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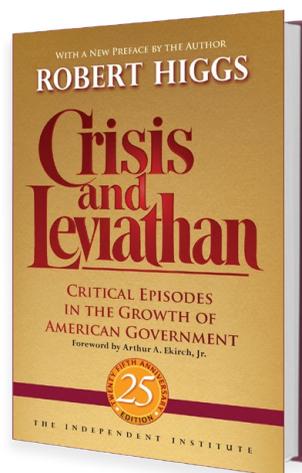
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REFLECTIONS

The New Wall Street and the High Cost of Manipulating Money



GEORGE GILDER

Wall Street's Triumph over Main Street

The current world monetary and economic system favors Wall Street's currency regime over both Main Street and Silicon Valley. Once offering a wide range of research, analysis, and support for the independent enterprises of America, the new Wall Street simply means giant banks informally nationalized by Washington, D.C., in behalf of a system of manipulable currencies trading at a rate of \$5.1 trillion per day that stultify and retard international commerce. Some seventy-three times larger than all trade in real goods and services, this chaos of floating currencies inflicts arbitrary damage on real businesses around the globe.

Capriciously defined and traded by banks, this ocean of fluctuating monies has even rendered international trade a political liability and resulted in a worldwide outbreak of economic nationalism, as changes in currency values dwarf all real differentials of comparative advantage. A case in point is the opposition to the North American Free Trade Association (NAFTA), which is chiefly an effect not of free trade but of an 87 percent drop in the value of the Mexican peso, from 34 cents to less than a nickel, even though the Mexican economy has actually improved since the pact was enacted in 1994.

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In the midst of this global turmoil, Goldman Sachs, Morgan Stanley, UBS, Deutsche Bank, Citibank, JP Morgan Chase, and their ilk—eminent institutions all—are full of dazzling financial prestidigitators. But they are too big to fail and too dependent on government to succeed. Their horizons are too short to enable the falsifiable knowledge that alone constitutes entrepreneurial wealth and growth. They now make profits chiefly through what they call “proprietary trading,” with a time horizon measured in minutes and weeks rather than in years and decades. They impart liquidity but not learning. They are profitable because of a vast transfer of wealth away from workers and savers toward bankers.

These institutions have accepted an insidious bargain where they thrive by serving government rather than entrepreneurs. Under the current zero-interest-rate policy, the dollar has thrived as a haven in a tempestuous world. But Washington has vitiated savings as a source of income, and it has rewarded financial manipulation over entrepreneurial investment and learning. Government policy now favors the short-term arbitrage and rapid trading of the big banks and multinationals over the long-term commitments that create employment and growth. Shrinking the horizons of economic activity, the result of currency chaos is a predatory zero-sum economy that destroys the jobs and depletes the incomes that sustain Main Street and the middle class.

For most of us, wildly changing prices and currency values are a menace. They confuse enterprise and learning and thwart the enduring commitments and investments that shape our lives and prospects. But the new Wall Street and its computer-driven trading benefit massively from volatility. Gyration of currency values and stock movements, whether up or down, mean opportunities for arbitrage, hedges, and fast trading. The new Wall Street harvests these gains through cheap borrowing from the Federal Reserve and accelerated cyberbuying and shorting of currencies and securities.

The new Wall Street wants volatility, with the downsides protected by government. Main Street and Silicon Valley want stable currencies for the benefit of work, savings, and long-term investment, with the upsides protected by the rule of law.

The new Wall Street mostly welcomes Luddite environmental regulations that thwart manufacturing and promote litigation. But regulatory overreach and litigation paralyze Main Street and all but the lawyered leviathans of Silicon Valley.

The new Wall Street revels in the spiral of guaranteed loans to college students that expand the ledgers of banks and the investible endowments of universities. Main Street and Silicon Valley suffer from the debt-driven flight from marriage and entrepreneurship of entire generations of debt-burdened college graduates (or, worse, nongraduates) (Konczal 2014).

