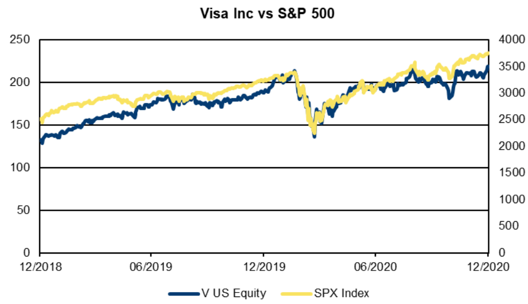
Visa Inc. is an American payment service provider that operates in more than 200 countries worldwide. The company provides its services by enabling the clearing and settlement of fast and reliable payment transactions across the world.

Recommendation:	**BUY**
Price Target FY21:	**242.93 $**
Price (as of 31 Dec 2020):	**218.73 $**

Reuters: V.N , Bloomberg: V:US

52-week range ($)	133.93-220.39
Market Cap ($m)	527,025
Outstanding Shares (m)	1,696

Source: Bloomberg



Source: Bloomberg

(Values in $ millions)	2019	2020	2021F
Revenues	22,977	21,846	22,773
EBITDA	16,057	14,859	15,440
EBIT	15,401	14,092	14,723
EBIT margin	64%	61%	62%
EPS	5.32	4.9	5.1
P/E	35.32	44.64	47.63

Source: Visa Annual Report and Own Estimations

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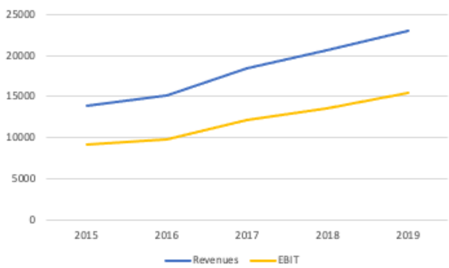

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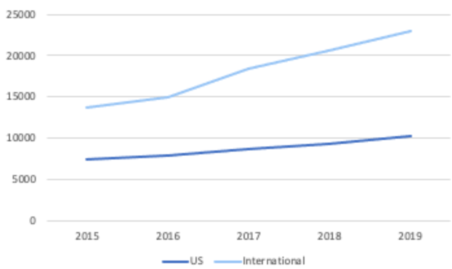

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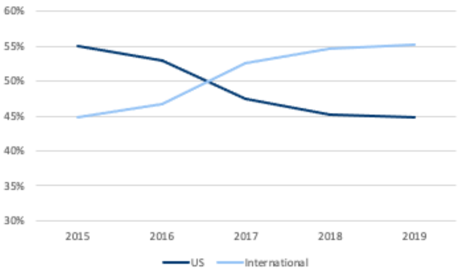

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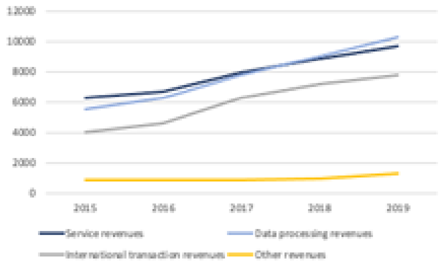

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accounted for more than 10% of net revenues. As a result, there will be more growth opportunities outside the U.S., especially in emerging areas like Latin America and Asia.

Visa derives its revenue from four main segments: **Service revenues** consist mainly of revenues earned for services provided in support of client usage of Visa payment services and, in 2019, accounted for **33.3%** of overall revenues (**34.2%** in 2018). **Data processing revenues** are earned for authorization, clearing, settlement, and network access that facilitate transaction and information processing. In 2019, this segment represented **35.4%** of total revenue (**34.6%** in 2018). **International transaction revenues** arise from cross-border transaction processing and currency conversion activities and amounted to **26.8%** of revenues in 2019 (**27.6%** in 2018). Finally, we have **other revenues** which consist mainly of license fees for the use of the Visa brand, representing a mere **4.5%** of revenues (**3.6%** in 2018). Although every source of revenue has been growing, it is worth mentioning that the data processing stream has been the one growing at the fastest pace, registering growth rates of **24.1%, 15.9%** and **14.5%,** in 2017, 2018 and 2019, respectively. Meaning that, over the next few years, this segment has the potential and stability to become the main source of revenue for the company.

Shareholder Structure

Prior to 2007, Visa was comprised by four separate companies: Visa International Service Association (Visa), Visa USA Inc, Visa Canada Association and Visa Europe LTD. While these companies had the status of group members, unincorporated regions like Visa Latin America (LAC), Visa Asia Pacific and Visa Central and Eastern Europe, Middle East and Africa (CEMEA) were simply divisions within Visa.

In 2007, due to corporate restructuring, Visa Inc was formed by merging Visa International, Visa USA and Visa Canada. Visa Europe, on the other hand, became a separate company with a minority stake in Visa Inc.

In 2008, Visa went ahead with what was the largest IPO in U.S. history, selling **406 million** shares at **$44** per share, raising **$17.9 billion**. The IPO was such a success that, a few days later, the IPO underwriters exercised their overallotment option, raising Visa´s total IPO proceeds to **$19.1 billion**, with the purchase of **40.6 million** additional shares. Visa now trades on the New York Stock Exchange under the ticker symbol “V”.

As of today, due to its size, Visa’s ownership structure is mainly comprised by institutional investors and mutual funds, where the majority stakeholder is the

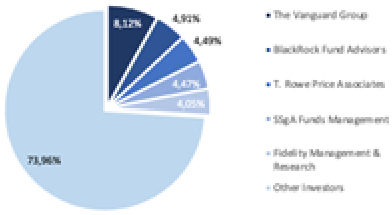


Exhibit 5. Visa's Ownership Structure

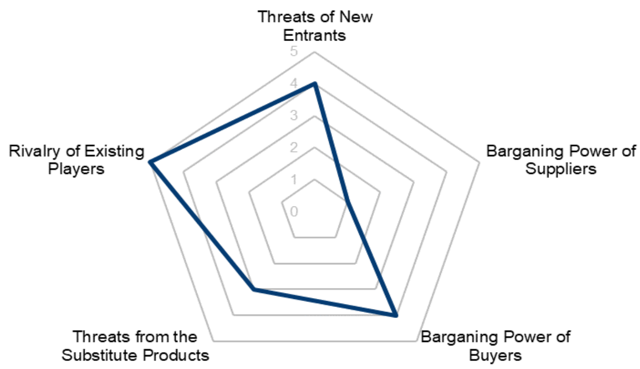
Vanguard Group with an 8.15% stake in the company (Exhibit 5). Being mainly owned by institutional investors has both advantages and disadvantages. While Institutional investors usually have access to large sums of money and an abundant number of resources, like analysts and market data, their involvement in a company is often perceived as being "smart money". On the other hand, since this investor has the ability to own thousands, if not millions, of shares, if he decides to sell, a large number of shares will be sold and, as a result, the share price will drop.

Regarding transactions with shareholders, both dividends and share repurchases have increased over the previous year, considering both, Visa reported **$10.9 billion** in transactions, resulting in an increase of **19%** compared to 2018. In 2020, despite the uncertainty surrounding the COVID-19 pandemic, the company is planning to continue its dividend distribution, showing that, contrary to most, Visa has been able to resist the current economic recession.

Industry Overview

Global Payments Industry

Global Payments is a very dynamic and highly competitive industry. Constant developments in technology and innovation on payment solutions, shift consumers' preferences creating growth opportunities for existing firms and new entrants. Through a 5 Forces Porter's Analysis, we conclude that the main characteristics to describe the sector are a very intense rivalry between existing players and a high threat of new entrants. On the opposite side, the industry shows low bargaining power from suppliers and high from buyers, and low to moderate threat of substitute's products.



Exploring each force individually, **buyers**, composed by financial institution clients and merchants, exercise their power on payments facilitators by forcing

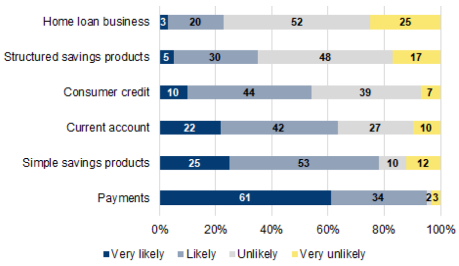


Exhibit 6. Fintech seen as threat to existing retail banks
Source: Statista

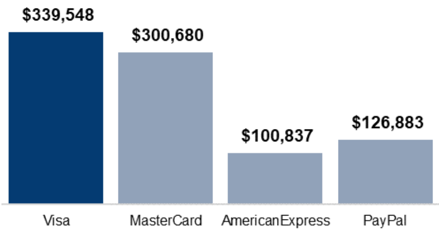


Exhibit 7. Visa and peers' market cap in millions
Source: Bloomberg

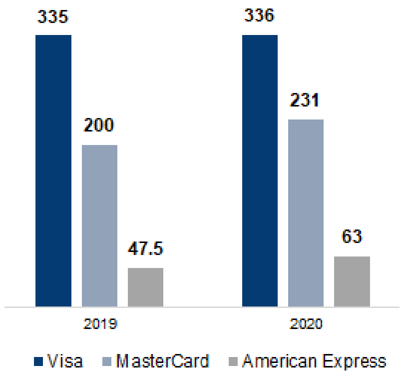


Exhibit 8. Visa and peers' number of cards in circulation, in millions
Source: Statista

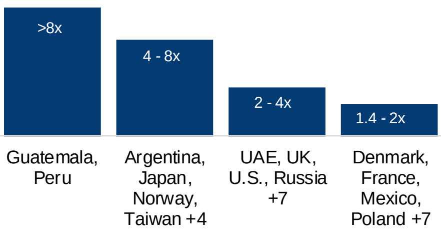


Exhibit 9. Visa's Brand preference advantage worldwide
Source: Brand Health Measurement (BHM)

them to charge competitive prices and low service fees. They can do this due to the wide range of firms providing similar services in a global scale, all competing for the customer base that each merchant/institution can provide to increase dissemination of firms' products. **Suppliers**, on the other hand, that are mostly software providers and human resources, do not have much control over firms. The lack of power comes from the high supply of IT services in the market, together with the fact that most firms tend to develop much of their software internally, as their intellectual property is key for product differentiation. The fear of new **substitute's products** is real but not very troubling. Cash is less of a threat each day, as preferences continue to shift for cards usage. But, a new reality of digital, mobile and disintermediated payments methods is a constant reminder to the industry that is imperative for firms to accelerate transformations to a digital and more agile organization, to avoid losing their competitive positioning. These constant and innovative transformations create opportunities for **new entrants**. With technology developments and the emerging of new payments methods, from old payments procedures, new players, like *fintechs* and technology companies, join the market by developing payments systems enabled trough online activity and mobile channels. Partnering with these new players is a valuable strategy that some firms are adopting to overcome this threat and provides double wins to the industry. From one side, new entrants can take advantage of the reach, capability and security that dominant players can provide, overcoming the barrier of capitalization costs, accelerating the launch of their programs and scaling them. From the other side, firms benefit from new payments experiences and flows, brought by their partners, and reduce direct competitors. Rivalry in the sector is not exclusive with new entrants, but also very intense with existing players. The Global Payments space is intensively **competitive**, as firms strive hard to increase their customer base and provide new services before peers. Industry revenues depend in their majority on the volumes of transactions processed by firms, which are consequently higher the wider their range of clients is. Firms in the industry compete to offer the more effective, innovative and wider variety of products and services; to use the more effective advertising and marketing strategy that will better improve their brand recognition; to develop better security solutions; and provide the most favourable pricing arrangements, all to increase their products acceptance and, as a result, their market share.

