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BUSINESS CONDITIONS MONTHLY

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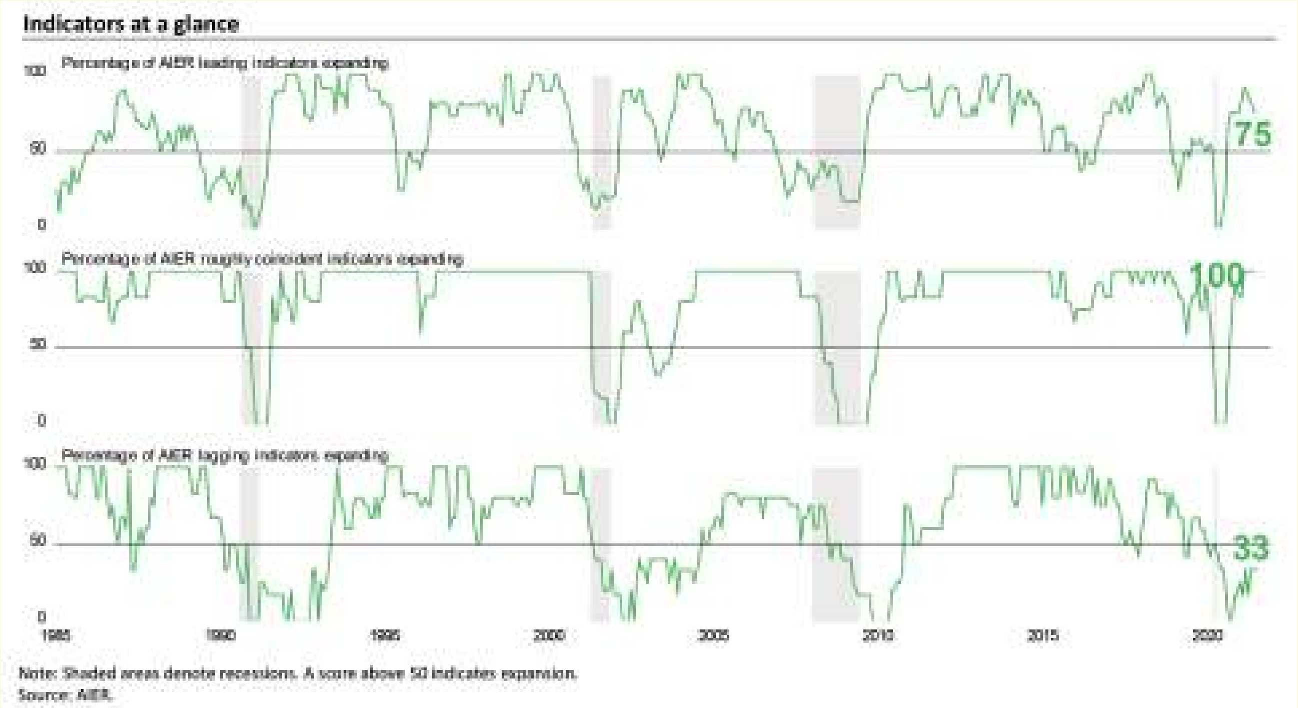
AIER Leading Indicators Index Suggests Continued Growth as Risks Grow



Summary

AIER's Leading Indicators Index posted a fourth consecutive small decline in July, falling to 75 from 79 in June. While the pullbacks suggest that breadth of growth could narrow in the future, the July result remains at a level consistent with continued economic expansion in coming months. July also marks the eleventh consecutive month above the neutral 50 level.

The Roughly Coincident Indicators index held at 100 for a fifth consecutive month in July. The continued strength of the roughly coincident indicators is an important confirmation of the breadth of the current expansion. The Lagging Indicators Index held at 33 for the third consecutive month (see chart).

While the cessation of restrictive government lockdown policies and reopening of the economy remain the driving forces behind the economic recovery, difficult labor conditions, shortages of materials, and lingering logistical issues are pushing prices higher at an elevated pace. Furthermore, outbreaks of the Delta variant of the Coronavirus could worsen the supply issues or lead to some partial reinstatement of government restrictions or some retrenchment by consumers or all three. Despite the risks, the economic outlook remains tilted to the upside, but the threats appear to be becoming more significant.

Leading Indicators Index Suggests Continued Expansion, But Raises Some Concerns

The AIER Leading Indicators index posted another drop in July, coming in at 75 versus 79 in June, 83 in May, 88 in April, and a high of 92 in March. The July result remains solidly above the neutral 50 threshold and suggests continued economic expansion in the months ahead. However, the string of declines also suggests that sources of growth could start to narrow in coming months.

Among the 12 leading indicators, nine were in a positive trend in July versus three trending unfavorably while none were trending flat or neutral. Two of the leading indicators changed direction in July. Total heavy truck unit sales, a measure of capital investment, returned to a positive trend just one month after it fell to a neutral trend. Real new orders for core capital goods, a broader measure of capital investment, remains in a positive trend.

Housing permits was the second leading indicator to change direction in July, falling from a positive trend in June to a negative trend in July. Housing has been one area that has been heavily impacted by the pandemic. Lockdowns sent activity plunging (as they did for the entire economy), however, record low interest rates and a sudden shift in housing preference sent demand soaring. Demand far exceeded supply and sent prices rocketing higher. Those higher prices are now starting to soften demand as some buyers are priced out of the market, leading to falling activity (see below for more on housing).

Two leading indicators continued to show unfavorable trends: real new orders for consumer goods and the Treasury yield spread. The Treasury yield spread has been unfavorable for 19 months while the real new orders for consumer goods indicator has been unfavorable for three consecutive months.

Overall, the Leading Indicators index remained above the neutral 50 level for the eleventh consecutive month, suggesting continued expansion is likely. Over the last 11 months, the leading indicators index has averaged 78.8. Despite the recent pullbacks, that is still the highest level since January 2019. As government policies restricting consumers and businesses have been removed, economic activity has rebounded. However, ripple effects from the lockdowns continue to disrupt labor supply, production, and logistics and transportation, resulting in scattered shortages of input materials and rising pressure on prices. These issues are likely to be resolved over time and are unlikely to result in a 1970s-style price spiral.

The Roughly Coincident Indicators index held at a perfect 100 reading in July with all six individual Roughly Coincident indicators continuing to trend higher. The fifth consecutive month of perfect results follow four months of readings in the 83 to 92 range and are the first five-month string of perfect scores since mid-2017. The Roughly Coincident Indicators index has been above the neutral 50 level for ten consecutive months, posting an average reading of 90, the highest since May 2019. The strong performance of the Roughly Coincident Indicators index reflects the broad strength of the economic recovery from the government-induced recession of 2020.

AIER's Lagging Indicators index held a reading of 33 in July and is the ninth consecutive month in the 17 to 33 range. Those nine months follow back-to-back readings of zero in September and October 2020 and mark the 19th consecutive month at or below 50. The average over the last 19 months is 28.5. Overall, four indicators remained in an unfavorable trend, while two indicators had favorable trends, and none were in a neutral trend.

Consumer Spending Drives Economic Recovery in the Second Quarter

Real gross domestic product increased at a 6.5 percent annualized rate in the second quarter, up from a 6.3 percent pace in the first quarter. Over the past four quarters, real gross domestic product is up 12.2 percent, putting the level almost back on trend.

Real final sales to private domestic purchasers, a key measure of private domestic demand, rose at a very robust 9.9 percent annualized rate in the second quarter following an 11.8 percent pace in the first quarter. Over the last four quarters, real final sales to private domestic purchasers are up 15.9 percent, putting the level above trend for the first time since the fourth quarter of 2019.

Growth in the second quarter was led by consumers. Real consumer spending overall rose at an 11.8 percent annualized rate, beating the strong 11.4 percent rate in the first quarter, and contributing a total of 7.8 percentage points to real GDP growth. The pattern of contributions to growth among the components of consumer spending in the second quarter was the mirror opposite of the first quarter as the second quarter was led by consumer services, followed by nondurable goods and then durable goods.

Spending on services grew at a 12.0 percent rate, contributing 5.1 percentage points to real GDP growth while nondurable-goods spending rose at a 12.6 percent pace, contributing 1.8 percentage points and durable-goods spending rose at a 9.9 percent pace, contributing 0.9 percentage points. Within consumer services, spending was particularly strong on food services (restaurants), travel, accommodations, and recreation services as consumers emerged from pandemic restrictions.

Business fixed investment increased at an 8.0 percent annualized rate in the second quarter of 2021, contributing 1.1 percentage points to final growth. That gain was led by a 13.0 percent jump in spending on equipment (adding 0.7 points to growth) and a 10.7 percent gain in intellectual-property investment (adding 0.5 percentage points). Those gains were partially offset by a decline in spending on business structures where spending fell at a 7.0 percent rate, the sixth decline over the last seven quarters, and subtracting 0.2 percentage points from final growth.

Residential investment, or housing, fell at a 9.8 percent annual rate in the second quarter compared to a 13.3 annualized gain in the prior quarter. The second quarter is just the second decline in the last 10 quarters (the other being the second quarter of 2020 during the height of government lockdowns). The drop in the second quarter reduced overall growth by 0.5 percentage points. Housing had shown resilience throughout the pandemic as extremely low interest rates combined with widespread remote working policies and the desire by some people to move away from virus epicenters has supported increased demand. However, limited supply and surging home prices are pushing buyers out of the market and leading to a cooling.

Businesses liquidated inventory at a $165.9 billion annual rate (in real terms) in the second quarter versus liquidation at a $88.3 billion rate in the fourth quarter, subtracting 1.1 percentage points from second-quarter growth.

Exports rose at a 6.0 percent pace while imports rose at a 7.8 percent rate. Since imports count as a negative in the calculation of gross domestic product, a gain in imports is a negative for GDP growth, subtracting 1.1 percentage points. The rise in exports added 0.6 percentage points. Net trade, as used in the calculation of gross domestic product, subtracted 0.4 percentage points from overall growth.

Government spending fell at a 1.5 percent annualized rate in the second quarter compared to a 4.2 percent pace of growth in the first quarter, subtracting 0.3 percentage points from growth.

Housing Starts Rise but Permits Fall as Pandemic Pressures Continue to Unwind

Total housing starts rose to a 1.643 million annual rate in June from a 1.546 million pace in May, a 6.3 percent increase. From a year ago, total starts are up 29.1 percent. However, total housing permits fell 5.1 percent to 1.598 million in June from 1.683 million in May. Total permits are 23.3 percent above the June 2020 level. Both continue to trend down with starts 4.8 percent below its recent peak while permits are 15.1 percent below its peak.

The dominant single-family segment saw starts rise 6.3 percent for the month to a rate of 1.160 million and are up 28.5 percent from a year ago. Single-family permits however were off 6.3 percent at

1.063 million. Single-family starts and permits are also trending lower from peaks around the start of the year.

Starts of multifamily structures with five or more units rose 6.8 percent to 474,000 and are up 30.6 percent over the past year but starts for the two- to four-family-unit segment sank 18.2 percent to 9,000. Combined, multifamily starts were up 6.2 percent to 483,000 in June.

Multifamily permits for the 5-or-more group fell 1.6 percent to 483,000 while permits for the two-to-four-unit category fell 10.3 percent to 52,000. Combined, multifamily permits were 535,000, down 2.6 percent for the month.

Homebuilder Sentiment Pulls Back as Activity Slows

The National Association of Home Builders' Housing Market Index, a measure of homebuilder sentiment, fell again in July, to 80 from 81 in June and a peak of 90 in November 2020. Overall sentiment remains relatively high but elevated materials costs are pushing prices up and forcing some buyers out of the market, resulting in lower demand.

Two of the three components of the Housing Market Index fell in July. The current single-family sales index fell to 86 from 87 in the prior month and the traffic of prospective buyers index was off six points to 65 but the expected single-family sales index rose to 81 from 79.

New Single-Family Home Sales Fell Again in June

Sales of new single-family homes fell sharply again in June, decreasing 6.6 percent to 676,000 at a seasonally-adjusted annual rate from a 724,000 pace in May. That drop follows a 7.8 percent decrease in May and a 10.1 percent fall in April. Sales are down 19.4 percent from the year-ago level and are 31.9 percent below the 993,000 pace in January. However, sales are also about in line with the 677,000 pace from August 2019.

Sales of new single-family homes were down in three of the four regions of the country in June with the South, the largest by volume, off 7.8 percent, the West off 5.1 percent, and the Northeast down 27.9 percent. Sales in the Midwest were up 5.7 percent for the month. From a year ago, sales followed a similar pattern: sales were lower by 24.8 percent in the South, off 12.7 percent in the West, and down 40.4 percent in the Northeast. Sales in the Midwest were up 7.0 percent from a year ago.

