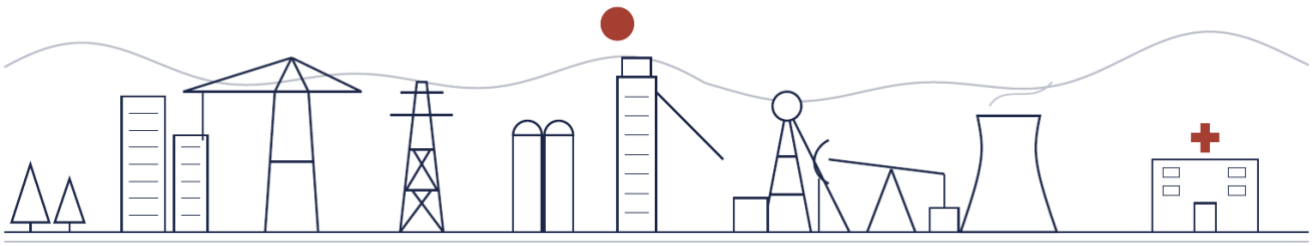
Motomeru
Strategies

BASE LAYER | THE THESIS

Own What the World Can't Live Without

Why I would rather own the physical foundations of the economy at a disciplined price than rent the whole market at whatever price it sets



What this is	The investment thesis behind the Base Layer series, written for anyone responsible for capital that has to last
Prepared by	Motomeru Strategies Inc. | Jordan Hiebert, BBA, CFA, Principal
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Companions	The 2027 Research Plan; The Base Layer Methodology
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ABOUT THIS DOCUMENT

One idea, built from first principles

This paper makes the case for owning businesses tied to the enduring physical needs of civilization. It explores the required discipline on price, debt and the bargain behind each asset that is required to reduce risk while earning stable returns. It is written for institutional skeptics, real estate and hard-asset investors, pension funds and families that think in generations, as well as individuals.

The research behind it has two purposes. The first is to apply a real-asset investor's underwriting to listed companies and earn the premiums essential assets pay, without a management fee and without running a business. The second is to map the investable physical economy: at each review, a Spread Map shows what the market is charging to own each of its foundations, and what that price says about how secure each bargain is.

> THE IDEA IN ONE SENTENCE
>
> Own what the world can't live without. Be paid for every risk you carry. Buy only at a price that survives being wrong.

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A NOTE BEFORE I BEGIN

I came to finance by accident, and to this series from the ground up

I didn't set out to study finance. I set out to fly. The commercial pilot program I enrolled in came with a business degree attached, and somewhere between the flight hours and the lectures, a few professors showed me what finance really is: the way the world organizes its work. It decides what gets built, who builds it and who carries the risk. I was hooked, and I finished with a degree in finance.

I graduated in the aftermath of the financial crisis with no interest in banking or advising. A professor introduced me to someone building a renewable energy company, and for the next several years I built wind farms. The work took me around the world. I learned how the energy system fits together, how differently it is regulated from one jurisdiction to the next, and what it takes to get steel, cranes, contractors and grid connections to arrive in the right order. When that company was acquired, I saw my first merger from the inside. Then I joined a startup backed by a well-established bridge and infrastructure entrepreneur, and we became the largest wind turbine installer in Canada.

Later I led corporate strategy at a construction and industrial services roll-up, buying long-standing specialty contractors whose communities had trusted them for decades. I learned how value is created in those deals, how it is priced, and the compromises every deal involves. After that I did the same work for others: due diligence, financial modelling and quality-of-earnings analysis, then capital raising and product due diligence for private real estate, private debt and alternative funds, where I learned to read an offering memorandum for what it leaves out.

Through all of it I have worked from the bottom up. The investment industry is good at making things look complicated, but every business, at any scale, depends on a customer in a way you can understand. Great investors call that their circle of competence. Mine sits in businesses with assets, collateral, trusted networks and reasonably predictable cash flow. It is the same reason people like owning real estate: they get paid regularly, they can touch what they own, and if they haven't borrowed too much against it, it is worth something whatever the market does. In a world that strips hard assets out of operating businesses to make them run faster, that combination is easy to overlook.

I've always been wary of anything that needs a physics degree to explain. I understand complex options strategies well, and I have found no place for them in a long-term portfolio. In university I studied the collapse of Long-Term Capital Management closely, and I remain a Bitcoin skeptic. The pattern repeats: a clever model that leaves out one risk nobody priced, until that risk takes down the whole thesis. None of this is a vow to avoid everything else. I've bought Alphabet, Meta and Amazon after hard selloffs and been glad I did.

What follows is the framework that experience produced, with its working rules written down before the research, so you can check my work. It is written for anyone responsible for capital that has to last: a family that thinks in generations, a pension committee that must meet its obligations in real terms, an owner of buildings or land who wonders how the listed market prices the same things, or an individual who has opened a statement and wondered what they actually own. By the end you should be able to answer that question yourself.

Jordan Hiebert, BBA, CFA

THE ARGUMENT IN ONE PAGE

Every portfolio is a strategy.

This paper sets out a deliberate one.

- **Every portfolio is a strategy, chosen or not.** A market-cap-weighted fund buys more of whatever has risen most and never asks whether the price makes sense. A benchmark-hugging mandate and a stack of private fund commitments are choices too. They work in some markets and not in others.
- **Five simple principles point to one approach:** own what the world can't live without, be paid for every risk you carry, and buy only at a price that survives being wrong.
- **Needs are easier to forecast than fashions.** People will need heat, food, water, freight, shelter, security and care in 2046. The businesses that supply them can be valued with more confidence than most.
- **The asset usually survives. The owner sometimes doesn't.** The railway and fibre-optic booms built networks we still use and ruined many of the people who paid for them. Price and debt decided who came out ahead.
- **Every essential asset rests on a bargain.** Utilities, landlords, miners and defence contractors all depend on a counterparty, usually the state, accepting the terms. The risk I watch most closely is whether the public still thinks the deal is fair.
- **Listed and private real assets are the same assets in different wrappers.** The listed market periodically offers essential assets below what private buyers pay for the same cash flows, with daily liquidity and without layered fees.
- **Underwrite like a private fund, own like a shareholder.** The research applies the tests a real-asset investor uses on any building, farm or private fund to listed owners of essential assets, aiming to earn the same premiums without a management fee and without running a business.
- **Every passive variant buys the average.** Cap-weighted, equal-weighted, US-only or a global 60/40, each takes its share of the good years and its full share of the bad ones.
- **The fiscal math favours real assets.** With Western government debt near or above the size of whole economies, letting inflation run ahead of interest rates is the easiest way out politically. That hurts savers and tends to help owners of cash flows that can rise with prices.
- **Rules come before results.** Working rules are published before the research and firm up as it is completed, every change is dated, results are measured against what you could have bought instead, including low-cost factor funds, and every thesis carries written criteria for what would prove it wrong.
- **The research maps the physical economy as it goes.** Every company screened adds a reading of what the market charges to own one foundation of the economy. Published as a Spread Map at each review, those readings show where capital is scarce and where the market fears a bargain is breaking.

WHO THIS IS FOR

Four kinds of reader, and what each should test

The argument is meant to persuade people who start out unconvinced. Four kinds of reader tend to bring the sharpest questions, and the paper is organized so each can find the part that answers theirs.

EXHIBIT 1

Four readers, four tests

READER	WHAT THEY ALREADY BELIEVE	WHAT THIS ADDS	WHERE TO LOOK
The institutional skeptic	Most active strategies are expensive market exposure with a story attached	Rules published before results, a factor-matched benchmark, annual factor attribution, published vetoes and kill criteria	Sections 13 and 14; Methodology, Sections 7 and 10
Real estate and hard-asset investors	Own what you can touch, below replacement cost, with debt the asset can carry	The same underwriting applied to listed owners of essential assets, with liquidity and without fee layers	Sections 9 and 11; Methodology, Sections 3 and 4
Pension funds and institutions	Returns must meet real obligations, under governance a committee can audit	Measured inflation pass-through, rate and climate stress tests, look-through leverage, explicit regime exposure	Sections 9, 11 and 13; Methodology, Sections 7 to 10
Dynastic capital	Wealth is held across generations by owners who are never forced to sell	Needs that have lasted for centuries, a test of whether each bargain is fair enough to last, and owners like themselves	Sections 8 and 12; Volume 1

Source: Motomeru Strategies. Section numbers refer to this paper unless stated.

1 | THE QUESTION NOBODY ASKS

Start with a simple test: what do you actually own?

Most investors I talk to can tell me what their portfolio returned last year. Far fewer can tell me what it owns.

If your savings sit in an S&P 500 fund, you own small slices of about five hundred companies. Do you know what the ten largest physically do? What you paid for each dollar of cash they produce? Would you buy them at today's price if someone offered them to you one at a time, by name?

The question isn't only for individuals. A pension fund's private real estate is reported at appraised values that move slowly and smoothly, whatever the listed market says about similar buildings. A family office may hold commitments to a dozen private funds whose underlying assets it has never seen. A developer may know every building in a portfolio and very little about the listed companies that own the same kind of asset at a different price. In each case, the answer to "what do you own, and what did you pay for each dollar of cash it produces?" is harder to give than it should be.