Firms in the sector compete against all forms of payments, from cash and checks to electronic funds and virtual currency payments, and from closed loop payment systems to global networks. Considering Visa, their main competitors based on their main operational activity and close figures, are MasterCard, American Express and PayPal. Although both Visa and Mastercard do not issue

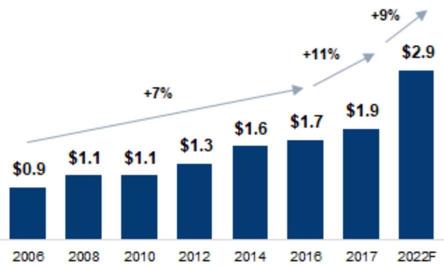


Exhibit 10. Global Payments industry revenues, in trillions, and annual average growth rates

Source: McKinsey's Global Payments Map

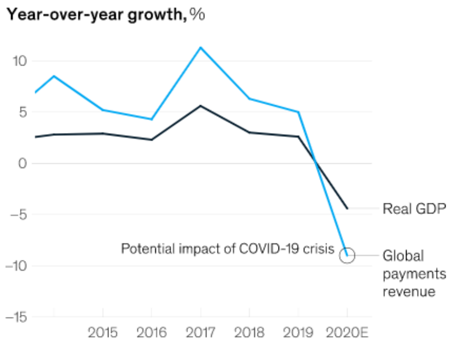


Exhibit 11. Economic impact of COVID-19 on Real GDP and Global Payments Industry

Source: McKinsey's Global Payments Map

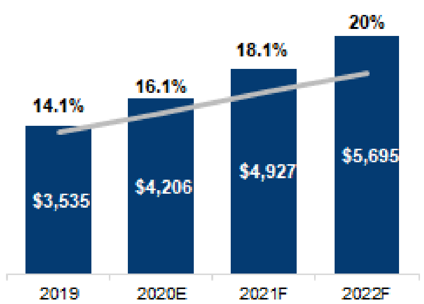


Exhibit 12. Retail e-commerce sales worldwide, in billions, and e-commerce share of total global retail sales

Source: Statista

credit cards, unlike American Express, these two are considered Visa direct competitors, as they are global networks like Visa, providing a very similar range of services, with huge global client bases. MasterCard has the closest values with revenues of **$16 billion**, a growth rate of **13%** and a market cap of **$300 billion**, for 2019. Followed by American Express with **$43 billion** in revenues, a growth of **8%** and a market cap of **$100 billion**, for the same year. Last, PayPal is a disruptive alternative to these payments providers that have reach their global presence and, consequently, their volumes. In 2019, its revenues were of **$17 billion** with a growth of **15%** and a market cap of **$126 billion**. These figures prove that Visa is well positioned competitively in the market, being one of the world's leaders in digital payments with the higher market cap of **$339 billion**. The key to their success in mainly associated to the global brand they have constructed and its portrait of reliability, speed, security and acceptance at a global scale, but never neglecting individual markets necessities neither the providence of tailored solutions through valuable partnerships.

Recent performance of the industry, over the past several years, show an average **7%** annually growth rate on payments revenues. Current health crisis is expected to lower 2020 revenues by the same amount of recent years' annual gains. Full-year figures from 2020 will exhibit a **$140 billion** decline on the industry revenues, **11% to 13%** below last year projections[1]. It is also important to review this year performance in two semesters, as the decline of **22%** in the first half is expected to be compensated by a stronger performance in the second half, resulting in a reduced overall decrease of **7%** over 2019. In contrast with prior year solid revenue growth, following previous years' performance, 2020 experienced a steep reduction in discretionary spending, initially around **40%** globally, and a severe demand side shock, that will deviate revenues from their previously projected growth trajectory. This was softened by a sharp decline on the use of cash, which is expected to be **4% to 5%** lower in relation to previous years, which reinforce that this temporary volume decline due to COVID-19 should not be misinterpreted as a decelerator to the industry, but a catalyst in an already fast-moving landscape.

The Future and COVID-19 Impact

The year of 2020 has transformed Global Payments Industry context in a way that goes beyond the importance of the new trends redefining the market, but the speed at which they are occurring, putting under pressure firms' ability to transform and adapt to protect their own results. Direct consequences from the

[1] According to McKinsey's Global Payments Map

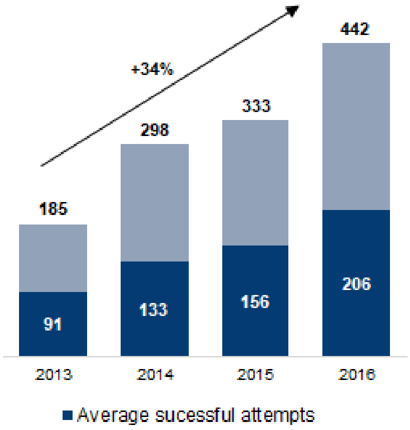


Exhibit 13. Average number of fraudulent transactions attempts per merchant, per month

Source: McKinsey

current health crisis are the already mentioned decrease on consumers overall spending and decline on cross border transactions, which directly reduce nominal payments volumes and international processed transactions. Although long-term forecasting is remarkably difficult in the current scenario, given the uncertainty of multiple factors, there are three, not new, key trends that quickly enhanced their importance: shift in consumer behaviour, cashless society and the need for fraud protection. Social distancing led to new purchasing habits, shifting consumers' preferences to e-commerce and boosting the demand for digital services in a way that most traditional payments providers were not fully prepared, pressuring for quick digital innovation efforts. Fraud protection and prevention is one of these crucial digital services that require further investment by firms, due to the new loopholes opened for fraudulent payment scams through the sharp increase in online transactions. The pandemic crisis also undercut the use of cash due to the fear of banknotes spreading the virus and enabled a wider adoption of cards and contactless payments, with higher limits, that favoured firms, like Visa and MasterCard, already providing this service.

The important events to monitor in the close future are the borders opening and the countries proximity, that could facilitate traveling corridors and boost the cross-border spending; a new infection peak that could force further shutdowns and the global distribution and administration of the vaccines and how long will it take for group immunity to be reached. These will be the main factors to consider when forecasting the recovery of the industry.

Risk Factors

The Global Payments Industry has several risk factors associated with its operational activity that are common to all the firms that operate in the sector. The most recent events associated with the COVID-19 outbreak and the consequent actions to limit the spread of the virus, have resulted in a reduction on economic activity that is responsible for many closings and failures of merchants and partners. Firms in the industry can experience possible settlement failures caused by financial distress situations that could increase costs with indemnification obligations. Adverse **macroeconomic conditions** like the one we are living nowadays can also reduce consumer and corporate spending and the volume of cards, accounts and credit lines, which has a direct impact on payment facilitators' revenues.

A key asset on this sector is the firms' **brand**. The success of each company depends on the ability to preserve the value and reputation of their brand and to constantly reflect an idea of trust, security and reliability. Negative impacts to a brand reputation can result from data security breaches, compliance failures and facilitation of fraudulent and illegal activities through its services and can be very difficult and expensive to recover from.

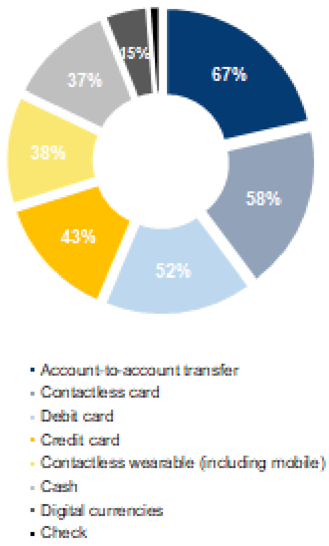


Exhibit 14. Payments instruments that will dominate in 2022
Source: Statista

Payments Industry is subject to complex **regulation** that governs the way firms operate, limiting their business models by increasing the complexity of their compliance operations and its costs, restraining the range of services offered and forcing the availability of their intellectual property and technology to third parties, in an undesirable way. Regulators worldwide have been increasing their authority in a rising sector that is part of the financial services and increasingly dependent on the digital world, that still lacks tighter safety rules. As this is a global sector, where most of the firms operate in various regions, regulation may differ from country to country, making it harder for firms to continually adjust the main aspects of their core business to the each country where they operate and reducing revenue opportunities. Besides the difficulty to adjust to different regulation at the same time, the risk of replication of a negative outcome in one jurisdiction to a global context is very high, as regulators tend to follow each other approaches. Firms need to continually improve their compliance controls to avoid the payment of fines and litigation and consequent civil and criminal penalties, which will ultimately hurt their brand and reputation, besides the financial damage. Also, they face the risk of losing their competitive position by not being able to differentiate their products through their own intellectual property.

As stated before, the sector increasing dependency on the digital world leads to an ongoing significant and rapid **technological** change on the payments industry products and services. Besides the big pressure to keep pace with the new technologies, due to the emerging technologies and consequent new payments methods, there is a risk of disintermediation with bilateral agreements directly between merchants and issuers, with no need for payments network processing the transactions.

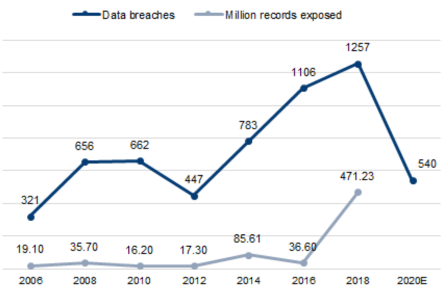


Exhibit 15. Number of data breaches and exposed records in the United States, in millions

Source: Statista

Cybersecurity risk is also a hot topic in the current years that is especially sensible to the payment industry, due to the nominal values transacted and the sensitive consumer data that firms detain. Firms with higher visibility in the industry, which consequently have higher nominal transactions volumes and clients, face a higher risk of cyber-attacks, but the growing concern with security measures and procedures is common to every firm in the sector. Also, with the pandemic outbreak and the consequent shift to online banking and e-commerce, cybercrimes and attempts have increased, raising fear that the ecosystems in place are not enough to protect from counter security breaches. Events like these could significantly disrupt operations, result in litigation and penalties and damage brand reputation, decreasing volumes, revenues and future growth prospects. Besides that, even with insurance, most are not enough to cover for losses that may arise, endangering business continuity.

Methodology

Although both APV and DCF model were calculated, to evaluate Visa Inc., the approach chosen was the DCF, given the stability of the firm and predictability of its cashflows. Even with the global pandemic disruption of the markets, we predict that Visa capital structure will not change, remaining with a constant leverage ratio of 2.75%, as in previous years, and no need for financial aid. Hence, there is no fear of undermining the tax shield benefits by using DCF model, as we can see by a similar future share price from both models.

