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THE BIG SECRET ON WALL STREET

Hollywood's Holy Grail Weight Loss Drug

✦ The Cure for Global Obesity



FROM THE DESK OF PORTER STANSBERRY

SPECIAL BRIEFING

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Hollywood's Holy Grail Weight Loss Drug

Pay attention, snowflakes.

There's a world of difference between what you think you know, and what can be known.

Said another way, the hard part isn't figuring stuff out. The hard part is figuring out how much of what you think you know, just isn't so.

Life is a mystery. And nature *keeps* her secrets.

In 1927, German physicist Herman Heisenberg promulgated the uncertainty principle. According to Heisenberg, it is impossible to know both the precise position of a particle and its exact momentum.

In other words... the more you know where or what something is, the harder it is to estimate where it's going.

Think about that the next time you're sure you know a business... or a person... inside and out.

The uncertainty principle is often confused with another, confounding twist to physical reality – the observer effect.

Just by *observing* something, you alter it.

When evaluated using thermodynamics, for example, a standard mercury thermometer must absorb some thermal energy, thereby altering the state it is intending to measure. And please... please don't even try to understand the impact of this idea in quantum mechanics. It's the real life "looking glass."

We have long noted that these two important laws of nature have analogs in financial markets.

In the market, the two twists of reality translate thus:

- 1. The Uncertainty Principle:** The more certain you are about your investment thesis, the more likely you are to be proven wrong – at least in the short term

- 2. The Observer Dilemma:** The more people that follow your predictions, the harder it becomes for your followers to make money.

All That's Gilder Is Not Gold

George Gilder is an old friend and mentor of ours. He is also one of the few, complete geniuses we have ever met.

During the roaring technology bull market of the 1990s, no one offered better advice to investors than George. No other newsletter writer (or sell-side analyst) knew more about technology. George studied at Caltech. He wrote the foundational book on Silicon Valley, *Microcosm*, in 1985. When the internet became commercialized, George's *Gilder Technology Report* was like "finding the fountain of youth or a money tree or something," Dick Sears told *The New York Times* in 2003, to describe incredible results of the *Gilder Technology Report's* stock recommendations during the bull market.

When a stock was added to the *Gilder Technology Report*, it would immediately rocket higher – sometimes by 80%.

George's technical knowledge of the software protocols and the architecture of the microchips powering the internet was unimpeachable. Likewise, his conviction that the internet was going to change everything was messianic. He was certain.

That's when the trouble started.

George's track record, his incredible intellect, and his overwhelming certainty led *everyone* to read his investment newsletter. He became the first celebrity guru of the internet. George was earning \$100,000 (!) *per speech*. Investment bankers wanted to take his newsletter publishing company public and were offering him \$200 million for the business.

Meanwhile, George consistently warned readers that, like Sir Isaac Newton – "I can calculate the motions of the heavenly bodies, but not the madness of crowds." George could not predict stock prices. At least, he did not warn his subscribers that investor enthusiasm had gone way, way, way too far. As George put it, "*I don't do price.*"

George Gilder *wasn't* wrong. The internet did change everything. Many of the investments he championed (like Qualcomm) have performed incredibly well for investors. But, the more certain you are about your investment thesis, the more likely you are to be proven wrong. George drew such a crowd into these stocks that their prices soared to levels that made it virtually certain that a crash was inevitable.

And that's what happened to poor George Gilder in 2001.

"My whole optical paradigm crashed, and it crashed on my head... [my subscribers] didn't lose 50% or 80% of their money, they lost 98% of their money."

George soon found himself in debt to a former partner and in trouble with the IRS. Worst of all, his church had invested heavily in his ideas... and gotten wiped out.

When the bull market dies, the greatest bull in the market leaves Trinity Church in a coffin. Every time.

There are many legendary examples of these two ideas at work in finance, but the most famous examples are magazine covers.

Only ideas of great certainty wind up on the cover of *The Economist*. And lots of investors follow that magazine and take its work seriously. According to the laws of finance then, you'd expect these ideas to be woefully, and embarrassingly, wrong.

In 2016, two Citigroup analysts, Greg Marks and Brent Donnelly, decided to study *The Economist* covers in detail. They selected 44 different covers, which in their analysis conveyed an obvious bullish or bearish sentiment. They found that, almost 70% of the time, investing the other way – *fading the cover* – was the winning strategy. Buying the asset (if the cover was bearish) produced an 18% return, on average, over the following year. And selling short the asset (if the cover was bullish) produced a return of 7.5%.

My favorite example: *The Economist* cover from March 4, 1999, *Drowning in Oil*. That cover marked virtually the precise bottom in energy prices and commodities. Oil would rally from \$7 a barrel to almost \$150 a barrel 10 years later.

We suspect these two laws of finance, The Certainty Principle and the Observer Dilemma, will also impact the legacy of Ben Bernanke and central banking. Never has the world been more certain of a lie: that central banking works.

A Rolling Loan Gathers No Moss

Ever since the bailout of Long-Term Capital Management in August 1998, and the "Committee to Save the World" (the headline on the February 15, 1999, cover of *Time*, featuring Federal Reserve Chair Alan Greenspan, Treasury Secretary Robert Rubin, and Treasury Undersecretary Lawrence Summers), the financial mandarins of the leading Western economies have gathered power by consistently bailing out the banking system. They've done so primarily via the printing press, driving interest rates lower and sending the total debt of the system ever higher. Inflation has followed, as it must.

The pinnacle of central-banking power is the Federal Reserve, under onetime Chair Ben Bernanke. He was recently awarded the Nobel Prize in economics, specifically because he used the Fed to inflate the U.S. financial system in ways never dreamed of before his tenure.

"Helicopter Ben" declared that there was no limit to the Fed's power to inflate the money supply and nothing he wouldn't do to protect the banks. His strategy led to a 10x increase in the size of the Fed's balance sheet.

And... that's led directly and indirectly to all kinds of problems in the U.S. Treasury markets, U.S. inflation, soaring economic inequality, and, perhaps most importantly for us today, an enormous number of "zombie" companies that threaten the solvency of the global financial system. Banks, rather than taking losses and writing down loans, have instead simply continued to refinance companies that are clearly insolvent.

Edward Chancellor, in his insightful book *The Price of Time*, describes in detail the growing zombification of the major Western economies.