For a generation the advice to individuals has been close to unanimous: buy the index, keep costs low, don't look, and don't imagine you can do better. Institutions have their own version: stay close to the benchmark and to peers, and let consultants decide what counts as an asset class. For many investors that is sensible. Someone who will never read an annual report will do better in an index fund than with stock tips, expensive funds or panic selling at the bottom. But the advice also asks you to stop thinking about what you own, and to

trust that a formula which buys more of whatever has gone up will work as well over the next thirty years as it did over the last fifteen.

This paper sets out a different approach, built from first principles rather than on anyone's authority, including mine. I'll come back to the opening question at the end.

2 | BACK TO FIRST PRINCIPLES

Five plain statements that most investors would accept, and where they lead

None of these principles are original and what matters is what follows from them when you take them together.

Every return comes from something producing cash. A share is a claim on a business, a bond on a borrower, a farm on its harvest. Prices can drift away from that cash for years, sometimes decades, but not for ever. It is also why I own businesses rather than stockpiles of commodities. A bar of gold or a barrel in storage produces nothing, so its whole return depends on what the next buyer will pay. A business that mines, moves or sells the commodity produces cash you can count.

Your return depends on the price you pay. The same business can be an excellent investment at one price and a poor one at another. The business has no idea what you paid for it.

You need room for error. Every estimate of future cash is a guess. The main protection against a wrong guess is to pay enough less than the asset is worth that being wrong is survivable. Benjamin Graham called this the margin of safety, and it is still the most useful idea in investing.[1]

Needs are more predictable than wants. I can't tell you which phone people will want in 2040. I can tell you that they will need to eat, stay warm, drink clean water, live somewhere and move goods from where they are made to where they are used.

Risk should be paid for. A dollar promised by a regulated Canadian utility is worth more than a dollar promised by a lender in a volatile currency. A sound process asks more of the riskier one, and walks away from risks it can't price at all.

Put those together and the approach follows. If returns come from cash, depend on price and need a margin for error, I should prefer cash flows I can estimate with some confidence, bought well below what they are worth. If needs are steadier than wants, those cash flows are most likely to come from businesses that serve basic physical needs. And if risk should be paid for, I should invest only where the expected return clears a hurdle that reflects all the risks involved.

Own what the world can't live without. Be paid for every risk you carry. Buy only at a price that survives being wrong.

The last of those three sentences is critical. It doesn't promise a bargain or a quick re-rating. It says the price must leave enough room that a wrong forecast, a bad decade or a broken bargain costs time rather than capital.

Most people apply these principles all the time without calling it investing. A university degree is an investment of time and money in the hope of earning more than it cost. Opening a restaurant is one of the riskiest bets a person can make. A real estate investor who walks a building, checks the roof and the rent roll, and refuses to pay more than it would cost to build is applying a margin of safety by another name. Every week, managers decide whether a new hire, a machine or a project will return more than it costs. That is the same judgement an investor makes when buying a share.

Capitalism runs on that habit. Millions of people put their time, labour and savings behind decisions like these and live with the results, and prices are what you get when all of their knowledge meets in one place. Somewhere along the way the investing version of the habit was fenced off with jargon and labelled too dangerous for ordinary people. I think it is worth taking back, carefully.

3 | THE CHOICE NOT TO CHOOSE

An index fund is a strategy too. Its choices have simply been made for you

Roger Martin, who has written as clearly as anyone about strategy, argues that a strategy is not a plan, a budget or a list of goals.[2] It is a set of choices that fit together, and the hard part is that choosing one thing means giving up another.

He puts it as five questions: what are we trying to achieve, where will we play, how will we win there, what capabilities do we need, and what systems will keep us on track. A good strategy is one where the answers support each other.

Most investors never work through these questions, because they're told they don't need to. An S&P 500 fund has answered them anyway. It plays in large American companies, weighted by how much the market likes them today. It wins, or not, by never asking whether a price makes sense. It needs no capabilities by design. Those are reasonable choices, but they are choices, and Exhibit 2 puts them next to mine.

EXHIBIT 2

Two answers to the same five questions

MARTIN'S QUESTION	CAP-WEIGHTED INDEX FUND	BASE LAYER
What we're trying to achieve	Match the market, less a small fee	Grow real purchasing power over decades, with a low chance of permanent loss
Where to play	Every large listed company, weighted by market value	Eight areas of the physical economy, wherever the risks can be priced
How to win	Never deviate; never judge price	Pay less than an asset is worth, be paid for each risk, and wait
Capabilities	None required	Research that connects physics, law, history and finance; the patience to act only twice a year
Systems	Rebalance to the index	Rules published in advance, a written valuation test, kill criteria for every holding, open benchmarking

Source: Motomeru Strategies, adapted from the framework in Lafley and Martin (2013).

I'm not arguing that one column is right and the other wrong. Everyone investing has made these choices. The difference is whether you made them yourself.

4 | WHAT WOULD HAVE TO BE TRUE

Martin's best test, applied to the index and to my own approach

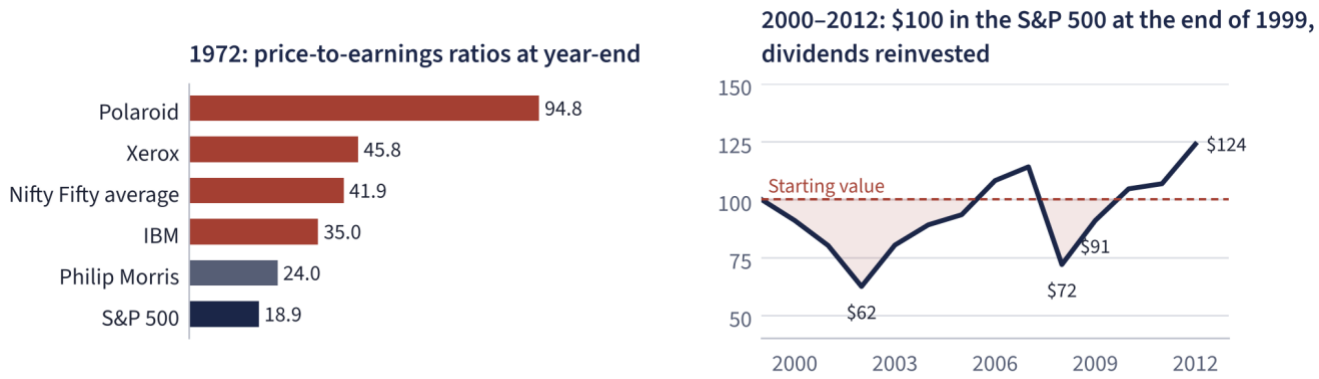
Martin's most useful tool is a simple question. Instead of arguing about whether a strategy is right, ask what would have to be true for it to work, then look hardest at the conditions you are least sure of.

Start with the index. A cap-weighted fund owns each company in proportion to its share price, so when a stock rises the fund owns more of it, and when it falls the fund owns less. In practice it buys more of whatever is already popular. Today a handful of very large, mostly asset-light technology companies make up more than a third of the S&P 500.[3] For the index to do well from here, those companies have to keep growing fast enough to justify prices that already assume they will. No competitor, regulator or new technology can wear down their margins the way that has happened to dominant companies before. Interest rates need to stay friendly to long-term growth stocks. And investors have to keep paying today's multiples for American large caps.

All of that may happen, but none of it is guaranteed, and there are uncomfortable precedents. In the early 1970s the "Nifty Fifty" were considered so safe that any price was acceptable, and many people who bought at the peak waited years to break even.[4] In 1989 Japan was the world's strongest market, full of companies everyone agreed were unbeatable, and the Nikkei took about 34 years to get back to its high.[5] Someone who bought the S&P 500 at the start of 2000 earned roughly nothing over the next ten years, dividends included.[6] In each case the companies were real, and many were excellent. The prices assumed nothing would go wrong. Exhibit 3 shows two of these moments.

EXHIBIT 3

Priced for perfection, twice



Sources: Jeremy J. Siegel, AAII Journal (October 1998), year-end 1972 price-to-earnings ratios; S&P 500 annual total returns compiled by David Kass, University of Maryland, from S&P Dow Jones Indices data.

EXHIBIT 4

What would have to be true?

FOR THE INDEX TO DO WELL FROM HERE	FOR THIS APPROACH TO DO WELL
The largest companies keep growing fast enough to justify prices that already assume it	Basic physical needs persist for decades, which is about as close to certain as economics gets
No competitor, regulator or technology erodes their position	Businesses serving those needs can sometimes be bought below what they are worth, and the bar is never lowered when they can't
Interest rates and inflation stay friendly to long-duration assets	Risks, including political and currency risk abroad, can be estimated with reasonable care
Investors keep paying today's multiples for American large caps	The owner has the patience, and the balance sheet, to hold through the years when the approach lags

Source: Motomeru Strategies. Opinions of the author.

The uncertainty sits in different places. The index depends mostly on other people staying enthusiastic. This approach depends mostly on physical necessity and on the owner's discipline. Neither is free of risk, but I would rather carry the second kind.