Favoring financial power over entrepreneurial knowledge, these government policies have crippled the U.S. job machine that led the world in the 1980s and 1990s and sustained income growth for nearly all Americans (Eberstadt 2016, figs. 1.3 and 4.2, showing international comparisons).

Over the past twenty years, initial public offerings (IPOs) that create new jobs and prosperity have sharply declined compared to mergers and acquisitions that by comparison tend to shrink employment growth. In the 1990s, there were twenty IPOs for every merger and acquisition; since the turn of the century, there have been eight merger-and-acquisition events for every IPO (Gao, Ritter, and Zhu 2013). Not only are large companies buying up their own shares, but they are also buying up the shares of their potential competitors. With the number of shares shrinking by some 50 percent since 2008 and the number of rivals dropping, the value of the surviving companies moves up—hence the stock-market “boom” amid economic doldrums. But the benefit to elite-company stock values comes at the cost of a stagnant economy, without new company competition and learning, jobs, and growth.

By favoring a volatile environment of rapid trading, shorting, indexing, and arbitrage, current monetary and economic policies cultivate a hypertrophy of finance. Since 2008, the United States has seen a 30 percent rise in the financial share of gross domestic product (GDP), with as much as 40 percent of profits going to the financial sector (Greenwood and Scharfstein 2013; see also “The 5 Percent Solution” 2012).¹ But falsifying the yields of all this bloated banking is a maze of government guarantees and subsidies, regulations and privileges. If government guarantees an investment, it is not falsifiable and cannot yield learning or economic growth. Helping at once to disguise and enforce this covert nationalization have been fines and fees for alleged offenses that mount to a total of some \$300 billion since 2008.

The most prestigious vessels in the finance industry now shun any serious attempt to fund the real economy’s industries and learning curves. Apart from providing liquidity, the short-term trading activities that prevail in the financial world yield virtually no new knowledge and thus are exploitative of wealth rather than creative of it.

Part of the problem is what should be called the “outsider trading scandal.” Hounded by government insider-trading witch hunts and “fair-disclosure laws,” investors must follow the government rule “Don’t invest in anything you *know* about.” For the public, the only investment idea that governments devoutly support is “Invest in the state lottery, where no one knows more than you do.”

Outside traders use market statistics and quarterly earnings correlations to guide ever more evanescent transactions. Because entrepreneurial learning comes from deep inside companies and requires intimate special knowledge, bans on insider trading or knowledge impel investors away from close company analysis and productive finance. In the face of the mazes of protean Securities and Exchange Commission (SEC) rules and computerized investigations, it is simply foolhardy for a bank or hedge fund to base its public investments on real unique inside knowledge. Nearly anyone who

1. The peak came in 2007, but reports suggest a return toward these levels in 2014. See also Janszen 2010, which maintains that “the entire economic system has been glued together by one profound fantasy: ‘Finance can substitute for production and credit for real savings’” (36).

understands a company is barred from investing in it. Basically prohibited from buying shares in the companies they know best, for example, are members of company boards of directors, who can always be judged to possess some incriminating inside insight. They are safe only if they lose money.

The SEC astoundingly favors boards that know nothing about the companies they rule and have no stake in them. Lawyers and accountants proliferate. In an economy increasingly governed by information flows, the SEC thus suppresses learning and knowledge and stultifies investment. It pushes money into the hands of arrogantly ignorant outside traders.

Under this fatuously self-defeating regime, the returns have migrated to large conglomerateurs and private-equity players who benefit from perfectly legal insider trading in every one of their investments. Warren Buffett's Berkshire Hathaway and Jeffrey Immelt's General Electric, two prominent examples, are not real corporations but legal insider traders who allocate investment among diverse company holdings that they understand intimately. Similarly, venture capitalists and private-equity players never make an investment without intimate investigation of every inside nook and cranny.