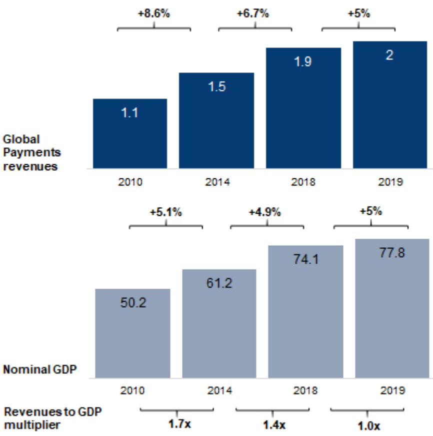


Exhibit 16. Relationship between GDP and payments revenue

Source: McKinsey

Value Drivers

Arriving to a strong and robust forecasting model provides the necessary confidence for our valuation. Considering this, there are 3 key operational data estimations that support our forecast assumptions and numbers: Nominal Payments Volume (Domestic and International), Processed Transactions and Headcount.

Nominal Payment Volumes result from the total nominal value of transactions that are payed with Visa cards and cash volumes from transactions and transfers. These volumes can be segmented geographically, by Domestic Nominal Payments Volume, that are related to all the purchases, transfers and transactions that occur within the same territory, and that are mostly from U.S. and Europe; and also International Nominal Payments Volume, that accounts for all the cross-border purchases and transactions, where the issuer origin country differs from the beneficiary. From the past years' figures, we can conclude that, even though both segments are exponentially growing since early ages, international volumes have a heavier dimension from the total payments volume. Besides that, Domestic volumes exhibit a lower growth performance of around **11%** annually, where International has a higher average growth rate of **23%**.

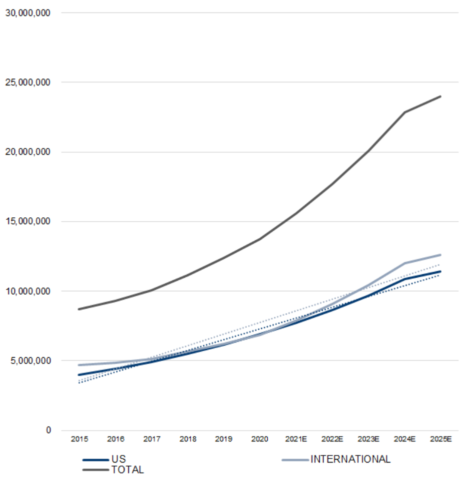


Exhibit 17. Nominal Payments (total, domestic and international) volumes estimation

Total Nominal Payments Volume were severely hit by the current pandemic year we are living. Not only through the travel restrictions and borders-closing, that harshly impacted the International segment, but through a global reduction of consumers discretionary spending on a possible permanent or long-term basis. Each segment was assumed to recover differently according to the possible estimations of a future return to normal.

As the **International Nominal Payments Volume** depend on cross-border transactions that are consequently affected by the implementation of measures to contain the spread of the virus, such as travel bans, restrictions and quarantines, a slower recovery with a structural impact in the segment growth rate is expected. For the International segment, an L-shape recovery is expected to happen during next years. In 2020, a **1%** decrease will be followed by a slight recovery signal of a positive **4%** growth rate in 2021. Recovery will last for at least 5 years and, only after 2025, we expect to reach the new segment growth rate of **15%**, still **11%** below the previously average calculated from 2015 to 2019 figures.

Domestic Nominal Payments Volume is not so dependent on travelling restrictions, but it is also hit by industry shutdowns and primarily by the reduction in consumer's disposable income and discretionary spending. Considering this, a V-shape recovery is expected, with a quick bounce back on volumes that is expected to be recovered in a small period of 1 to 2 years. In 2020, there was a slow down to a **3%** increase on payments volumes, but 2021 is estimated to evidence a sharp recovery to an annual growth rate of **10%,** very close to the average **11%** expected in this segment. As recovery is expected to be quick, until 2030, an average annual growth rate of **12%** is expected for the segment.

In both segments, from 2030 to 2040, we assumed that the market is matured and consider a **5%** growth rate. After that, on our Terminal Value (TV) assumptions, we considered as our long-term growth rate an average of the estimated inflation for US in the next years, **2.22%.**

Processed Transactions account all the transaction that are made using Visa cards and other forms, that are processed in Visa's networks. Transaction volumes are not expected to decrease, but only to slow down. In 2021 we estimated a growth of **11%**, on transaction volumes, reflecting the ongoing global shift to electronic payments that can partially offset the impact of COVID 19. After that, in 2022 and until 2030, we assumed a steady growth rate of around **12%**, close to the pre-pandemic levels (average **18%**). From 2030 to 2040, a stabilization period was also assumed with a constant growth rate of **5%** that remains until our TV assumptions consider an average of the future U.S. annual GDP growth rate, **3.8%**, as the growth rate from 2040 onwards.

Headcount stands for the number of employees that work for Visa. Talent is core for Visa success so there is a huge effort to attract, hire and retain highly qualified and diversified staff. This investment strategy for future growth relies on the expansion of the workforce and it has also been fuelled in part by Visa acquisitions. Having this is consideration, headcount is expected to increase by

5% in the next year, due to the overall cost reduction strategy that include scaling back hiring plans. After that, an average **9%** growth rate is expected until 2030, and a stable growth rate of **5%** from 2030 to 2040. Finally, the TV assumptions also considered average U.S. GDP Growth (**3.8%**) the rate for perpetuity from 2040 onwards.

Forecasting

To forecast Visa's future cash flows, a period of 27 years was considered until the company reaches a steady performance, with RR and ROIC presenting stable results of around **0.9%** and **292.6%**, respectively, resulting in a TV Growth Rate of **2.7%**. Even though the last forecasting year was 2047, our TV growth assumptions start from 2040 onwards, with two long-term growth rates: an average of the estimated inflation for US in the next years, **2.22%**, and an average of the future U.S. annual GDP growth rate, **3.8%**. U.S. growth rates were considered as it represents Visa's domestic market and U.S. dollar strength or weakness directly impacts net revenues, as payments volumes in local currencies are converted to it.

▪ Revenues

Visa Core revenues derive from the facilitation of payments across the world and implicit range of value-added services provided in complement. There are 5 main segments: Service Revenues, Data Processing Revenues, International Transaction Revenues, Other Revenues and Client Incentives, accounted for as reductions to revenues. Service Revenues and Data Processing Revenues together are responsible for an average of **75%** of total core revenues, following Client Incentives (**20%**) and Other Revenues (**5%**).

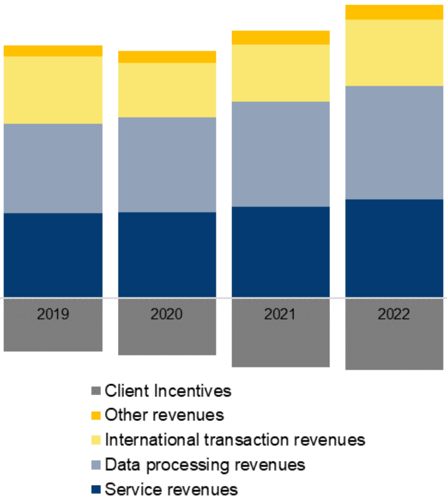


Exhibit 18. Visa's revenues by segment from 2019 to 2022, in millions

Contrarily to past years' trend, we estimate Core revenues suffered a **4.92%** decrease in 2020 over the previous year. The year of 2021 was considered a year of slow recovery, with core revenues almost reaching pre-pandemic values, **$22.8 billion** and an annual growth rate of **4.24%**. After that, we expect a total recovery until 2030 and a steady **5%** yearly growth rate there onwards, until the TV assumptions take place in 2040, with an average **2.95%** growth rate.

Service Revenues rise from the services provided in support of Visa payment transactions. As they result from pricing applied to the nominal payments volume, they are its main driver. Having in consideration our estimations for the yearly Total Nominal Payments Volume, this segment future cash flows were calculated assuming an average constant pricing of **0.11%** (2017 to 2020 values) applied to each year's payments volume estimation. This way, we reached **$10.5 billion** in 2021, an increase of **6.71%** over the previous year. Further, in 2022, a

8.2% growth leads to **$11.3 billion**. Recovery continues to grow until an expected steady growth of **5%** from 2030 to 2040 and, there onwards, at the USD inflation rate (**2.22%**), as the main driver is nominal.

Data Processing Revenues are earned for value added services and every other maintenance and support services that facilitate the transactions between Visa clients. As services are provided in support for the transactions occurring, they were estimated through an average constant pricing of **7.63%**, 2019 and 2020 values, applied to the main driver, Visa Processed Transactions estimations. Visa's transactions are expected to slow down its consistently high growth levels, so consequently the same is expected to happen to Data Processing revenues that will reach **$12.2 billion** in 2021, with a growth of **11%**, over the prior year. After 2022, as the segment was not very hurt, growth levels are expected to be very stable around the **12%**, until the maturity of the market, from 2030 to 2040, where a growth rate of **5%** was adopted according to the one estimated for the transactions itself. For the TV assumptions, the U.S. GDP growth rate was used, **3.82%**, again following the same assumptions when estimating transactions volumes.

International Transaction Revenues urge from cross-border activities, mostly from the processing of transactions where the country of the issuer differs from the beneficiary and currency conversions. This segment was hit the hardest by the pandemic crisis we are living and, due to the high unpredictability of the extent to which COVID-19 will continue to restrict travel, close borders and lock-down countries, it will be the slowest to recovery, adapting to the "new normal" we are building in our day-to-day lives. To estimate the future trajectory of these revenues, a differentiation between Domestic (U.S.) and International (Cross-border) Nominal Payments volume was made, as they are expected to continue to evolve in different ways, as explained in our Value Drivers assumptions. Following the expected L-shaped recovery, applying an average pricing of **0.15%** (2019 to 2020 values), we estimate a structural change to the segment growth rate for 5 years, and only then beginning to reach the pre-pandemic levels. For fiscal 2021, a small increase of **3.84%** is expected, to **$6.5 billion**. After that, 2022 will perform much better with a growth of **17.49%**, returning to the two digits rates from the past 5 years. Recovery is expected to be slow but constantly improving until 2026, where we estimate a return to previous growth rates with a **15%** annual growth. This is expected to remain until 2030 where the stabilization period starts until 2040, with a growth rate of **5%**, and after that the U.S. dollar rate (**2.22%**) is assumed in perpetuity.

Other Revenues consist mainly in fees for use of the brand or Visa technology, together with consulting and marketing services and revenues related to acquisitions. These revenues are not completely tied to the volume of processed transactions but are expected to evolve in the same way, as more processed transactions will result is more fees for account holder services, certification and product enhancement. Following this, a pricing of **1.02%**, from 2020, was applied to the transaction volumes of 2021 to a total of **$1.6 billion**. After that, an average pricing of **0.98%** (2019 and 2020 values) was annually applied to the volumes. This segment is expected to maintain a slow but steady growth especially due to the urge of consulting and marketing services and the expectations that transactions volumes will not decrease in the future. In 2022 we expect **$1.7 billion** and a growth rate of **8.28%**. From 2024, growth is estimated to remain at similar values of around **12%** until 2030, **5%** from 2030 to 2040 and the U.S. GDP growth rate of **3.82%** there onwards in perpetuity.