The total inventory of new single-family homes for sale rose 7.0 percent to 353,000 in June, the highest level since December 2008, leaving the months' supply (inventory times 12 divided by the annual selling rate) at 6.3, up 14.5 percent from May and 46.5 percent above the year-ago level. The median time on the market for a new home fell in June, coming in at 3.5 months versus 4.4 in May.

Recent headwinds for the housing market include somewhat higher mortgage rates and sharply higher home prices. The average rate of a 30-year fixed-rate conforming mortgage was 2.98 percent in June, up from 2.96 in May. The average rate is up from a low of 2.68 in December but lower than the 3.08 percent in March 2021. The average rate was as high as 4.87 in November 2018.

The median sales price of a new single-family home was $361,800, down 5.0 percent from the record high in May. The gain from a year ago is 6.1 percent. On a 12-month average basis, the median single-family home price is at a record high.

The combination of high prices and somewhat higher mortgage rates is forcing some buyers out of the market and contributing to a slowing in housing activity. It is likely that these conditions will continue to significantly impact the overall housing market, further reducing demand, easing the tight supply, and slowing future price increases.

Existing-Home Sales Rise as Prices Hit a Record

Sales of existing homes rose 1.4 percent in June, to a 5.86 million seasonally adjusted annual. Sales are up 22.9 percent from a year ago. Sales in the market for existing single-family homes, which account for about 88 percent of total existing-home sales, also rose 1.4 percent in June, coming in at a 5.14 million seasonally adjusted annual rate. From a year ago, sales are up 19.3 percent. Condo and co-op sales rose 1.4 percent for the month, leaving sales at 720,000 for the month versus 710,000 in May.

The median sale price in June of an existing home was $381,800, 16.1 percent above the year ago price and a new record high. For single-family existing home sales in June, the price was $386,600, a 16.7 percent rise over the past year and also a new record, while the median price for a condo/co-op was $347,200, 13.8 percent above June 2020.

The record-high prices are helping push up inventory. Total inventory of existing homes for sale rose 3.3 percent to 1.25 million in June, pushing the months' supply (inventory times 12 divided by the annual selling rate) to 2.6, the highest since September 2020 though still a very low supply by historical measure.

For the single-family segment, inventory increased 3.8 percent to 1.08 million, the highest since November 2020. The months' supply was unchanged at 2.5. The condo and co-op inventory fell 1.2 percent to 171,000, putting the months' supply at 2.9, unchanged from the prior month.

Durable-Goods Orders Rose in June as Core Capital-Goods Hit a Record High

New orders for durable goods increased in June, gaining 0.8 percent, the 13th rise in the last 14 months. Total durable-goods orders are up 40.7 percent from a year ago. The June gain puts the level of total durable-goods orders at $257.6 billion.

New orders for nondefense capital goods excluding aircraft or core capital goods, a proxy for business equipment investment, rose 0.5 percent in June after gaining 0.5 percent in May and 2.7 percent in April, putting the level at $76.1 billion, another record high. This important category had been in the $65 to $70 billion range for several periods over the past 15 years before dropping to $59.9 billion in April 2020. The $59.9 billion pace was the slowest since December 2016. Core capital-goods orders have been above $70 billion for eight consecutive months.

Gains among the categories in the report were generally broad-based though moderate in magnitude. Just one of the seven major categories of durable goods shown in the report had a decline in the latest month with five posting increases and one roughly unchanged. Among the individual categories, primary metals rose 0.4 percent, fabricated metal products fell 0.8 percent, machinery orders added 0.6 percent, computers and electronic products rose 1.0 percent, electrical equipment and appliances were roughly unchanged from the prior month, transportation equipment jumped 2.1 percent, and the catch-all "other durables" category was up 0.5 percent. Within the transportation equipment category, motor vehicles and parts sank 0.3 percent while nondefense aircraft jumped 17.0 percent and defense aircraft increased 9.9 percent.

The report on durable-goods orders highlights the strength of the business sector. Capital spending reflects improving prospects for growth and rising confidence among business leaders. However, logistical and labor issues continue to hamper some areas of production, creating shortages of input material and putting upward pressure on prices. These pressures are likely to be temporary as issues are worked out and full production is resumed. The major risk over the short term is the resurgence in Covid from the Delta variant. The new outbreak may cause hesitation on the part of consumers or renewed government restrictions on economic activity.

Core Retail Sales Posts a Sharp Gain in June

Retail sales and food-services spending rose 0.6 percent in June, the fourth gain in the last six months. The results over the last six months leave retail sales at the third highest on record and well above the most recent nine-year trend. From a year ago, total retail sales are up 18.0 percent.

Core retail sales, which exclude motor vehicle dealers and gasoline retailers, posted a 1.1 percent jump for the month, leaving that measure with a 15.8 percent gain from a year ago. Core retail sales are also up in four of the last six months, at the highest level on record, and well above the nine-year trend.

Gains were generally broad-based in June. The gains were led by a 3.4 percent increase in miscellaneous store retailers, followed by electronics and appliance stores (up 3.3 percent for June), clothing and accessory stores (a 2.6 percent rise), and gasoline stations (up 2.5 percent).

Only four categories had declines in June. Furniture and home furnishings fell 3.6 percent, motor vehicles and parts dealers were down 2.0 percent, sporting goods, hobby, musical instruments and book stores lost 1.7 percent, and building material and garden equipment and supplies dealers were off 1.6 percent.

Consumer Confidence Remained Strong in July

The Consumer Confidence Index from The Conference Board rose slightly in July, up 0.2 points to 129.1, the highest level since February 2020 and in a range consistent with strong economic growth.

The two major components of the index had small changes for the month, both remaining at relatively high levels. The present-situation component rose 0.7 points to 160.3, the highest level since March 2020.

The expectations component lost 0.1 points, taking it to 108.4. The details of the report suggest that consumers remain generally optimistic particularly as dwindling government restrictions boost economic activity.

Regarding current general business conditions, the percentage of consumers saying business conditions were good rose 1.2 points to 26.4 while the percentage of those saying business conditions were bad rose 0.2 percentage points to 19.3. Those results left the net business conditions percentage at 7.1, up 1.0 from the prior month.

For the labor market, the net percentage of consumers saying jobs were plentiful gained 0.2 points to 54.9 while those saying jobs were hard to get was unchanged at 10.5. The net percentage for current labor conditions comes in at 44.4 for July, up from 44.2 in June and well above the -15.7 in April 2020.

Regarding consumer expectations, consumers' expectations for business conditions in six months, the percentage expecting good conditions fell 0.3 points to 33.4 while the net percentage expecting bad conditions fell 0.3 points to 10.5. The net percentage for business conditions six months ahead was unchanged at 22.9.

Net consumer expectations for the labor market were also unchanged, as the percentage expecting more jobs added 1.1 points to 27.7 while the percentage expecting fewer jobs also added 1.1 points to 16.8. The net percentage for the outlook for jobs was unchanged at 10.9.

Expectations for future income improved with 20.6 percent expecting an increase while 8.6 percent expect a decrease, leaving the net percentage at 12.0 percent. That positive result helped support future buying plans as percentages for buying a home, auto, or major appliance all rose in the latest month.

Outlook Remains Positive, But Risks Are Growing

The U.S economy posted a strong gain in the second quarter with real gross domestic product now back on its pre-pandemic trend. Details in many economic reports as well as surveys and anecdotal evidence show various sectors and industries within the economy are grappling with lingering fallout from the lockdowns as well as the resurgence of Covid cases due to the Delta variant.

Fading government restrictions have boosted economic activity. However, the rebound in demand continues to outpace the recovery in supply as ongoing labor difficulties including a lack of qualified workers, absenteeism, temporary shutdowns, and inability to retain talent, have led to production shortages and logistical and transportation problems. These shortages are putting upward pressure on prices, but a 1970s-style price spiral remains unlikely.

The emergence of the Delta variant could worsen the supply issues and lead to renewed government restrictions on consumers or businesses. It could also lead to some retrenchment by consumers if the perception is that the Delta variant represents a significant health risk.

The AIER Leading Indicators index posted its eleventh consecutive month above the neutral 50 threshold but also posted its fourth consecutive small decline. The results suggest continued expansion in coming months but also reflect the possibility that sources of future growth could narrow in coming months. The Roughly Coincident Indicators index posted a fifth consecutive 100 reading, confirming a wide base of current sources of growth. Overall, the outlook remains favorable but the threats to future growth may be growing.

CAPITAL MARKET PERFORMANCE

(Percent change)

	July	Latest 3M	Latest 12M	Calendar Year 2020	2019	2018	Annualized 3-year	5-year	10-year
Equity Markets									
S&P 1500	2.0	4.6	35.5	15.8	28.3	-6.8	15.5	14.8	12.9
S&P 500 - total return	2.4	5.5	36.5	18.4	31.5	-4.4	18.2	17.4	15.4
S&P 500 - price only	2.3	5.1	34.4	16.3	28.9	-6.2	16.0	15.1	13.0
S&P 400	0.3	-0.8	45.1	11.8	24.1	-12.5	10.9	11.6	11.1
Russell 2000	-3.7	-1.8	50.4	18.4	23.7	-12.2	10.0	12.8	10.8
Dow Jones Global Large-Cap Index	0.4	2.9	29.8	14.7	23.8	-10.4	11.7	15.1	7.9
Dow Jones Global Large-Cap ex-U.S. Index	-2.2	-0.3	24.3	8.8	18.2	-15.7	5.5	9.9	2.7
STOXX Europe 600 Index	2.0	5.6	29.6	-4.0	23.2	-13.2	5.6	6.2	5.7
Bond Markets									
iShares 20-plus Year Treasury Bond ETF	3.6	7.8	-12.6	16.4	11.5	-4.2	7.7	1.1	4.3
IiShares AAA - A Corporate Bond Fund	1.1	2.8	-3.0	7.1	9.1	-5.2	4.2	1.2	NA
Commodity Markets									
Gold	3.3	3.0	-7.7	24.8	18.7	-1.7	14.3	6.2	1.2
Silver	-1.1	-1.5	5.9	46.8	16.7	-8.3	18.2	4.9	-4.3
Refinitiv CoreCommodities CRB total return index	2.2	9.2	51.9	-9.3	11.8	-10.7	5.1	5.0	-3.8

Sources: Barrons, Dow Jones, Frank Russell,
iShares, Standard & Poor's, STOXX Europe 600, Refinitiv.

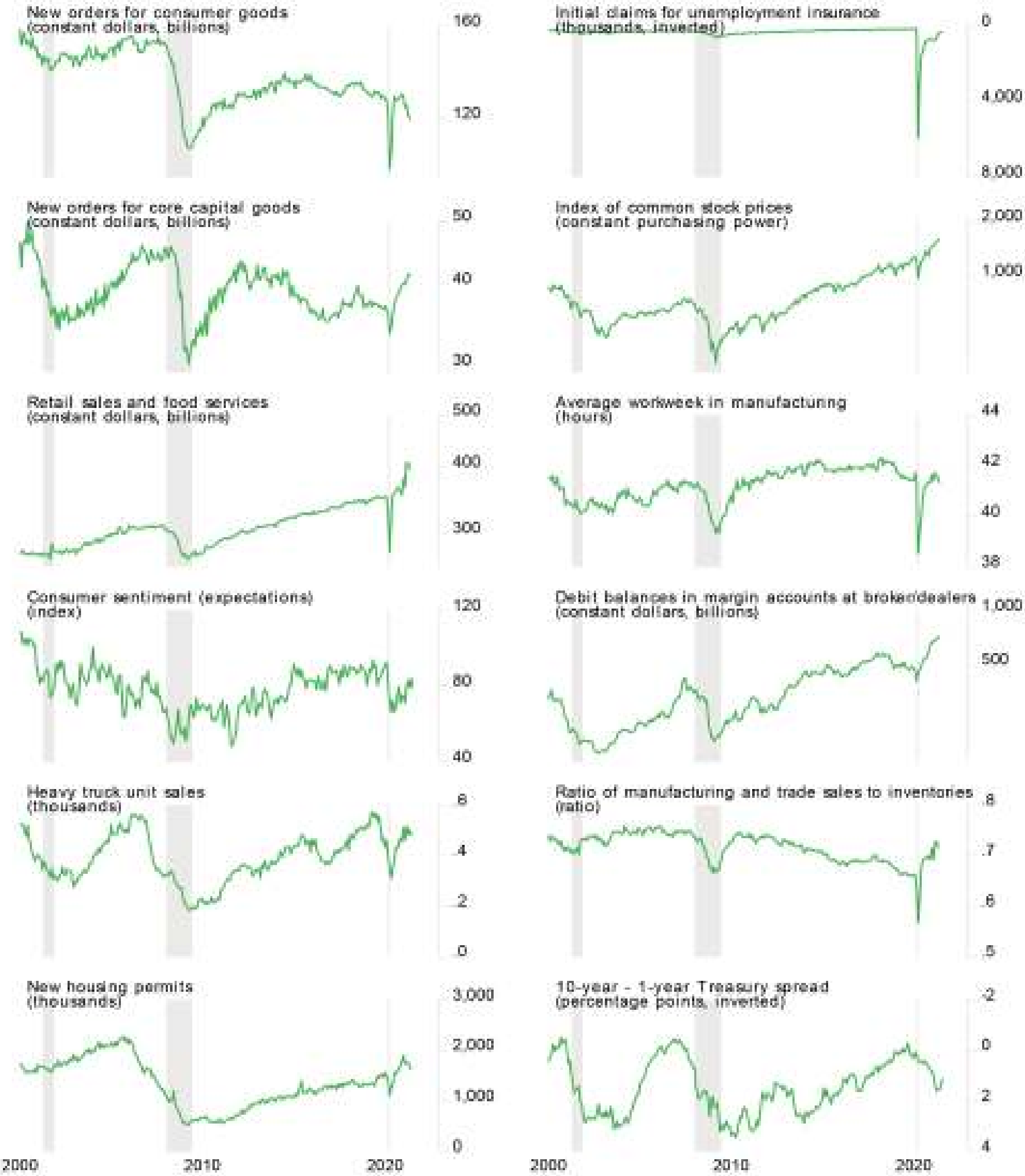
CONSUMER FINANCE RATES

(Percent)