5 | MAPS AND TERRITORIES

When the price and the physical business disagree, the business usually wins in the end

A brokerage screen is a world of symbols: tickers, multiples, price targets, numbers turning red and green. Each of them stands for something physical, whether a pipeline under the prairie, a grain elevator on a river, a rail line cut through the mountains a century ago or a clinic with its lights on at three in the morning.

In *The Master and His Emissary*, the psychiatrist Iain McGilchrist argues that we attend to the world in two different ways.[7] One narrows in, abstracts and sorts things into categories. It is excellent with rules and

spreadsheets, but it tends to mistake its model for the thing itself. The other takes in the whole: context, relationships and how things change over time. His concern is that modern institutions have come to rely almost entirely on the first, and have stopped checking the map against the ground.

Markets show the symptoms. A company that burns cash can be valued above one that generates it, as long as the story is good. A railway that carries a country's grain can be priced like a dull utility while an unprofitable app is valued like a small nation. The map can win for a long time. Over the long run the territory usually does. Robert Pirsig made a similar point about motorcycles: you can understand an engine from its diagram or by listening to it run, and a good mechanic does both.[8] Jim Rogers built an investing career on the same instinct, travelling by motorcycle and car to see ports, roads and currencies for himself.[9]

Intuition has a poor reputation in finance. Behavioural finance has spent decades cataloguing the ways our judgement goes wrong, from overconfidence and herding to anchoring and loss aversion. The research is real, but the lesson usually ends up with the same warning: don't trust your instincts, and hand the decisions to a professional or a formula.

That misses half the research. The psychologist Gary Klein studied firefighters, nurses and military commanders who made very good split-second decisions they couldn't fully explain. Their intuition was pattern recognition built from years of experience.[10] Daniel Kahneman, the founder of behavioural economics, later worked with Klein on when intuition can be trusted, and they agreed it can be in settings that are regular enough to learn from and that give clear feedback. The physical economy is one of those settings. Most people understand why a railway with no competitor can raise its prices, or why heating bills still get paid in a recession, long before they could prove it. That is simple knowledge of how the world works.

Martin adds that organizations prefer reliability, a process that gives the same answer every time, to validity, an answer that is actually right.[11] A reliable process is easy to defend and audit, while a valid insight often starts as a hunch. Much of the investment industry is built for reliability, which helps explain why it misses things an attentive person might notice.

Ignoring intuition protects you from a few predictable mistakes, but it costs you the ability to notice when the map and the territory have drifted apart. I don't think you have to choose. I try to let my sense of what matters point me towards an idea, and then the idea has to pass a written valuation test before any money moves.

McGilchrist's title comes from a parable. A wise master sends his emissary out to handle the details of the realm, and the emissary, clever and busy, comes to believe he is in charge. Analysis isn't the problem. The problem is detached analysis working without anyone checking its findings against the whole picture.

I follow that order in every decision. First I try to see the business as it is: what it physically does, who depends on it, and whether its bargain with its customers is fair. Each release includes at least one piece of ground truth, something seen or heard directly rather than read in a model. Then the analysis does its work: hurdles, scorecards and rankings. Finally I go back to judgement and ask whether the analysis still describes the business I saw. Every release ends with a section headed "What the numbers cannot tell you".

One rule keeps the order intact. Judgement can veto a company that passes every numerical test, but the numbers can never admit a company that judgement has rejected. I write each veto down and publish it, so

that discretion can be checked too. McGilchrist's neuroscience is debated, but anyone who has run a business or sat on an investment committee will recognize the two kinds of attention, and what it costs to let the spreadsheet decide on its own.

6 | THE THINGS THAT DON'T CHANGE

Build on what will still be true in 2046

Jeff Bezos has said that people often ask him what will change over the next ten years and rarely ask what won't, and that the second question is more useful because you can build a strategy around it.[12] Morgan Housel makes a similar case: the surface of the world churns, while human needs and behaviour change very little.[13]

Nobody knows which software platform will dominate in 2040. The needs in Exhibit 5 will almost certainly still be there. Technology will change how they are met, but not the need itself.

A railway in 2040 may run on a new fuel with automated scheduling, but it will run on the same corridor, because nobody can afford to cut a new one through the mountains. That is what I mean by the base layer: the physical foundation under the digital economy. Most investment debate happens several floors up, fueled by speculation. I would rather start at the foundation and ask who owns the ground.

Technology also helps the base layer more often than it hurts. Satellite imagery and precision equipment raise yields for people who already own good farmland. Inspection software lets railways move more freight on the same track. Every data centre needs electricity, cooling water, copper, steel and land. New technology often creates its most lasting value for the established companies that use it, rather than for early investors who pay heavily to fund it.

EXHIBIT 5

Needs that will still be here in 2046

NEED	WHAT MAY CHANGE	WHAT PROBABLY WON'T	VOLUME
Heat, light and power	Fuel mix, storage, grid software	Demand for dense, dependable energy	7. Energy Density
Food and shelter	Seeds, equipment, building methods	Land, water and nutrients behind every calorie; a roof at a rent people can pay	5. The Homestead Portfolio
Moving goods and credit	Automation, fuels, payment apps	Corridors nobody can rebuild; lenders who know the borrower	2. Rails and Relationship Banks
Clean water, grids and sanitation	Meters, materials, data, recycling	Networks and landfills someone must own and maintain	3. The Sovereign's Bargain
Security	Weapons technology	Industrial capacity that takes years to qualify	4. Sovereign Fortress
Care	Treatments and diagnostics	Ageing populations needing clinics and staff	8. Human Durability
Materials and money	How payments are made; which metals matter	Demand for metal no government can print, and for stone, steel and copper	6. Physical Collateral
Capital allocation	Which industries are owned	The need for patient, aligned owners	1. The Free General Partner

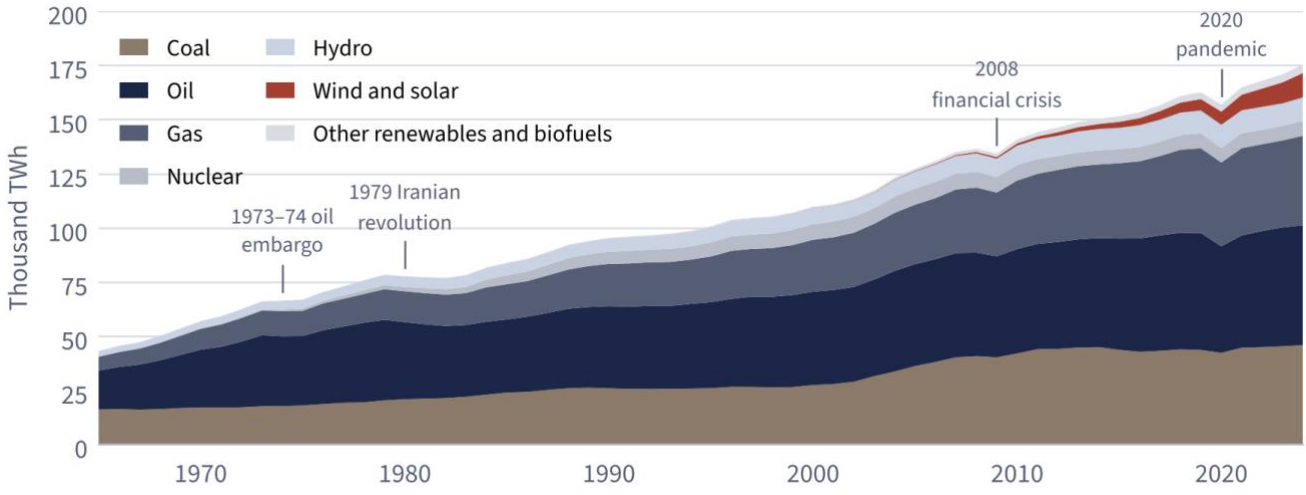
Source: Motomeru Strategies. Opinions of the author.

Energy shows how this has played out. Since 1965 the world has been through two oil shocks, a financial crisis and a pandemic. Oil's share of energy use fell from about 42% to under a third, and wind and solar went from nothing to about 6%. Total use still roughly quadrupled, and each dip was made up within a few years (Exhibit 6). Almost everything about how the need is met changed, but the need didn't.