Client Incentives are included in long-term contracts, between Visa and its clients and strategic partners, and are designed to increase product acceptance by growing payment volumes and wining merchant routing transactions over the network. As revenues depend on client base, this may be costly to win, retain and maintain. At the same time that Visa contracts include contractual protections to limit the flexibility of clients to issue non-Visa products, it also include multiple incentives to increase volumes and enter new market segments, expanding Visa products and services usage and also offering competitive advantages regarding its peers. Incentives are based on performance expectations and in the last quarter conference call, Visa estimated, as a percentage of gross revenues, values between **25.5%** and **26.5%**, for 2021. This information was assumed, resulting in **$8 billion**. After that, an average of 2020 and 2021 was assumed there onwards, resulting in an average value around **24.69%**.

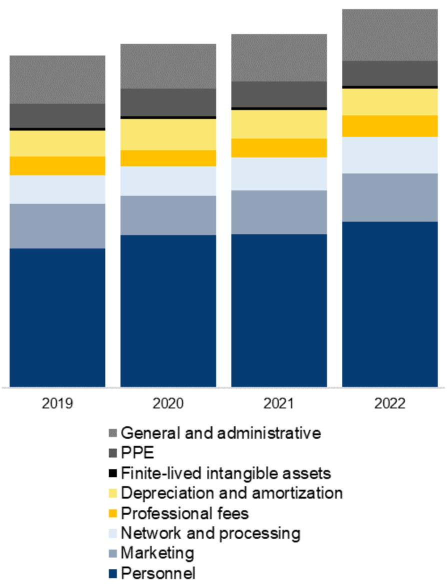


Exhibit 19. Visa's costs by segment from 2019 to 2022, in millions

- ## Costs

Visa operating expenses are divided in 7 main segments: Personnel, Marketing, Network and Processing, Professional Fees, Depreciation and Amortization, General and Administrative and Litigation Provision, which was not considered a core expense. The main core expense are costs related to employees (Personnel) that account for almost half of total expenses (**46%**). Follows Marketing and General and Administrative cost, each with weights close to **14%**, then Network and Processing, Depreciation and Amortization and Professional fees with weights below **10%**.

In previous years, Total Core Expenses followed an average annual growth of **12%**, but, having in mind the present crisis we are living, Visa adopted an overall cost reduction strategy in 2020. This resulted in a cut to a **2.35%** growth rate over the prior year, and we estimate that this strategy will remain at least until 2021, maintaining a small annual growth rate of **3.81%** and a total of **$8 billion** costs. After that, growth rates are expected to slowly return to pre-cost reduction strategy in 5 years, coming back to a 2 digits growth rate. We assume market maturity between 2030 and 2040, where annual growth rate stabilizes in an average **5%**, and there onwards, an average **3.73%** growth was assumed in our TV assumptions.

Personnel Expenses include all employee related costs such as salaries, benefits and incentive compensations. These costs are directly tied to the headcount so, having in consideration our estimations explained deeper in the Value Drivers section, an average annual expense per employee was calculated from 2019 figures (**$180,000**), and constantly applied to each year estimated headcount. For fiscal 2021 we estimate an annual growth rate of only **0.56%** to volumes of **$3.8 billion**. Afterward, growth is expected to return to **8%** in the next 2 years, and after to a solid 9% until 2030, where it slows down for an annual **5%** growth rate until 2040. There onwards, the U.S. GDP growth rate of **3.82%** was assumed in our TV considerations.

Marketing Expenses are associated with marketing and advertising campaigns and sponsorships. Fiscal 2020 decreased is a mirror of the overall cost reduction strategy together with the absence and delay of two major events that Visa was sponsoring: FIFA women's world cup and Tokyo Olympics. In 2021 marketing expenses are expected to increase, but still in a restricted way, so we expect it to have the same weight on total revenues that in 2019 (**4.81%**). Marketing costs are expected to be **$1.1 billion** of total costs, an increase of **12.79%** regarding the previous year steep cut of 12.13%. For the following years, an average of 2019 to 2021 values was annually applied to the total revenues values to compute marketing costs. It should return to pre-COVID 19 growth values of around **13%** until 2030 where it adopts a **5%** stable growth rate until the TV assumptions enter in place in 2040 and growth is assumed to be **3.82%** in perpetuity.

Network and Processing Expenses represent costs with processed transactions and fees on data processing services. It directly depends on the volumes of Visa Processed Transactions as they mainly account for maintenance costs that each transaction implies. To estimate future figures for this segment, we assumed constantly the 2019 average cost of each transaction (**0.52%**) to each year estimations of transactions volume. As it was not hit hard by the pandemic, as transaction numbers continued to increase, in 2021 this segment is expected to increase by **12%**, to a value of **$815 million**. This should remain until 2030 to 2040 where a **5%** growth rate is assumed and then TV assumptions rely on the U.S. GDP growth rate (**3.82%**) there onwards.

Professional Fees are fees that result from the need of external professional services like consulting and legal advice. These expenses are not directly linked to the volumes of processed transaction, but the higher the volumes Visa needs to process, the more they will need to resort on these services. Our estimation is that professional fees will evolve in the same way as Visa Processed Transactions Volumes, so future estimations were calculated assuming a constant pricing of **0.31%** (2019 and 2020 average values) applied to each year volume. In 2021, professional fees are expected to slowly recover, reflecting the overall strategy of cost reduction, to **$453 million**, an increase of **11%** over 2020. After that, growth increases to an average **19%**, in the next two years of recovery, and thereafter to an average growth rate of **12%** until 2030 where a **5%** growth rate is assumed until 2040, where the U.S. GDP growth rate (**3.82%**) is assumed there onwards.

General and Administrative Expenses derive from facilities costs, indirect taxes, foreign exchange gains and other expenses in support of the core business. These expenses were estimated as a percentage of total revenues of **5.11%**, average from 2019 and 2020 values. In 2021 an increase of **6.2%** is expected to **$1.2 billion**, mainly due to soften cross-border restrictions. A recovery is expected in 2022 with a growth rate of **11.8%**, that should remain until 2030. From 2030 to 2040 a constant **5%** growth rate was assumed, until an average of **2.93%** there onwards in perpetuity.

Litigation Provisions account for the litigation expenses that the management expects to happen, based on their understanding of Visa's annually revised litigation profile. This provision was considered a non-core expense as we considered it an outside of business activity operation. Having in mind all the litigation process Visa has on going, and no expectations of major cases arriving that will disrupt the usual expenses on litigation, we estimated a constant litigation provision for the total forecasting period equal to the one accounted in 2019, **$400 million**.

- ## Invested Capital

Operating Cash was assumed to be 2% of sales given that this was the average used in the payments industry. Looking at the **Cash Conversion Cycle**, namely the Collection and Payable Period, we assumed Visa's values will converge towards its peers' values over time. Regarding the collection period, we estimated it to be around **22** days, basically the same value for the past 5 years, and substantially lower than the average of its peers (which is around **32**), which can be explained by Visa's efficiency in payment processing. Overtime, it will start converging towards the industry average. As for the payable period, we estimated it to be around **9** days, also significantly lower than the industry average (which is around **15**) and, from 2021 onwards we expect it to start slowly increasing towards the industry average.

Property, Equipment and Technology was recorded at historical cost less accumulated depreciation and amortization, and it is split into Land, Buildings, Furniture and Equipment, Construction-in-progress and, lastly, Technology, which consists of both purchased and internally developed software. In order to perform the forecast, we looked at historical growth rates and assumed an average based on the last few years, with the exception of some captions that remained constant, as they do not change substantially over time, examples are Land and Construction-in-progress.

Intangible Assets were forecasted based on historical growth rates and were assumed to grow at a constant rate of **0,61%.** Regarding Goodwill, it was assumed to remain constant, which is consist with the last 5 years.

Concerning **Depreciation costs**, for both Intangibles and Property and Equipment, these were calculated based on the percentage of each relevant caption, where property, equipment and technology constitute more than **90%** of total depreciation costs.

Cost of Capital Estimation

With the DCF method, in order to compute the weighted average cost of capital (WACC), three key inputs are required: the cost of debt, the cost of equity and the target capital structure.

First, we determined the unlevered beta of the industry. To obtain this value we unlevered both the company's and its peers' raw betas. Here, the peer group considered was a set of 15 different players in the payments industry. To determine the raw betas, we regressed each company's weekly excess returns on the US dollar risk-free rate against the S&P500's excess returns on the same rate. For the data set, we chose the period comprising the weeks starting in 28/09/2018 until 02/10/2020. This set was chosen in order to properly reflect the systematic affecting the industry. If a bigger data set was considered, we would be underestimating Visa's systematic risk, since the beta would smooth the impact of the current health crisis. Then, we unlevered each raw beta according to each company's beta of debt and D/E ratio.

Company	Raw Beta	D/E	Cost of Debt	Unlevered Beta
Visa Inc	1,0033	0,01	1,40%	0,99675
Mastercard Inc	1,2342	0,01	0,68%	1,22757
Global Payments Inc	1,2322	0,15	2,46%	1,10356
Fidelity National Information Services Inc	0,9929	0,23	2,02%	0,84403
Fiserv Inc	0,9928	0,48	2,23%	0,74552
PayPal Holdings Inc	0,9655	-0,04	2,16%	0,99798
FleetCor Technologies Inc	1,1837	0,16	2,28%	1,05493
WEX Inc	1,9632	0,24	2,19%	1,62689
Euronet Worldwide Inc	1,4008	0,00	2,15%	1,39681
Square Inc	2,0802	-0,02	2,62%	2,11136
ACI Worldwide Inc	1,3817	0,30	2,78%	1,13526
Evo Payments Inc	-0,2261	0,21	2,64%	-0,13788
Western Union Co/The	0,8167	0,18	2,19%	0,72758
Bottomline Technologies DE Inc	1,4815	0,00	2,77%	1,47846
Cardtronics PLC	1,6330	0,40	2,23%	1,23150
MoneyGram International Inc	2,1711	-1,77	3,25%	-1,95415

Exhibit 20. Key inputs of Peer Group

To calculate the beta of debt, we used the cost of debt of each of the companies (whose values were gathered from Bloomberg) and the CAPM model, which requires a risk-free rate and a Market Risk Premium. For the risk-free rate, since Visa's cash flows are denominated in USD, we considered 10-year US treasury bonds[2]. For the market risk premium, we used a widely accepted value[3] based on historical averages as well as recent market developments, such as the COVID-19 outbreak.

