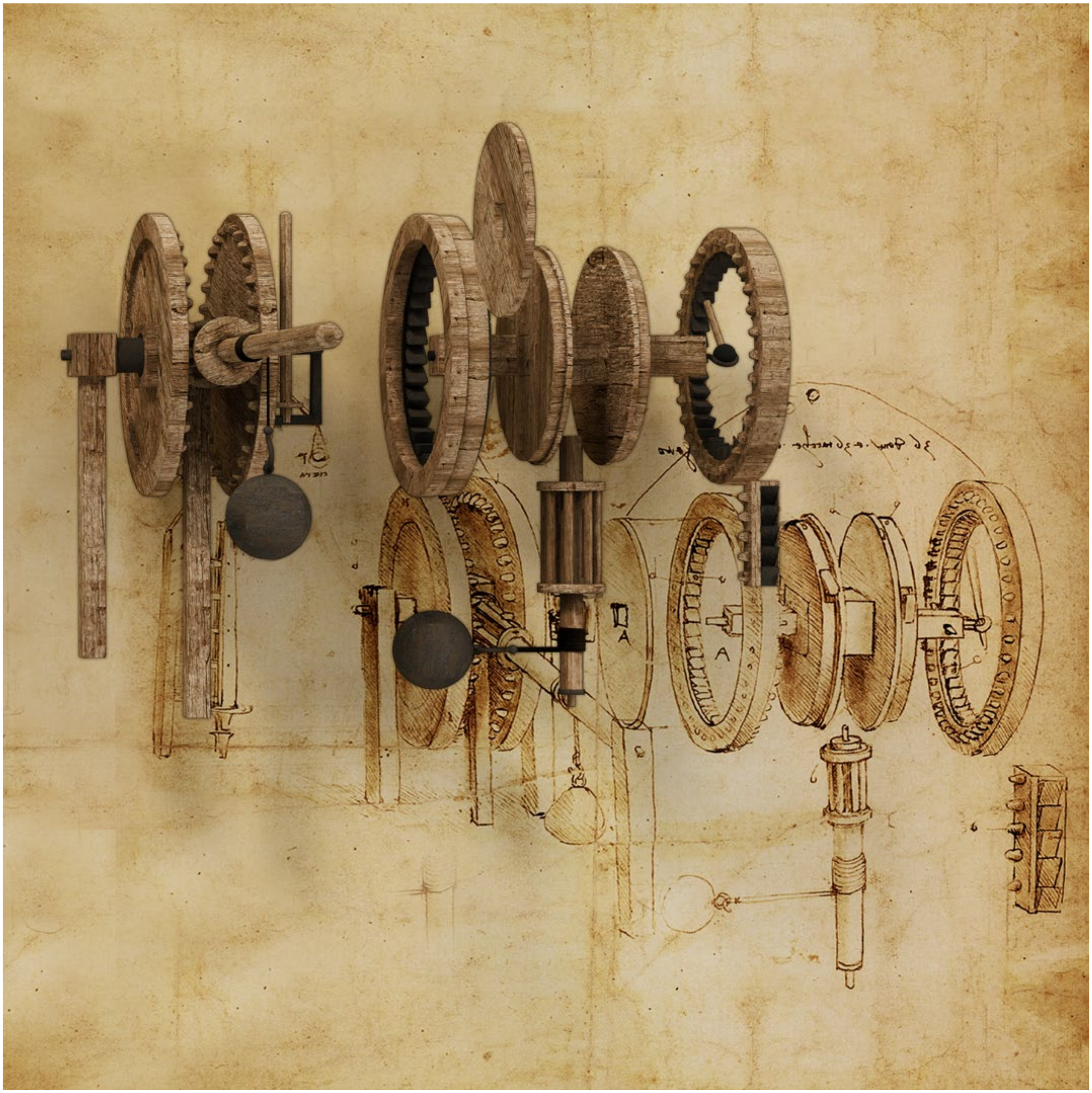
IP CAPITAL PARTNERS

INVESTOR REPORT

DEC 2020



3D illustration of Leonardo Da Vinci's original drawing "Macchina a Moto Alternato"

Christianm | Dreamstime.com

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CRISES AND EFFICIENCY

"Business is humanity's most resilient, iterative and productive mechanism for creating change in the world."
- John Batelle

In every crisis, windows of opportunity open for special companies, those which can adapt and generate increasing utility and efficiency for society. In 2020, this was no different. Some businesses became more useful – even indispensable – and accelerated their value generation curve. Others, even with the restrictions imposed by governments, knew how to garner the leverage necessary for future growth and prosperity.