EXHIBIT 6

The mix changes; the need keeps growing

World primary energy use by source, 1965 to 2024, thousand terawatt-hours (substitution method)



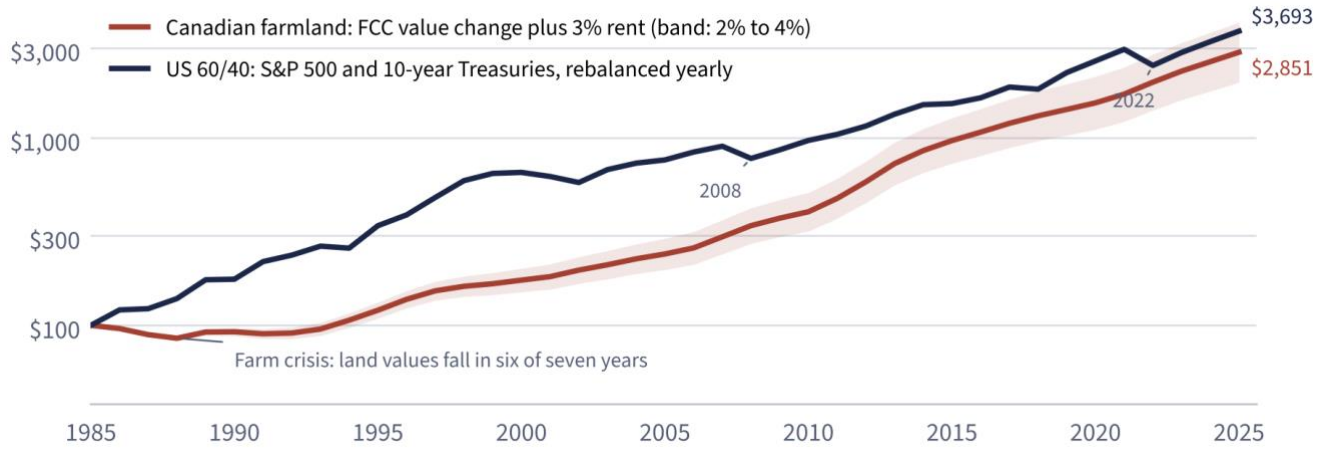
Source: Energy Institute, Statistical Review of World Energy (2025), via Our World in Data.

Food tells the same story. Exhibit 7 follows Canadian farmland over the forty years Farm Credit Canada has tracked its value, with a modest allowance for rent, beside a portfolio of 60% American stocks and 40% American government bonds. The land went through a farm crisis in which values fell in six of seven years, and better seeds, equipment and data have kept raising what an acre produces. Over the full period it compounded at about 8.7% a year against 9.4% for the 60/40, and it rose in every one of the six years the 60/40 fell, including 2002, 2008 and 2022. Technology made the land more productive, not less necessary.

EXHIBIT 7

Farmland compounded beside stocks and bonds, and rose when they fell

Growth of $100 at the end of 1985, nominal, log scale



Sources: Farm Credit Canada, Historic FCC Farmland Values Report (national average annual change, 1986 to 2025); Aswath Damodaran, NYU Stern, annual returns on the S&P 500 with dividends and 10-year US Treasury bonds. Rent is a Motomeru assumption of 3% a year, shaded from 2% to 4%. Farmland is in Canadian dollars and the 60/40 in US dollars; neither is adjusted for taxes, costs or leverage.

To be clear about what this section claims, the needs don't change, so the businesses that meet them can be valued with more confidence than most. It doesn't claim they are easy. Two common views often get in the way. The first is that commodity businesses are bad businesses. Some are, especially high-cost producers carrying heavy debt. But a low-cost producer with a long-lived asset and a sensible balance sheet can earn high returns across a full cycle, and the cycle itself is what lets a patient buyer pay a low price. The second is a marketing line. A good deal of private investing now sells itself on owning "boring businesses", as if dull meant safe. I don't find any of this boring. A grain elevator, a transmission line or a bank that knows its borrowers is a working answer to a problem people have had for centuries, and learning how it works is one of the more interesting things an investor can do.

7 | RIGHT ASSET, WRONG PRICE

History's most expensive lesson is that being right about the asset isn't enough

If physical assets are so essential, why doesn't everyone just own them? Because history has a hard lesson attached.

In the 1840s Britain went through a railway mania. Thousands of miles of track were promised, shares soared, and ordinary families put in their savings. When the mania broke, many of them were ruined.[14] The track stayed, and it carried British trade for the next century and a half. In the late 1990s telecom companies laid enormous amounts of fibre-optic cable in anticipation of the internet. They overbuilt, the bubble burst, and many of the builders went bankrupt along with their shareholders. The cable stayed in the ground, was bought cheaply by others and became the backbone of the internet we use now.

The railways and the fibre were every bit as essential as their promoters said, and the original investors lost anyway. The people who did best were often the second owners, who bought the assets out of the wreckage for a fraction of what they cost. Anyone who has bought a building from a receiver knows this pattern. So this approach isn't a romance about physical things. Essential assets bought at euphoric prices with fragile balance sheets can lose money as reliably as any fad. What makes it work is the discipline on price and debt, and the patience to be the second owner when the first owners panic.

8 | THE BARGAIN BEHIND EVERY ASSET

Essential assets rarely fail because people stop needing them. They fail when someone stops accepting the terms

The railway and fibre stories are about price. Essential assets can hurt their owners in a second way, and it has happens often enough that I have built this series around it.

Every asset in this series sits inside a bargain. A utility earns an allowed return in exchange for keeping the lights on at a price the public will accept. A defence contractor builds what one buyer orders, on that buyer's terms. A landlord collects rent for as long as tenants and voters think the rent is fair. A mine pays the host country a share of what it digs up. While the bargain holds, these are some of the steadiest cash flows anywhere. When one side decides the deal is no longer fair, the asset keeps working and the owner's share of what it earns shrinks.

The pattern is very old. In AD 58, after years of complaints about the tax farmers who collected Rome's customs duties, Nero proposed abolishing indirect taxes altogether. The Senate talked him out of it, and he settled for publishing the rules and reining in the collectors.[15] In 1951 Iran nationalized the Anglo-Iranian Oil Company, including its refinery at Abadan, then one of the largest in the world. In 2008 Chicago leased its parking meters for 75 years for about $1.16 billion; the city's inspector general later concluded the city had been paid at least $974 million too little, and the lease has been a grievance ever since.[16] In 2011 Southern Cross, then Britain's largest care home operator, collapsed under the rent it had agreed to pay after selling its homes, and in 2021 Berlin voters backed a referendum to expropriate the city's largest landlords.[17] People never stopped needing the customs post, the oil, the parking, the care or the flats.

That history gives the series four tests, applied the same way in every volume. An asset must meet a need rather than a taste, and to keep the universe small a need has to have lasted across cultures for centuries, held up through severe recessions and survived every substitute that changed only its form. It must exist and produce cash today, with nothing riding on a discovery, an approval or an invention. Something must set a floor under its value, whether replacement cost, a contract or a licence. And its main risk must be the terms of the bargain, rather than whether the thing works, is found or catches on. The last test is the most important.

It rules out exploration companies, pre-revenue biotech and venture capital, and leaves businesses whose main risk can be studied in advance. It also rules out for-profit education: the state is regulator, funder and competitor at once, and can end the business outright, as China did to private tutoring in 2021. Exhibit 8 names the counterparty I watch in each volume.

EXHIBIT 8

Who sits across the table, by volume

VOLUME	THE COUNTERPARTY	WHEN THE BARGAIN BROKE BEFORE
1. The Free General Partner	Controlling families, founders and insurance regulators	Succession fights and related-party deals inside family groups
2. Rails and Relationship Banks	Customers and regulators	US railways held to regulated rates for most of a century, until deregulation in 1980
3. The Sovereign's Bargain	The public, and the state as grantor	Nero and the tax farmers; Chicago's parking meters
4. Sovereign Fortress	The state as buyer and protector of industry	Procurement cuts after the Cold War
5. The Homestead Portfolio	The state as keeper of land, and tenants	Food export bans; Berlin's 2021 vote to expropriate landlords
6. Physical Collateral	Host countries and permitting authorities	Spain's royal fifth on Potosí silver; royalty increases today
7. Energy Density	States, and substitutes	Abadan in 1951; whale oil displaced by kerosene
8. Human Durability	Whoever pays for care	Southern Cross in 2011

Source: Motomeru Strategies. Opinions of the author.

In most of these the counterparty is ultimately the state, as regulator, sole buyer, keeper of land titles, owner of the minerals or payer for care. So the risk I watch most closely across the series is legitimacy: whether the public still regards the deal as fair. I add a premium for it to the return I require from each company, and I treat a bill nobody can afford, a rent tenants can't pay or a royalty a government regrets granting as a warning even when the numbers still look fine. The best protection is to own businesses whose customers get a fair deal, because a fair bargain is less likely to be torn up. Families that have held assets for generations understand this instinctively: their licence to operate is renewed every time a neighbour, a tenant or a government decides the arrangement is still fair.

It is also why I don't promise that these assets protect against inflation. Many have, but the protection depends on someone accepting higher prices, and that acceptance is the first thing a bargain under strain takes away. I measure how the holdings' revenue and cash flow actually move with inflation at every review instead of assuming it. Taken together, the releases should also say something about the wider world: where the public still accepts the terms, and where it is starting to push back.

9 | SAME ASSETS, DIFFERENT WRAPPERS

Listed and private real assets are claims on the same cash flows, priced in different ways

Most of my working life has been in private business: getting projects built, navigating contracts, analyzing business transactions, and undertaking due diligence on private investment funds. That work teaches you to underwrite from the ground up: replacement cost, maintenance at today's prices, and debt the asset can carry in a bad year. These questions don't change when the asset is owned by a listed company. A pipeline, a farmland portfolio, a care home or a cell tower produces the same cash whether its owner's shares trade every second or its units are revalued once a quarter.