Rf	0,681%
MRP	6,750%
Cost of equity (rE)	8,15%
Cost of Debt (rD)	1,40%
WACC	7,96%

Exhibit 21. Key inputs of cost of capital

For Visa, the cost of Debt was determined using Visa's yield, recovery rate and probability of default. In order extrapolate Visa's yield, the US AA credit rating yield curve was used. Then, using a recovery rate of **43.3%** and a probability of default of **0.003%[4]**, we obtained a cost of Debt of **1.405%.**

Regarding the cost of equity, we used the CAPM once again. Having now the unlevered beta of the industry, which was **1.08**, we first need to find the re-levered beta of the company using its target D/E ratio (**2.75%**). Then, with the re-levered beta we simply apply the CAPM and get a cost of equity of **8.147%.**

Finally, after following the previous steps, we simply applied the WACC formula[5] and obtained an estimation of **7.958%.**

[2] Source: Bloomberg
[3] Source: KPMG – Equity Market Risk Premium
[4] Source: Moody's
[5] $WACC = r_d * {}^{D}/_{EV} * (1 - t) + r_e * {}^{E}/_{EV}$

Valuation

Outcome

Final Share Price	
Terminal Value	**1,138,387**
PV Terminal Value	155,476
EV	**491,404**
Non-Core Invested Capital	(3,651)
Net Debt *(Year 0)*	8,218
Equity	479,535
Shares Outstanding	1,974
Share Price	**$ 242.93**

Overall Expect Return	
Share Price (31.12.2020)	$ 218.73
Share Price (31.12.2021)	$ 242.93
Capital Gains Yield	**11.062%**
Transactions w/ Shareholders	9,957
Outstanding Shares	1,974
Transactions w/ Shareholders *(per Share)*	5.044
Transactions Yield	**2.306%**
9-month Expected Return	13.368%
Overall Expected Return	**9.867%**

Exhibit 22. Final Share Price and Expected Return calculation

Our DCF model forecasted free cash flows for 47 years, until 2047, where we reach a stable revenue growth of **2.95%**, persistent since the adoption of the TV assumptions. Based on this approach, the model disclosures a PV Terminal Value of **$155 billion** that results in an Operational Equity Value of **$491 million**. Non-core Invested Capital are minus **$3.7 billion** and Net Debt **$8.2 billion**, both numbers from 2020, the year 0 from our estimation. Adding the Operational EV with Non-Core Invested Capital and subtracting Net Debt, we reach an Equity Value of **$480 million**. Dividing the Equity Value by the number of shares outstanding, this translates into a share price of **$242.93**, for 31 Dec 2021. Therefore, we expect the annual return of the stock to be **9.867%.**

Multiples

To complement our valuation, a multiple analysis was also performed. However, it is important to note that relying on comparable peers can be misleading, since companies that look identical might have very different policies, so it can lead to the wrong conclusions.

Nevertheless, it is a useful exercise to cross-check with the results obtained by our intrinsic valuation. For this analysis, we used EV/EBITDA multiples based on our peer group, which includes Mastercard, PayPal, American Express and Euronet. Using values from 2019 (pre-pandemic), we reached an average multiple of **24,17x**, corresponding to an average equity value of **$369 billion** and a share price of **$186,98**, which is considerably lower than the one we got from our intrinsic valuation (**$239.46**).

Sensitivity Analysis

Regarding the uncertainty on the estimation of certain crucial parameters, we performed two types of sensitivity analysis to evaluate the robustness of our model.

First, a sensitivity analysis of the share price relative to both changes in WACC and the Terminal Value growth rate. Mainly due to the numerous assumptions needed to estimate the discount rate used and also due to the uncertainty of the long-term growth rate responsible for the terminal value estimation. Analysing the results, we conclude that the share price is much more sensible to changes in WACC than to the LT growth rate. A negative variation of **1%** in the growth rate only leads to a **$13** decrease on the share price. In the other hand, a positive variation of **1%** on WACC, could result in a decrease of **$44** on the share price. Even though WACC estimation is based on various assumptions, we do not estimate that they could be responsible for a variation greater than **|0.5%|** on the final value. Alongside with this, LT growth rate is also not estimated to vary much from **1% to 3%**, our inflation estimations. Considering this, a maximum range for the share price will be from **$188.08** to **$325.80**.

Growth Rate	WACC								
	5.96%	6.46%	6.96%	7.46%	**7.96%**	8.46%	8.96%	9.46%	9.96%
0.71%	$334.54	$297.77	$267.33	$241.79	$220.10	$201.49	$185.39	$171.34	$159.00
1.21%	$348.44	$307.98	$274.96	$247.57	$224.54	$204.93	$188.08	$173.47	$160.70
1.71%	$365.60	$320.33	$284.04	$254.36	$229.69	$208.89	$191.16	$175.88	$162.60
2.21%	$387.35	$335.59	$295.03	$262.44	$235.73	$213.48	$194.68	$178.62	$164.75
2.71%	$415.77	$354.92	$308.60	$272.22	**$242.93**	$218.86	$198.77	$181.76	$167.19
3.21%	$454.53	$380.19	$325.80	$284.30	$251.63	$225.27	$203.57	$185.41	$169.99
3.71%	$510.48	$414.64	$348.27	$299.60	$262.39	$233.03	$209.29	$189.69	$173.25
4.21%	$598.35	$464.38	$378.92	$319.60	$276.02	$242.62	$216.20	$194.78	$177.07
4.71%	$756.36	$542.50	$423.16	$346.87	$293.83	$254.75	$224.74	$200.95	$181.62

Exhibit 23. Sensitivity Analysis on WACC and g

Second, a different sensitivity analysis was performed also in the share price, but with single variations on the most relevant inputs. Nominal Payments Volume growth rate (Medium Term and Long Term), Processed Transaction growth rate (MT and LT), WACC, TV growth rate, Risk Free and Expected Return of the Market tested the impact of a small positive/negative variation in their estimation on the final share price, to understand which have greater impact.

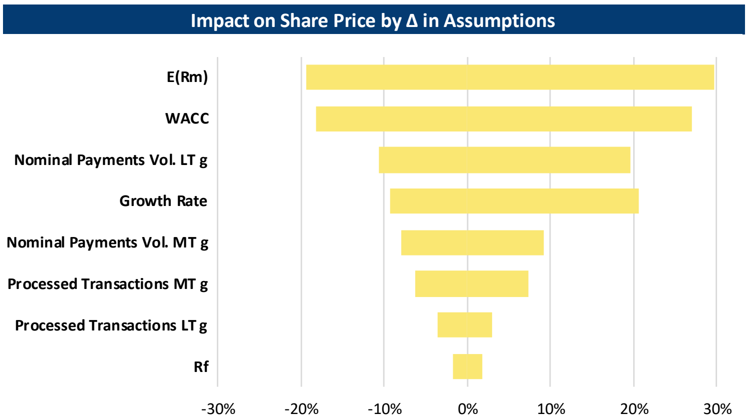


Exhibit 24. Tornado Chart – impact of changes in inputs on the share price

On the Tornado Chart it is easily observable that WACC and Expected Return of the Market are the most sensible inputs on the share price, with a possible variation of more than **|20%|** on the share price, due to a change of **|1%|** in their estimation. This is followed by the TV growth rate and Nominal Payments LT growth rate that have a very similar impact of more than **|10%|** with a **|2%|** change. We can also observe that the impact of these changes is not symmetrical, contributing much easily to an increase of the share price than to a decrease. The other three growth rates have an impact lower than **|10%|** on the share price with a **|2%|** change in their estimations. Last, the Risk-free rate has the lower impact on the share price, with a possible change of **|2%|** with a variation of **|1%|** on the rate estimation.

Scenario Analysis

As mentioned already, the COVID-19 pandemic has been a catalyst of change in the payments industry. From thousands of businesses going bust to a complete change in the consumer's spending behaviour, this pandemic has brought much uncertainty about the future. Besides the recent drop in the level of spending, there has also been a strong push towards a cashless and digital society, which has forced many payment service providers to fast track their digital efforts.

Given all the uncertainty these times have brought, it's practically impossible to perform an accurate forecast. Therefore, in order to better assess the impact of different outcomes on Visa's revenues and cash flows, a scenario analysis was performed with 3 different scenarios. In addition to our base scenario, we have created two additional paths the future can take, one slightly more optimistic while the other takes on a more conservative approach.

When forecasting Visa's revenues there are three main value drivers to consider: Domestic and International nominal payments volume growth and processed transactions growth.

As we already know, International Nominal Payments Volume has been the most affected driver by this pandemic, as these transactions are heavily dependent on cross-border spending. As such, in all scenarios we assumed that the domestic markets would recover faster than international ones. While under the "**Good**" scenario we assume a faster recovery, with growth rates of **5%** and **7%** in 2021 and 2022, respectively. Under the "**Bad**" scenario, we assume recovery will be slower, growing **1%** in 2021, followed by a growth rate of **4%** in 2022.

Domestic Nominal Payments Volume, on the other hand, is not so dependent on travelling restrictions, but it is primarily affected by the reduction in consumer's spending. In this case, the difference between scenarios is less noticeable as this volume is less affected. Under the "**Good**" scenario, the growth rate starts at **11%** in 2021 and steadily increases to **13%** in 2025. Under the "**Bad**" scenario, volume grows **8%** in 2021 and slightly increases until it reaches an **11%** growth in 2026.

Regarding processed transactions, as these are not expected to decrease, but to just slow down, we assumed just a small difference between the different scenarios. Under the "**Good**" scenario, transactions will grow **12%** for the first two years and, by 2026, growth rate will be around **14%.** Under the "**Bad**" scenario, growth rate will be **9%** in the first years, until it reaches a growth of **11%** by 2026.

In the "**Good**" scenario, we get a price target of **$ 273.85** (return of **20.01%**) and in the "**Bad**" scenario, we get a price target of **$ 189.53** (negative return of **8.46%**).

Although, we believe our "**Base**" scenario to be the most likely one, and that's the one our recommendation is based on, for the purpose of this analysis we have attributed a probability of occurrence of **20%** to the **"Good"** scenario, while the **"Bad"** only has a probability of **10%**. These values were considered because we believe a faster recovery is more likely than a conservative one, based on our current values for 2020. Therefore, considering all the scenarios we will get a price target of **$243.77**, which represents a return for shareholders of **10.06%**.

Scenario	Revenues	Share Price	Shareholders return	Recommendation
Good	20%	273,851	20,01%	BUY
Base	70%	242,926	9,87%	BUY
Bad	10%	189,526	-8,46%	SELL
Expected		**243,771**	**10,06%**	**BUY**

Exhibit 25. Scenario analysis summary

Final Recommendation

Our final recommendation to investors, weighting all the aspects evaluated above in a scenario of global uncertainty and considering our final share price of **$ 242.93**, that translates into an overall expected return over a 12-month period of **9.867%,** is to **buy** Visa Inc stock. Visa earnings were hurt by the current health crisis, but the long-term outlook remains solid. This, together with the firms' margins and market cap being among the best in the industry, lead us to consider Visa as a top stock, expected to perform at a quicker pace than its peers, in a sector full of growth opportunities.