	July	Latest 3M	Latest 12M	Average for Year 2020	2019	2018	Average over Period 3-year	5-year	10-year
30-yr. fixed mortgage	3.0	3.0	2.9	3.1	3.9	4.5	3.6	3.8	3.8
15-yr. fixed mortgage	2.3	2.3	2.3	2.6	3.4	4.0	3.1	3.2	3.2
5-yr. adjustable mortgage	2.6	2.7	2.8	3.1	3.6	3.8	3.3	3.3	3.1
48-month new car loan	5.3	5.3	5.1	5.1	5.4	5.0	5.2	5.0	4.8

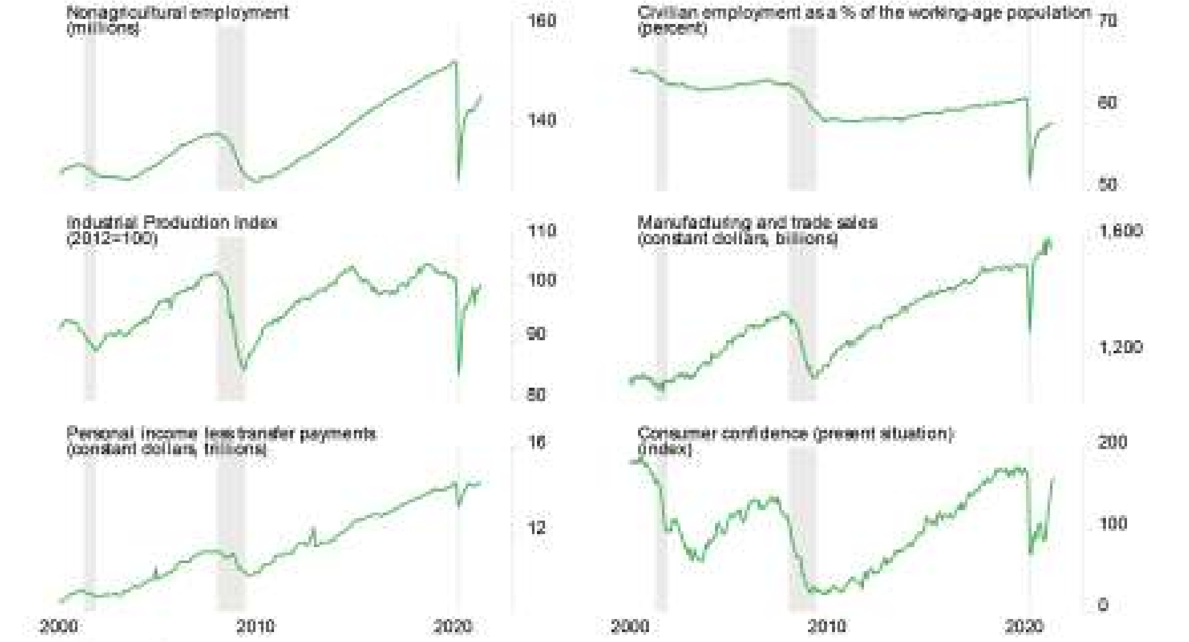
Sources: Bankrate, Federal Reserve.

LEADING INDICATORS (2000-2021)



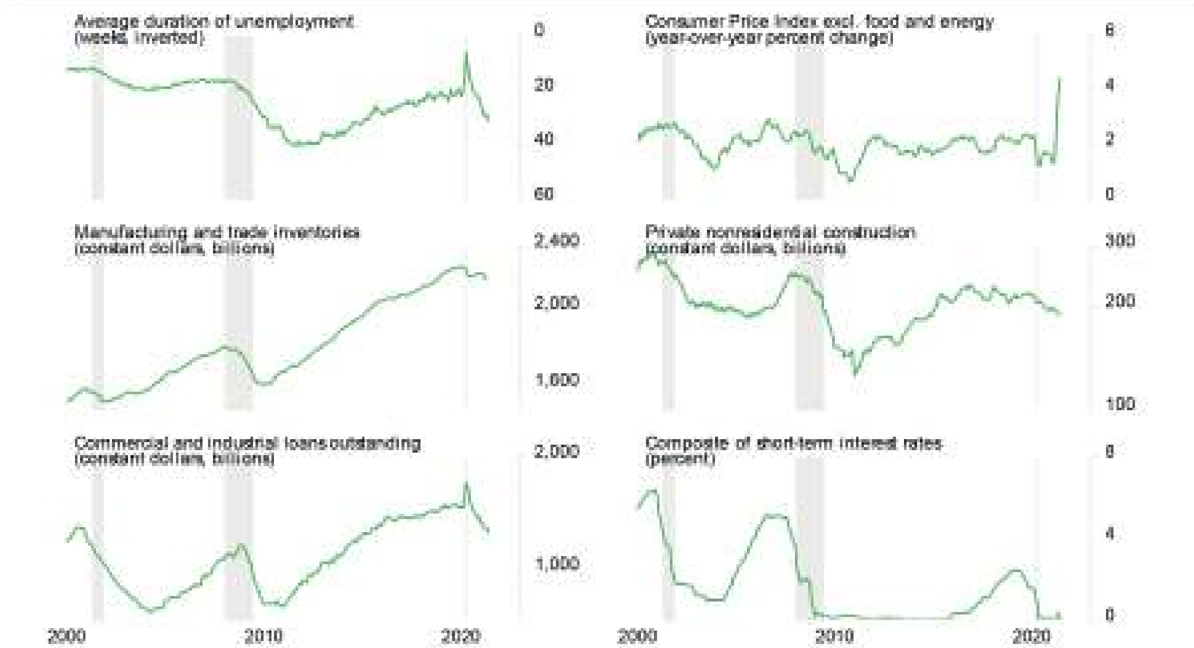
Note: Shaded areas denote recessions.
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, The conference Board, Census Bureau, Department of Labor, Federal Reserve, Institute for Supply Management, Standard & Poor's, AIER (Refinitiv).

ROUGHLY COINCIDENT INDICATORS (2000-2021)



Note: Shaded areas denote recessions.
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, The conference Board, Census Bureau, Department of Labor, Federal Reserve, Institute for Supply Management, Standard & Poor's, AIER (Refinitiv).

LAGGING INDICATORS (2000-2021)



Note: Shaded areas denote recessions.
Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, The conference Board, Census Bureau, Department of Labor, Federal Reserve, Institute for Supply Management, Standard & Poor's, AIER (Refinitiv).

The Great Semiconductor Shortage

PETER C. EARLE

Research Fellow

Silicon is the crude oil of the Digital Age. About eight million metric tons are mined every year in China, Russia, Norway, the US and elsewhere, some of which is used in the $500 billion global market for semiconductors. In turn, the manufactured silicon chips, wafers, and integrated circuits power tens of trillions of dollars worth of hardware running personal and business software, wired and wireless communication devices, consumer electronics, automotive components, industrial technology, and other critical processes worldwide.

Manufacturing semiconductors involves not only a network of highly specialized firms in an often multistage production process, but a dependence upon firms which produce the ultra-high precision equipment for the fabrication procedure. Thus while silicon is a metalloid and accordingly a commodity, the various chips employing it describe a spectrum of complexity that runs from basic microcontrollers to high performance processors: each of which rarely has substitutes.

> “It’s not rocket science—it’s much more difficult,” goes one of the industry’s inside jokes…Manufacturing a chip typically takes more than three months and involves giant factories, dust-free rooms, multi-million-dollar machines, molten tin and lasers. The end goal is to transform wafers of silicon—an element extracted from plain sand—into a network of billions of tiny switches called transistors that form the basis of the circuitry that will eventually give a phone, computer, car, washing machine or satellite crucial capabilities.

Beginning in 2020 and accelerating into 2021, a chip shortage has, to various extents, plagued the estimated 169 industries which depend upon them. While a small number of firms stockpiled chips in anticipation of just such an occurrence, the overwhelming majority of firms for which semiconductors are a key factor input have had to reduce their output. But like so much else, the inadequate supply of semiconductors is at the center of a handful of causes, with policy blunders front and center among them.

ICE FactSet Taiwan Core Semiconductor Price Return Index (2015 – present)

(Source: Bloomberg Finance, LP)

Neo-Mercantilist Beginnings

Two major policy actions of the Trump Administration laid the initial groundwork for the present paucity of chips. The first came in 2018, when

> the United States imposed 25% tariffs on semiconductors imported from China. A core issue involved allegations that unfair trade practices by China hurt a variety of US-headquartered companies, including in the semiconductor industry. Tit-for-tat government actions resulted in new tariffs covering over $450 billion, or more than half, of bilateral trade between the two countries by the end of 2019[.]

That led to a 12% decline in global semiconductor revenue between 2018 and 2019. But shortly thereafter, a second and

> arguably more economically destructive line of conflict for the industry began in 2019, with a series of US export controls targeting the global semiconductor supply chain. Initially, US policy was motivated by national security concerns. Limiting US semiconductor sales was aimed at keeping Huawei–a Chinese… Fortune global 500 company, whose 5G equipment the US government viewed as threatening critical network infrastructure–from accessing inputs it needed to manufacture base stations. The initial US export controls didn't work: Huawei purchased semiconductors from companies in Taiwan and South Korea instead. The United States responded with new export controls and threatened to cut off the niche equipment and software provided by smaller American firms to those foreign companies if [they] did not stop selling to Huawei.

As lockdowns and indoor occupancy limits were imposed with the spread of Covid-19, many semiconductor manufacturing facilities came to be operated with skeleton crews at lower capacity. The already tariff-slowed pace of chip production began to decline more precipitously.

The Stimulative Factor

Only a few weeks into the widespread imposition of pandemic policies (lockdowns, stay-at-home orders, social distancing requirements, compulsory masking, and so on), the first stimulus checks were received by an estimated 162 million bank accounts, which contributed some portion of the total $271 billion to a consumptive binge. Several additional stimulus payments have been made since then, and on top of that the American Rescue Plan extended Federal unemployment bonuses through September 6th, 2021. Furthermore, under the Child Tax Credit revisions, the

> Internal Revenue Service (IRS) will pay out $3,600 per year for each child up to five years old and $3,000 per year for each child ages six through 17. Starting July 15, monthly payments will be issued through December of 2021, with the remainder to be issued when the recipient files their 2021 taxes. The benefit will not depend on the recipient's current tax burden. In other words, qualifying families will receive the full amount, regardless of how much — or little — they owe in taxes. Payments will start to phase out beyond a $75,000 annual income for individuals and beyond $150,000 for married couples. The more generous credit will apply only for 2021, though Biden has stated his interest in extending it through 2025.

Aside from the incredible folly of government policies which severely restrict the supply of demanded foreign goods via tariffs and, shortly thereafter, inundate under- and unemployed consumers with disposable income, fiscal redistribution has broadly and undeniably played a major role in exacerbating the shortages observed over the past sixteen months.

The Remote Access Crunch

As early as January 2020, a mass exodus of employees from offices to work-from-home status began, and with it a leap in demand for laptops and other business technology. Schools additionally closed nationwide, requiring many parents to acquire or upgrade home computers. A Harvard

Business School study found that nearly 80% of large companies and 45% of small companies shifted to some measure of remote work last year, with 93% of households containing school-age kids involved in some form of remote learning. Another portion of the increase in demand owed to efforts to cope with boredom: semiconductor-driven smart televisions with digital streaming capacity, tablets, phones, and other entertainment technologies.