Guided by deep inside knowledge, venture capital is the most valuable money in the economy. Launching learning curves across a wide span of innovations, venturers have seeded companies that now produce some 21 percent of GDP, 65 percent of market capitalization, and a probably underestimated 17 percent of all jobs (Thiel 2014).

But venture capital represents a tiny proportion of less than two-tenths of one percent of total capital. Mostly barred from venture capital or private equity, the public at large is widely counseled to invest their money in "index funds." These funds yield no more knowledge and learning than the state lotteries do. Purchasing a sampling of all the stocks in the market without any research on specific companies, indexers give the public some exposure to the gains of the insider-trading conglomerateurs. But they provide less than no benefit to the learning processes that create growth and wealth. Index funds are parasites on the research done by actual investors.

Index funds are even worse than they look because they base allocation not on the investment's expected yield but on market capitalization.² As companies grow overvalued, they become an ever-larger share of the holdings of the funds. The anomalous rise of Apple to the status of the world's most valuable corporation saved the careers of thousands of managers. Momentum prevails until it stops. But as economist Charles Gave of GaveKal puts it, "In a true capitalist system, the rule is the higher the price, the lower the demand. With indexation, the higher the price, the higher the demand. This is insane" (2014a, 4).

Yet as pioneered by the much-lauzeled John Bogle at Vanguard and favored by the SEC's insider-trading phobias, these parasitical and distortionary index funds

2. See the Vanguard Funds website at <https://about.vanguard.com/who-we-are/fast-facts/>.

directly extinguish knowledge and learning in the economy. Vanguard now passively “manages” more than \$3 trillion of assets with zero contribution to the investment process. Rather than investing in the market, it parasitically infests and congests that market. It does not improve the situation by sanctimoniously criticizing the fees of actively invested funds that actually work for their money.

Dwarfing all positive investment by “insider traders” and knowledge brokers are the financial power brokers in the major banks. Thriving through leverage and arbitrage, fast trading and risk shuffling, they have long had access to virtually unlimited funds at near zero interest rates and have for the most part been anointed by the government as too big to fail. In effect, the federal government through the Federal Reserve Bank and scores of other regulators has socialized the downside of these institutions, which has enabled them to do what they call “creative risk taking.” But what in fact they do is a cockeyed extension of ever more cantilevered loans and compound securities with only tiny slivers of actual equity at risk. Real entrepreneurial risk taking is totally unrelated to mere hypertrophy of leverage with implicit government guarantees.

A huge portion of this trading depends on the monetary carnival of floating currencies, 77 percent of which is done by just ten large banks. Let me repeat the amazing numbers: according to data just released by the Bank for International Settlements, the international currency trading desks shuffle some \$5.1 *trillion* in currencies every twenty-four hours. Currency trading is close to a hundred times the trading volume of all the world’s stock markets put together and recently was seventy-three times the volume of international trade in goods and services.³

Funded by low interest rates and riding on volatility, this speculative frenzy often consists of value-subtracted interventions in global markets. George Soros has several times scored multi-billion-dollar paydays by betting against some imperiled currency, from the British pound and the Thai baht to the Indonesian rupiah. Benefiting from the volatility of prices and currencies and backed by government policy, these outside-trading financial players contribute virtually nothing to the growth of knowledge and learning in the economy. Their profits thus come at the expense of Main Street and the global middle class and the reputation of capitalism.

During the doldrums decade of the “Dot Com” crash and the great financial recession from 2000 to 2010, the socialized big banks feasted on near zero-interest-rate money from the Fed, bought many trillions of dollars’ worth of government bonds, and harvested the spread. From the Fed, they received more than a trillion dollars in surreptitious largesse. For their services to the government amid a failing economy, bankers paid themselves salaries and bonuses estimated to total \$5 trillion over ten years, or one-third of an entire year of national GDP (Taleb and Spitznagel 2011).