What differs is how the price is set. Private real assets are usually marked by appraisal, and appraisals move slowly and smoothly. Researchers have shown for decades that this smoothing understates true volatility and makes private assets look less correlated with listed markets than they really are.[18] Listed owners of similar assets are priced every day by investors who can sell, so in a stress their prices fall faster and further, sometimes well below what a private buyer would pay for the same buildings, land or networks. For a patient owner with a written valuation test, that gap is the opportunity. Studies of pension fund records over long periods have found listed real estate holding its own against private real estate after fees.[19]

The two are complements, not rivals. Private vehicles offer control, customization and access to assets that never list. Listed owners offer liquidity, daily transparency, lower fees and the ability to buy when private markets are frozen, as many pension funds found in 2022, when falling public markets pushed their private allocations above policy limits just as listed real assets became cheap. The Base Layer borrows private-market evidence wherever it helps: implied cap rates against private transactions, discounts to appraised land values, replacement cost per unit. The rules ask the listed market to offer something a private buyer would recognize as a bargain.

The first purpose of this research is to apply the underwriting a real-asset investor uses on any building, farm or private fund to listed owners of the same kinds of assets, and to earn the premiums those assets pay without a management fee layered on top and without having to run the business. A private fund charges for access, control and the work of finding and managing assets. A listed owner offers the asset and its management already in place, at a price set daily by people who sometimes have to sell.

EXHIBIT 9

The same underwriting, in two wrappers

	PRIVATE REAL-ASSET FUND	LISTED OWNER, BASE LAYER RULES
How the price is set	Appraisal; lagged and smoothed	The market, daily; it overshoots in both directions
Liquidity	Redemption queues, gates and capital calls	Daily
Fees	Management and performance fees, fund expenses, sometimes several layers	Company overhead, plus the cost of research
Control	High, or delegated to a sponsor	Minority; governance priced in the required return
Underwriting	Replacement cost, cap rate, net operating income, debt service	The same tests, applied to look-through assets
When it is cheapest to buy	Rarely marked down quickly in a stress	In a stress, when listed prices fall below private marks

Source: Motomeru Strategies. Opinions of the author; individual vehicles differ.

10 | WHERE TO PLAY

Eight areas of the physical economy, each with its own research volume

In Martin's terms, where to play is the choice of field. I have chosen eight areas, each serving a need that won't go away. They behave differently enough through the economic cycle that they tend to offset one another. Where a theme needs more room, I add a second part, so the series runs to twelve releases, published one a month through 2027.

EXHIBIT 10

The eight volumes

Each volume's art takes on the character of its assets: the background line becomes switchbacks for transport, terraces for mining, a wave for energy and a pulse for care.



VOLUME 1 | 10% WEIGHT

The Free General Partner

Holding companies, insurers and serial acquirers

Releases: January and September 2027



VOLUME 2 | 17% WEIGHT

Rails and Relationship Banks

Railways, logistics networks and relationship lenders, emerging and developed

Releases: March and October 2027

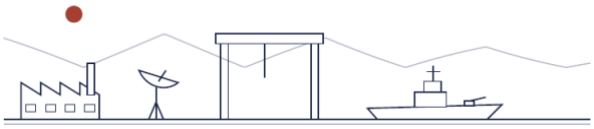


VOLUME 3 | 9% WEIGHT

The Sovereign's Bargain

Regulated networks, water, towers, fibre, waste and concessions

Releases: February and December 2027

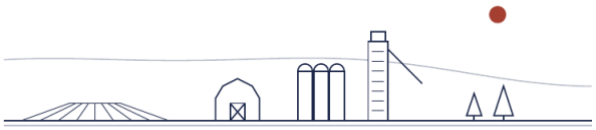


VOLUME 4 | 10.5% WEIGHT

Sovereign Fortress

Defence, shipyards and strategic industry

Release: July 2027



VOLUME 5 | 20% WEIGHT

The Homestead Portfolio

Farmland, timber, water rights, fertilizer, grain, aged spirits and housing

Releases: April and November 2027

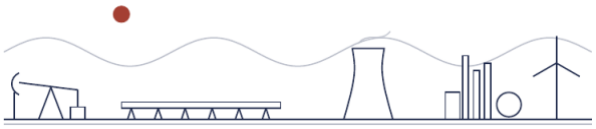


VOLUME 6 | 7.5% WEIGHT

Physical Collateral

Royalties, low-cost metal producers, aggregates and cement

Release: August 2027



VOLUME 7 | 12% WEIGHT

Energy Density

Low-cost producers, pipelines and nuclear

Release: June 2027



VOLUME 8 | 14% WEIGHT

Human Durability

Clinics, care property, clinical and diagnostic tools

Release: May 2027

Source: Motomeru Strategies. Weights are from the resource map in the Methodology, Section 5; months are releases in the 2027 Research Plan.

The Free General Partner. The best capital allocators act like private-equity partners who charge no fee. Family holding companies own permanent capital, reinvest at good returns and buy when others are forced to sell, and many in Europe and Asia trade at a discount to what they own. Insurers run as permanent capital, such as Berkshire Hathaway and Fairfax Financial, belong here too: disciplined underwriting supplies the float, and an owner-minded allocator invests it. This volume is chosen on people and process as much as on assets, and it is where much of the portfolio's dry powder sits: the allocators hold cash and deploy it in downturns, so the model portfolio doesn't have to. A second part covers serial acquirers that buy small businesses selling critical products, including vertical-market software, where switching costs do the work of a physical floor.

Rails and Relationship Banks. A century ago, owning North American growth meant owning the railway that moved the goods and the town bank that knew the borrowers. In the West both are now priced as utilities. In Latin America and much of Asia they are being built again, by platforms usually filed under fintech and e-commerce: logistics networks that behave like railways, and lenders that know their customers and collect repayment from the sales and earnings flowing through their own networks. Here a customer relationship counts as a real asset, but only when it is as durable, recorded, enforceable and productive as a

railway. A second part turns to developed-market railways, banks and payment networks, the benchmark the emerging-market platforms have to beat.

The Sovereign's Bargain. Grids, water systems, towers and fibre are being rebuilt on a scale not seen in generations. Regulated owners earn an allowed return on what they invest, so the build-out flows into earnings, as long as the public continues to accept the bargain. Waste collection and landfills belong here too: a permitted landfill near a growing city is as hard to replicate as a quarry, and municipal franchises and permits make the public and the state the counterparty. A second part covers concessions, where the right to operate ends on a date: toll roads, airports, water concessions and telecom carriers whose business rests on spectrum licences.

Sovereign Fortress. The peace dividend that followed the Cold War has been spent. Countries are rebuilding munitions stocks, shipyards and critical supply chains, and the capacity to do that takes years to qualify and build. The companies that already have it own something scarce. The volume also covers the strategic industry behind every other need: transformers and turbines for the grid, industrial gases supplied under long contracts, and specialty materials, where governments now act as buyer, protector and funder. Manufacturing that lives or dies on competition and the cycle stays out.

The Homestead Portfolio. Every calorie starts with land, water and nutrients, and arable land per person keeps shrinking. Farmland, timberland, water rights, fertilizer deposits and the grain networks that connect them are the most basic economics there is, and distillers with deep aged stocks turn the farm's grain into something that gains value with time. A second part covers housing, where the counterparty is the tenant and, behind the tenant, the voter.

Physical Collateral. Gold and silver are still money that no government can print, and copper and other base metals are the raw material of electrification and defence. I don't hold the metal. I own the businesses that produce it or earn from it: royalty and streaming companies that take a share of a mine's output without paying its operating costs, and low-cost producers with long-lived reserves in reliable countries. The volume also holds the humblest materials of all, aggregates and cement, where a permitted quarry near a growing city is a local monopoly.

Energy Density. Living standards rise with energy use. Dense, dependable energy from hydrocarbons and nuclear power is still needed alongside renewables, and years of underinvestment have left low-cost producers and pipelines generating cash while the market looks elsewhere.

Human Durability. Ageing populations mean rising demand for care. This volume covers clinics, outpatient centres, medical property and the suppliers of clinical and diagnostic tools, whose sales follow patients being tested and treated rather than research budgets.

A broad map doesn't mean broad buying. A sector fund owns everything in its sector at the market price. Once every volume is researched, the model portfolio holds between 23 and 37 companies, each bought only when it passes a strict price test, and no area leans on commodity producers alone: every holding after the first must own the theme through a steadier route, such as a royalty company or a pipeline.

How much goes to each area isn't a forecast. I weight each one by the share of the world's output that has gone, over decades, into the need it serves (Exhibit 11). The world spends roughly a tenth of everything it produces on health, nearly as much on energy, and more than a fifth on food and shelter. Those shares move

slowly, with ageing, urbanization and the capital already in the ground. Pension funds will recognize the logic: it is closer to a liability-driven allocation than a market-cap one, with society's spending on its own needs standing in for the liabilities.