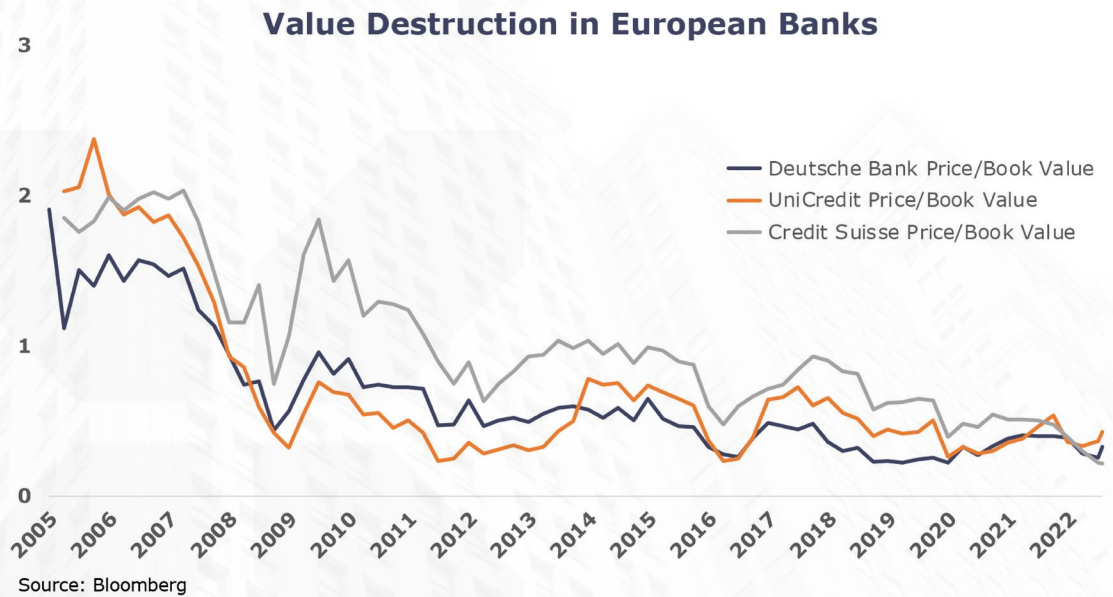
"As in Japan, Europe's zombie companies undermined the region's economic dynamism. As in Japan, zombies gnawed at the vitals of Europe's banking system. By 2015 it was estimated that European banks had more than \$1 trillion of bad debts, a twofold increase since 2009 and roughly equivalent to a tenth of their private sector loans... Weighed down with old non-performing loans, European banks became reluctant to advance new loans. (The flattening of banks' net interest margins by monetary policy exacerbated this problem.) A curious case of adverse selection appeared: more efficient firms and industries dominated by zombies were forced to pay more for their bank loans than those in other sectors."

With no real rate of interest to serve as a hurdle for efficiency and with central banks providing unlimited funding, the role of banks to provide capital efficiently became impossibly corrupted. The result? An economy that can't grow. In Europe, Italy's banks are the most dysfunctional, led by the international disaster, UniCredit.

By removing the impact of creative destruction from banking, Bernanke and his peers around the world have built economies that no longer function. True, they don't crash (at least, not yet). But nor do they work.

Again, Edward Chancellor says it well...

"In the 15 years since the start of the euro project, Italy enjoyed no increase in income per capita and labor costs climbed relative to Germany's, rendering Italian exports uncompetitive... Without adequate economic growth, Italy's sovereign debt problems and the Eurozone's existential crisis remained unresolved. As in Japan, easy money bought time, but time was wasted."



As you can see in this long-term chart of Europe's leading zombie banks, the market has long doubted the value of their assets. And the quality of these banks has consistently declined... meaning that the Bernanke solution has completely failed. Today, more than a dozen years after the first signs of a European sovereign debt crisis, the banking system remains completely dysfunctional and the size and scope of the total debts has more than doubled.

Ben Bernanke, the most certain central banker of this generation, has won a Nobel Prize for nothing. It will not be long before he is widely known as a fool.

We don't know whether the impending global financial "reset" will entail a debt jubilee, aka massive defaults, like President Joe Biden's student loan bonanza. Or maybe we will endure a long period of inflation as debts are slowly worked out in pretend money. As Rick Rule is fond of saying: "We have two balls. Neither is crystal." We don't know – *and can't know*.

But we do know this: it is impossible for the major western economic areas (the dollar, the yen, and the euro) to repay, in sound money, the debts their central banks have financed.

America has, in certain situations, like we mentioned – the U.S. student-loan saga – chosen to default without ever making anyone "eat" a loan. The government bought all the loans, knowing full well that most of them would default. How did we pay for the losses? By printing more money. Will this continue? Seems likely: A rolling loan gathers no moss.

But it also wrecks society. Maybe we will soon adopt an approach like Iceland's during the Great Financial Crisis: "f*ck 'em." Iceland simply stopped paying on debt equal to 9x its GDP. Instead it facilitated more (useless) COVID-19 testing.

But what we are certain of, is that the impact of these debts will greatly reduce the standard of living for most people over the next decade, at least. They also increase the volatility of the system, increasing the likelihood of suffering catastrophic losses. Our bet is that the purchasing power of the average major currency declines by at least 50% in the next five years. To break even, you'd have to *double* the size of your portfolio.

How best to achieve that goal?

It's hard to beat the returns on invested capital in the pharmaceutical business. And it's hard to imagine a more lucrative drug than a pill that cures obesity.

Of course, our certainty about this opportunity makes us worry. And sharing this idea with you makes a disaster more likely.

Investing is hard.

But gaining weight has never been easier.

The Growth of American Waistlines

It's no secret that America is getting fatter. This shows up in the stunning statistics on obesity, defined as individuals with a body mass index (BMI) exceeding 30... that means that if you're six feet tall and weigh more than 220 pounds, you're considered obese.

Since the early 1950s, the American obesity rate has quadrupled from roughly 10% of the population to over 40% today. With more than 100 million Americans suffering from obesity, the problem has reached epidemic status. Obesity has become one of the leading causes of preventable death, as a key factor driving heart disease, stroke, diabetes, and cancer.

Adults with obesity incur an estimated \$1,861 in additional medical costs each year compared to those with a healthy weight. Spread across the entire country, that's nearly \$200 billion per year.

One reason behind rampaging obesity is the proliferation of sugar in modern foods. Americans consume an average of about 80 grams of sugar each day, or about twice the recommended amount. The problem is the ubiquitous array of high-sugar foods in the modern American diet, starting with our early morning coffee rituals.