Over 302 million computers were purchased in 2020: a 13% increase over 2019 and the most since 2014. But there was a snag: the burst of demand struck not as it typically does–throughout the year, with anticipated increases in the late summer (with the start of the academic year) and after Thanksgiving (for holiday gifts)–but during March and April. And owing to this rush, the chip shortage began to worsen, with consumer goods prices rising. "A webcam that normally costs $50-$60 is now around $100, and a dock that should be about $180 is $320 on Amazon Prime" with many items rapidly going out of stock, as NBC News reported in April 2020.

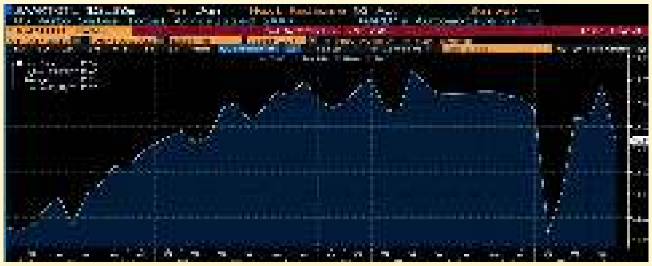
In several jurisdictions, the sudden and profound spike in tech prices led to accusations of illegal price gouging. None, however, led to government legal action (charges or confiscation) as laptops, tablets, and other such products are not categorized as essential to helping check the spread of Covid-19. (Masks, hand sanitizer, disinfectants, and the like are subject to gouging penalties under the Defense Production Act of 1950, invoked by the Trump Administration on 18 March 2020.)

Game consoles such as Microsoft's Xbox and the Sony PS5 (Playstation 5) began disappearing from store shelves and online retailer inventories as well. Already popular gifts, the prospects of longer lockdown periods ('just two weeks,' *ad infinitum*) made gaming systems particularly desirable goods. By Thanksgiving 2020, console prices were skyrocketing, with PS5s listed on certain auction sites for up to $2,000: several times the manufacturer's suggested retail price.

Automotive Production & Sales

By mid-spring 2020, the full implications of the effect that shutdowns, stay-at-home orders, social distancing, and the like would have on many businesses became starkly apparent. As car dealerships reported cancelled appointments and entire days without a single walk-on, auto manufacturers began to cancel orders for new inventory. As expected, sales of new cars plummeted initially. But within several weeks, abetted by the introduction of 0% financing deals and a host of other incentives, plus being awash in stimulus funds, demand for new vehicles exploded. Both lot supply and production were caught flat-footed.

US Auto Sales Total Annualized SAAR (2010 – present)



(Source: Bloomberg Finance, LP)

Dealer lots quickly emptied of the supply of the most desirable makes and models of autos. Yet in many cases they failed to refill, as many vehicles in mid-production couldn't be completed for want of chips to run battery management, driving assistance, connectivity, and numerous other functions pivotal to the automotive advances of the past twenty years. A profound representation of the production shortfall is seen in Ford's massive stockpile of vehicles awaiting semiconductors at the Kentucky Speedway. The thousands and perhaps tens of thousands of vehicles amassed there, waiting for silicon chips, is allegedly visible from space.

Toyota, which owing to prescience or luck stockpiled semiconductor chips in advance, was able to produce and sell enough cars to soak up some of the sudden demand. It beat GM as the number one seller of cars in the US for the first time ever in the second quarter of 2021. Ford reported a 27% fall in June new vehicle sales from one year ago (2020 to 2021), and analysts have predicted that a currently estimated 477,000 planned but unproduced cars could number 1.1 million by the end of 2021.

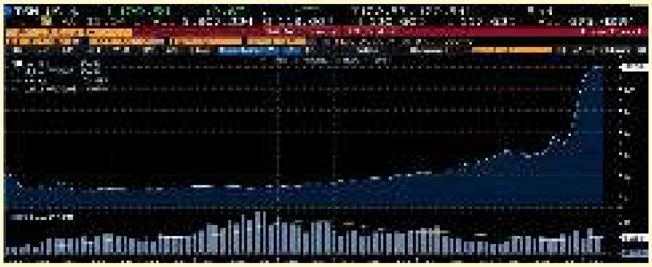
As new cars disappeared from lots and weren't replaced, the prices of used cars jumped. The May 2021 CPI indicates that used car prices have increased by roughly 30% on a year-over-year basis.

Fire and Water

In July 2020, the first of a number of 'elemental' intrigues further hurled wrenches into the gearworks of global semiconductor supply chains: a fire broke out at a Nittobo plant in Fukushima, Japan. With a pivotal role in producing fiberglass for printed circuit boards (PCBs) the damage from both fire and flame suppression caused output from that facility to fall by at least 20%. Three months later and eight hundred miles south of that, another fire erupted at the Nobeoka City Asahi Kasei Microdevices (AKM) semiconductor factory. After raging for three days, analysts described the conflagration as "creat[ing] supply chain interruptions for many end products[.]"

And in March of 2021 a conflagration at the Renesas Electronics building in Hitachinaka, Japan completely destroyed 17 chip manufacturing machines and the location's "clean room." The total damage at the time was estimated to take up to six months to recover from.

Taiwan Semiconductor ADR price (2000 – present)



(Source: Bloomberg Finance, LP)

Meanwhile, the uncommonly tranquil summer and fall of 2020 in the Pacific and Phillppine Sea, which typically features three or four typhoons annually, led to a drought in Taiwan. By some accounts, this is the nation's worst drought since 1964. And this might not arouse much concern, except that Taiwan is the world's foremost semiconductor foundry market, and manufacturing chips is a particularly water-intensive procedure.

> Taiwan's leading semiconductor producer and the world's largest contract chipmaker, Taiwan Semiconductor Manufacturing Ltd. (TSMC)… uses more than 150,000 tons of water per day, [volumes] approximating 80 standard swimming pools…Due to the drought, TSMC and other semiconductor manufacturers have been depending on water trucks to maintain production. It is estimated that TSMC will spend over 23.69 Euro [around $28M] on the water trucks this year, exceeding its original budget planning. Global supply has been affected since…[and] microchips are likely to become rarer and rarer.

The impact of the water shortage has (as does much, today) led to opportunistic demagoguery. These include assertions that the unsung agent of Taiwan's chip manufacturing problems is climate change, and calls for firms which depend heavily upon Taiwanese foundries (including Apple, Qualcomm, and Nvidia) to diversify their sources of supply.

As It Stands

Thumbing its nose at the Ricardian notion of comparative advantage, in July 2020

> the United States Senate approved the FY2021 National Defense Authorization Act (NDAA), which contains an amendment passed earlier this week, with little floor debate and by a 96-4 margin, that would provide billions of dollars in new federal support for the U.S. semiconductor industry, most notably tax credits and grants for the construction of new domestic manufacturing facilities. The House passed a similar bill with a similar amendment earlier this week, so the legislation now goes to conference, where the subsidies are expected to survive.

The purpose of the jingo-ensconced CHIPS (Creating Helpful Incentives to Produce Semiconductors for America) Act is to "[e]nsure [US] leadership in the future design, manufacturing, and assembly of cutting edge semiconductors…[a]s the Chinese Communist Party aims to dominate the entire semiconductor supply chain." In May 2021 Congress was debating the form that such aid should take, and in June 2021 some decisions were reached.

Interventionism has, for time immemorial, generated unintended consequences. Nevertheless it is likely that social distancing and capacity restrictions in the early phases of the pandemic would have led to decreased semiconductor chip output anyway. But with respect to national security concerns, the age-old question regarding whether markets or government bureaucracies best accomplish such goals should be the initial conversation.

With respect to the silicon facet of the US-China trade war, the Peterson Institute for International Economics asks rhetorically:

> Would a more rational US strategy have been to keep China 'dependent' on American semiconductors? Suppose US firms had been permitted to sell all except the most sophisticated chips, but the US government maintained its restrictions on sales to China of semiconductor manufacturing equipment and EDA [Electronic Design Automation] software. US semiconductor firms at least could have maintained the revenue and profits to continue to finance their own R&D without the need for federal subsidies. Without the foreign inputs, Chinese manufacturers would have been unable to upgrade to the smaller and faster chips at the technological frontier than many using industries demand.

From the consumer's perspective, elevated tech prices due to ongoing shortages endure in many areas, and will linger for some months. As has been reported in technology, business, and trade publications, the price effects of the chip shortage are now beginning to manifest more broadly in personal computers. As of late June 2021,

> prices of popular models of some laptop consumers have crept up over the past two months, among other electronics becoming expensive at retailers. A laptop geared toward videogamers–made by Taiwanese manufacturer ASUSTek Computer Inc.–that Amazon lists as its bestseller rose from $900 to $950 this month, according to Keepa, a site that tracks prices. The cost of a popular HP Inc. Chromebook rose to $250 from $220 at the beginning of June. HP has raised consumer

> PC prices by 8% and printer prices by more than 20% in a year.

Although one major retailer reported raising prices of goods with semiconductor-related components by 15% thus far in 2021, an executive commented, “[c]ertain components now cost as much as 40% more.” That even toasters now contain silicon chips is beginning to dawn on purchasers, in some part due to sticker shock.

Dollar Volume Growth Electronic Sales and Computer Software (2015 – present)

(Source: Bloomberg Finance, LP)

Back in the automobile markets, profoundly unusual price aberrations have materialized. Recently the received wisdom that a new car immediately and irretrievably loses a chunk of its value when its rear tires leave the lot has been overthrown – at least temporarily. Why?

> [S]ome used cars and trucks are worth even more than they cost when they were new. What makes your Jeep Wrangler, Subaru Ascent, or Honda Civic worth more than it was when it was brand new a year ago is the simple fact that it exists. It is a car that has already been built at a time when there is enormous demand for cars and SUVs and not enough inventory to meet that demand [d]ue to disruptions in supplies of crucial computer chips.

Where traditionally a used car is priced on average 11% less than a comparable new car, that average has now narrowed to about 3%. And in several cases, used car prices eclipse those of new cars. As of last month a Kia Telluride sells for over 8% higher used than new. So too do GMC Sierras (over 6%), Toyota Tacomas (over 5%), and the Mercedes Benz G-Class (over 4%).

Other discomposing factors are lurking on the periphery, threatening to compound existing semiconductor insufficiencies. Owing to the so-called Delta variant of Covid-19, lockdowns at several major Chinese shipping facilities (Shenzhen, the third largest in the world, and Guangzhou, the fifth largest in the world) have resulted in waiting times for cargo ships to soar from twelve hours to sixteen days.

A highly technical discussion of how the dearth of chips may abate can be found here.

Inconclusive Conclusions

After carbon, nitrogen, oxygen, and a handful of other elements upon which life itself is built, silicon has been a particularly impactful element in human innovation. Tremendous bounds in productivity, driven by incremental improvements in technology, have driven inexorably higher levels of prosperity. In exquisitely engineered configurations, it has made once inconceivable bounds in computation, data analysis and management, information transfer, and a wide panoply of other advances not only possible, but quotidian. Indeed, it is sinfully easy to overlook the incredible union of physics, engineering, and economics that semiconductors contemplate and conflate their ubiquity with simplicity.

Early in 2020, predicting that the spread of a respiratory virus would lead to a scarcity of inputs that constitute the very backbone of all modern technology would have sounded ludicrous. But amid a hotchpotch of non-pharmaceutical state interventions, geopolitical wrangling, income redistribution, sudden shifts in work patterns, and the knock-on effects of those, that has occurred and persists.

No one, and certainly not I, can accurately forecast when, where, or how the current array of price distortions and shortages will normalize. An appreciation of the sophistication of modern commerce requires recognizing the ease with which the commonplace can be derailed by seemingly innocuous policies. And relatedly, the tendency for secondary and tertiary effects of political miscalculation to unexpectedly bubble up in odd corners and folds of the economy.

– July 11, 2021

Sweden: Despite Variants, No Lockdowns, No Daily Covid Deaths

MICHAEL FUMENTO
Contributor

Since the Covid pandemic broke out, Sweden has been fought over more than any other part of Europe since Germany in the 30 Years War. In refusing to use an iron fist to control a virus, lockdown advocates claimed it was either committing murder or suicide; choose your favorite metaphor. Relatively few such as me, in three separate articles, claimed the Nordic country was sparing both the economy and something called "liberty" with its light-handed approach. My favorite title (editor chose it): "Media Enraged That More Swedes Aren't Dying."

Thus last year we saw such headlines as CNN's "Deaths Soar In Country That Didn't Lock Down. Officials Identify Big Reason Why." Around the same time "Sweden Steadfast In Strategy As Virus Toll Continues Rising," claimed another source. "Sweden's Coronavirus Strategy Drives Up Infection Rate," screamed the BBC. *Everyone* was playing pile-on. "Sweden Has The Highest Daily Coronavirus Death Rate In The World – And It's Getting Worse." That's from Yahoo Sports. *Sports*?