At IP, we seek companies that have (i) drivers for their own growth, (ii) competitive strength, and (iii) exceptional people, and that are available at (iv) reasonable prices. In 2020, our returns were derived mostly from the first factor.

The purpose of this report is to explore the relationship between efficiency, growth, and the creation of value within a business. We will begin by outlining the economic history of efficiency and introducing one of the first economists to grasp its dynamic. Then, we will discuss broader concepts of efficiency, examining not only operational issues but also the ability of a company to better deliver its product or service to its customers. Finally, we will examine three of our investment cases through the lens of efficiency: Netflix, Facebook, and Charles Schwab.

THE JEVONS PARADOX. WHEN LESS IS MORE.

"It is wholly a confusion of ideas to suppose that the economical use of fuel is equivalent to a diminished consumption."
- William Stanley Jevons

In 1865, a young British economist, William Stanley Jevons, gained notoriety upon writing a book about the limits of his country's economic growth as a function of local coal mining – at the time, the most important energy-producing resource in the world. In "The Question of Coal"[1], Jevons raised concerns about the rapid consumption of mineral reserves, fully aware that this was a finite and non-renewable resource. In his book, Jevons launched a counter-intuitive proposition. He claimed that none of the initiatives aimed at increasing the economy and efficiency of the use of coal would tame the problem. On the contrary. Following an initial reduction, its consumption would increase faster than any efficiency-generated gain.

Jevons based his reasoning on the metallurgical industry. If technology made it possible to produce more iron using less coal, profits would increase in the short run. Then, these higher profits would attract new investments in the sector, pushing iron prices down. Lower prices would then lead to greater demand for iron, which in turn would generate an even greater consumption of coal.

[1] Complete title: "The Coal Question; An Inquiry Concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal Mines."

This phenomenon became known as the Jevons Paradox or the Jevons Effect: the savings achieved by increasing the efficiency of an input would more than be offset by the increased demand of the final product.

Consider, for example, the case of the American automobile industry. After the first oil shock in the 70s, the American government ordered that all cars be more efficient in their gasoline consumption. Amid cheaper cars and affordable oil prices, owning a car became attainable for the average American family. Over the following decades, the number of cars per inhabitant grew exponentially, as did the number of kilometers driven. The consumption of gasoline continued to expand.

In 2017, more than a century after Jevons' insight, a group of researchers from MIT analyzed consumption data of 57 natural resources and concluded that the Jevons Effect applied not only to energy resources but also to the vast majority of materials used in any production process.[2]

All products of modern life are the result of this concept of efficiency. From food to consumer goods, such as cars, computers, cell phones, TVs, refrigerators, air conditioners, medications, etc.: access to these are the consequence of decades of technological development and the increasingly productive use of their inputs, thus enabling the growth of larger consumer markets.

Despite not the primary focus of his book, Jevons pioneered two striking and interconnected concepts of industrial economic development:

- Efficiency is a source of growth. Greater output can be produced with new technologies and by using inputs more productively.
- Efficiency promotes accessibility. Lower prices attract new consumers to the market due to shared gains in efficiency.

BEYOND MANUFACTURING

Jevons understood the power of efficiency in a manufacturing context. However, efficiency also includes how a company deals with other competencies, such as acquisitions, capital allocation, research and development, salesforce, etc. The relationship between input and product evolved to include people, ideas, and organizational structures to tackle challenges. Efficiency has taken on new meaning in a world where services and human capital have become more relevant.

Consider the case of the Brazilian shopping mall sector: upon building BH shopping, Barra Shopping, or Morumbi Shopping, entrepreneur José Isaac Peres certainly did not consider the productivity of his inputs. He developed them to create an environment where people could solve their everyday necessities. Within them, consumers would enjoy multiple services (food, shopping, leisure, medical centers, security, etc.), finding an efficient solution in a single and pleasant space. A solution far superior to the traditional street shopping. Thus, by grouping resources productively, malls generate value for society.

[2] "A simple extension of dematerialization theory: Incorporation of technical progress and the rebound effect." Link: https://www.sciencedirect.com/science/article/pii/S0040162516308022

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EFFICIENCY AND COMPETITIVE ADVANTAGE

"The great lesson is to discriminate between when technology is going to help you and when it's going to kill you. And most people do not get this straight in their heads."