3. The triennial data were released early in November 2016 (see Todorov 2016). Detailed data from 2013 can be found in “OTC Foreign Exchange Turnover” 2014. The estimate of currency trading as seventy-three times all trade in goods and services, based on data from 2008, comes from Turner 2016, 25.

These gains for bankers and governments were defrayed by the taxpayers and shareholders and even retirees through the zero-interest-rate policy. When something is free, as Donald Trump’s adviser, economist David Malpass, points out, only the well connected get much of it. Main Street is far back in the queue. Zero interest rates resulted in easy money for high-leveraged Wall Street speculators, cheap money for the government, and parched credit for entrepreneurial small businesses that generate nearly all new jobs and learning.

Information Theory, Knowledge, and Wealth

One of the canonical advances of twentieth-century science was information theory, the underlying system of ideas behind the computers and networks at the heart of the modern economy. It began with Kurt Godel’s softwarelike demonstration in 1931 that all logical systems depend on axioms outside the system itself. Though a disciple of David Hilbert’s agenda for mathematical completeness at the time, John von Neumann was the first to recognize the decisive importance of Godel’s proof in 1931 that all logical systems are intrinsically incomplete. Von Neumann went on to cite this “incompleteness theorem” when he invented his computer architecture and asserted its dependence on human programmers. In 1948, Claude Shannon at MIT and Bell Labs expanded these ideas into a mathematical scheme. At the time, von Neumann suggested that Shannon name his information metric “entropy” because its equation was nearly identical to the equation for thermodynamic disorder. Shannon’s information metric was measured by its surprise, or unexpected bits, another kind of disorder.

By enabling the measurement of data, information theory now shapes all the computers and networks of our information economy. Thus, it provides a useful model for the operations of a modern capitalist economy, where creativity is defined as surprise and wealth is essentially the accumulation of knowledge. Economic growth is a process of falsifiable learning by entrepreneurs who conduct business experiments to expand economic knowledge.

The MIT professor Cesar Hidalgo sums up the theory of wealth as knowledge in an analogy to an auto accident: If an expensive car crashes into a wall, all the information and value disappear even though all the car’s atoms and molecules remain. Value is information. The car is knowledge (2015, 12). Nearly all the information in an information economy depends on money as a metric transmitting the significance of prices. When money becomes merely a reflection of the policies of central banks, it can no longer guide enterprise or international trade.

Velocity is frequency in money—how many times a dollar turns over in a year. This makes money, by analogy, a wave phenomenon. Because the power of a wave rises with the square of its amplitude, large and long investments would be exponentially more significant than a series of small trades. Wavelets would be exponentially less potent than tsunamis. Thousands of fast trades do not add up to a program of high-impact investment for the economy.

In terms of information theory, where information and surprise are measured as “entropy,” small and temporary anomalies are unsurprising and low entropy. Profits that reflect mere leverage or borrowing power do not usually contribute to the learning process. They reveal willingness to accept a level of calculable risk rather than singularities of creative learning. Such profits are predictable and thus low entropy.

Nobel physicist Robert Laughlin’s (2006) critique of the science of frothy phase changes has an analog here in the currency traders’ search for momentary correlations. Parsing the chaotic ebullition of water as it comes to a boil, for example, is a fool’s errand called “chaos theory.” As Claude Shannon knew, *in principle* a creative pattern of data points—reflecting long and purposeful preparation and invention—is indistinguishable from a random pattern. Both are high entropy. Parsing of random patterns for transitory correlations fails to yield new knowledge. You cannot meaningfully study the ups and downs of the market with an oscilloscope. You need a microscope to explore inside the cells of individual companies.

Currency values should be accurate and stable and reflect the scarcities inherent in all economic activity. In an economy of abundance, the ultimate scarcity—what remains scarce when everything else becomes bountiful—is *time*. In information theory terms, prices translate this ultimate scarcity into the guiding information in an economy of learning and knowledge. Prices should function as low-entropy carriers for high-entropy creations. But the oceanic currency markets are full of Laughlin froth to be parsed by computers for short-term anomalies. With leverage, these trades may accumulate to massive profits. But these profits do not contribute much to the processes of entropic learning that constitute all economic growth in an economy of knowledge.