Modelers desperately tried to scare Sweden into locking down. One predicted an incredible median of 96,000 deaths, with a maximum of 183,000. At Sweden's Lund University an academic used the parameters in the now-infamous Neil Ferguson/Imperial College model to warn that it meant 85,000 deaths for Sweden. An Uppsala University team also found the nation paying a terrible price with 40,000 Covid-19 deaths by May 1, 2020 and almost 100,000 by June.

Total Swedish Covid deaths at this writing: 14,651.

It's not that Sweden did nothing – but very little. "From the onset of the COVID-19 pandemic, the Public Health Agency . . . embarked on a de-facto herd immunity approach, allowing community transmission to occur relatively unchecked," declared a scathing editorial in the leftwing medical journal *The Lancet* last December. "No mandatory measures were taken to limit crowds on public transport, in shopping malls, or in other crowded places," it said. "Coronavirus testing, contact tracing, source identification, and reporting, as recommended by WHO, were limited and remain inadequate." High schools closed temporarily, but grade schools never.

"In our view," snarled *The Lancet*, "there is still not sufficient recognition in the national strategy of the importance of pre-symptomatic and asymptomatic transmission, aerosol transmission, and use of face masks."

Time to revisit Sweden as much of the world starts locking down and masking again regardless of vaccination levels, blaming the Delta variant. And those impudent Swedes are pretty much refusing to die of Covid at all.

Not to say that vaccines haven't contributed to the current low numbers, but … cases peaked during the first week of January while vaccinations didn't even *begin until the end of that month*. Currently Sweden ranks 18th in Europe in vaccines per capita, right in the middle. Likewise, there are those who say Sweden finally buckled down and imposed serious restrictions. It didn't. It imposed more restrictions in the second week of January, perhaps more in response to international opprobrium than anything else. But yes, it was after cases not only had started dropping but actually plummeted by more than half.

What's happening? According to an as-yet unpublished but online study by two Svenske researchers, it appears the country has reached that Holy Grail of

Covid called "herd immunity." That means a level where those already protected are significantly guarding those without exposure. Mind, they say, it's not all from Covid-19 per se but possibly in great part to "pre-immunity" from other infections. Four coronaviruses are known to cause colds, but the researchers actually don't even mention that. It's just that previous exposure to *something* seems to be providing natural inoculation. And it shouldn't be as unique to Sweden as Ingrid Bergman.

Mind, the current figures are just a snapshot. Did the country pay an awful price en route to the apparent herd immunity? Well, certainly the Swedish death rate is higher than its Nordic neighbors Norway, Denmark, and Finland. Those are the comparisons you'll hear. But it's well below the rates for larger-population European countries including Belgium, Italy, the U.K., Romania, Spain, France, and Portugal. The U.S., too.

Sweden's chief epidemiologist Anders Tegnell, who caught absolute hell, feels vindicated. "Locking down is saving time," he said last year. "It's not solving anything." In essence the country "front-loaded" its deaths and decreased those deaths later on.

Meanwhile, the Swede haters have also insisted that in exchange for its "butcher's bill" the country was deriving little or no economic benefit from not shutting down.

"Sweden unlikely to feel economic benefit of no-lockdown approach," warned the *Financial Times* in a May 10, 2020 headline. It admitted that so far Sweden has fared better, but select "analysts" cautioned it wouldn't last.

Wrong. Despite Sweden inevitably feeling undertow from economies that did lock down, "Covid-19 has had a rather limited impact on its economy compared with most other European countries," according to the Nordetrade.com consulting firm. "Softer preventative restrictions against Covid-19 earlier in the year and a strong recovery in the third quarter contained the GDP contraction," it said.

Thus the country the media loved to hate is reaping the best of all worlds: Few current cases and deaths, stronger economic growth than the lockdown countries, and its people never experienced the yoke of tyranny.

Not surprisingly, it's not just Sweden's pro-freedom position on Covid that sticks in the MSM's craw. Though routinely labeled "socialist," it ranks 10th out of 190 economies for ease of doing business, according to the World Bank's Doing Business report for 2020.

Which for a lot of people is presumably another good reason to hate them.

– July 30, 2021

Monetary Policy Since the Great Recession

ROBERT F. MULLIGAN
Contributor

After the 2007-2009 financial crisis, the Great Recession it precipitated, the exceptionally sluggish recovery, and now the pandemic recession, the U.S. has essentially entered a new macroeconomic environment. For most of the 2010s there was a general consensus that inflation was not too much of a problem. This very complacency has now set the stage for higher inflation by limiting our viable policy options. At this point it will be helpful to review the 2010s' macroeconomic rollercoaster to fully appreciate how we got where we are, and what it bodes for the future.

This article will discuss some of the monetary developments that emerged during and after the 2007-2009 financial crisis, to help provide an understanding of where the U.S. economy is in 2021, how we got here, and where we might be headed. Until the Great Recession, textbook accounts of the U.S. Federal Reserve System recognized three instruments of monetary policy. These were the reserve requirement, the discount rate, and open market operations (OMO).

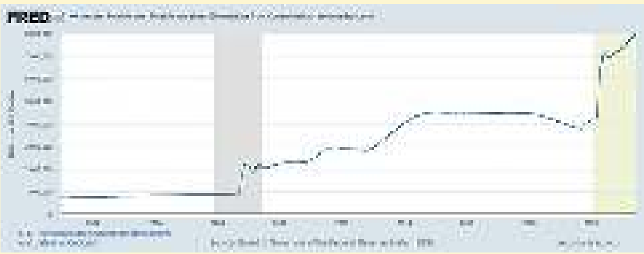
The reserve requirement is the amount of deposits banks are not permitted to lend. The Fed's role in holding these reserves is why it is called the Federal Reserve System. Traditionally, the reserve requirement had a three-tiered structure: zero for the lowest tier of deposits, 3% for the second tier, and 10% for the highest tier. The dividing lines between tiers were periodically reset upward as the money supply grew. Making banks hold certain levels of reserves guaranteed, they would always have enough money for withdrawals. Raising the reserve requirement disciplines banks to lend less, and because the money supply is highly leveraged, with most of it created when banks lend, raising the reserve requirement reduces the money supply by reducing lending. As discussed below, the Fed reduced the reserve requirement to zero in 2020, but this has not allowed the money supply to explode out of control, at least not yet.

The second traditional instrument of monetary policy was the discount rate, the interest rate the Fed charged member banks when they needed to borrow to meet their reserve requirement. The term discount rate is an anachronism, referring to the long-abandoned practice of lending banks a smaller, discounted, amount than what they would have to repay. In the early days of discount lending, the difference between the amount borrowed and the higher amount banks had to repay the Fed constituted the interest on those loans. The higher the discount rate, the more expensive discount borrowing was, so the greater the banks' incentive to avoid the need to borrow. Banks could avoid discount borrowing by keeping larger buffers of unloaned excess reserves, over-and-above their required reserves. Since the reserve requirement has been abolished, there is no longer any need for discount lending, and adjusting the discount rate can no longer be used to control the money supply.

The third instrument of monetary policy was—and remains—open market operations (OMO). This consists of purchasing government debt—U.S. Treasury bonds, bills, and notes, to put new money in circulation. If needed, the assets the Fed acquired through OMO can be sold to remove money from circulation, enabling the Fed to control the money supply to fight inflation. This standard textbook account was largely satisfactory until the 2007-2009 financial crisis. The Fed's response to the crisis was called quantitative easing, which can largely be understood as an extended OMO. Quantitative easing was fundamentally different only due to the extent and nature of the Fed's purchases.

Figure 1 illustrates how the Fed's balance sheet has evolved over time as monetary policy became progressively more expansionary over the 2010s. The Fed's assets were all acquired through OMO to put money in circulation, and theoretically these assets could be sold to reduce the size of the money supply. The first round of quantitative easing, QE1, more than doubled the size of the Fed's balance sheet from 2008-2009—mostly with distressed assets. These were low-quality mortgage-backed securities, which unlike the government debt traditionally used to implement OMO, could not be sold to remove an equivalent number of dollars from circulation. This was when the Fed lost much of its ability to control the money supply. The Fed currently still holds over $2 trillion worth in mortgage-backed securities. Subsequent rounds of quantitative easing increased the Fed's balance sheet further in 2011 and 2013-2014, and from 2020 on, to $7.7 trillion as of mid-2021.

Figure 1. Total assets held by the Fed



Board of Governors of the Federal Reserve System (US), Assets: Total Assets: Total Assets (Less Eliminations from Consolidation): Wednesday Level [WALCL], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/WALCL, June 9, 2021.

Prior to the financial crisis, the Fed had already put $800 billion in reserves into the financial system. The banks that held these reserves generally loaned out the majority at a profit, creating additional reserves whenever borrowers deposited this money in other banks. If the Fed needed to fight inflation and support the value of the dollar, it could remove the $800 billion by selling its portfolio of Treasury debt and other assets. These sales would have had a leveraged effect on the total money supply, because they would also remove any additional money that had been created by bank lending on the affected reserves.

During the financial crisis, the Fed started buying mortgage-backed securities and other distressed bank debt. Part of the rationale for this first round of quantitative easing (QE1) was to bail out distressed financial institutions, rather than carry out monetary policy. That was why these distressed assets were purchased at face value rather than at their much lower—in many cases practically zero—market value. The Fed did this to keep distressed banks from failing, which would in turn have required even larger direct bailouts. Unlike the Treasury debt, there was no market for the overvalued mortgage-backed securities, so there was never any possibility for the Fed to sell them off to help reduce the money supply. By June 2010 the Fed held $2.1 trillion in assets, about half of which were distressed assets acquired through QE1, more than twice the assets it held before the financial crisis. Although the Fed could not sell the mortgage-backed securities in its portfolio, the amount of distressed assets naturally diminishes over time as this debt gradually expires.

Open market operations and quantitative easing suffer from an inherent asymmetry because the Fed buys debt instruments which mature and expire over time, paying with dollars that never expire. In the short run there should always be a perfect balance between debt held by the Fed and dollars of base reserves created this way. This is important because the Fed needs to be able to remove dollars from circulation to maintain the dollar's relative scarcity and value, and fight inflation.

Over time however, the debt matures and the dollars don't, creating an imbalance that impairs the Fed's ability to fight inflation. This imbalance gets worse the larger the money supply and the larger the Fed's balance sheet. In some ways the distressed assets the Fed acquired through QEs 1 through 3 counteracted this effect, because as the economy entered into a very shallow recovery, markets for mortgage-backed securities began to resume some semblance of normality. Part of the reason for this was that the Fed's drastic injections of liquidity helped reinflate housing prices.

The Fed conducted a second round of quantitative easing in November 2010, QE2, buying primarily government debt—QE1 had already bought up virtually all the mortgage-backed securities in the economy. QE3 started in 2012, with the Fed purchasing $40 billion monthly, later increased to $85 billion. By the end of 2014 the Fed held $4.5 trillion in assets—six times what it held before the financial crisis. The Fed's balance sheet only began to fall in 2018, but the response to the Covid-19 pandemic was to further accelerate asset purchases in QE4, almost doubling a Fed balance sheet that was already unprecedentedly bloated, now standing at $8 trillion, with no telling when it might end.

Figure 2. Total bank reserves

Board of Governors of the Federal Reserve System (US), Total Reserves of Depository Institutions [TOTRESNS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TOTRESNS, June 8, 2021.

The Fed's strategy to restore confidence in the financial sector can be seen even more directly in Figure 2. Prior to the financial crisis, bank profits depended on each bank holding a productive loan portfolio, with the result that banks minimized their excess reserves. Starting in late 2008, the Fed began to pay interest on reserves, providing banks risk-free income as an alternative to lending, which had suddenly become far riskier. At one point the Fed's interest rate on reserves was as high as 2.5%, significantly more than what banks were paying on most checking accounts. The Fed reduced the interest it paid on reserves to 0.1% in early 2020, but recently raised it to 0.15%.

Paying interest on reserves lowers the money supply because it discourages banks from lending—even though the Fed has to create new money to pay the interest, the net effect is still to reduce the money supply. With each new round of quantitative easing, the Fed expanded its balance sheet as banks accumulated additional reserves. Once the Fed stops paying interest on these huge buffer stocks of bank reserves, the banks will lend them out, further leveraging the amount of money already circulating. When this happens, inflation will skyrocket.

In theory the Fed could retire some of this money by selling government securities, but its balance sheet is now so large that trying to sell enough government debt might depress its value—meaning the Fed has further lost control of the money supply. Paying interest on reserves has been an attempt to return to normalcy. Once inflation becomes omnipresent, the only way to fight it will be to tighten the money supply by raising interest rates generally throughout the economy. High interest rates will choke off investment and might trigger new real estate and stock market crashes. In a high interest rate environment, homebuyers would be well-advised to opt for variable-rate mortgages in preference to fixed-rate.