– Charlie Munger

Within the corporate and investment world, another important component arises: the competitive environment. To generate value for shareholders, your efficiency must be greater than that of your competitors. The magic of compound returns happens when innovations are not only impactful but also difficult to replicate. Without clear competitive advantages, expanding efficiency is like pushing a boulder up a hill. Productivity gains are passed on in full to clients, with nothing remaining to boost the company's profitability.

Efficiency is not static either. If new entrants to a market are more efficient than existing competitors, for example, these incumbents will certainly face problems in the future.

<u>All great investment stories share these two characteristics: efficiency and competitive advantage.</u> Over time, the stronger these variables, the more value a business will create.

Success stories with these characteristics are hugely diverse. In the Brazilian energy sector, Equatorial and Energisa generate efficiency by successfully combating energy losses and maintaining their costs below regulatory benchmarks. Hapvida and Intermédica stand out for their verticalization structures and efficient control of claims, allowing them to offer health plans at extremely affordable prices.

Giant global companies such as Apple, Microsoft, Google and Amazon, only reached their trillion-dollar market value by generating productivity (aka. efficiency) for society on a colossal scale, while always staying ahead of the competition.

EFFICIENCY AND GROWTH DRIVERS

"The most interesting aspect of any market is its end"

– Jim McKelvey, Co-Founder of Square

As noted earlier, efficiency and the potential growth of a business, or a market, are interlinked. The growth caused by gains in efficiency can be observed principally in two situations:

- <u>Type 1: When one model of efficiency outperforms others and thus gains market share.</u> Take, for example, Brazilian retailer Lojas Renner with its well-oiled fast-fashion model that continually takes share from other less efficient retailers. Additionally, the recent IPO of Brazilian hospital conglomerate Rede D'Or has shown how more efficient hospital management has been decisive to the company's growth, tightening the noose on smaller and less efficient hospitals.

- Type 2: When the efficiency sprouts from innovation and expands the market. Take a person who thought taxis were expensive, but today uses UberX. Brazilian fintechs such as Nubank, Inter, Mercado Pago, and PagSeguro are also good examples, now serving previously unbanked customers.

Furthermore, as businesses develop, they can transition between the two types of situations.

Amazon's cloud computing service (AWS) is an example of a solution that initially targeted small businesses, early adopters, and startups, who lacked the resources to possess their own datacenter (i.e., IT infrastructure). AWS was born as Type 2, opening up new horizons within the technology market. As AWS grew, it gained scale, expanded its range of services, and started to serve larger companies. Thus, it began to provide a superior model (Type 1), enabling the massive migration of legacy IT systems (i.e. less efficient) from these large customers to the cloud.

On the other hand, Netflix, with its streaming service, chose to attack the inefficient way people traditionally watched TV: constantly interrupted by ads, on fixed schedules, and at an exorbitant cost. Year after year, Netflix began stealing cable TV subscribers who no longer saw any value in that type of service. Thus, Netflix was born as Type 1. However, as the company increased its own and third-party content, offering greater value than the price charged, it managed to reach customers that had never subscribed to a cable TV package before. In this way, Netflix managed to grow its market, joining the list of companies operating in Type 2.

EFFICIENCY SHOCK IN AN IMAGE[3]

	NETFLIX	CABLE TV
	US$ 14/month	Over US$100/month
	On demand	Linear
	No commercials	1/4 of time with commercials

[3] US market data. Netflix's subscription price of US$14 is the mid-tier price package offered to its customers, which entitles you to two simultaneous streams and full-HD streaming.