Appendix

Financial Statements

Income Statement *(from 2015 to 2029)*

(in millions USD)	2015	2016	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
CORE															
Revenues															
Service revenues	6,302	6,747	7,975	8,918	9,700	9,804	10,462	11,320	12,562	13,942	15,475	17,563	19,937	22,635	25,703
Data processing revenues	5,552	6,272	7,786	9,027	10,333	10,975	12,182	13,079	14,649	16,406	18,375	20,580	23,050	25,816	28,914
International transaction revenues	4,064	4,649	6,321	7,211	7,804	6,299	6,541	7,684	8,453	9,298	10,228	11,762	13,526	15,555	17,889
Other revenues	823	823	841	944	1,313	1,432	1,590	1,721	1,861	2,085	2,335	2,615	2,929	3,280	3,674
Client Incentives	(2,861)	(3,409)	(4,565)	(5,491)	(6,173)	(6,664)	(8,001)	(8,345)	(9,264)	(10,302)	(11,458)	(12,966)	(14,675)	(16,611)	(18,807)
Total Revenues	**13,880**	**15,082**	**18,358**	**20,609**	**22,977**	**21,846**	**22,773**	**25,459**	**28,261**	**31,429**	**34,955**	**39,555**	**44,767**	**50,676**	**57,373**
Expenses															
Personnel	(2,079)	(2,226)	(2,628)	(3,170)	(3,444)	(3,785)	(3,806)	(4,111)	(4,440)	(4,839)	(5,275)	(5,749)	(6,267)	(6,831)	(7,446)
Marketing	(872)	(869)	(922)	(988)	(1,105)	(971)	(1,095)	(1,193)	(1,325)	(1,473)	(1,639)	(1,854)	(2,099)	(2,376)	(2,689)
Network and processing	(474)	(538)	(620)	(686)	(721)	(727)	(815)	(913)	(1,022)	(1,145)	(1,282)	(1,436)	(1,608)	(1,801)	(2,017)
Professional fees	(336)	(389)	(409)	(446)	(454)	(408)	(453)	(541)	(644)	(721)	(807)	(904)	(1,013)	(1,134)	(1,270)
Depreciation and amortization	(494)	(502)	(556)	(613)	(656)	(767)	(716)	(671)	(644)	(633)	(633)	(644)	(662)	(688)	(720)
General and administrative	(547)	(796)	(1,060)	(1,145)	(1,196)	(1,096)	(1,164)	(1,301)	(1,444)	(1,606)	(1,787)	(2,022)	(2,288)	(2,590)	(2,932)
Total Expenses	**(4,802)**	**(5,320)**	**(6,195)**	**(7,048)**	**(7,576)**	**(7,754)**	**(8,049)**	**(8,730)**	**(9,519)**	**(10,417)**	**(11,423)**	**(12,609)**	**(13,937)**	**(15,420)**	**(17,075)**
EBIT	**9,078**	**9,762**	**12,163**	**13,561**	**15,401**	**14,092**	**14,723**	**16,729**	**18,742**	**21,012**	**23,532**	**26,945**	**30,830**	**35,256**	**40,298**
Taxes on Core Result	(2,696)	(2,634)	(5,159)	(2,690)	(2,912)	(2,480)	(3,622)	(4,125)	(4,627)	(5,613)	(6,292)	(7,215)	(8,266)	(9,464)	(10,830)
Core Result (NOPLAT)	**6,382**	**7,128**	**7,004**	**10,871**	**12,489**	**11,612**	**11,101**	**12,604**	**14,115**	**15,398**	**17,240**	**19,730**	**22,564**	**25,792**	**29,469**
NON-CORE															
Litigation provision	(14)	(2)	(19)	(607)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)
Accrued Litigation	1,024	981	982	1,434	1,203	914	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203
Visa Europe Framework Agreement loss	--	(1,877)	--	--	--	--	--	--	--	--	--	--	--	--	--
Investment income	(66)	556	113	464	416	416	416	416	416	416	416	416	416	416	416
Non-Core Result before Taxes	**(80)**	**(1,323)**	**94**	**(143)**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
Taxes on Non-Core Result	28	463	(33)	35	(3)	(3)	(4)	(4)	(4)	(5)	(5)	(5)	(5)	(5)	(5)
Other comprehensive Income (loss), net of tax	(57)	(384)	1,336	(331)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)
Non-Core Result	**(109)**	**(1,244)**	**1,397**	**(439)**	**(1,191)**	**(1,191)**	**(1,192)**	**(1,192)**	**(1,192)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**
NPLAT (Total Income to Investors)	**6,273**	**5,884**	**8,401**	**10,432**	**11,297**	**10,421**	**9,908**	**11,411**	**12,922**	**14,205**	**16,047**	**18,538**	**21,372**	**24,599**	**28,276**
FINANCIAL															
Interest expense, net	(3)	(427)	(563)	(612)	(533)	(235)	(338)	(296)	(254)	(275)	(243)	(243)	(278)	(222)	(212)
Financial Result before Taxes	**(3)**	**(427)**	**(563)**	**(612)**	**(533)**	**(235)**	**(338)**	**(296)**	**(254)**	**(275)**	**(243)**	**(243)**	**(278)**	**(222)**	**(212)**
Financial Tax Shield	1	149	197	150	112	49	95	83	71	82	73	73	84	67	64
Financial Result	**(2)**	**(278)**	**(366)**	**(462)**	**(421)**	**(186)**	**(243)**	**(213)**	**(183)**	**(192)**	**(170)**	**(170)**	**(195)**	**(156)**	**(148)**

Income Statement *(from 2030 to 2047)*

(in millions USD)	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E	2038E	2039E	2040E	2041E	2042E	2043E	2044E	2045E	2046E	2047E
CORE																		
Revenues																		
Service revenues	26,989	28,338	29,755	31,243	32,805	34,445	36,167	37,976	39,875	41,868	42,796	43,744	44,714	45,705	46,717	47,753	48,811	49,893
Data processing revenues	30,359	31,877	33,471	35,145	36,902	38,747	40,684	42,719	44,855	47,097	48,898	50,768	52,710	54,726	56,818	58,991	61,247	63,589
International transaction revenues	18,783	19,722	20,708	21,744	22,831	23,973	25,171	26,430	27,751	29,139	29,785	30,445	31,119	31,809	32,514	33,234	33,971	34,724
Other revenues	3,858	4,051	4,253	4,466	4,689	4,924	5,170	5,428	5,700	5,985	6,213	6,451	6,698	6,954	7,220	7,496	7,783	8,080
Client Incentives	(19,747)	(20,734)	(21,771)	(22,860)	(24,003)	(25,203)	(26,463)	(27,786)	(29,175)	(30,634)	(31,524)	(32,441)	(33,387)	(34,363)	(35,369)	(36,407)	(37,478)	(38,582)
Total Revenues	**60,242**	**63,254**	**66,417**	**69,738**	**73,224**	**76,886**	**80,730**	**84,767**	**89,005**	**93,455**	**96,169**	**98,968**	**101,854**	**104,830**	**107,900**	**111,067**	**114,334**	**117,703**
Expenses																		
Personnel	(7,818)	(8,209)	(8,619)	(9,050)	(9,503)	(9,978)	(10,477)	(11,001)	(11,551)	(12,128)	(12,592)	(13,074)	(13,574)	(14,093)	(14,632)	(15,191)	(15,772)	(16,375)
Marketing	(2,824)	(2,965)	(3,113)	(3,269)	(3,433)	(3,604)	(3,784)	(3,974)	(4,172)	(4,381)	(4,508)	(4,639)	(4,775)	(4,914)	(5,058)	(5,206)	(5,360)	(5,518)
Network and processing	(2,118)	(2,224)	(2,336)	(2,452)	(2,575)	(2,704)	(2,839)	(2,981)	(3,130)	(3,286)	(3,412)	(3,542)	(3,678)	(3,819)	(3,965)	(4,116)	(4,274)	(4,437)
Professional fees	(1,334)	(1,401)	(1,471)	(1,544)	(1,621)	(1,702)	(1,788)	(1,877)	(1,971)	(2,069)	(2,148)	(2,231)	(2,316)	(2,404)	(2,496)	(2,592)	(2,691)	(2,794)
Depreciation and amortization	(757)	(800)	(847)	(900)	(958)	(1,021)	(1,089)	(1,162)	(1,242)	(1,328)	(1,421)	(1,520)	(1,628)	(1,744)	(1,868)	(2,003)	(2,147)	(2,303)
General and administrative	(3,079)	(3,233)	(3,395)	(3,564)	(3,743)	(3,930)	(4,126)	(4,332)	(4,549)	(4,777)	(4,915)	(5,058)	(5,206)	(5,358)	(5,515)	(5,677)	(5,844)	(6,016)
Total Expenses	**(17,930)**	**(18,832)**	**(19,781)**	**(20,780)**	**(21,832)**	**(22,939)**	**(24,103)**	**(25,327)**	**(26,615)**	**(27,969)**	**(28,997)**	**(30,065)**	**(31,176)**	**(32,332)**	**(33,534)**	**(34,785)**	**(36,087)**	**(37,442)**
EBIT	**42,312**	**44,422**	**46,636**	**48,957**	**51,393**	**53,947**	**56,627**	**59,440**	**62,390**	**65,486**	**67,172**	**68,903**	**70,678**	**72,499**	**74,366**	**76,282**	**78,247**	**80,261**
Taxes on Core Result	(11,371)	(11,938)	(12,532)	(13,156)	(13,810)	(14,496)	(15,216)	(15,971)	(16,763)	(17,594)	(18,040)	(18,498)	(18,967)	(19,448)	(19,941)	(20,446)	(20,963)	(21,494)
Core Result (NOPLAT)	**30,941**	**32,485**	**34,103**	**35,801**	**37,583**	**39,451**	**41,412**	**43,469**	**45,627**	**47,892**	**49,132**	**50,405**	**51,711**	**53,051**	**54,426**	**55,836**	**57,283**	**58,767**
NON-CORE																		
Litigation provision	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)	(400)
Accrued Litigation	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203
Visa Europe Framework Agreement loss	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Investment income	416	416	416	416	416	416	416	416	416	416	416	416	416	416	416	416	416	416
Non-Core Result before Taxes	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**	**16**
Taxes on Non-Core Result	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Other comprehensive Income (loss), net of tax	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)	(1,204)
Non-Core Result	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**
NPLAT (Total Income to Investors)	**29,748**	**31,292**	**32,911**	**34,609**	**36,390**	**38,259**	**40,219**	**42,276**	**44,435**	**46,699**	**47,940**	**49,212**	**50,518**	**51,858**	**53,233**	**54,643**	**56,090**	**57,574**
FINANCIAL																		
Interest expense, net	(247)	(247)	(247)	(247)	(247)	(247)	(282)	(282)	(261)	(261)	(261)	(261)	(296)	(296)	(296)	(296)	(296)	(296)
Financial Result before Taxes	**(247)**	**(247)**	**(247)**	**(247)**	**(247)**	**(247)**	**(282)**	**(282)**	**(261)**	**(261)**	**(261)**	**(261)**	**(296)**	**(296)**	**(296)**	**(296)**	**(296)**	**(296)**
Financial Tax Shield	74	74	74	74	74	74	85	85	78	78	78	78	89	89	89	89	89	89
Financial Result	**(173)**	**(173)**	**(173)**	**(173)**	**(173)**	**(173)**	**(197)**	**(197)**	**(183)**	**(183)**	**(183)**	**(183)**	**(207)**	**(207)**	**(207)**	**(207)**	**(207)**	**(207)**