None of the foregoing necessarily matters until the Fed needs to fight inflation. However, the minute the Fed realizes it needs to worry about inflation, it will become obvious that it has painted us into a corner. Discretionary Fed policy has limited the range of how it can respond to inflation in the future. In response to each development since the 2007 financial crisis, the Fed has repeatedly opted for policies with short-term benefits while disregarding the very real long-term costs. The U.S. economy has now entered unexplored territory, though this territory has unhappy similarities with Revolutionary-era hyperinflation, Civil War inflation of the 1860s, and the stagflation of the 1970s. None of these historical experiences were something anybody would want to relive.

– July 25, 2021

Is Inflation Really a Problem?

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Inflation is the current hot topic in macroeconomics, to the extent anything in macroeconomics can be "hot." Financial, economic, and political commentators are in a tizzy over price increases. Even Fed Chairman Jerome Powell is starting to sound concerned, if his recent testimony before the Senate Banking Committee is any indication.

We take it for granted that inflation is a problem. But is it? The short answer is: yes, sometimes. But these cases differ greatly from the pop macroeconomics of the man in the street.

Let's go over some common objections about inflation and discuss why economists don't find these particularly concerning.

First, many decry inflation because it erodes the dollar's purchasing power. This is true enough. In fact, a decline in the dollar's purchasing power is the very definition of inflation! But why does this matter? There's no single value of the dollar that's obviously better than others. Furthermore, since the dollar's value falls *to the extent there are more dollars in circulation*, it's hard to see this as anything to get worked up about in and of itself. It is only a problem to the extent that individuals use up real resources to deal with the declining purchasing power of the dollar.

Second, workers often worry about the effects of inflation on their wages. A given money wage is worth less when there's inflation. Again, that is correct, so far as it goes. Some workers may see prices of the goods they consume go up faster than wages. But, eventually, nominal wages will rise as well. Remember, wages are a price: the price of rented labor. If prices are rising by 5%, but you get a 5% raise, are you any worse off? It's hard to see how. Workers are only worse off to the extent that inflation is unexpected and nominal wage adjustments are made with a lag.

Of course, workers whose wages go up by less than 5% have a valid complaint. This points to a much more interesting consequence of inflation: it sometimes affects relative prices, and hence the market's allocation of resources.

Ever since Richard Cantillon wrote his *Essay on the Nature of Trade in General* in the early 18th century, economists have known that inflation does not work its way throughout the economy uniformly. Some prices go up first. Others go up, but only after a while. Some might hardly go up at all. This plausibly affects the economy's structure of relative prices. Since relative prices guide resource allocation, inflation can result in destroyed wealth in the form of mistakes in production and consumption.

However, Cantillon effects have proven quite resistant to empirical estimation. The few times economists go looking for them, they seem to be small and imprecisely estimated. This doesn't mean we should rule out the potential for Cantillon effects entirely. But it does put them into perspective. Perhaps this damning theoretical indictment of inflation isn't so forceful in practice.

What really matters, economists insist, is unanticipated inflation. If we know what's going on with the money supply, we can bake those expectations into the contracts we write. If we're looking for a 3% rate of return in inflation-adjusted dollars, and we expect inflation to average 2% over the period of the contract, then I and my counterparty should be happy to write a contract at 5%, which gets us the agreed-upon real (inflation-adjusted) rate of return.

But inflation isn't always predictable. When price increases across the economy come as a surprise, some gain at the expense of others. Since the gains are equal in magnitude to the losses, these transfers do not amount to a net loss to society. However, people take steps to avoid those transfers—and use up real resources in the process. And the use of those real resources is a net cost to society.

This is a more important objection to inflation: when whoever's running monetary policy behaves in a difficult-to-predict fashion, market actors will spend valuable resources trying to protect themselves from inflation. Those expended resources are a waste, compared to a world where the purchasing power of the dollar could be known beforehand.

To sum up, inflation has real costs when it's unpredictable. We want monetary institutions to keep generalized price increases on a steady, anticipable path. Since central banks often go out of their way not to be understood, we might have a valid complaint against them after all.

– July 29, 2021

Higher Inflation Depresses Equity Valuation

RICHARD M. SALSMAN

Senior Fellow

As economists and investors assess the chances that recent, higher U.S. inflation rates will prove transitory or permanent, they should not lose sight of the well-established fact that higher inflation is associated with lower equity valuations (typically measured by the price-earnings or "P/E" multiple). The facts are easy to forget because it is commonly (but falsely) believed that when central banks issue massive new sums of money which do not much lift prices of consumer goods, the money must "spill over" to spending on other things like equities (causing "asset price inflation"). Not so. Equities are almost as "inflation sensitive" (and negatively so) as bonds.

Higher inflation brings lower P/E multiples because it brings slower economic growth, more inflated (lower quality) profits, and higher interest rates; likewise, lower inflation brings higher P/E multiples because it brings faster growth, less inflated profits, and lower interest rates.

The S&P 500's price-earnings (P/E) multiple roughly doubled from 19X at the end of 2018 to 39X at the end of 2020, without much empirical grounding or logical justification. On every possible front in 2019-20, the political-economic climate worsened. So did the fundamentals – economic growth, profits, and dividends. Historically, equity valuation expands sustainably when the policy climate is predictable and pro-capitalist. The past two years have seen policies (from Trump and Biden alike) that are unpredictable and anti-capitalist. Today's high valuation is not sustainable; a major decline in the P/E multiple is possible by the time of the 2022 election, with profits (E) outpacing price (P) gains.

Another risk to high equity valuations is higher inflation. Some economists (mainly those Monetarists and Austrian-schoolers who are not familiar with the Fed's new operating system) simply presume that U.S. inflation must accelerate due to huge increases in the money supply – which have certainly occurred since 2008. They have been warning about this for years now, while falsely predicting a 1970s-style dollar crash and much higher inflation. Their *supply-only model* obviously deemphasizes or ignores the possibility of an equally vast increase in *demand* to hold cash balances (i.e., hoarding by banks, companies, and households).

Other economists believe banks are holding more cash than usual because the Fed, since 2008, has paid them interest on required and excess reserves. This policy, they argue, depressed bank lending and ultimately inflation in the years following the financial crisis. But the rate paid is miniscule (today, just 0.15%) and when it was raised steadily from 0.25% to 2.40% (and kept above 2.00%) between October 2015 and September 2019, the ratio of excess reserves to deposits didn't rise but declined (by 61%). Thereafter, as the interest paid on excess reserves was slashed (from 2% to the current low level), the excess reserve ratio climbed.

Table One reveals that the U.S. inflation rate has been much lower in the thirteen years since March 2008 (1.7% p.a.) even as the money supply increased 22.1% p.a.; inflation was 2.7% p.a. over the prior thirteen years (1995-2008), even though the money supply barely grew at all (1.5% p.a.). Clearly, no tight link exists between money supply and inflation. The difference is demand.

Table One

Money Supply & Inflation: a Tenuous Link

U.S., 1995-2021

	compounded annual growth rates in	
March	Money Supply (M-1)	Consumer Price Index
1995 - 2008	1.5%	2.7%
2008 - 2021	22.1%	1.7%

Source: InteMarket Forecasting, Inc. https://imfine.com/main/

Figure One makes clear that for the past half-century there's been an inverse relationship between the U.S. inflation rate and the S&P 500's valuation (P/E multiple). The correlation is both high and negative: -66%.

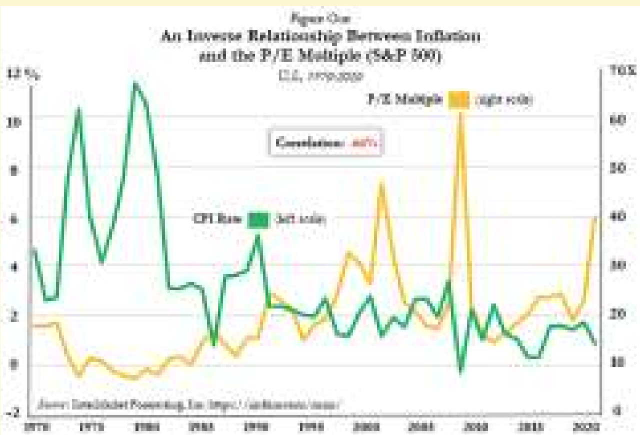
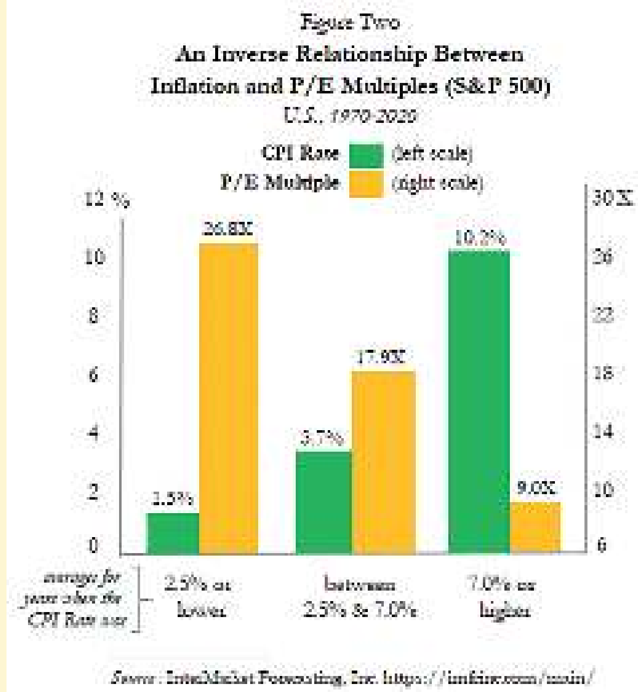


Figure Two depicts the same information but partitions the history into three distinct periods: years when the annual CPI rate was 1) *low* (2.5% or lower, average: 1.5% p.a.), 2) *moderate* (between 2.5% and 7.0%, average: 3.7% p.a.), and 3) high (7.0% or *higher*, average: 10.2% p.a.). The S&P 500's P/E was quite high (average: 26.8X) in the first case of low inflation, much lower (average: 17.9X) in the second case of moderate inflation, and lower still (average: 9.0X) in the third case of high inflation.



It is possible that U.S. inflation hereafter accelerates amid a decline in the demand to hold cash balances, as Covid-phobia wanes, lockdown decrees diminish, and the U.S. economy "reopens." Sustained, materially higher inflation has not yet been signaled by a rising gold price (it was up 40% in the year through August 8th, to $2,065/oz., but has since declined by 14% to $1,785/oz.). Yet banks, firms, and households might begin aggressively dispensing some of the cash they've been hoarding; that didn't occur after the vast money creation of 2008-10, but it might occur now.

Have U.S. equity gains decelerated of late as the CPI rate has increased? Yes. The S&P 500 is up by 9% over the past three months, down from its 19% over the previous three months. Meanwhile the CPI, having increased by only 0.2% in the year through May 2020, has since increased by 4.9% (data through May). The CPI will probably increase by 3-5% for all of 2021. That is not nearly as bad as the 1970s, when the rate averaged 7.4% p.a. (and peaked at 13.3% in late 1979), but it's still bad for equity valuations.

– July 9, 2021

The 50 States Suffered Differentially During the Lockdowns and Pandemic

GREGORY VAN KIPNIS

Chairman of the Board

The economic outcomes for each of the 50 states varied considerably over the course of the 15 months following the disruptions caused by the lockdowns and the Covid pandemic. The purpose of this brief note is to document those differences, with particular emphasis on the surprisingly large effects that variations in Federal, State, and Local government spending had on the course of recovery.

Based on the recently published Real Gross Domestic Product (rGDP) data through the end of the first quarter (21Q1), the US economy has almost fully recovered to the prior peak levels reached in the fourth quarter of 2019 (19Q4).

In the US, the policy response to the Covid-19 pandemic led to mandatory lockdowns, masking and social distancing. These policies and general fear led to a massive retrenchment in consumer and spending. The economy collapsed by 10.1% through the end of June 2020. The subsequent recovery from the lows was 10.3% by the end of March this year. This recovery does not completely offset the previous decline as rGDP is still off its prior peak by 0.9%.

But the big picture description obscures some important details at the state level and in particular reveals major differences in the effect of government spending on the local state economies.