Consider the official drink of the fall season – the Pumpkin Spice Latte – which is an adult milkshake disguised as coffee. This venti-sized Starbucks indulgence

Hollywood's Holy Grail Weight Loss Drug

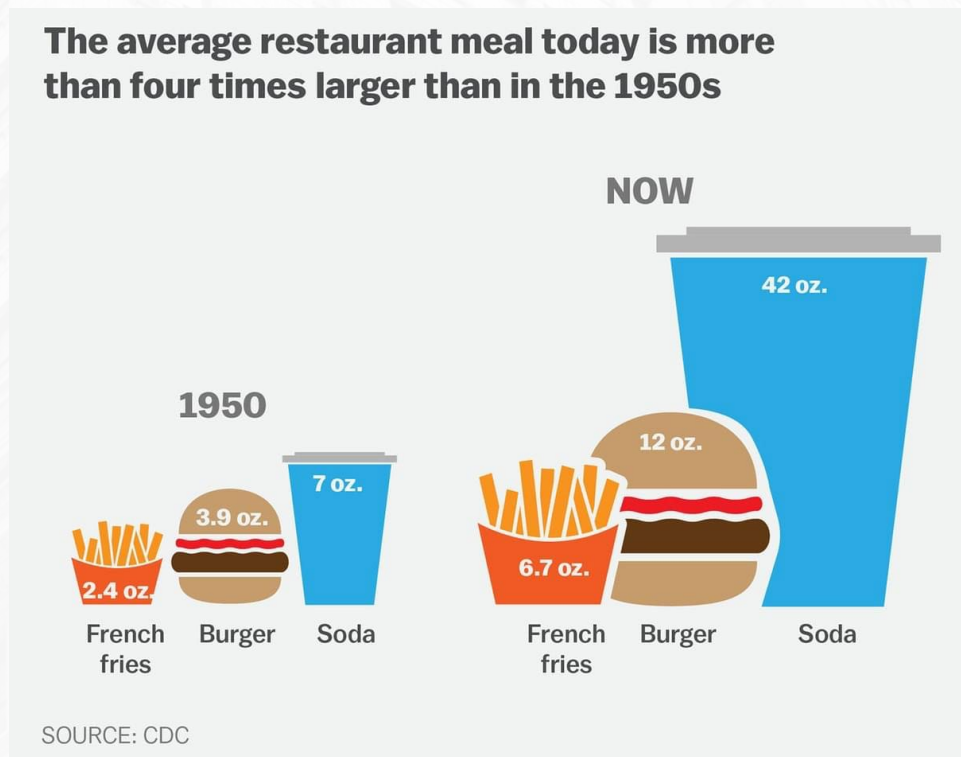
contains 470 calories and 63 grams of sugar – or more than the entire daily recommended amount – in a single beverage:



Starbucks is hardly alone. Today's food industry injects sugar into almost everything we eat – from salad dressing to bread to cereal – as a low-cost way to boost flavor. By some estimates, roughly 80% of all items on grocery store shelves contain added sugar. Even foods considered “healthy” are often loaded with sugar, including protein bars, granola, soup, yogurt, and countless other items:



Another key factor is the trend toward super-sized portions. The average restaurant serving today is more than four times larger than in the 1950s:



Hollywood's Holy Grail Weight Loss Drug

More sugar and bigger meals have combined to fuel America's exploding calorie count. The average adult in the U.S. today takes in 2,568 calories, up from 2,109 in 1970. As one research firm put it, this additional caloric intake is "the equivalent of an extra steak sandwich every day."

A lot of the extra calories we consume go straight to our waistlines, given our increasingly sedentary lifestyle. Data from the Centers for Disease Control and Prevention (CDC) shows that 25% of Americans are sitting down for eight or more hours each day. And 44% of Americans don't engage in even moderate physical exercise or activity.

Worse... America isn't the only country suffering from this alarming trend.

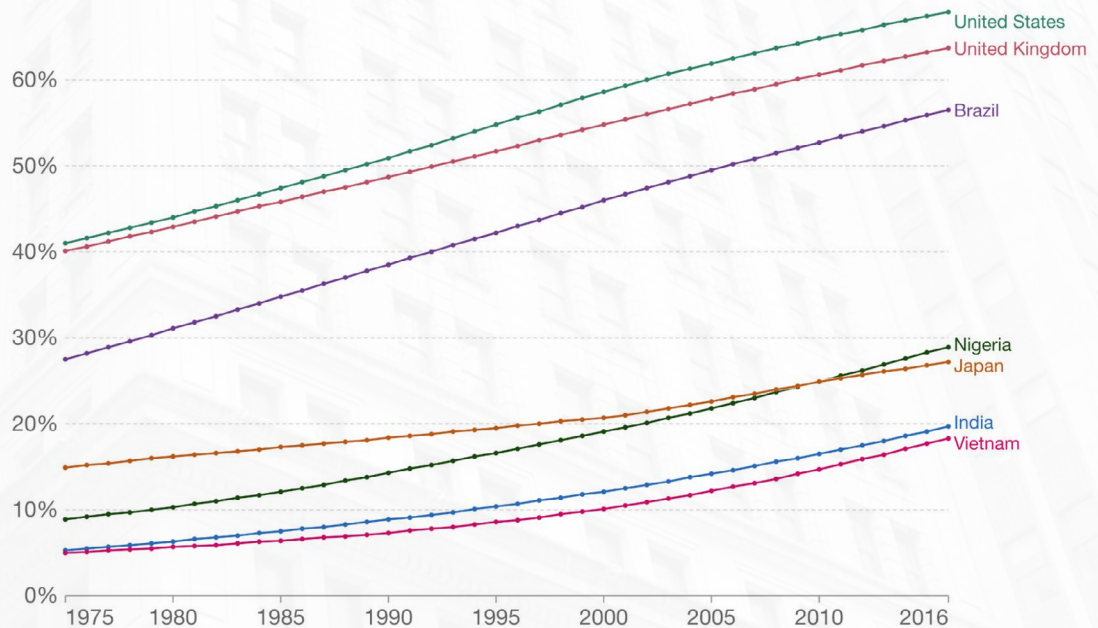
A Global Epidemic

Obesity is a byproduct of rising global affluence, as a growing segment of the world's 8 billion population enjoys the luxury of cheap and abundant food. Plus, rising productivity means we can generate more economic activity with machines and automation, requiring less human labor. But too much food and less physical activity has created an epidemic of obesity worldwide:

Share of adults that are overweight or obese, 1975 to 2016

A person is defined as overweight if they have a body-mass index (BMI) equal to or greater than 25. BMI is a person's weight in kilograms divided by his height in metres squared.