Balance Sheet *(from 2015 to 2029)*

(in millions USD)	2015	2016	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
CORE															
Operating Cash	278	302	367	412	460	437	455	509	565	629	699	791	895	1,014	1,147
Settlement receivable	408	1,467	1,422	1,582	3,048	1,264	1,748	1,954	2,169	2,413	2,683	3,036	3,436	3,890	4,404
Accounts receivable	847	1,041	1,132	1,208	1,542	1,618	1,432	1,600	1,777	1,976	2,298	2,601	2,944	3,332	3,772
Customer collateral	1,023	1,001	1,106	1,324	1,648	1,850	1,489	1,665	1,848	2,056	2,286	2,587	2,928	3,314	3,752
Client Incentives (current)	303	284	344	340	741	1,214	681	711	789	877	976	1,104	1,250	1,415	1,601
Income tax receivable	77	232	148	82	130	93	134	134	145	171	185	209	239	269	305
Prepaid operating expenses and maintenance	137	151	154	189	197	209	217	235	256	280	307	339	375	415	460
Other current assets	139	172	248	291	385	664	337	377	418	465	517	585	663	750	849
Total Operating Current Assets	**3,212**	**4,650**	**4,921**	**5,428**	**8,151**	**7,140**	**6,494**	**7,186**	**7,968**	**8,866**	**9,952**	**11,253**	**12,730**	**14,398**	**16,291**
Accounts payable	127	203	179	183	156	174	202	220	239	262	287	317	351	388	429
Settlement payable	780	2,084	2,003	2,168	3,990	1,736	2,539	2,754	3,003	3,286	3,603	3,978	4,397	4,864	5,387
Customer collateral	1,023	1,001	1,106	1,325	1,648	1,850	1,490	1,666	1,849	2,056	2,287	2,588	2,929	3,315	3,753
Client Incentives	1,049	1,976	2,089	2,834	3,997	4,176	4,143	4,321	4,797	5,334	5,933	6,714	7,598	8,601	9,738
Accrued operating expenses	257	347	434	437	456	474	492	533	582	637	698	770	852	942	1,043
Accrued income taxes	75	153	243	257	327	134	303	339	376	418	465	527	596	675	764
Total Operating Current Liabilities	**3,311**	**5,764**	**6,054**	**7,204**	**10,574**	**8,070**	**9,170**	**9,833**	**10,846**	**11,994**	**13,274**	**14,893**	**16,722**	**18,786**	**21,115**
Net Working Capital Requirements	**(99)**	**(1,114)**	**(1,133)**	**(1,776)**	**(2,423)**	**(930)**	**(2,676)**	**(2,647)**	**(2,878)**	**(3,128)**	**(3,322)**	**(3,640)**	**(3,992)**	**(4,387)**	**(4,823)**
Goodwill	11,825	15,066	15,110	15,194	15,656	15,910	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656
Property, equipment and technology, net	1,888	2,150	2,253	2,472	2,695	2,737	2,546	2,434	2,385	2,386	2,428	2,503	2,608	2,739	2,893
Intangible assets, net	11,361	27,234	27,848	27,558	26,780	27,808	27,977	28,146	28,317	28,489	28,662	28,836	29,010	29,186	29,363
Total Fixed Assets	**25,074**	**44,450**	**45,211**	**45,224**	**45,131**	**46,455**	**46,179**	**46,237**	**46,358**	**46,531**	**46,745**	**46,995**	**47,275**	**47,581**	**47,912**
Client incentives	110	448	591	538	2,084	3,175	1,176	1,227	1,362	1,514	1,684	1,906	2,157	2,442	2,764
Non-current income tax receivable	627	731	755	689	771	988	919	1,027	1,140	1,268	1,410	1,596	1,806	2,045	2,315
Long-term prepaid operating expenses and other	57	72	123	73	541	1,191	204	222	242	265	290	320	354	392	434
Other Core items	**42**	**340**	**377**	**(1,100)**	**896**	**2,554**	**481**	**442**	**487**	**537**	**593**	**663**	**742**	**831**	**931**
Total Core Invested Capital	**25,017**	**43,676**	**44,455**	**42,348**	**43,604**	**48,079**	**43,984**	**44,032**	**43,967**	**43,940**	**44,017**	**44,018**	**44,024**	**44,025**	**44,020**
NON CORE															
Restricted cash equivalents - U.S. litigation escrow	1,072	1,027	1,031	1,491	1,205	901	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205
Investment Securities	5,881	7,250	5,490	7,629	6,393	3,983	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393
Pension assets	36	22	173	252	178	170	178	178	178	178	178	178	178	178	178
Other investments	45	46	94	137	718	1,000	718	718	718	718	718	718	718	718	718
Total Non Core Assets	**7,034**	**8,345**	**6,788**	**9,509**	**8,494**	**6,054**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**
Accrued compensation and benefits	503	673	757	901	796	821	796	796	796	796	796	796	796	796	796
Accrued litigation	1,024	981	982	1,434	1,203	914	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203
Other accrued liabilities	517	628	452	466	842	1,706	842	842	842	842	842	842	842	842	842
Deferred Purchase Consideration	—	1,225	1,304	1,300	—	—	—	—	—	—	—	—	—	—	—
Net Deferred Tax Liabilities	3,260	4,786	5,899	4,604	4,783	5,174	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783
Other liabilities	145	251	229	266	439	1,090	439	439	439	439	439	439	439	439	439
Total Non Core Liabilities	**5,449**	**8,544**	**9,623**	**8,971**	**8,063**	**9,705**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**
Total Non Core Invested Capital	**1,585**	**(199)**	**(2,835)**	**538**	**431**	**(3,651)**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**
Total Invested Capital	**26,602**	**43,477**	**41,620**	**42,886**	**44,035**	**44,428**	**44,415**	**44,463**	**44,398**	**44,371**	**44,447**	**44,449**	**44,455**	**44,456**	**44,451**
FINANCIAL															
Excess Cash	(3,240)	(5,317)	(9,507)	(7,750)	(7,378)	(15,852)	(12,575)	(9,733)	(11,276)	(9,379)	(9,346)	(11,898)	(7,956)	(7,274)	(9,836)
Current maturities of long-term debt	—	—	1,749	—	—	2,999	3,000	1,000	2,250			4,000	750		
Long-term debt	—	15,882	16,618	16,630	16,729	21,071	18,071	17,071	17,321	17,321	17,321	15,821	15,071	15,071	17,571
Net Debt	**(3,240)**	**10,565**	**8,860**	**8,880**	**9,351**	**8,218**	**8,496**	**8,338**	**8,295**	**7,942**	**7,975**	**7,923**	**7,865**	**7,797**	**7,735**
Equity attributable to shareholders	**29,842**	**32,912**	**32,760**	**34,006**	**34,684**	**36,210**	**35,918**	**36,124**	**36,103**	**36,429**	**36,472**	**36,526**	**36,590**	**36,659**	**36,716**
Non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Balance Sheet *(from 2030 to 2047)*

(in millions USD)	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E	2038E	2039E	2040E	2041E	2042E	2043E	2044E	2045E	2046E	2047E
CORE																		
Operating Cash	1,205	1,265	1,328	1,395	1,464	1,538	1,615	1,695	1,780	1,869	1,923	1,979	2,037	2,097	2,158	2,221	2,287	2,354
Settlement receivable	4,624	4,856	5,098	5,353	5,621	5,902	6,197	6,507	6,832	7,174	7,382	7,597	7,819	8,047	8,283	8,526	8,777	9,035
Accounts receivable	3,961	4,159	4,367	4,585	4,815	5,266	5,529	5,806	6,096	6,401	6,587	6,779	6,976	7,180	7,390	7,607	7,831	8,062
Customer collateral	3,940	4,137	4,344	4,561	4,789	5,029	5,280	5,544	5,821	6,112	6,290	6,473	6,662	6,856	7,057	7,264	7,478	7,698
Client Incentives (current)	1,682	1,766	1,854	1,947	2,044	2,146	2,253	2,366	2,484	2,609	2,684	2,763	2,843	2,926	3,012	3,100	3,191	3,286
Income tax receivable	320	336	353	370	389	408	429	450	473	496	511	526	541	557	573	590	607	625
Prepaid operating expenses and maintenance	483	507	532	559	588	617	649	682	716	753	780	809	839	870	902	936	971	1,008
Other current assets	892	936	983	1,032	1,084	1,138	1,195	1,254	1,317	1,383	1,423	1,465	1,507	1,551	1,597	1,644	1,692	1,742
Total Operating Current Assets	**17,106**	**17,961**	**18,860**	**19,803**	**20,793**	**22,044**	**23,147**	**24,305**	**25,521**	**26,797**	**27,581**	**28,390**	**29,224**	**30,085**	**30,973**	**31,889**	**32,834**	**33,810**
Accounts payable	451	474	497	569	598	628	660	694	729	766	794	906	940	974	1,011	1,048	1,088	1,128
Settlement payable	5,656	5,941	6,240	6,555	6,887	7,236	7,604	7,990	8,396	8,823	9,147	9,484	9,835	10,199	10,579	10,973	11,384	11,812
Customer collateral	3,941	4,138	4,345	4,562	4,790	5,030	5,281	5,545	5,823	6,114	6,291	6,475	6,663	6,858	7,059	7,266	7,480	7,700
Client Incentives	10,225	10,736	11,273	11,836	12,428	13,050	13,702	14,387	15,107	15,862	16,323	16,798	17,287	17,793	18,314	18,851	19,406	19,978
Accrued operating expenses	1,096	1,151	1,209	1,270	1,334	1,402	1,473	1,548	1,626	1,709	1,772	1,837	1,905	1,976	2,049	2,126	2,205	2,288
Accrued income taxes	802	842	884	928	975	1,024	1,075	1,128	1,185	1,244	1,280	1,318	1,356	1,396	1,436	1,479	1,522	1,567
Total Operating Current Liabilities	**22,171**	**23,281**	**24,448**	**25,722**	**27,013**	**28,370**	**29,795**	**31,293**	**32,866**	**34,519**	**35,608**	**36,817**	**37,986**	**39,196**	**40,448**	**41,743**	**43,084**	**44,473**
Net Working Capital Requirements	**(5,065)**	**(5,320)**	**(5,589)**	**(5,919)**	**(6,220)**	**(6,325)**	**(6,648)**	**(6,988)**	**(7,345)**	**(7,722)**	**(8,027)**	**(8,427)**	**(8,762)**	**(9,111)**	**(9,475)**	**(9,854)**	**(10,250)**	**(10,663)**
Goodwill	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656	15,656
Property, equipment and technology, net	3,069	3,265	3,483	3,721	3,981	4,263	4,568	4,898	5,253	5,637	6,050	6,496	6,975	7,492	8,048	8,648	9,293	9,988
Intangible assets, net	29,542	29,721	29,901	30,082	30,265	30,448	30,633	30,819	31,006	31,194	31,383	31,574	31,765	31,958	32,152	32,347	32,543	32,740
Total Fixed Assets	**48,266**	**48,642**	**49,040**	**49,460**	**49,902**	**50,367**	**50,857**	**51,373**	**51,915**	**52,487**	**53,089**	**53,725**	**54,396**	**55,106**	**55,856**	**56,650**	**57,492**	**58,384**
Client incentives	2,902	3,048	3,200	3,360	3,528	3,704	3,890	4,084	4,288	4,503	4,633	4,768	4,907	5,051	5,199	5,351	5,509	5,671
Non-current income tax receivable	2,431	2,552	2,680	2,814	2,955	3,102	3,258	3,420	3,591	3,771	3,881	3,993	4,110	4,230	4,354	4,482	4,613	4,749
Long-term prepaid operating expenses and other	456	478	503	528	555	583	612	643	676	711	737	764	792	821	852	884	917	951
Other Core items	**978**	**1,027**	**1,078**	**1,132**	**1,189**	**1,249**	**1,312**	**1,378**	**1,447**	**1,520**	**1,570**	**1,621**	**1,675**	**1,730**	**1,787**	**1,846**	**1,908**	**1,971**
Total Core Invested Capital	**44,179**	**44,349**	**44,529**	**44,673**	**44,872**	**45,291**	**45,521**	**45,763**	**46,017**	**46,286**	**46,633**	**46,919**	**47,309**	**47,724**	**48,168**	**48,642**	**49,149**	**49,692**
NON CORE																		
Restricted cash equivalents - U.S. litigation escrow	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205
Investment Securities	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393	6,393
Pension assets	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178	178
Other investments	718	718	718	718	718	718	718	718	718	718	718	718	718	718	718	718	718	718
Total Non Core Assets	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**	**8,494**
Accrued compensation and benefits	796	796	796	796	796	796	796	796	796	796	796	796	796	796	796	796	796	796
Accrued litigation	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203	1,203
Other accrued liabilities	842	842	842	842	842	842	842	842	842	842	842	842	842	842	842	842	842	842
Deferred Purchase Consideration	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Net Deferred Tax Liabilities	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783	4,783
Other liabilities	439	439	439	439	439	439	439	439	439	439	439	439	439	439	439	439	439	439
Total Non Core Liabilities	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**	**8,063**
Total Non Core Invested Capital	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**	**431**
Total Invested Capital	**44,610**	**44,780**	**44,960**	**45,104**	**45,302**	**45,722**	**45,952**	**46,193**	**46,448**	**46,716**	**47,063**	**47,350**	**47,740**	**48,155**	**48,599**	**49,073**	**49,580**	**50,123**
FINANCIAL																		
Excess Cash	(9,847)	(9,844)	(9,840)	(9,881)	(9,860)	(12,174)	(12,170)	(10,644)	(10,628)	(10,600)	(10,554)	(13,086)	(13,035)	(12,981)	(12,920)	(12,855)	(12,784)	(11,708)
Current maturities of long-term debt							1500										3500	750
Long-term debt	17,571	17571	17571	17571	17571	20071	18571	18571	18571	18571	18571	21071	21071	21071	21071	21071	17571	19321
Net Debt	**7,724**	**7,727**	**7,731**	**7,690**	**7,711**	**7,897**	**7,901**	**7,927**	**7,943**	**7,971**	**8,017**	**7,985**	**8,036**	**8,090**	**8,151**	**8,216**	**8,287**	**8,363**
Equity attributable to shareholders	**36,886**	**37,053**	**37,229**	**37,414**	**37,591**	**37,824**	**38,051**	**38,266**	**38,505**	**38,746**	**39,047**	**39,365**	**39,703**	**40,065**	**40,448**	**40,857**	**41,293**	**41,760**
Non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Cash Flows Map *(from 2016 to 2029)*