Fourteen states exceed their 19Q4 levels of economic activity. The extent of recovery ranged from a small 0.2% for Kansas to a whopping 4.0% for Utah. (See second table for full details):

- Alabama
- Arizona
- Arkansas
- Colorado
- Georgia
- Idaho
- Indiana
- Iowa
- Kansas
- Mississippi
- North Carolina
- South Dakota
- Utah
- Washington

But what about the role of government spending? Did that help offset the economic pain? In most cases it did. Digging into the data more deeply we found that in seven states, government spending was a drag and made things worse by anywhere between -0.4% and -1.5%:

REAL GDP GROWTH 2009 4thQ to 2011 1st Q

		Total	Private Sector	Federal Gov't	State & Local Gov't	Gov't Drag
	U.S.	-0.9%	-0.6%	2.2%	-5.4%	
1	Alabama	0.7%	1.2%	1.9%	-4.3%	
2	Alaska	-2.1%	-2.7%	3.5%	-3.1%	0.51%
3	Arizona	1.5%	2.0%	2.4%	-3.3%	
4	Arkansas	0.6%	1.2%	2.7%	-4.7%	
5	California	-1.3%	-0.7%	1.9%	-8.3%	
6	Colorado	1.0%	1.6%	2.2%	-5.6%	
7	Connecticut	-0.7%	-0.3%	2.7%	-6.6%	
8	Delaware	-0.3%	0.0%	2.1%	-4.0%	
9	District of Columbia	-0.6%	-2.1%	3.0%	-3.2%	1.5%
10	Florida	-0.4%	-0.1%	3.7%	-5.5%	
11	Georgia	0.8%	1.2%	2.2%	-4.6%	
12	Hawaii	-7.3%	-8.5%	-0.1%	-6.1%	1.16%
13	Idaho	1.5%	1.8%	5.0%	-3.2%	
14	Illinois	-0.6%	-0.3%	1.7%	-4.5%	
15	Indiana	0.5%	0.9%	5.5%	-4.3%	
16	Iowa	1.8%	2.5%	-3.2%	-3.9%	
17	Kansas	0.2%	0.9%	1.3%	-6.5%	

18	Kentucky	-0.6%	-0.2%	3.2%	-6.3%	
19	Louisiana	-3.5%	-3.7%	2.5%	-3.2%	0.21%
20	Maine	-2.3%	-2.0%	3.5%	-8.3%	
21	Maryland	-0.2%	-0.3%	3.4%	-5.8%	0.08%
22	Massachusetts	-0.6%	-0.3%	0.3%	-5.6%	
23	Michigan	-2.4%	-2.2%	1.9%	-5.4%	
24	Minnesota	-0.5%	-0.1%	5.1%	-5.9%	
25	Mississippi	0.5%	1.0%	3.8%	-4.8%	
26	Missouri	-0.3%	-0.1%	4.2%	-4.5%	
27	Montana	-1.1%	-0.8%	2.5%	-5.8%	
28	Nebraska	0.0%	0.6%	2.3%	-5.7%	
29	Nevada	-0.8%	-0.3%	3.9%	-8.0%	
30	New Hampshire	-0.5%	-0.2%	0.5%	-5.1%	
31	New Jersey	-1.4%	-1.1%	1.4%	-4.7%	
32	New Mexico	-2.5%	-3.3%	3.4%	-3.0%	0.80%
33	New York	-3.7%	-3.6%	0.2%	-5.1%	
34	North Carolina	0.4%	0.9%	1.8%	-4.5%	
35	North Dakota	-0.3%	-0.6%	6.0%	1.0%	0.36%
36	Ohio	-0.9%	-0.4%	1.1%	-6.3%	
37	Oklahoma	-3.8%	-4.3%	2.2%	-2.3%	0.58%
38	Oregon	-0.8%	-0.1%	1.5%	-7.4%	
39	Pennsylvania	-1.9%	-1.6%	1.2%	-6.3%	
40	Rhode Island	-1.2%	-0.8%	-0.2%	-5.7%	
41	South Carolina	-1.2%	-0.5%	0.8%	-6.6%	
42	South Dakota	1.8%	2.2%	3.1%	-3.2%	
43	Tennessee	-1.0%	-0.7%	1.0%	-5.0%	
44	Texas	-0.8%	-0.8%	3.1%	-1.8%	0.03%
45	Utah	4.0%	4.5%	6.5%	-1.7%	
46	Vermont	-2.2%	-2.2%	5.0%	-5.2%	
47	Virginia	-0.1%	0.0%	3.7%	-6.2%	
48	Washington	1.7%	2.5%	4.4%	-7.1%	
49	West Virginia	-1.0%	-1.2%	7.5%	-3.8%	0.17%
50	Wisconsin	-1.5%	-1.0%	1.1%	-7.2%	
51	Wyoming	-5.8%	-6.4%	2.9%	-4.4%	0.63%

Sources: Bureau of Economic Analysis,
U.S. Department of Commerce; calculations by author.

Other than North Dakota the data shows that these states were harder hit by the effects of the lockdowns and pandemic and have struggled to recover. Curiously states like Florida and Nevada were not as badly affected despite their dependency on tourism.

But the story of disparate regional economic effects ise more complicated – surprisingly so. In every state local government spending declined and has not recovered to its previous levels. For example California is still 8.3% below its 19Q4 peak. Oregon is off by 7.4%, Washington off by 7.1%, Wisconsin off by 7.2%. Table 3 reveals some surprising numbers).

Every state is off its peak, but one – North Dakota. The average spending by state and local governments is still off the 19Q4 levels by an average of 5.4%.

Federal spending, on the other hand, increased on average from the 19Q4 level by 2.2%. Here as well there was considerable disparity ranging from a 3.2% decline in Iowa to an increase of 7.5% in West Virginia.

In the aggregate government spending at all levels (federal, state, and local) had a mildly negative 0.3% effect on the economy.

This is somewhat surprising. Government spending is presumed to have a stabilizing effect on the economy. While that was true at the Federal level, it was wildly the opposite case at the state and local level. Of course, the Federal government can print money whereas states cannot and they have limited capacity to balloon their debt. Of course we do not know much about the state of state and local finances. The data are incomplete, but anecdotal information suggests that a great deal of the aid to states was not spent and they are in better fiscal condition than is advertised.

So the bottom line is that the private sector actually did a better overall job in most states than governments in terms of managing state and local economic progress.

– July 12, 2021

"Externality" Is No Good Excuse for Mandatory Vaccination

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Senior Fellow

I am not, and never have been, an anti-vaxxer. When my one child, Thomas, was young neither his mother nor I hesitated to have him receive the full range of childhood vaccines – just as my own parents didn't hesitate to have me, in the 1960s, receive the full range of vaccines then available to children. And when Covid-19 vaccines became available a few months ago, I got the full dosage. (Moderna, in case you're wondering.)

But I am, and have forever been, an anti-authoritarian. And being such, I oppose efforts by government to mandate vaccination or to punish persons who aren't vaccinated. In this real world of ours the state has no business imposing penalties on anyone who chooses not to inject or ingest certain medicines. Such an intrusion into individuals' private affairs is unethical and inconsistent with the principles of a free society. Every parent should have the right to refuse vaccination for his or her children. Every adult should have the right to refuse vaccination for himself or herself. No explanation for such refusal should be required beyond a simple "No."

Externality!

The most common retort to those of us who oppose state punishment of people who refuse vaccines is to allege that anti-vaccinated persons jeopardize the health, and even the lives, of innocent third parties. Read, for example, *Washington Post* columnist Leana Wen, whose strong obsession for mandatory vaccination is matched by her weak ability to put data into proper perspective. In econspeak, the charge is "externality!" – or as University of Michigan economist Justin Wolfers recently exclaimed in response to someone who objects to what smells like a move toward mandatory vaccination, "Because externalities." An unvaccinated individual, it is alleged, unjustly spreads to other people dangerous pathogens whenever that individual is in public.

But shouting "externality!" is not the trump card that many economists (and non-economists) naïvely suppose it to be. In a world in which not every human being lives an isolated existence – that is, in our world – each of us incessantly acts in ways that affect strangers without thereby justifying government-imposed restrictions on the great majority of these actions. Therefore, justification of government obstruction of the ordinary affairs of life requires far more than an identification of the prospect of some interpersonal impact. (See David Henderson's brief response to Wolfers.)

Justification for mandatory vaccination also requires more than a vivid imagination. Clever seventh graders can describe hypothetical situations in which every reasonable person might agree that forced vaccination is justified. (*"Like, imagine a virus so super-contagious and lethal that it will, with 100 percent certainty, literally kill every human being in the country if even a single person in the country remains unvaccinated!!!"*) To be relevant, the case for mandatory vaccination must be made with respect to reality as we know it. Furthermore, in a free society the burden of proof falls, not on opponents of mandatory vaccination, but on those who assert that the externality is real and serious enough to justify making vaccination mandatory.

That the choice to remain unvaccinated against Covid creates some risks for strangers is indisputable. Yet this fact about this choice does not distinguish it from many other choices with similar consequences, nearly all of which choices, again, do not justify government intervention – a fact that holds true even if we confine our attention only to actions that put in greater jeopardy the physical health of others.

The choice to drive to the supermarket creates health risks for pedestrians and other drivers. The choice not to be tested for the flu and then go about life as normal creates health risks for others. The choice of diving into a community swimming pool creates health risks for others. The choice to use a public restroom creates health risks for others. In each of these situations, the benefits of allowing individuals to freely make such choices are believed to be greater than the benefits that would arise from imposing novel restrictions on such choices.

So What About Covid and the Vaccines?

So is there something special about Covid-19 that justifies the unusual authoritarian step of making vaccination mandatory? No.

First there is this important and relevant reality that warrants repetition given the bizarre yet widespread belief that this reality is neither important nor relevant: Covid reserves its dangers overwhelmingly for the old and ill – that is, for an easily self-identified group the members of which can take measures to protect themselves from exposure to the virus without requiring the vast majority of humanity, very few of whom are at real risk from Covid, to suspend and upend their lives.

Second – and even apart from the first point – the fact that vaccinations are quite effective at protecting vaccinated persons from contracting and suffering from Covid should be sufficient to drive the final stake through the heart of the case for mandatory vaccination. Yet mandatory vaxxers have a retort. They believe that their case is made by establishing two facts. The first of these facts is that vaccination not only protects vaccinated individuals from Covid, it also reduces the prospect of vaccinated persons spreading Covid to others. The second fact is that not everyone is or can be vaccinated. These two facts are then cobbled into a springboard from which mandatory vaxxers leap to the conclusion that, therefore, the state should mandate vaccination of everyone who is medically able to be vaccinated.

But this leap is illogical, for it ignores several pertinent questions. And persons bearing the burden of proof are in no position to ignore pertinent questions.

Among the pertinent questions ignored – and, hence, not answered – are these:

1. By how much does being vaccinated reduce a person's chance of transmitting the coronavirus? Is this reduction worth all the costs of mandating vaccination?
2. How many people have medical conditions that prevent them from being vaccinated against Covid? And what portion of these people are in groups whose members are at especially high risks of suffering from Covid?
3. What does having a medical condition that prevents someone from being vaccinated against Covid even mean? Does it mean that such persons, were they vaccinated, would incur a 100 percent chance of dying from the vaccination? Surely not. But if not, to what specific risk-levels would Covid vaccination subject such people? And are these risks high enough to be part of a credible case for mandatory vaccination?
4. What is the cost to the 'unable-to-be-vaccinated' group of otherwise protecting themselves from Covid compared to the cost of mandating that everyone else be vaccinated?
5. The very existence of a group of people for whom Covid vaccines are too risky to take implies that Covid vaccines are not risk-free *for anyone.* (Even apart from the inherent, if

sufficiently small, 'natural' random risk posed by any medical treatment, each of us has some positive chance of unknowingly being afflicted with one or more of the conditions that are recognized as rendering Covid vaccination as too risky.) Why, then, should everyone – save individuals in the formally exempt group – be required to be vaccinated and, thus, be required to be subjected to some positive risk of being physically harmed by the vaccine?

6. If, as the mandatory vaxxers imply, any action that poses a risk to the health of strangers is an action that government should treat as an "externality" and forcibly prevent, why should not government treat all expressions of arguments in support of mandatory vaccination as externalities to be forcibly forbidden? Because vaccination itself is not risk-free, forcing people to be vaccinated is to forcibly subject some people to a risk that they'd prefer to avoid. Further, publicly advocating for mandatory vaccination increases the risk that a policy of mandatory vaccination will be implemented – meaning that publicly advocating for mandatory vaccination (according to the logic of the mandatory vaxxers themselves) exposes innocent others to a risk that government is duty-bound to prevent.

Conclusion

Of course, I would oppose efforts to quiet the speech of mandatory vaxxers with the same energy and sincerity that fuel my opposition to efforts of mandatory vaxxers to impose on humanity their authoritarian measure. But the fact that the logic of the mandatory vaxxers can easily be used to make a case for forcibly stripping them of their freedom to peacefully advocate mandatory vaccination reveals just how flimsy is the case for mandatory vaccination.

That case, to repeat, cannot be settled in the abstract with the mere intonation of the word "externality." The above-mentioned questions (and perhaps some others) about facts must be answered. And the burden in a liberal, open society for answering those questions in ways that make the case for any government mandate rests on the proponents of the mandate and not on the defenders of freedom.