Our World
in Data



Source: WHO, Global Health Observatory

OurWorldInData.org/obesity • CC BY

Given the dire health consequences of growing global obesity rates, the stakes couldn't be higher to find a solution. And consumers certainly want a solution.

Look no further than the billions of dollars in sales from countless diet programs and exercise products each year, including the \$2,500 Peloton bike craze that swept the nation during the pandemic lockdowns (how many of these bikes now function as high-end clothing racks rather than exercise equipment?).

A 2018 National Health and Nutrition Examination survey showed that 49.1% of American adults attempted to lose weight over the previous year. But despite their best intentions, CDC data showed that obesity rates rose to a new record high 42.4% that same year.

A Massive Problem with Few Solutions

Scientists and doctors have spent decades searching for the miracle weight loss solution, largely in vain. Bariatric surgery, also known as a gastric bypass, has been the most effective solution in recent years, involving the doctor cutting into the stomach and separating it into two sections. The top section becomes the new, smaller stomach, and the larger, lower portion is bypassed. The small intestine is re-routed to connect to the newly segmented, smaller top portion of the stomach (as seen on "My 600-Pound Life").

A smaller stomach means patients need to consume less food to feel full. The procedure is an effective solution, helping patients lose up to 30% or more of their body weight. And shedding all of that weight delivers a major improvement to a variety of health outcomes, including a reduction in the long-term mortality rate (the death rate per unit of time) by up to 40%.

But bariatric surgery can cost \$20,000 to \$30,000. The procedure only takes about 90 minutes, but requires spending two to three days in the hospital, plus another few weeks recovering at home. And it often takes about 12 weeks before the patient can eat normal foods again. Roughly 15% of patients suffer complications, and 0.5% of patients die after going under the knife.

Still, more than 250,000 Americans undergo a gastric bypass operation each year, reflecting the lengths that overweight people will go to in an attempt to lose weight.

Until just a few years ago, this high-risk procedure was the only effective weight-loss solution. But today, that's all changed thanks to cutting-edge research that's finally delivered what scientists have sought for decades – an effective, low-risk pharmaceutical solution to the obesity epidemic.

The Holy Grail Weight-Loss Drug

In a recent landmark clinical trial, 1,961 study participants were given either what we call the "Holy Grail weight loss drug," or a control placebo. *The New England*

Hollywood's Holy Grail Weight Loss Drug

Journal of Medicine published the results early in 2021. The findings showed that this Holy Grail weight-loss drug delivered an incredible average weight loss of 37 pounds per participant. Best of all, these results came with minimal adverse side effects, the most severe being mild nausea for a minority of participants.

Dr. Timothy Garvey, a world-renowned expert on obesity, described the extraordinary results of this study:

"We have not seen this degree of weight loss with any previous medication. More than 50% of trial participants are losing 15% of their body weight, and anywhere between a third and 40% of participants are losing 20% of their body weight. That is beginning to close the gap with bariatric surgery. I think this truly gives us a very powerful tool to treat obesity as a disease."

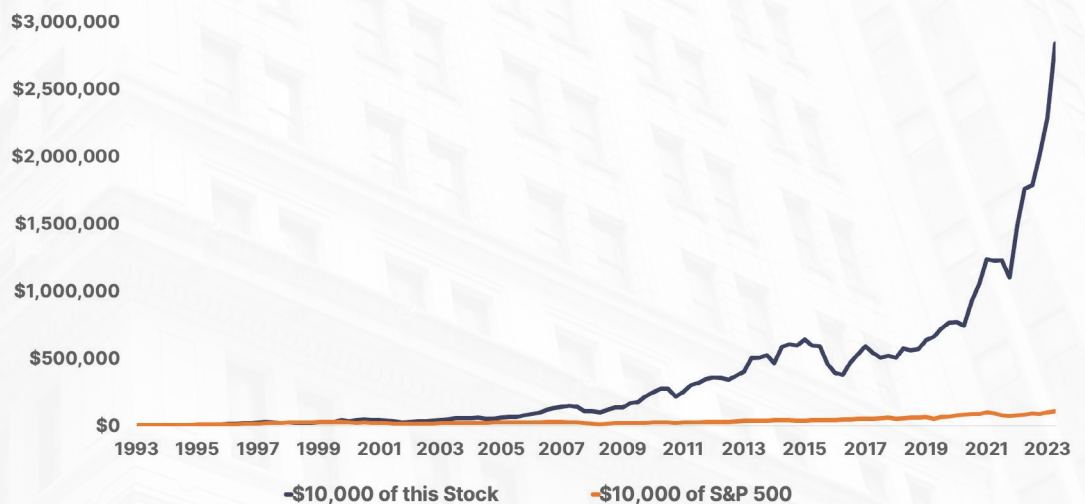
One of the study's authors explained:

"No other drug has come close to producing this level of weight loss – this really is a game-changer."

Today, we'll introduce the company behind this revolutionary new drug, and show how it could solve the obesity epidemic. In fact, it's already happening as we speak. This company's Holy Grail weight-loss solution has quietly become one of Hollywood's wonder drugs, used by A-list celebrities and high-profile business leaders around the country – including one of the world's richest men and serial entrepreneur.

Importantly, the company behind this weight-loss revolution isn't a high-risk start-up, betting it all on a single drug. It already owns one of the world's most profitable portfolios of pharmaceuticals, with a century-long track record as a leading global drugmaker. The company's existing business already generates some of the best returns you'll find anywhere in the stock market:

Leading Global Drug Maker



Since 1993, shareholders have enjoyed an incredible ride, as a \$10,000 investment was turned into a \$2.8 million windfall. The same investment in S&P 500 grew into \$111,650 over the same time period. Still, we believe the best is yet to come.

Before delving into the opportunity with the weight-loss wonder drug, let's first examine how the company delivered these historical returns. The area this company historically focused on was pioneering new treatments for diabetes – a disorder caused by the body's inability to properly regulate blood sugar.