(in millions USD)	2016	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
CORE														
NOPLAT	**7,128**	**7,004**	**10,871**	**12,489**	**11,612**	**11,101**	**12,604**	**14,115**	**15,398**	**17,240**	**19,730**	**22,564**	**25,792**	**29,469**
Depreciation and amortization	(502)	(556)	(613)	(656)	(767)	(716)	(671)	(644)	(633)	(633)	(644)	(662)	(688)	(720)
Gross Cash Flow	**6,626**	**6,448**	**10,258**	**11,833**	**10,845**	**10,384**	**11,933**	**13,471**	**14,765**	**16,607**	**19,087**	**21,902**	**25,104**	**28,749**
Changes in NWC	1,015	18	643	647	(1,493)	1,746	(29)	231	250	194	318	352	395	436
Net CAPEX	240	453	394	433	725	907	783	694	632	592	568	557	557	566
Change in Intangibles	(15,873)	(614)	290	778	(1,028)	(169)	(170)	(171)	(172)	(173)	(174)	(175)	(176)	(177)
Changes in Other Core items	(298)	(37)	1,477	(1,996)	(1,658)	2,073	38	(44)	(50)	(56)	(70)	(79)	(89)	(100)
Gross Investment	**(14,916)**	**(180)**	**2,804**	**(138)**	**(3,454)**	**4,557**	**622**	**709**	**660**	**557**	**642**	**656**	**687**	**725**
Core Free Cash Flow (before Goodwill)	**(8,290)**	**6,268**	**13,062**	**11,695**	**7,391**	**14,942**	**12,556**	**14,180**	**15,426**	**17,163**	**19,729**	**22,558**	**25,791**	**29,473**
Change in Goodwill	(3,241)	(44)	(84)	(462)	(254)	254	0	0	0	0	0	0	0	0
Core Free Cash Flow	**(11,531)**	**6,224**	**12,978**	**11,233**	**7,137**	**15,196**	**12,556**	**14,180**	**15,426**	**17,163**	**19,729**	**22,558**	**25,791**	**29,473**
NON-CORE														
Non-Core Result	(1,244)	1,397	(439)	(1,191)	(1,191)	(1,192)	(1,192)	(1,192)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)
Investment Cash Flow	1,784	2,636	(3,373)	108	4,082	(4,082)	0	0	0	0	0	0	0	0
Non-Core Cash Flow	**540**	**4,033**	**(3,812)**	**(1,084)**	**2,890**	**(5,274)**	**(1,192)**	**(1,192)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**
Cash Flow available to investors	**(10,991)**	**10,258**	**9,166**	**10,149**	**10,028**	**9,922**	**11,363**	**12,987**	**14,233**	**15,971**	**18,536**	**21,365**	**24,598**	**28,281**
FINANCIAL														
Financial Result	(278)	(366)	(462)	(421)	(186)	(243)	(213)	(183)	(192)	(170)	(170)	(195)	(156)	(148)
Change in Excess Cash	(2,077)	(4,189)	1,757	371	(8,474)	3,277	2,842	(1,543)	1,897	34	(2,553)	3,943	682	(2,562)
Changes in Debt	15,882	2,485	(1,737)	99	7,341	(2,999)	(3,000)	1,500	(2,250)	0	2,500	(4,000)	(750)	2,500
Flow to Debt Holders	**13,527**	**(2,070)**	**(442)**	**49**	**(1,318)**	**35**	**(371)**	**(226)**	**(546)**	**(136)**	**(223)**	**(252)**	**(224)**	**(210)**
Changes in Equity	(2,537)	(8,187)	(8,724)	(10,198)	(8,709)	(9,957)	(10,992)	(12,761)	(13,687)	(15,834)	(18,313)	(21,113)	(24,375)	(28,070)
Flow to Equity Holders	**(2,537)**	**(8,187)**	**(8,724)**	**(10,198)**	**(8,709)**	**(9,957)**	**(10,992)**	**(12,761)**	**(13,687)**	**(15,834)**	**(18,313)**	**(21,113)**	**(24,375)**	**(28,070)**
Cash Flow from investors	**10,991**	**(10,258)**	**(9,166)**	**(10,149)**	**(10,028)**	**(9,922)**	**(11,363)**	**(12,987)**	**(14,233)**	**(15,971)**	**(18,536)**	**(21,365)**	**(24,598)**	**(28,281)**

Cash Flows Map *(from 2030 to 2047)*

(in millions USD)	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E	2038E	2039E	2040E	2041E	2042E	2043E	2044E	2045E	2046E	2047E
CORE																		
NOPLAT	**30,941**	**32,485**	**34,103**	**35,801**	**37,583**	**39,451**	**41,412**	**43,469**	**45,627**	**47,892**	**49,132**	**50,405**	**51,711**	**53,051**	**54,426**	**55,836**	**57,283**	**58,767**
Depreciation and amortization	(757)	(800)	(847)	(900)	(958)	(1,021)	(1,089)	(1,162)	(1,242)	(1,328)	(1,421)	(1,520)	(1,628)	(1,744)	(1,868)	(2,003)	(2,147)	(2,303)
Gross Cash Flow	**30,184**	**31,685**	**33,256**	**34,901**	**36,625**	**38,431**	**40,323**	**42,306**	**44,385**	**46,564**	**47,712**	**48,885**	**50,083**	**51,307**	**52,557**	**53,834**	**55,136**	**56,465**
Changes in NWC	241	255	269	330	301	106	323	340	357	376	305	401	335	349	364	379	396	413
Net CAPEX	581	603	630	662	698	739	784	833	886	944	1,007	1,075	1,148	1,227	1,312	1,403	1,502	1,607
Change in Intangibles	(178)	(179)	(180)	(181)	(182)	(184)	(185)	(186)	(187)	(188)	(189)	(190)	(192)	(193)	(194)	(195)	(196)	(197)
Changes in Other Core items	(47)	(49)	(52)	(54)	(57)	(60)	(63)	(66)	(69)	(73)	(50)	(51)	(53)	(55)	(57)	(59)	(61)	(64)
Gross Investment	**598**	**630**	**667**	**756**	**760**	**601**	**859**	**921**	**988**	**1,060**	**1,074**	**1,234**	**1,238**	**1,328**	**1,425**	**1,529**	**1,640**	**1,759**
Core Free Cash Flow (before Goodwill)	**30,782**	**32,315**	**33,923**	**35,658**	**37,384**	**39,032**	**41,182**	**43,227**	**45,373**	**47,624**	**48,785**	**50,119**	**51,321**	**52,636**	**53,982**	**55,362**	**56,776**	**58,224**
Change in Goodwill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Core Free Cash Flow	**30,782**	**32,315**	**33,923**	**35,658**	**37,384**	**39,032**	**41,182**	**43,227**	**45,373**	**47,624**	**48,785**	**50,119**	**51,321**	**52,636**	**53,982**	**55,362**	**56,776**	**58,224**
NON-CORE																		
Non-Core Result	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)	(1,193)
Investment Cash Flow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Non-Core Cash Flow	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**	**(1,193)**
Cash Flow available to investors	**29,589**	**31,122**	**32,730**	**34,465**	**36,192**	**37,839**	**39,989**	**42,034**	**44,180**	**46,431**	**47,593**	**48,926**	**50,129**	**51,443**	**52,790**	**54,169**	**55,583**	**57,031**
FINANCIAL																		
Financial Result	(173)	(173)	(173)	(173)	(173)	(173)	(197)	(197)	(183)	(183)	(183)	(183)	(207)	(207)	(207)	(207)	(207)	(207)
Change in Excess Cash	(11)	3	5	(42)	21	(2,314)	3	1,527	16	27	46	(2,532)	52	54	61	65	71	1,077
Changes in Debt	0	0	0	0	0	2,500	0	(1,500)	0	0	0	2,500	0	0	0	0	0	(1,000)
Flow to Debt Holders	**(184)**	**(170)**	**(168)**	**(214)**	**(152)**	**13**	**(194)**	**(171)**	**(167)**	**(155)**	**(137)**	**(215)**	**(155)**	**(153)**	**(147)**	**(142)**	**(137)**	**(130)**
Changes in Equity	(29,405)	(30,952)	(32,562)	(34,250)	(36,040)	(37,852)	(39,795)	(41,864)	(44,013)	(46,276)	(47,456)	(48,711)	(49,973)	(51,289)	(52,643)	(54,027)	(55,447)	(56,901)
Flow to Equity Holders	**(29,405)**	**(30,952)**	**(32,562)**	**(34,250)**	**(36,040)**	**(37,852)**	**(39,795)**	**(41,864)**	**(44,013)**	**(46,276)**	**(47,456)**	**(48,711)**	**(49,973)**	**(51,289)**	**(52,643)**	**(54,027)**	**(55,447)**	**(56,901)**
Cash Flow from investors	**(29,589)**	**(31,122)**	**(32,730)**	**(34,465)**	**(36,192)**	**(37,839)**	**(39,989)**	**(42,034)**	**(44,180)**	**(46,431)**	**(47,593)**	**(48,926)**	**(50,129)**	**(51,443)**	**(52,790)**	**(54,169)**	**(55,583)**	**(57,031)**

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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