The trading in currencies has massive impacts on emerging markets in which the trading excursions are large in comparison to the total supplies of a national currency. As Soros (1995) himself recognizes, his tragicomic currency trades, jeopardizing entire national economies and then nobly saving them when opportune, are an absurd aspect of the hypertrophy of finance. Protecting these invasive trades from more scrutiny is only the fetishistic belief of economists in floating currencies run by central banks and husbanded by international organizations of witless experts.

A monetary reform that ties currencies back to the ultimate economic scarcity of time could free banks from their current trivialization as government tools and endow them again as crucial vessels of investment. In any banking system, the reason the maturities do not match is the divergence between the motivations of savers and the sources of the value of savings. Savers attempt to preserve their wealth in a liquid form, where they can retrieve it whenever they wish. But the laws of irreversible time ordain that money cannot stand still or uncommitted without losing value.

For its perpetuation and expansion, the wealth in banks is utterly dependent on long-term investments in perilous time-based processes of learning—real investments in companies and projects that can fail and go bankrupt at any moment. The role of banks is to transform the savers’ quest for security and liquidity into the entrepreneurs’

necessarily long-term illiquidity and acceptance of risk. When banks do not perform this role, economic growth flags, and stagnation prevails, as Robert Gordon (2012) and Larry Summers (2014) observe.⁴

How Unmoored Money Has Wrecked the Economic System

Explaining the sources of Britain's world dominance in nineteenth-century trade in his book *Lombard Street* (1873), Walter Bagehot pointed to the vast agglomerations of capital in London banks: "A million in the hands of a single banker is a great power; he can at once lend it where he will, and borrowers can come to him, because they know or believe that he has it. But the same sum scattered in tens and fifties through a whole nation is no power at all: no one knows where to find it or whom to ask for it. Concentration of money in banks, though not the sole cause, is the primary cause which has made the money market of England so exceedingly rich, so much beyond that of other countries" (2).

"Banking is a profitable trade," he concluded, "because bankers are few and depositors myriad. . . . No similar system arose elsewhere and in consequence London is full of money and all continental cities are empty as compared with it" (42).

The nineteenth-century sage also warned against bailing out banks. "The cardinal maxim [of banking policy]," he wrote, "is that any aid to a present bad Bank is the surest mode of preventing the establishment of a future good Bank" (40).

And he commented on the anomaly of central banking: "A bank of issue, which need not pay its notes in cash, has a charmed life; it can lend what it wishes, and issue what it likes, with no fear of harm to itself, and with no substantial check but its own inclination" (127).

Bagehot had many ideas for a more ideal system, but he concluded: "A system of credit which has slowly grown up as years went on, which has suited itself to the course of business, which has forced itself on the habits of men, will not be altered because theorists disapprove of it, or because books are written against it" (127).

His final observation remains hard to deny: "Dependence on the [central bank] is fixed in our national habits" (127).

There is a difference between the banking situation in Bagehot's time and the situation in our time, however, and it is utterly vital. Bagehot was writing of Britain under Isaac Newton's gold-standard and time-bound system of the world. The currencies that central banks manage today have no anchor in gold and thus suffer from the same self-referential circularity that imperils all logical systems unmoored to outside foundations of reality. In the United States, unmoored money can be manipulated at will by the Federal Reserve in the interests of its sponsors in government and their pseudoprivate cronies.

4. Gordon expanded on his argument in *The Rise and Fall of American Growth: The U.S. Standard of Living since the Civil War* (2016).

These manipulations bring huge transfers of wealth. With government guaranteeing the large banks but not the small ones, the leviathans can expand their leverage and transform small and temporary arbitrage opportunities into outsize profits. Floating money thus changes the culture of capitalism. By unmooring money, the governments of the world ended up favoring finance over enterprise and shortening the horizons of the economy.