Sugar – the Silent Killer

Sugar gets a bad rap. It's only when we abuse sugar, by consuming too much (and processed sugar in particular) that it becomes a problem. In reality, life as we know it wouldn't exist without sugar – it's the key fuel that powers cellular activity in humans and virtually every other animal species on the planet.

Here's how it works...

After eating a meal, the stomach breaks down complex carbohydrates into simple sugars that cells can consume as fuel, primarily glucose. After digestion in the stomach, glucose gets released into the bloodstream, which presents two challenges. First, glucose doesn't automatically pass from the bloodstream into the body's cells. Also, the body doesn't consume all of the sugar from a meal immediately, so it stores much of that fuel for later use.

The pancreas produces a hormone called insulin to deal with both of these challenges in managing blood sugar. Insulin helps glucose move from the bloodstream into the cells, where it can be consumed as fuel. Insulin also handles excess blood sugar by converting it into another compound, glycogen, which is stored in the liver. When insulin levels drop between meals, this triggers the conversion of glycogen back into glucose.

Of course, that's when everything is working properly. Diabetes is the disorder caused by a disruption in the body's insulin response, which causes a toxic rise in blood sugar levels. Over time, excessive blood sugar can cause nerve and kidney damage, blindness and loss of limb functioning. In extreme cases, amputations are required.

There are two ways this disorder can manifest itself – type 1 and type 2 diabetes.

Individuals with type 1 diabetes produce little or no insulin. This is typically due to an underlying genetic disorder, meaning that type 1 diabetes often develops at an early age, giving rise to the term "early-onset" diabetes. Approximately 9 million people around the world suffer from type 1 diabetes, including 2 million in America.

Type 2 diabetes is known as "adult-onset" diabetes, as this condition typically develops around age 45. Unlike type 1 diabetes, this disorder is driven by lifestyle choices, including poor diet and lack of exercise. When the body consumes extra

sugar that's not needed for fuel, it can overtax the pancreas, degrading its ability to produce insulin. Alternatively, too much sugar consumption creates excessive insulin production that can cause "insulin resistance" – where the body no longer efficiently processes insulin.

Type 2 diabetes is the far bigger problem, and it's growing worse. Over the last 25 years, the number of Americans with type 2 diabetes has more than doubled, from roughly 14 million to 37 million today. Globally, more than 500 million people suffer from type 2 diabetes – a number that will reach 700 million by 2045, according to the International Diabetes Foundation.

How the Leading Insulin Company Got Its Start...

The leading company for treating both type 1 and type 2 diabetes is **Novo Nordisk (NYSE: NVO)**, headquartered in Bagsværd, Denmark, just outside the Danish capital of Copenhagen. Novo has over the years delivered incredible investment returns from its core portfolio of diabetes treatments. But that might just be the beginning for the company, thanks to its groundbreaking new class of weight-loss drugs.

You see, over the last decade, Novo has discovered that the same biochemical pathways used in helping diabetes patients manage their blood sugar levels can also be exploited to help with weight loss.

So before introducing the company's cutting-edge research that promises to unlock the Holy Grail weight-loss solution, let's first review how it treats diabetes.

The original diabetes treatment came from developing a synthetic replica of the normal insulin – human insulin – that's produced by the body. Novo Nordisk became the first large-scale producer of human insulin in 1923. This 100-year-old drug is cheap and commoditized, and can be self-administered with a traditional syringe or with "pens" – small insulin-containing tubes that contain a dispensing needle for injections.

Over time scientists have created more sophisticated ways to optimize insulin therapy. These include devices for monitoring blood sugar levels, and insulin pumps that deliver more targeted dosing regimens. These small, computerized devices are connected to a thin catheter tube inserted underneath the skin for administering controlled insulin injections throughout the day.

Meanwhile, Novo Nordisk and other companies have developed a new class of "modern insulins" that optimize insulin therapy by controlling two key factors – the speed and duration of insulin delivery.

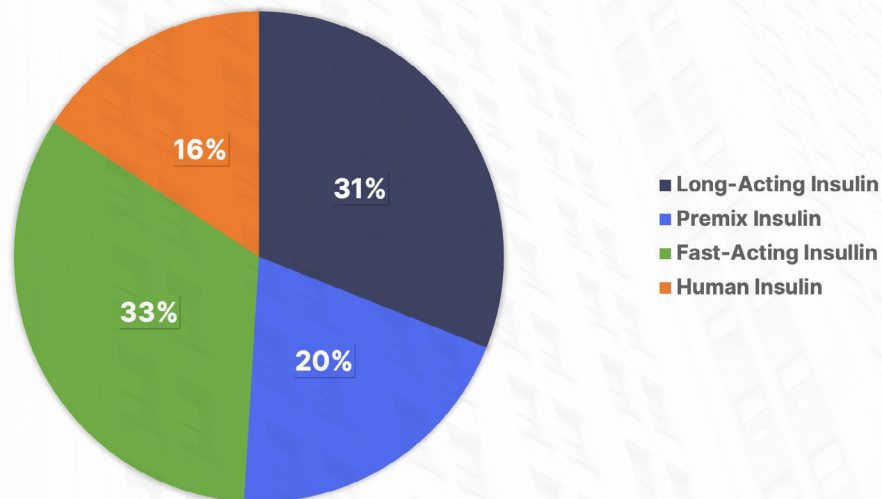
...And Where It's Headed Next

Long-lasting insulin therapies work best between meals, when the liver pulls from its glycogen stores to release glucose. Conversely, fast-acting insulin is the best

choice for immediately after a meal, when glucose levels spike. And then there are customized solutions that contain mixtures of these two options, based on a number of patient-specific factors. These include the patient's diabetes type, their lifestyle, and their typical range of blood sugar levels throughout the day.

Novo Nordisk is a leading provider of both human and modern insulins. In 2023, Novo Nordisk generated \$7 billion in revenue across its entire insulin portfolio, equivalent to about 25% of sales. The high-margin opportunities for Novo Nordisk come from delivering the cutting-edge solutions in "modern" insulin, including fast-acting, long-lasting, and mixtures of the two. Together, these make up about 84% of its insulin portfolio, with the remaining 16% coming from human insulin:

Novo's 2023 Top Insulin Sales



For individuals with type 1 diabetes, insulin therapy is the only solution – these patients need a source of external insulin to make up for what the body itself cannot produce.