EXHIBIT 11

How the portfolio is weighted

VOLUME	NEED SERVED	SHARE OF OUTPUT	WEIGHT
1. The Free General Partner	Capital allocation across every need	Not applicable	10%, fixed
2. Rails and Relationship Banks	Moving goods and credit	About 11.5%	17%
3. The Sovereign's Bargain	Power, water, telecom and waste networks	About 6%	9%
4. Sovereign Fortress	Security and strategic industry	About 7%	10.5%
5. The Homestead Portfolio	Food, drink and shelter	About 22%	20% (cap)
6. Physical Collateral	Materials and money	About 3.5%	7.5% (insurance floor)
7. Energy Density	Energy	About 8%	12%
8. Human Durability	Care	About 9.5%	14%

Source: Motomeru Strategies estimates from SIPRI, WHO, UCL Institute for Sustainable Resources and McKinsey Global Institute data. Volume 1 is fixed; the other volumes share the remaining 90% in proportion, with a 5% floor (7.5% for Volumes 4 and 6) and a 20% cap. Full method in the Methodology, Section 5.

Read that way, the allocation is a map of where labour and capital have to keep flowing for the physical economy to work. A society can neglect one of these foundations for a while, by underinvesting in its grid, its housing or its oil fields, but not for long, and the bill usually arrives as a shortage. Owning the foundations in proportion to how much they matter means I don't have to guess which one will be neglected next. Defence and hard money get a little more than their share. They are insurance: the world spends little on them in calm years and a great deal in a crisis, so an average of spending understates how much they are needed. Volume 1 is the exception: the holding companies allocate capital across every need, so they get a fixed share, and they take up the weight of any area where nothing passes the price test.

11 | HOW TO WIN

Seven disciplines that turn a good idea into a good investment

Choosing where to play is half of a strategy. How to win is the other half, and it is where most investors who agree with everything so far still go wrong. Exhibit 12 summarizes the seven rules I hold myself to; the paragraphs that follow explain each.

EXHIBIT 12

Seven disciplines at a glance

DISCIPLINE	THE RULE	WHAT IT PROTECTS AGAINST
Be paid for every risk	Expected return must clear a hurdle built risk by risk, under a ceiling on the cost of equity (16% in this edition)	A high forecast standing in for a high risk
Look for a floor under the price	Buy below replacement cost, appraised value or asset value	Large losses when the forecast is wrong
Count the real cost of staying in business	Real Sustaining Free Cash Flow must cover payouts	Businesses slowly running down their assets
Go where the returns are	Foreign returns are measured after expected currency losses	Discounts abroad that their costs wipe out
Measure the business as well as the price	Track costs, reserves, volumes and cash flow at constant prices	Selling a business that is still building value
Learn to sit still	Review twice a year; act only on review dates	Fees, taxes and reacting to noise
Don't lower the bar	Never buy a company that fails the test to fill a slot	A full portfolio turning into a weak one

Source: Motomeru Strategies. Full rules in the Methodology.

Be paid for every risk. Every investment has a cost of capital, meaning the return you should require given everything that could go wrong. A regulated Canadian utility is predictable, so a modest return is fair. A lender in Colombia or a holding company in Southeast Asia carries political, currency and governance risk, so it has to offer a good deal more. I build that hurdle up one risk at a time and invest only when the expected return clears it with room to spare. There is also a ceiling. If a business is so risky that its required return goes above a set limit, I exclude it however good the projections look, because at that level the forecast error is larger than the margin it claims.

Look for a floor under the price. A railway bought for less than it would cost to rebuild, farmland below its appraised value, a gold royalty below the value of the metal it is owed, or a lender below its book value with conservative marks on its loans. A floor doesn't guarantee a profit, but it makes a catastrophic loss much less likely, because if I am wrong about the future the asset is still worth something to someone.

Count the real cost of staying in business. Accountants depreciate a bridge or a locomotive based on what it cost to build, often decades ago. Replacing it today costs far more. Some businesses that look profitable are slowly running down their assets, reporting earnings while underspending on maintenance. Real estate investors know the problem as deferred capital expenditure. I correct for it with what I call Real Sustaining Free Cash Flow: the cash a business generates after maintaining its assets at today's replacement cost. A surprising number of companies that look cheap fail the test.

Go where the returns are. When credit in the West pays too little for its risk, and Western holding companies trade at full prices, it makes sense to look further afield. Discounts abroad come with costs of their own: currencies weaken, governance can be poor, and capital can get trapped. So every foreign investment has to clear its hurdle after expected currency losses, measured in the investor's own currency. Geography never defines a volume; it enters only through the premiums.

Measure the business as well as the price. A pile of metal gives you one signal, its price. When the price falls, all you can do is wait. A business gives you many signals: reserves added, unit costs reduced, volumes grown, free cash flow per share compounded at a constant commodity price. If those keep improving while the share price lags, the business is still creating value and the market hasn't caught up. As Graham put it, the market is a voting machine in the short run and a weighing machine in the long run. Owning businesses lets you do some of the weighing yourself.

Many of these businesses have operating leverage: high fixed costs, so profits swing more than revenue when prices move. That is a risk, but it can be measured the same way debt can. You can see where a producer sits on its industry's cost curve, what price it needs to break even and how its cash flow holds up at a lower price. I'm usually willing to take operating leverage in the hands of a capable, low-cost operator bought at a sensible price. I avoid it when it is combined with heavy debt and high costs.

Learn to sit still. Blaise Pascal wrote that much of humanity's trouble comes from being unable to sit quietly in a room alone.[20] Markets prove him right. Activity is mistaken for progress and paid for in fees, taxes and bad timing. A farm grows crops whether or not anyone checks its price, and a pipeline collects tolls in good years and bad. So I review holdings twice a year, on fixed dates, and do nothing in between: no trading on headlines and no reacting to a bad quarter. Each position is sized so that I never need to react, and a holding is replaced only when a clearly better candidate comes along. Doing nothing for six months at a time is deliberate.

Don't lower the bar. The model portfolio is fully invested. I treat holding cash as a forecast in disguise, and the portfolio already has dry powder inside the holding companies it owns. A fully invested portfolio is tempted to fill an empty slot with whatever comes closest to qualifying. I don't. If no company in an area passes the test, its weight goes to the holding companies in Volume 1, which allocate capital across every need, or to a low-cost fund of operating businesses in that theme. A company that fails the test is never bought to make up the numbers.

12 | OWNERS, NOT RENTERS

Businesses that look after their assets tend to be the ones still compounding

Astronauts who see Earth from orbit often describe a sudden change in perspective, sometimes called the overview effect.[21] Borders disappear, and the planet looks small, finite and fragile.

I find that image a useful corrective. Short-term finance treats the world as an endless supply of things to trade. Land, water, grids and corridors are finite, and once they are run down they are slow and expensive to restore. The best long-term owners act as stewards. A farmer who plans to hand land to grandchildren looks after the soil, and a railway that thinks in decades replaces track before it fails. I favour owners like that, and I treat deferred maintenance as a hidden debt rather than a source of profit.

Physical assets also carry physical risks. Floods, fires and droughts fall on exactly the kinds of things this series owns, and the first sign of trouble is often an insurer leaving a region. So at every review I test the portfolio against a severe event where its assets are most concentrated, and separately against a sharp rise in interest rates, which tends to hit utilities, farmland, housing and care property at the same time.

There is a personal side to this as well. Owning things you understand changes your relationship with money. You check the price less and start asking whether the grain moved, whether the rate case was approved, or whether the mine hit its targets. You become an owner rather than a spectator, and in my experience owners make calmer decisions.

There is also a reason for this work that has nothing to do with returns. In *It's a Wonderful Life*, George Bailey wants nothing more than to leave his small town and build airfields, skyscrapers and bridges. He never leaves. He spends his life at the town's building and loan instead, financing the houses that become Bailey Park, and the film's point is that this was building too. In *The Fountainhead*, Howard Roark wants to raise buildings that stand as a testament long after him. Most of us won't design a skyscraper, but the instinct is the same.

I've framed houses, helped build barns and commercial buildings, and put up wind turbines, and there is a particular satisfaction in that work. Driving past something you poured your effort into, and being able to tell your children you built it before they were born, is a feeling that doesn't fade. At a time when so much of life happens through screens, physical infrastructure you can point to is one of the clearest records of what people can do together. Owning a share of it is a way to take part: organizing capital and labour into something that will serve people long after we are gone.

A few physical assets also get larger simply because time passes. A stand of timber adds wood every year whether or not anyone checks its price, so its owner is paid in volume as well as in price. The trees can be left standing when lumber is cheap and cut when it recovers, which makes the forest its own storehouse. Timberland passes the series' tests: wood for housing is a need, the trees exist and the land sets a floor. It belongs with farmland in the Homestead Portfolio, and its bargain is with the governments that set harvest rules and trade terms. Canada's long-running softwood lumber dispute with the United States is the clearest example of that.

Aged spirits work the same way, which most people find less intuitive. A barrel of bourbon or Scotch is grain from a farm that becomes more valuable the longer it sits, even as a little evaporates each year, what distillers refer to as the angels share. Time is an ingredient in the product, and it also sets a floor: nobody can make twelve-year-old whisky in less than twelve years, so a competitor's cost of replacing the stock includes the years.

Alcohol is also one of the oldest needs in the series. In *Drunk*, Edward Slingerland argues that intoxication helped make civilization possible. By loosening the brain's controlling, goal-focused regions for a while, it helped strangers trust one another, cooperate and think more freely, which is why drinking sits at the centre of feasts, rituals and deals in almost every culture.[22] I read that as the pattern McGilchrist describes, with the narrow mode of attention giving way to the broader, social one. Tastes move from beer to wine to spirits and from one style to the next, but the need has lasted for thousands of years.