These policies collectively erode the incomes and opportunities of what class-conscious academics call the middle- and lower-income groups but what in fact are all the denizens of the real economy of time-based transactions and investments. Registering these effects is the rise in the living costs of the lower strata compared to those of the higher ones. Composing the bulk of the costs of the poor and middle are necessities such as housing, food, health care, and fuel. As Charles Gave (2014b) has calculated, the period since the year 2000 has been marked by a sharp rise in food, rents, health care, and fuel prices compared to the broader Consumer Price Index (CPI).

The gap between the CPI and Gave's (2014b) "Walmart CPI" expresses the differential impact of monetary policy on the rich and on the poor and middle cohorts of earners. This difference represents a regressive tax on the relatively poor. Measuring the tax is the difference between the two indices of inflation. Deflated by the CPI, median family income has dropped roughly 5 percent since the year 2000—as compared to roughly 17 percent when deflated by the Walmart CPI. Because the lower-income groups command few assets—stocks and bonds—they have gained scant if any benefits from the new policy. Although bonds do not yield significant income for small savers, the descent of interest rates to near zero has imparted huge wealth effects for long-term bond holders. Meanwhile, also doing well has been a tiny minority that feeds on volatility for outsize financial earnings largely guaranteed by government.

This process of immiseration of the middle and lower classes now threatens our entire economy. Washington bureaucrats may enjoy using debt at near-zero rates to finance their ethanol and windmill subsidies, manipulative medical insurance splurges, agricultural bribes, and early-retirement bonanzas. They may think they can promote exports by depleting the dollar and blaming the Chinese. But the costs mount as the middle class faces a rising crunch and the lower-income groups face ever-rising prices. The government responds by issuing more debt to pay for food stamps and housing subsidies and by putting ever more citizens on disability payments. But the result is a depleted and demoralized American economy with an ever-shrinking share of the population engaged in the workforce and 37 percent of it on food stamps.⁵

The source of the rising prices of the commodities bought by the lower-income groups is the collapse of the value of unmoored money. For centuries, the price of fuel has closely tracked the price of gold (Jacks 2013). A prolonged surge in fuel prices began in 1971 with President Richard Nixon's decision to end the gold convertibility

5. Nicholas Eberstadt presents charts demonstrating the growth of entitlements, such as disability, food stamps, and worker-compensation payments, despite increasing health and longevity (2016, 114–15).

of the dollar at \$35 an ounce. With the dollar price of gold spiraling upward, the oil cartel demanded more dollars for its oil. The results of the imposition of price controls were long queues at gasoline stations and the drastic inflation of the 1970s, which ground down the standard of living of the poor and middle-income groups.

Gold is the most monetary of elements because its cost is most closely tied to the time entailed in its extraction. All of the approximately 170,000 metric tons of gold that have accumulated through the centuries are still available today. Virtually all the world's gold reserves are known. This available supply dominates the price. At the margin, gold's value is determined by hours alone, not by labor plus capital.

Despite technological advances and population growth, the stock of gold rises every year, never falls, and has averaged 2.5 percent annual growth for centuries (Lewis 2013, chap. 5). Its value is ultimately derived from the time it takes to extract it. This time span has scarcely changed because the advance of mining technology has been mostly neutralized by the increasing difficulty of extracting gold from ever more remote and attenuated sources. Thus, gold has been the only commodity whose future price is always equal to the spot price plus the rate of interest over the time period. Due to inflation, \$1 million in paper held since 1913, when the Federal Reserve Bank was created, would be worth \$20,000 today—down 98 percent. In contrast, \$1 million worth of gold in 1913 would now buy *more* than it did because whereas consumer prices have risen about twenty-three times, the price of gold has risen about fifty-seven times to be worth about \$12.7 million (Forbes and Ames 2014, 7–24).⁶ Aligned with irreversible time, gold is the monetary element that holds value rather than dissipates it.