But for the much larger type 2 diabetes market, a new class of non-insulin drugs have risen to the fore as the most effective solutions. And as you'll see, these compounds also promise to solve the global obesity epidemic.

The New Frontier in Diabetes and Obesity Treatments

Glucagon-like peptide receptor agonists, or GLP-1s, have unleashed a revolution in diabetes treatments over the last decade. These drugs mimic the effects of the naturally occurring GLP-1 hormones to regulate blood glucose levels. These hormones, and the synthetic drug, boost the body's production of "incretins,"

which are metabolic hormones released after eating a meal, which accelerate insulin production.

GLP-1s have proven more effective than direct insulin injections for many type 2 diabetes patients, because they work on multiple pathways. In addition to promoting more insulin production, they also reduce the amount of glucose produced by the liver when it's not needed (recall that the liver converts glycogen into glucose in between meals).

This added benefit allows GLP-1 to more effectively keep blood sugar levels in check in between meals, versus insulin therapy.

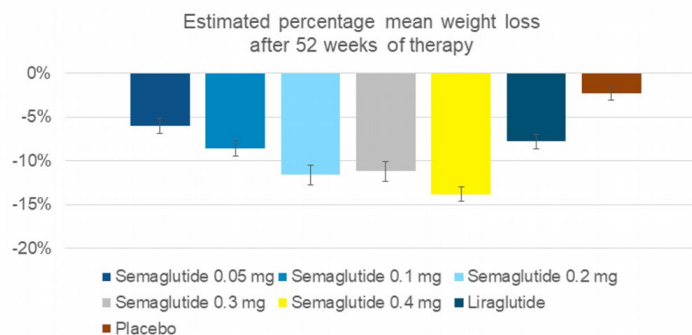
Novo Nordisk has been at the forefront of GLP-1 drugs, starting with development of liraglutide, which was sold under the brand name Victoza as a type 2 diabetes treatment beginning in 2010. This drug is delivered through self-administered daily injections, typically into the fatty tissue in the stomach, thighs, or arm.

Victoza was a tremendous success, with sales growing by more than 10 times from roughly \$300 million 2010 to a peak of \$3.2 billion in 2018. Sales of Victoza have since dropped, to \$1.3 billion in 2023... but this is a feature, not a bug of the industry. Novo Nordisk operates at the cutting edge of pharmaceutical science – where powerful new drugs constantly upstage older versions. More on this later.

For now, the real revolution from GLP-1 drugs goes beyond diabetes. After Novo Nordisk developed liraglutide as a diabetes treatment, further research revealed that a higher-dose version of GLP-1 can also help people lose weight – even those who don't suffer from diabetes.

Glucagon-like peptide-1 analogues promote weight loss in obese, non-diabetic individuals

A randomized, double-blind, controlled, phase 2 study (N=957)



O'Neil *et al.* The Lancet 2018



And therein lies the big upside case for GLP-1s and Novo Nordisk.

In addition to regulating blood glucose levels, studies show that high-dose GLP-1 drugs can slow down digestion and keep food in the stomach longer – a feature known as delayed gastric emptying. Plus, these molecules can actually tap into the brain's reward centers to help individuals feel full more quickly, and also create a longer-lasting sensation of fullness after eating.

Not surprisingly, when people eat less, they lose weight. The impact shows up in the clinical trial data, where test subjects taking liraglutide achieved roughly five to 10 pounds in additional weight loss versus those taking a placebo.

In 2014, Novo Nordisk secured FDA approval to package liraglutide into Saxenda, which is a daily injectable GLP-1 drug approved specifically for weight loss. Saxenda is the high-dose version of Victoza.

Of course, losing five to 10 pounds pales in comparison to the impact of bariatric surgery. But this first drug revealed the possibilities within the GLP-1 drug class as a solution for weight loss, and paved the way for what came next...

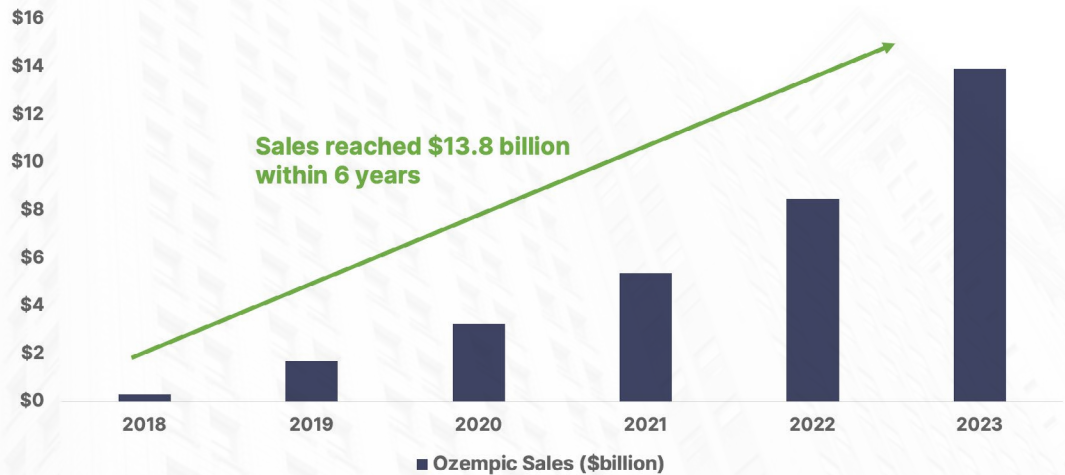
The Holy Grail Weight Loss Drug

Liraglutide provided the springboard for Novo Nordisk to develop its second generation GLP-1 compound, called semaglutide. It works via the same biochemical mechanisms as liraglutide, but thanks to modifications in the protein structure, it targets the GLP-1 receptors more effectively.

Novo Nordisk's first semaglutide drug was Ozempic, which was approved as a type 2 diabetes treatment in December 2017. Not only did the drug deliver better outcomes for diabetes patients, but the longer-lasting medication meant patients only needed to inject Ozempic once a week, versus the daily injections of its predecessor Victoza.

This combination of greater efficacy and more convenience showed in Ozempic's sales figures, which exploded from \$280 million in 2018 to \$13.9 billion in 2023.

Ozempic Sales Since Inception



This second generation of GLP-1 drugs based on semaglutide cemented Novo Nordisk's status as leader in diabetes treatments... but that's just the beginning of the opportunity.