The risks are in the bargain and the balance sheet. Few products are taxed, licensed and argued over by the state as consistently, and the United States tore the bargain up entirely with Prohibition from 1920 to 1933. Distillers also fail when they borrow to produce spirits for a boom that fades, as Scotch makers did before the closures of the 1980s. A bust like that usually sets up the next shortage, because aged stock that was never laid down can't be made quickly. The owner with little debt, who can keep filling barrels through the downturn, collects the reward at the other end. The lesson carries across the whole series: some of the best

returns in the physical economy go to owners who can afford to wait, and only to those who are never forced to sell.

The oldest example I know of a bargain kept that long sits in Augsburg. In 1516 Jakob Fugger, the richest banker of his age, founded the Fuggerei, housing for the town's working poor. The annual rent was set at one Rhenish guilder. It is still the equivalent of that guilder, today about 0.88 euros, and the foundation he endowed still runs the settlement five centuries later.[23] Fugger's fortune came from mining, lending and the bargains he struck with emperors and popes, and much of that wider empire did not last. The Fuggerei did, because its terms never gave tenants, the town or the church a reason to tear them up. It is the archetype for the housing release for that reason: the most durable return on shelter comes from a rent the tenant will keep paying.

Some capital is meant to outlast the people who manage it. Families that think in generations, endowments, foundations, and pension funds with obligations stretching past the working lives of their trustees share one problem: they must earn a real return they can spend from, year after year, without ever being forced to sell at the bottom. Endowments and foundations commonly spend around 4% to 5% of their assets a year,[24] so the portfolio has to earn at least that after inflation simply to stand still.

Dynastic capital has an advantage most institutions envy: no quarterly benchmark and no redemption queue. This series is built to use it. It owns needs that have lasted for centuries, asks whether each bargain is fair enough to last, avoids the debt that turns owners into forced sellers, and acts only twice a year. Many of the holding companies in Volume 1 are themselves dynastic capital, families that have compounded through wars, depressions and successions, and owning alongside them is one of the oldest ways to borrow their patience.

13 | THE CASE AGAINST

The strongest objections, put as their advocates would put them, and my answers

An investment approach that can't stand up to its best critics isn't worth much. These are the objections I take most seriously.

"Markets are efficient. Prices already reflect what you know."

Markets are very good at pricing information that is widely available and easy to process. They are less good at pricing things that need patience, judgement across several fields, or a willingness to look wrong for a while. Professional investors work under benchmarks, quarterly reviews and the career risk of owning something unfashionable, and those pressures leave lasting blind spots. Markets are also only as efficient as the people actively pricing them. Every passive dollar relies on someone else having done the work, and if everyone indexed, prices would stop carrying information.

"Most professionals fail to beat the index. Why would you succeed?"

This is the strongest objection. Over long periods most actively managed funds trail their benchmarks.[25] The reasons are well understood: high fees, high turnover, and portfolios so broad that they become expensive copies of the index. An independent researcher can avoid most of those, with no asset-based fee, a

concentrated portfolio, trading only twice a year and the freedom to look where institutions can't. That doesn't guarantee anything, but it removes the specific reasons most professionals fall short, and the results are measured in a way that shows whether it worked.

"One year of results proves nothing."

Agreed, and the program is designed around it. The first year measures whether the process was followed: releases on time, rules applied as written, every change dated and explained. Judging selection skill needs at least five years of results and a factor attribution that separates skill from exposure. The first full five-year read falls on 31 December 2031, the same year the portfolio's weights are next revised. Anyone who wants proof before then should treat this as a public experiment and watch it, which is what it is.

"Then buy the equal-weight index."

That fixes the most obvious problem, the pile-up in whatever is most popular. But an equal-weight fund still buys all five hundred companies at whatever they cost, the overvalued along with the undervalued. It changes how much of each company you own without asking whether any of them is worth buying.

"America is the engine of the world. Why bet against it?"

Much of that is true. The US has deep capital markets, strong property rights, an entrepreneurial culture and many of the world's best companies, which is why the rules allow up to half the portfolio in a single top-tier country. But the question isn't whether America is a great economy. It is whether American shares are a good investment at today's prices, which already reflect all of that. Japan in 1989 was also described as the unstoppable engine of the world economy, and much of that was true too. A great country and a good price are different things.

"Then a global 60/40 portfolio, diversified across everything."

This is the most sophisticated passive answer: global shares for growth, bonds for stability. It worked very well through a long period of falling interest rates, because bonds tended to rise when shares fell. That relationship broke in 2022, when inflation returned and both fell together. A simple US 60/40 mix lost about 16% that year, one of its worst results in decades.[26] When inflation is high, the bond half can stop cushioning losses and add to them.

"Private real assets diversify. Listed real assets are just equities."

Partly true. Over short periods listed owners of real assets move with the stock market, and anyone who needs a smooth quarterly mark will find them uncomfortable. But much of the apparent calm in private real assets comes from appraisal smoothing rather than from the assets themselves (Section 9).[18] Over long periods the cash flows decide the return in either wrapper. The Base Layer reports its own drawdowns, correlations and inflation pass-through at every review, so readers can see how the listed version behaves rather than take my word for it.

EXHIBIT 13

The passive alternatives, and what each leaves unfixed

APPROACH	WHAT IT FIXES	WHAT IT LEAVES UNFIXED
Cap-weighted index	Cost, simplicity, broad ownership	Buys more of whatever is most expensive; never judges price
Equal-weight index	Concentration in the largest names	Still buys every company at any price
US large caps only	Exposure to the strongest institutions	Pays the premium those strengths already command
Global 60/40	Spread across countries and asset classes	Relies on bonds offsetting shares, which fails when inflation rises
Value or quality factor fund	Judges price systematically, at low cost	Hundreds of names on past ratios; can't see moats, succession or replacement cost
Cap-weighted real-assets fund	Chooses where to play	Owns every company in its sector at the market price; leaves out how to win
Base Layer	Prices each risk; buys only below estimated worth	Lags in calm, low-inflation booms; takes work and patience

Source: Motomeru Strategies. Opinions of the author.

There is a deeper reason the old balance may not come back. Most Western governments carry debt near or above the size of their economies and run large deficits even in good years, and with money tied to nothing physical there is no natural brake. A heavily indebted government has four options. It can cut spending or raise taxes, both of which are politically painful. It can default, which is almost unthinkable for a country that borrows in its own currency. Or it can let inflation run above interest rates for years. The last option is gradual and rarely announced. Economists call it financial repression, and it is how the United States and Britain worked down their Second World War debts.[27]

The cost falls on savers, whose cash and fixed-rate bonds lose purchasing power while looking perfectly safe on a statement, and on institutions whose obligations rise with prices. The likely beneficiaries own cash flows that can rise with prices: inflation-linked rate bases, toll corridors, metal royalties, productive land, low-cost producers, and businesses that sell things people buy whatever the price. Those are the kinds of businesses this series covers, and they benefit only for as long as the bargains behind them hold.

This view could be wrong. Governments might find the discipline to cut deficits. A real productivity boom, perhaps driven by artificial intelligence, could let economies grow out of their debts. And inflation doesn't pass through perfectly, as heavily indebted utilities and property owners found when rates jumped in 2022. So the framework doesn't depend on the forecast. Its valuation, cash-flow and debt rules apply in any environment, and financial repression would be a tailwind rather than a bet I need to win.

EXHIBIT 14

Where each volume tends to do best

Growth runs from weak (left) to strong (right); inflation from high (top) to low (bottom)

Stagflation Physical Collateral: royalties, precious-metal producers Energy Density Homestead: farmland, water	**Inflationary boom** Energy Density Physical Collateral: base-metal producers Rails and Relationship Banks Homestead: fertilizer, grain
Deflationary bust The Sovereign's Bargain Human Durability Free General Partner: discretionary allocators	**Disinflationary growth** Free General Partner: serial acquirers Most other volumes lag here The 2010s pattern

Source: Motomeru Strategies. Placements are tendencies, not rules. Sovereign Fortress sits outside the grid: defence budgets and industrial policy, more than the cycle, drive its demand.

"Real assets lagged for a decade."

They did. Through much of the 2010s, with interest rates near zero and low inflation, asset-light technology outperformed nearly everything physical. Exhibit 14 shows the exposure: most of these volumes have tended to do best with inflation or scarcity, and the approach is weakest during long, calm, low-inflation booms. Anyone who can't tolerate years of trailing the index shouldn't follow it, and it is better to know that at the start.

"Isn't this just factor investing with extra steps?"

A professional reader will make this point, and it is partly right. Factor investing, often sold as alternative or smart beta, buys hundreds of stocks with a shared trait, such as cheapness or high profitability, and rebalances by rule. This approach borrows some of that machinery: published rules, a ranking score, equal weights and fixed review dates. It will also carry familiar factor exposures. Buying below estimated worth means value. Insisting on real cash flow and strong balance sheets means quality and conservative investment. Buying what is out of favour probably means negative momentum. And it carries sector and inflation exposures a fund could copy.