Many food and housing prices are set by the cost of time and labor. If gold's value is constant, then all other prices can become variables around that constant. Just as the North Star provides a fixed reference for celestial navigation and astronomy, gold provides a fixed reference for the value of the galaxy of goods and services (Lewis 2013, 64–85). The break of the tie between the dollar and gold broke the link to time, devalued labor, and is at the root of the decline of the middle class in America.

When the tie to gold ended in 1971, as John Tamny observes, the “malaise” decade was launched (2016; see also Tamny 2015). Oil and commodity prices spiked. The Chicago Mercantile Exchange started a financial futures market for commodities largely to enable hedging by farmers whiplashed by gyrating prices. Hedge funds began their long boom. The yen went from 360 per U.S. dollar to 100 per dollar. The U.S. automobile and air-transport industries collapsed as the price of oil soared. Governments pushed real estate as a haven from dollar depreciation, turning the U.S. economy from an industrial powerhouse into a financial and consumption casino.

With no global standard of value, currency trading, now at more than a quadrillion dollars per year, became the world's largest and most otiose enterprise. It gobbled

6. The consumer price level is from the Bureau of Labor Statistics at http://www.bls.gov/data/inflation_calculator.htm. The price of gold rose from \$20.67 per ounce in 1913 to \$1,212 on November 17, 2016.

up the profits of seigniorage, while the public sought shelter in housing speculation and suffered a rise in inflation of key middle-class costs—food, medical care, and education. Even fuel and energy prices, as reflected in the price of electricity, rose for much of the population as a result of government policies designed to suppress the emissions of carbon dioxide.

At the same time, unmoored money, bursting beyond the constraints of time into zero and negative interest rates, unleashes financial hypertrophy, a tumescence of banking, hedging, constant currency trading, and other economic domains that feed on volatility and leverage beyond the constraints of time. After 1970, the financial industry nearly tripled its share of the U.S. economy, and private credit nearly tripled its share of advanced-country GDP.

One group, however, is necessarily left behind. Incarcerated in the realities of time are nonfinancial wage and salary earners, paid by the hour or month. These time-bound employees are the foundation of much of the middle class and the real economy. Having tracked productivity gains in the years following World War II, workers' hourly wages plateaued after 1973, rising a total of only 8.9 percent in the years since, while productivity rose 243.6 percent. Harvesting most of the difference were the forces that could siphon the immeasurable sums of government money, capturing transfer payments and subsidies, banking and central-banking loops and leverage, corporate mergers and buybacks, and real estate finance.

The information theory of money can explain the hypertrophy of finance, the migration of money to real estate, the gyration of markets, the imbalances of trade and capital movements, and the rise of inequality—all part of the continuing catalog of complaints by accountant-economists. Banks have become parasitical shufflers of existing assets rather than productive investors in new projects. The horizons of investment and enterprise shrink in an economy where finance is freed from the constraints of time and entrepreneurs are shackled by governmental pettifoggery.

Bidding on existing assets, investors avoid the perils of creative long-term commitments. In a world where money has lost its meaning and investment is beclouded by capricious bureaucracy and government intervention, entrepreneurs seek ways to abate uncertainty. Rapid-fire investment and speculation take advantage of the volatility of all prices in the oceanic turbulence of currency trading. Flash boys develop strategies to deal with micro-regularities amid a random undulation rather than investing in long-term currents of creativity. The Left responds with calls for power to be centralized, money to be manipulated, and regulations to be expanded. But this approach is the root of the stagnation rather than the remedy for it.

What the critics of the current stagnation curiously fail to confront is the global ocean of currency trading, which is the alternative to money as a metric with secure roots in the constants of nature. These bold thinkers simply cannot conceive of real money as a measuring stick. A twenty-first-century monetary policy now means not only a new tie to gold but also a new System of the World, marked by the power of information and velocity and above all by the reality of time in economics.

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