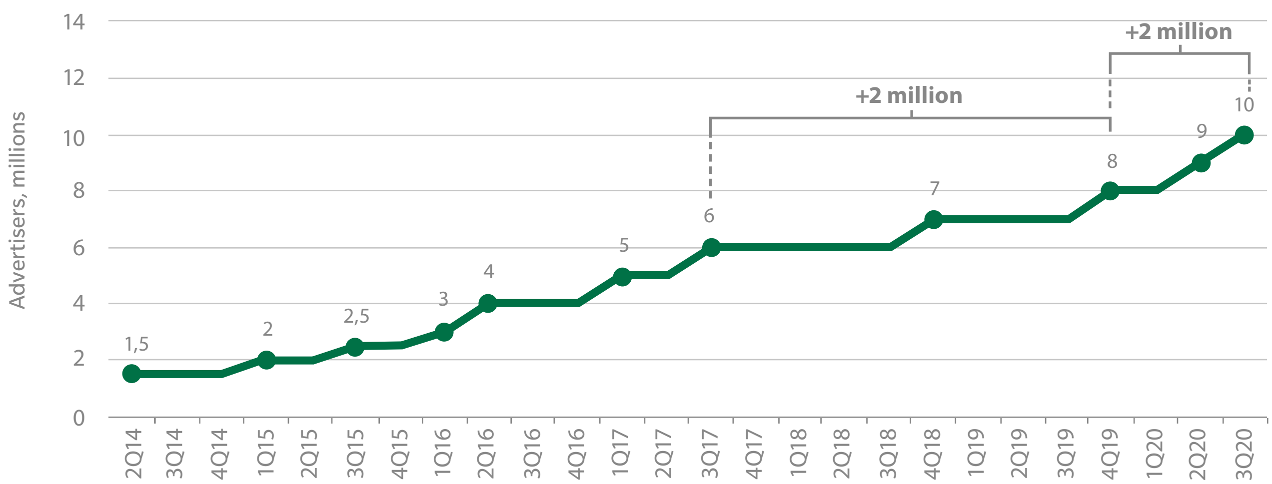
CRISES AND EFFICIENCY

OTHER EFFICIENCY SHOCKS:

Facebook and Charles Schwab are also stories of continuous efficiency expansion within their respective ecosystems. In only two graphs, it is possible to visualize how both have generated substantial value:

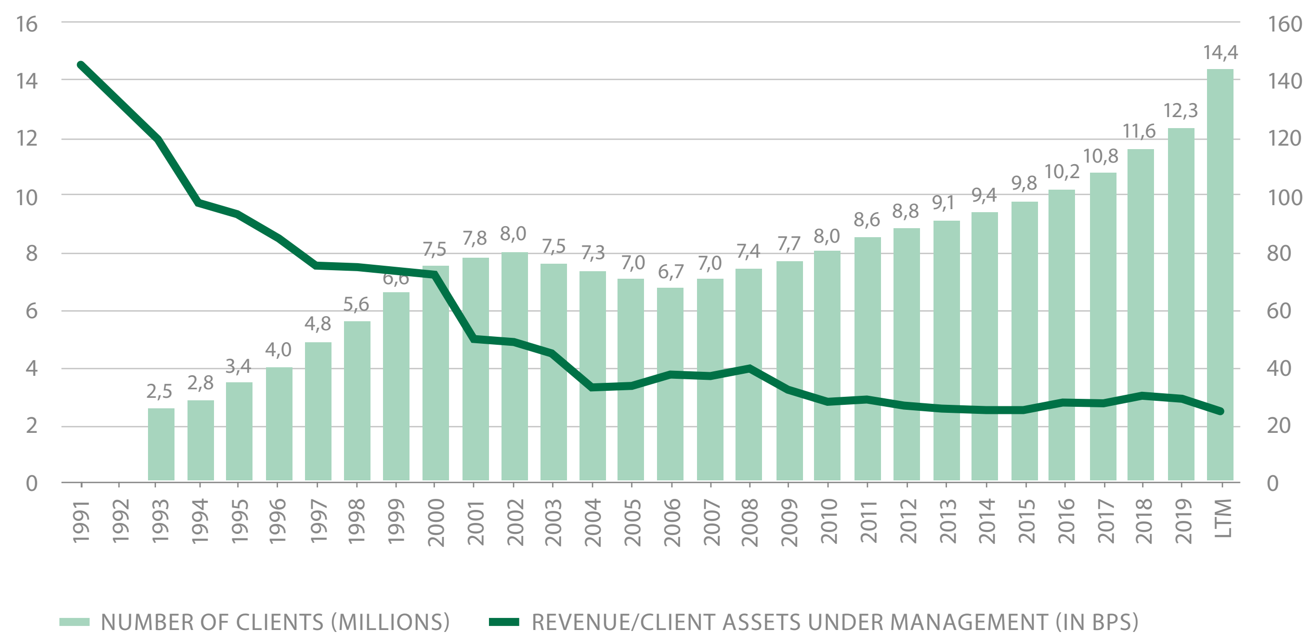
1. **Facebook and the massification of advertising (type 1 and 2 efficiencies):** Facebook has allowed a growing number of small businesses around the world to have access to a powerful marketing tool. Millions can now reach their target audiences much more efficiently. Facebook has offered solutions to better convert these ads into sales, which, in turn, has led to an even greater number of new advertisers. During the pandemic, millions of micro-businesses have grown their online sales and kept their doors open thanks to Facebook.

NUMBER OF ADVERTISERS ON FACEBOOK



Source: Company and MoffettNathanson

2. **Charles Schwab and the decreasing cost of investing (type 1 efficiency):** For decades, Schwab has been charging an ever-smaller fee from its customers, while still growing its total revenue with ease. As a result, it has managed to grow its total assets, gaining market share at the expense of other financial institutions that are less efficient and charge more from their customers.