The difference is in the inputs. A factor fund screens hundreds of companies on past accounting ratios. The Base Layer holds 23 to 37, judged on forward estimates, replacement costs, look-through asset values and a cost of capital built for each company, and on things no screen can see, such as how durable a moat is, a family's succession plan, or a written reason to sell. The closest label is systematic fundamental investing, rules-based in structure and judgement-based in its inputs.

Whether that judgement adds anything is a question the numbers can answer, so I report it in public. Each year I split the model portfolio's return into the part explained by value, quality, low volatility, momentum, sector and regional exposure, and the part left over, and I compare it with a portfolio of low-cost factor funds built to match. If the leftover isn't positive over time, readers will see that they could have had the same result more cheaply. Few active managers publish that comparison.

"This depends on one analyst."

Key-person risk is real, and institutions are right to ask about it. The answer is the rulebook. The rules in the Methodology are written so another analyst could apply them and reach an answer that can be checked, every release records its inputs, and every judgement call is published as a veto or a kill criterion. A process that can be audited can also be inherited.

"Your history is cherry-picked, and this takes real work."

I'm not offering those episodes as proof that the index will fail, only as evidence that the conditions behind its success aren't guaranteed. The test that matters looks forward and is public. The rules are published in advance, results are benchmarked against the index and against cheap factor funds, and they are reported whether they flatter me or not. And yes, it takes work, along with the nerve to do nothing for six months at a time and to buy when the headlines are frightening. For many people the index is still the right answer.

"The tech giants are becoming physical companies. Why not own them?"

They are becoming physical. Alphabet, Amazon, Meta and Microsoft now spend several hundred billion dollars a year between them on data centres, power contracts, land and chips, more capital than most utilities and railways. They still don't belong in this series. Their main risk is whether that spending earns a return, which depends on technology and adoption rather than on a bargain, and much of what they buy, chips above all, loses its value in a few years instead of holding it for decades. That fails the tests that give the rest of the series its floor.

They matter to the series in two other ways. They are now among the largest customers of the base layer, buying power, land, water, transformers and fibre, and a supplier that builds for one customer's boom carries the risk that the boom fades, as the fibre builders of 2000 found. In places they are also competitors, in logistics, payments and parts of health care. So every release asks how much of a company's revenue depends on the largest technology companies, and whether any of them could take its customers. The answer goes into the counterparty premium.

Renting the economy

Every passive alternative has one thing in common. Cap-weighted, equal-weighted, US-only, global or 60/40, each buys a slice of overall economic growth at whatever price the market charges, and over time that average has become the benchmark everyone is measured against. I'm not convinced it is a good one. It tells you how the average dollar did, not whether your purchasing power held up or your obligations were met. It also cuts both ways: in good years you collect your share, and in bad years you take your full share of the losses.

There is a difference between renting the whole economy at the market's price and owning its foundations at yours.

Most investment advice is shaped by who pays for it

Very little of this paper matches what the financial industry usually tells people. I don't think that is an accident.

Charlie Munger used to say that if you showed him the incentive, he would show you the outcome.[28] Exhibit 15 applies that to the advice most investors receive, private and institutional.

EXHIBIT 15

Who pays for investment advice, and what it rewards

SOURCE OF ADVICE	WHO PAYS	WHAT THE INCENTIVE REWARDS
Sell-side research	Investment banks, through trading and deal fees	Coverage of deal clients, and trading activity
Active fund managers	Investors, as a percentage of assets	Staying close to the benchmark, and keeping assets
Many advisers	Product fees and trailing commissions	Moving money into managed products
Investment consultants	Institutional clients, by retainer or mandate	Recommendations a committee can defend, often the ones peers already hold
Private fund sponsors	Investors, through management, performance and transaction fees	Raising and deploying capital
Reader-funded research	The reader	Being useful to the reader

Source: Motomeru Strategies. Opinions of the author.

Most of the people in those roles do their best within the system they work in, and I have worked inside several of them. But the system rewards caution, sameness and activity. A committee rarely gets fired for owning the benchmark or the manager everyone else hired, and private vehicles can carry several layers of fees between the asset and the beneficiary. None of that is sinister. It is what incentives produce.

It has also made investing look more complicated than it is. The products multiply, the vocabulary grows, and the message stays the same: this is dangerous, so leave it to us. Many investor-protection rules are well intended, but they tend to reinforce that message. The cost seldom shows up as one large bill. It shows up as a layer of fees compounding against you for decades. Yet the core questions are no harder than the ones a business owner answers every week: what does this cost, what will it return, what could go wrong, and can I afford to be wrong?

In 1845 Henry David Thoreau borrowed an axe, walked into the woods beside Walden Pond and built himself a small house. In *Walden* he lists what it cost, down to the nails and the chalk, and the total came to a little over twenty-eight dollars.[29] He wasn't arguing that everyone should build their own home. He was showing that a person who understands every part of something is harder to fool and harder to break. His friend Ralph Waldo Emerson called the same instinct self-reliance.

Working through every part is rarely the most efficient route, but it is how you learn what is worth doing yourself and what is worth paying someone else to do. I hire electricians and am happy to visit a specialist

when dealing with a health concern. Handing over every decision about long-term capital is different. It is the one job where the person you hire is often paid more for activity or assets than for results, and where not understanding the work can cost you for decades. You don't have to build the whole cabin yourself, but you should know how it stands up.

Research paid for by the reader changes the incentive, because the only way to keep earning is to be useful to the person reading, whether that is a household, a family office or an investment committee. I want this research to be checked rather than trusted. The working rules are published in advance in the Methodology. Results will be compared with the index you could have bought instead, including in years when the index wins, and every thesis has written criteria for what would prove it wrong.

None of this is new. It draws on Graham's margin of safety, Warren Buffett's use of a holding company as a permanent owner of businesses, and the real-asset holdings that large endowments, pension funds and family offices have kept for decades. What is less common is applying it consistently, in public, where anyone from a household to a pension committee can check the work.

The phrase "paying the piper" has an older and darker source. In the legend of Hamelin, a piper rid the town of its rats for an agreed fee. Once the rats were gone, the town refused to pay. The piper played again, and the town's children followed him away and never came back.[30] It is a story about a community that takes the service and refuses the price.

Capitalism depends on bargains being kept, the same idea that runs through Section 8: savers rewarded for waiting and risk-takers paid for the risks they carry. Inflating away what savers are owed, or teaching a generation that ownership is rigged and judgement pointless, is the town going back on its word. The cost won't come as a bill. It will come as young people who stop believing in ownership and follow someone else's tune.

> **THE FIVE-QUESTION TEST**
>
> Try this on the five largest holdings in your portfolio today, or the five largest assets in a real-asset allocation.
>
> 1. What does this business or asset physically own or do?
> 2. Would the world notice, and suffer, if it disappeared tomorrow?
> 3. What would it cost a competitor to build it again from scratch?
> 4. What am I paying for each dollar of cash it produces after maintaining its assets at today's cost?
> 5. What would have to be true for this investment to work, and how confident am I that it will be?
>
> If you can answer all five with confidence, you already think like an owner. If you can't, that is the gap this research is meant to fill.

What you own, and why it matters

I started by asking what you actually own.

The index gives one answer: a little of everything, at whatever price the crowd sets, for as long as you hold it. That is a reasonable bargain for people who want to think about money as little as possible, and I don't think they are foolish to take it.

This series gives another answer. Own fewer things and understand them. Own what the world can't live without, from energy, food, shelter and metals to corridors, grids, defence and care. Be paid for every risk you carry, including the risk that the bargain behind an asset is rewritten. Buy only at a price that survives being wrong, and don't lower the bar to make up the numbers. Then be patient, and let time and steady demand do the compounding.

It also gives something the index can't: a map. Each release records, for every company screened, the return the market is offering and the return the risks require. At each review those readings are published as a Spread Map, by volume and by jurisdiction. A persistently wide spread shows where capital is scarce, and this paper argues that is where shortages begin, years before they arrive. The gap between the counterparty premium history suggests and the one today's prices imply shows where the market fears a bargain is breaking. Over time the map becomes a record of how secure each foundation of the economy looks to the people paying for it, and the model portfolio tests whether a patient owner can actually earn what the map shows.

I also hold all of this loosely. In Martin's terms a strategy is a set of bets about what would have to be true, and the twelve releases of 2027 are where these bets get tested. The research into each volume may move a boundary, change a weight or show that a thesis is wrong. When it does, I'll change the framework in a dated edition and explain why, rather than bend the research to fit it. The 2027 Research Plan and the Methodology set out exactly how.

Market fashions will keep changing. The need for heat, light, food, shelter, water, freight, security and care won't. The next time someone tells you there is no point thinking about where your money goes, you will know what would have to be true for their approach to work, and for yours.

NOTES

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THE BASE LAYER DOCUMENTS

DOCUMENT	WHAT IT COVERS
Own What the World Can't Live Without (this document)	The thesis: why own the physical foundations of the economy, and what decides whether owners do well
The 2027 Research Plan	The twelve releases, month by month, and how the year will be measured
The Base Layer Methodology	A working guide to selection, valuation, portfolio construction, selling and accountability

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