The real upside comes from the game-changing discovery that high-dose semaglutide can deliver incredible weight loss results, which could deliver the ultimate solution to the global obesity epidemic.

The landmark study that opened up the global obesity market for Novo, mentioned above, showed that a double-dose injection of Ozempic delivered a stunning 30 pounds in additional weight loss compared to the placebo group.

In 2019, Novo Nordisk received approval to sell this high-dose semaglutide treatment under the brand name Wegovy. Through 2021, the company lumped together sales of Wegovy and Saxenda (the first generation GLP-1 weight loss injection), and sales of the combined weight-loss duo grew from just under \$760 million in 2019 (the first year both drugs were sold) to \$6.04 billion in 2023.

Wegovy sales have been so strong that the company struggles to keep up with demand. In 2022, Novo Nordisk's CEO Lars Jorgensen explained: "It's not that we don't have supply. We keep growing supply to meet a demand that also keeps growing."

But that hasn't stopped the word from getting out about this revolutionary new weight loss drug.

The Wonder Drug of the Rich and Famous

If one of the world's richest men is looking to lose weight, money is no object. That's why Novo's Wegovy received an endorsement that money can't buy, when X owner, and Tesla and SpaceX CEO Elon Musk explained how he found success losing weight using a combination of fasting "and Wegovy" to his more than 100 million Twitter followers:



Of course, Elon Musk has the means and connections to source hard-to-find Wegovy, despite widespread shortages. For regular people, there's an alternative – Ozempic.

Remember, Wegovy is nothing more than a double dose of Ozempic. One workaround to today's Wegovy shortages is a double dose of Ozempic, which is readily available. And while Novo is working to boost its production capacity for Wegovy, consumers are going crazy for the next best thing, Ozempic.

The *Wall Street Journal* recently reported that doctors and nutritionists are facing a deluge of requests for Ozempic – particularly those with clients in Hollywood:

"At least once a day, Nancy Rahnema's clinical nutrition practice in Beverly Hills, California, gets a call from a patient looking for a diabetes drug that they've heard can help them lose weight fast.

"They specifically say, 'How much is it to get Ozempic?'"

Patti Stanger, the executive producer of The Millionaire Matchmaker described Ozempic as "the Hollywood drug." Singer also went on to explain that demand goes beyond Hollywood:

"It's nationwide... I have friends in Miami, I have friends in New York who are doing it... everyone I know is on it."

In September, Andy Cohen, the executive producer of the hit franchise Real Housewives, posted on X:

"Everyone is suddenly showing up 25 pounds lighter. What happens when they stop taking #Ozempic ??????"

Money can't buy this kind of grassroots marketing – which is a result of the game-changing results that Novo is delivering with its semaglutide GLP-1 drugs, including Ozempic and Wegovy.

Today, Novo Nordisk clearly enjoys the top spot in the mind of consumers. However, we should note that it's not the only game in town when it comes to GLP-1 weight-loss solutions.

A Duopoly in Diabetes Treatment

Novo's long-time competitor in diabetes treatments, Eli Lilly (NYSE: LLY), is also its key competitor in GLP-1 weight-loss pharmaceuticals.

When Novo released its first generation GLP-1 weight-loss drug, Saxenda, Eli Lilly responded by developing its own GLP-1 compound, dulaglutide. Eli Lilly sold dulaglutide under the brand name Trulicity. Studies showed individuals treated with Trulicity lost an average of up to 10.4 pounds. This once-weekly injection received FDA approval in September 2014.

And when Novo developed its second generation GLP-1 compound, semaglutide, Eli Lilly came out with its next generation GLP-1 compound, tirzepatide, sold under the brand name Mounjaro.

Mounjaro, which targets both the GLP-1 and the "GLP receptor," triggers the same effects as Ozempic. Clinical data showed that Mounjaro delivered 23 pounds of additional weight loss compared with the placebo. Eli Lilly received FDA approval for Mounjaro (shown below) as a weight-loss treatment for obesity in May 2022.



Thanks to its first-mover status, Novo is the leader in the weight-loss space for now. There are few stories about Hollywood stars clamoring for Eli Lilly's drugs.

However, over time, we expect both companies can thrive together in the obesity market, in the same way they have co-existed as competitors in diabetes. In many ways, more competition is good, as both companies work to promote awareness of the weight-loss benefits from GLP-1 drugs.

As one analyst noted:

"Having other new drugs in the obesity field wouldn't necessarily be a bad thing. If other companies emerge with effective obesity treatments, they'll need to work the same market development angles, 'bringing more attention' to the field. That could help patients and doctors better understand obesity as a disease, as well as the treatment options available."

As both companies pour money into advertising and marketing campaigns in the coming years, each will benefit from raising awareness about the health benefits of GLP-1 drugs. This is how Eli and Novo thrived together while developing new and competing classes of diabetes drugs throughout their histories.

The only difference is that the sheer scope of the weight loss opportunity is much, much larger. These companies stand to reap a true windfall from opening up this market in the coming years.

Exactly how big of an opportunity?

How Novo Shareholders Could Reap a 15X Windfall

Recall that roughly 100 million individuals across the U.S. and Europe have diabetes, the core markets where Novo has well-established sales, manufacturing and distribution networks. Together, the size of diabetes treatments for these two markets is about \$40 billion. Novo and Eli Lilly each dominate this market in a quasi-duopoly, with French pharmaceutical company Sanofi a distant and minor rival.

We expect an even stronger duopoly market structure for today's GLP-1 weight loss compounds, for the simple reason that no other company outside of Novo and Eli Lilly has brought any close competitor to market.

With that in mind, let's consider the size of the opportunity for Novo...

As a conservative estimate, let's narrow the focus to the obese population across the U.S. and Europe – or roughly 200 million people today. And recall from the introduction that experts estimate obesity costs the healthcare system roughly \$2,000 per year per obese person.

Today's GLP-1 drugs could not only eliminate this cost, but also help people live better and healthier lives. You could argue that these drugs should be worth at least \$1,000 per year.

That's a \$200 billion annual opportunity, or roughly \$100 billion for Novo Nordisk, assuming a 50% market share. For a frame of reference, Novo Nordisk generated just over \$30 billion in sales in 2023, so this opportunity could boost the company's business by more than three times.

Now remember, we're only considering the obese population across the U.S. and Europe.