Source: Company. Most recent data does not include the merger between Charles Schwab and TD Ameritrade.

CRISES AND EFFICIENCY

CONCLUSION

Since the beginning of the Covid-19 crisis, there has been an increasingly heated debate among investors, who have segmented companies into the most diverse categories: value or growth; disruptors or incumbents; technology or traditional businesses, among others.

Rather than attempt to guess which of these boxes will outperform in the short term, our investment strategy remains the same. Before evaluating any opportunity, we ask: what kind of efficiency is this company bringing to the world?

A company capable of dominating or expanding a market meets our first selection criterion – regardless of whether it is a new or traditional company. When accompanied by a clear competitive advantage, talented people in charge, and available at an attractive price, the likelihood of a successful investment increases significantly.

We recognize that dualities are part of productive friction between investment theses, but over the long term, they are resolved rather simply: the most efficient will win.

In 2020, we launched two new funds, both of which just hit the 6-month mark: IP Atlas and IP Prev.

The investment philosophy for both remains the same as of other IP funds: investing only in the best companies whose objective is to generate in the long term, excellent and secure returns. As with our other strategies, we remain aligned with our clients as co-investors.

The IP Atlas fund was launched on March 27th. It invests mainly in companies outside of Brazil seeking to generate substantial dollar-denominated returns. The fund is intended for those seeking geographic and currency diversification for their Brazilian assets. The fund ended the year with an appreciation of 51.8% in USD.

The second fund, IP Prev, is an old dream of ours that we finally launched on the back of changing legislation. Until recently, pension plan policies prevented us from investing abroad, or only on a much smaller scale than desired. In 2019, the rules changed and we launched IP Prev at the end of June. The fund follows the same strategy as IP Participações, however, it is limited to 40% of exposure outside Brazil while IP Participações has no such limitation. IP Prev may be fully invested in equities. By the end of 2020, it had accumulated a return of 18.7% in Reais.

It is still early to comment on their performance, but we are excited about their prospects and believe they add considerable value to the IP fund portfolio.

MISCELLANEOUS

"It's very common to be utterly brilliant and still think you're way smarter than you actually are."
— Charlie Munger

"The demand for forecasts grows after a surprise. It's quite an irony. Surprises make you feel like you're not in control, which is when it feels best to grab the wheel with both hands, listening to those who tell you what happens next despite being blindsided by what just happened."
— Morgan Housel

"Everyone wants to believe they're thinking independently, with an understanding of how things work and why things are happening. But everyone has only seen the world through the narrow lens of their own experiences and social circles."
— Morgan Housel

"The best financial plan – and I think this extends beyond finance – is to save like a pessimist and invest like an optimist. (...) Those can seem like conflicting skills. And they are. It's intuitive to think you should either be an optimist or a pessimist. It's hard to realize there's a time and a place for both, and that the two can – and should – coexist. But it's what you see in almost every successful long-term endeavor."
— Morgan Housel

"There's a saying that "to the man with a hammer, everything looks like a nail." The widely discussed distinction between value and growth made some people believe they only had hammers, when in fact they potentially had access to a whole toolbox. Now we live in a complex world where a range of tools is required for success."

— Howard Marks

"Investing isn't about beating others at their game. It's about controlling yourself at your own game."

—Benjamin Graham.

"Trust in time rather than timing."

— Burton Malkiel

"The more the Internet exposes people to new points of view, the angrier people get that different views exist."

— Benedict Evans

"I'm much more motivated by making sure that we have the biggest impact on the world than by building a business or making sure we don't fail. I have more fear in my life that we aren't going to maximize the opportunity that we have than that we mess something up and the business goes badly."

— Mark Zuckerberg, 2017

MISCELLANEOUS

"I think the strategy of Facebook is to learn as quickly as possible what our community wants us to do—and that requires a culture that encourages people to try things and test things and fail."
— Mark Zuckerberg, 2017

"I'm changing the goal I give our product teams from focusing on helping you find relevant content to helping you have more meaningful social interactions." (…) "We demote things like clickbait headlines and false news, even though people often click on those links at a high rate." (…) "Now, I want to be clear: by making these changes, I expect the time people spend on Facebook and some measures of engagement will go down. But I also expect the time you do spend on Facebook will be more valuable. And if we do the right thing, I believe that will be good for our community and our business over the long term too."
— Mark Zuckerberg, 2018

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