But here's the key... it's not only obese people who benefit from these drugs. There's an entire cohort of "overweight" individuals – those with a BMI over 25 – who could benefit from losing 20-30 pounds. If we include these individuals in the opportunity set, the addressable market explodes to more than 600 million people across Europe, the U.S., and Japan.

That's a \$600 billion opportunity, or roughly \$300 billion for Novo Nordisk at 50% market share. Novo shareholders could be on the cusp of a true windfall of opportunity that boosts sales by 10 times, as the company shifts from a leading diabetes company into a global obesity solution.

And there's another part to the story...

So far, the diabetes and weight loss drugs we've discussed all require injections. But many people don't like needles. By some estimates, up to 25% of American adults fear needles, which may cause up to 16% of the adult population to skip critical medical procedures.

Diabetics have always had to put up with needles because the powerful stomach acids that digest food also tear apart insulin and GLP-1 molecules... well, that is, until now.

The World's First Diabetes and Weight-Loss Pills

Thanks to its acquisition of Emisphere Technologies, Novo Nordisk now owns the only FDA-approved technology for packaging GLP-1 drugs into pill form. It's hard to overstate the significance of this development, as it potentially puts Novo in a position to dominate the GLP-1 market for both diabetes and weight loss in the years ahead.

But first, let's back up to explain how it all works...

Emisphere developed a key technology: the ability to bind Vitamin A with proteins into a pill form. This technology allows the protein to survive the normal assault from stomach acids that would otherwise break down the molecule.

Hollywood's Holy Grail Weight Loss Drug

Novo partnered with Emisphere Technologies to combine Ozempic – its semaglutide GLP-1 compound – with Vitamin A to produce Rybelsus.

Rybelsus is a groundbreaking drug – it delivered about the same results for diabetes treatment as Ozempic, providing the world's first type 2 diabetes treatment delivered in pill form.



Rybelsus gained FDA approval in September 2019, and the drug is well on its way to blockbuster status – with sales of \$2.7 billion in 2023.

Novo quickly snapped up Emisphere Technologies for \$1.8 billion. **This means Novo fully owns the only known and FDA-approved technology for packaging GLP-1 drugs into pill form.**

In 2021, the company announced two separate clinical trials – one for a high dose semaglutide pill for treating Type 2 diabetes, and another high-dose semaglutide pill for weight loss. If successful, these two pills have the opportunity to become the ultimate diabetes and weight-loss solutions, without the needles.

While we're excited about the prospects of both pills, the weight loss pill is where the real upside comes in. Remember, the total addressable diabetes market pales in comparison to the potential \$600 billion weight loss market. Novo could use their proprietary pill technology to dominate this future market. After all, why bother with injections when you could just swallow a pill?

We can easily envision a world where Novo captures the majority market share in a potential \$600 billion weight loss market, and delivers the ultimate windfall for shareholders.

While we're not banking on this outcome, it certainly presents an attractive upside scenario that investors should not overlook.

In the meantime, Novo continues generating cash from its current portfolio of leading diabetes and weight loss solutions. This makes it the perfect business to own in the turbulent macroeconomic backdrop of spiking interest rates and a slowing economy.

The Perfect Business for Today's Uncertain Economy

The core cash cow drugs in Novo's portfolio offer a source of stability in the near term. That's because the insulin and diabetes treatments that make up the bulk of its business are not discretionary purchases – people don't stop treating their diabetes in a slow economy.

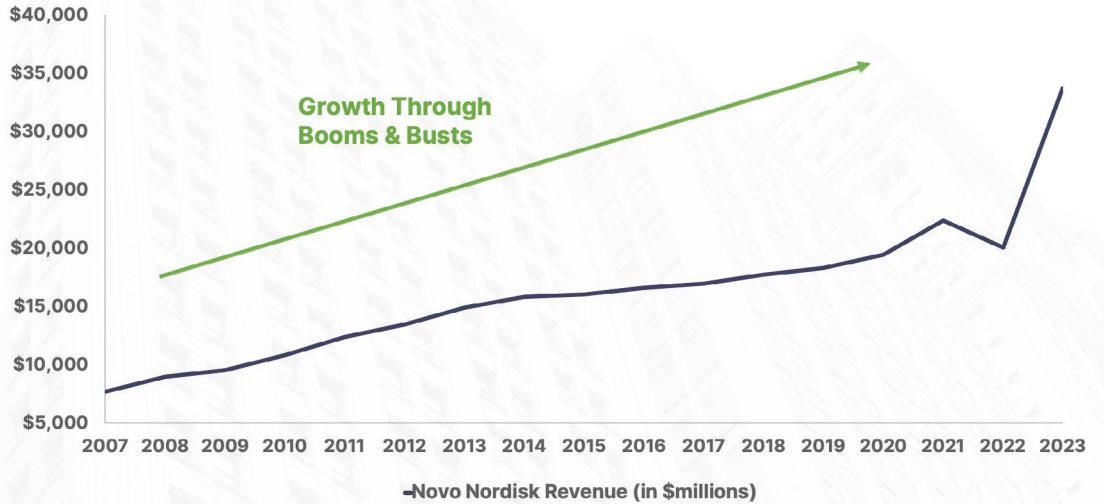
The company also has a small segment of drugs for treating growth hormone disorders, including hemophilia. This segment made up 7.4% of sales in 2023, and is also very stable.

Novo's business is highly capital efficient, converting around 35% of sales into free cash flow, including \$12 billion in free cash flow over the last 12 months. While this is great in any environment, it provides a critical advantage today by insulating the business against spiking interest rates.

Meanwhile, Novo's balance sheet is pristine, with \$4 billion in debt against \$4.5 billion in cash. Given the stability of its business, clean balance sheet, and robust cash generation, Novo can get by without issuing costly new debt, and without being forced to refinance maturing debt at higher rates going forward.

Novo's business is historically stable, as well. The company breezed through the Global Financial Crisis without so much as a hiccup, posting an average of 13% revenue growth from 2007 through 2009.

Novo's Stable Business Model



Source: Bloomberg

Of course, it's important to remember that even great companies with stable business models can get sold during a financial panic. This happened with Novo in 2008, when shares fell from a high of \$14 to a low of \$8.

But there's a major difference between now and then. Today, Novo is on the cusp of a transformation from a diabetes drugmaker to potentially solving the global obesity epidemic. This could expand the company's total addressable market by hundreds of billions of dollars.

Action to Take:

For the latest updates on our open positions, please visit our live portfolio [here](#).



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