– July 13, 2021

It's About Time We Stopped "Trying Communism"

ETHAN YANG
Adjunct Research Fellow

Idon't know how many protests, solidarity movements, refugees, human rights alerts, economic collapses, and purges are going to get this message through everyone's heads, Communism is a terrible system of governance. In fact, at this point, we should be consistent. Any government that does not guarantee as to the very justification for its existence, individual rights, open markets, and accountable governance, is worth challenging.

I am of course referring to the ongoing protest in Cuba, to which those on the far left will shamefully attribute to the US embargo on the Communist regime. Others may simply beat around the bush and try to attribute the reasons for the protests to current events. Although all these may contribute to the discontent fueling the Cuban protests, just like every single Communist regime, the ultimate reason why things are going poorly is that the people live under a crushing regime of incompetence and oppression.

To make room for a colleague that will inevitably publish on the Cuban protests in more detail, my article will focus not on Cuba but on the general topic of Communism.

The Shameful Track Record of Communism

Real Communism has never been tried before, but it certainly has been attempted in all sorts of flavors and every single one of them sucked. For some reason, their leaders can't bring themselves to care about the rights of individuals. Perhaps it undermines their overall collectivist views? Perhaps individual dignity would lead down the slippery slope to capitalism? Perhaps individual rights and preferences are a bourgeois construct? That's certainly what Che Guevara, the leader of Cuba's Communist revolution, and Fidel Castro, Communist Cuba's first leader thought. In fact, *Human Progress* points out,

> "Both Guevara and Castro considered homosexuality a bourgeois decadence. In an interview in 1965, Castro explained that "A deviation of that nature clashes with the concept we have of what a militant communist should be."

Although the American Left somehow rationalizes the deification of men like Che Guevara, they seem to conveniently forget that much like all power-hungry dictators with no regard for human life, he was blatantly a racist, a bigot, and a mass murderer. Human Progress notes,

> "According to Álvaro Vargas Llosa, homosexuals, Jehova's Witnesses, Afro-Cuban priests, and others who were believed to have committed a crime against revolutionary morals, were forced to work in these camps to correct their "anti-social behavior." Many of them died; others were tortured or raped."

Even today the Cuban government and every single communist country are incredibly repressive. In fact, in reaction to the protests that some may keep telling themselves aren't against the Communist government, they just shut off the internet. You don't do that when the people are protesting the actions of a foreign government, such as a US embargo; you do that when the protestors are against the domestic government.

To briefly highlight some of the many atrocities committed by Communist regimes let's start with China. It's been a little bit more than a month since the anniversary of China's Tiananmen Square Massacre and tens of millions died in Mao's Great Leap Forward as well as the Cultural Revolution. A failure of Communist economic and political reform respectively. North Korea is such a repressive and poor country, it's hard to even know where to begin. Furthermore, there are entire books about how life in the Soviet Union sucked.

In Cambodia (this one is cool because my family fled this genocide so that's why we all live in America now), under the communist Khmer Rouge, not only did they manage to kill off as much of a quarter of the population, but the mass murder, starvation, and torture got so out of hand, communist Vietnam had to intervene with military force. Vietnam is probably one of the more well-behaved communist nations; however, they still have a repressive one-party state and much like China, their current economic success is directly attributed to market reforms. In other words, becoming less communist and more capitalist.

It is simply puzzling that in all these regimes that purport to represent the proletariat, they end up doing more to impoverish and oppress the working class than even the most sadistic capitalist. In hindsight, it really isn't that difficult of a question. As mentioned before, any government that does not protect individual rights, open markets, and constraints on power is not only a recipe for disaster but a moral tragedy.

In liberal democracies, like the United States, there is much talk about the consent of the governed to which governments derive their legitimacy. We already have trouble justifying the impositions that we live under as truly consensual. Such a notion cannot even remotely exist in a Communist regime or any authoritarian regime for that matter.

There is not a single country that adopted Communism or moved in its direction that was able to provide the standards of living and prosperity found in a free and open society like the United States. In fact, that bar is too high, because not a single one has produced any sort of relative prosperity without some sort of market reform, and not a single one can produce a human rights record that doesn't make the problems in freer countries look like child's play.

The Basics of Governance

It has become fashionable for some, like the Chinese Communist Party and all those around the world who share their sentiments, to call for a system of moral relativism when it comes to governments. Respect the rights of governments, not individuals. Such a way of thinking believes that the world must be inclusive of different types of political systems, from the freest to the most oppressive. It eschews any sort of moral foundation when it comes to the rights of individuals or sound economic thinking. It subscribes to the fantasy that different political systems work for different countries.

This is empirically false, which is why the current rules-based international order holds that human rights and open markets are the universal standards for good state conduct.

Take a look at any economic freedom index. There is a powerful correlation between prosperity and free markets. Objective metrics such as infant mortality rates, educational attainment, calorie consumption, life expectancy, and other desirable indicators are all better in richer countries than poorer countries. Basic political science and legal theory tell us that checks and balances are necessary for an accountable government, whether that be preventing the arbitrary use of power or full-on massacres.

Think about it; qualified immunity, a doctrine granting protections for police in the United States against being sued for infringing on a private citizen's rights, already causes enough problems here. Imagine if an entire government had such privileges? A restrained and gridlocked government is far preferable to an unrestrained and power-drunk one.

Finally, there's the basic truth that governments cannot run society; they merely exist to facilitate a productive natural order by securing rights and establishing peace. Commerce, invention, culture, and trade arises spontaneously without central dictate. This is why societies in command economies like Maoist China were incredibly bleak and drab. This is also why former Soviet Union president Boris Yeltsin was so amazed and awestruck when he visited a grocery store in the United States. The *New Haven Register* notes,

> "He told his fellow Russians in his entourage that if their people, who often must wait in line for most goods, saw the conditions of U.S. supermarkets, there would be a revolution."

Key Takeaways

People will always try to find some superficial reason for why a Communist state is failing, whether it's because of sanctions, resource shortages, inflation, civil unrest, or what have you. These are all fine and good but they ultimately fail to see the elephant in the room. Or in this case, the highly authoritarian, oppressive, and economically incompetent system in place.

We live in an age where ignorance is a choice when it comes to the superiority of a free and open society. The quicker we stop averting our eyes and look at the facts, the quicker we can move towards a world where every individual, regardless of their geographical and political fortune, can live free and prosper.

– July 17, 2021

Icelandic Study Suggests Government Workers Are Unnecessary

JOAKIM BOOK
Research Fellow

Alie can get around the world faster than truth can get its pants on, according to the adage apocryphally connected to Mark Twain or Winston Churchill (or Jonathan Swift).

One such kind of lie, or at least obfuscation, is what I call "progressive pop news" – pieces of news, usually quasi-academic studies or gripping anecdotal evidence, that pertain to confirm the long-held biases of progressives. They often have to do with environmental news (think the Arctic, or melting glaciers), but can be anything from the wonders of racial equities or gender-diverse corporate boards to the success of minimum wage laws. In the case of last week, our beloved progressives found issues with the nature of work itself – and the evil corporations that have us work too much, for too little pay.

We should therefore work less, for the same pay (also known as a raise).

Two trials of shortened work weeks in Iceland between 2015 and 2019 came to a stunningly positive result, suggested the British NGO and an Icelandic partisan one who authored the report. (Not wanting to participate in this PR campaign of theirs, I refrain from stating their names or linking to their websites. Interested readers are presumed competent in the art of googling.)

Following "longstanding calls from grassroots organisations and unions," activists convinced the City of Reykjavík to begin trials with 66 people in select offices, measuring performance against a control. The work week was to be reduced by 1, 2, or 3 hours per week, with maintained pay. After some politicking and "initial success," the trial exploded to 2,500 employees across all levels of the Icelandic state, with interested departments and offices self-selecting to take part. Any notion of controls disappeared. All employees involved were government officials, ranging from critically important services like the City Library and City Museum, to parking services and curators of the botanical garden (yes, really). Among those with the greatest reduction in work, 4 hours per week, we find the police department in Westfjord (which recently made headlines for chasing rumors of a stray polar bear) – a remote mountainous area of 7,000 inhabitants and a grand total of 22 officers.

The results were apparently astounding, with lots of positive comments by participants and no noticeable decline in any services. BBC reported that the "Four-day week" was an "overwhelming success," with HuffPo and CNBC echoing the same sentiments. Covering 1% of Iceland's workforce, the grandiose scheme had now been extended to possibly cover 86% of employees, we were led to believe. (Under the not-so-careful hands of Business Insider's Chris Weller, it became 86% "now making moves for reduced hours"). Bloomberg reported it; the *Independent* ran hopeful political quotes by one of the think tank's "director of research;" and fellow Nordic news and radio broadcasts were full of it.

And yes, by "it" I also mean bull. As with all progressive pop news, claims are very fishy and journalistic scrutiny is suddenly nowhere to be found.

Let's begin with the organizations I won't name: the British one openly describes itself as focusing "on the future of work and economic planning," as if trying to plan the economy was a great feat to brag about. Their Icelandic counterpart is a typical small-scale, run-of-the-mill, politics-is-corrupt initiative, calling for extreme democracy over the economy, corporations run by employees, and power returned to the people from the "small and powerful groups" that now allegedly control everything.

Great. This is the progressive version of letting Westboro Baptist Church give testimony on the mental health issues in the LGBT community, or have a spokesperson for ISIS craft U.S. foreign policy.

Next, some of the outrageous claims. The trial included no 4-day work week, and whether it was a great success I'll leave the reader to decide. Depending on the exact offices involved, some gave extra time flexibility, others running overlapping short vs. long weeks (with alternating shorter hours and Friday afternoons off). Most offices reduced working weeks by a paltry 1 or 2 hours, and through the activist keyboard warriors at BBC or HuffPo, this became a "four-day workweek" – presumably because the organizations behind the study explicitly considered that a policy goal. Other wacky commentary included Yahoo Finance, according to which workers apparently had *three extra days off* each week.

For the initial trial of 66 people, there were apparently some control groups involved. Then the initial "success" warranted a much larger pool, reaching the sensational "1.3% of the workforce" figure that international news outlets jumped on. Somewhere between the pompous description and the "analysis," the control groups disappeared, probably joining the overall rent-seeking glory. The superficial metrics used for each office to measure their performance during the trials were vague enough to include the entire department's activities (permits issued, traffic violations written, immigration cases closed, and average waiting times) and be impacted by variance much larger than what a few hours' work would warrant. Relegated to the end of the report, the quantitative comparisons juxtaposed performance before the trial with that after, repeatedly indicating that no negative effects could be discerned. (What, one wonders, were the point of control groups if you only meant to do an observational study anyway?).

Thankfully, it seemed that the Westfjord police officers could write as many speeding tickets as they had before the trial and even close more cases the year after the trial began than they had in the two years before. Hurray.

Most news releases, perhaps in their eagerness to spread progressive gospel, played fast and loose with numbers. Some focused on the 1% of the labor force which, while approximately true, is highly misleading for a country whose population is just shy of 370,000. Others suspiciously aggregated all who had moved to shorter workweeks with all who "have gained the right to trim their working hours," and those who "soon might gain that right" via ongoing union negotiations. Stunningly, such inclusive arithmetic yielded 86% of the workforce. In the wholly incompetent journalistic hands of Annie Nova at CNBC, this arithmetic magic became a certainty: she quotes Jack Kellam, researcher at the British NGO, saying: "Nevertheless, even though Iceland is a comparatively small national economy, 86% of the population has made the shift."

To recap the ludicrous trajectory in the world's progressive news media over the last few days, we went from 1% of labor force in trial for shorter working *hours*, to 86% of labor force potentially covered by union agreements that may soon, possibly, potentially work shorter hours, to 86% *of the population having already made* the shift to a 4-day work week. Blimey, how quickly the lies can grow, multiply, and expand across the world.

One private sector company, not part of the trial, was bullied by its union in 2020 to shorten work weeks by a full 35 minutes. Explosive stuff, I know (The report doesn't reveal any further results from that employer).

And for the greatest cluster-f— of all: these are all government employees. Public officials. Civil servants. The kind that push paper for a living, when not dead set on annoying the rest of us with bureaucratic nothingness. The report stated that

> "To be able to work less while providing the same level of service, changes in the organisation of work therefore had to be implemented. Most commonly, this was done by rethinking how tasks were completed: shortening meetings, cutting out unnecessary tasks, and shifts arrangements."

If anything, the story suggests that government employees working less does not cause any identifiable harm to society.

Knock me down with a feather: You mean to say that government employees, the masters of needless paper pushing, in wholly inessential government services, could work less and nothing seems to have happened to their already questionably-measured "output?"

The interviews with selected employees were altogether positive – surprise, surprise – with lots of juicy quotes about more time for family and mental well-being. Well, why wouldn't you, if you needed to attend your leisurely unproductive government job for a few hours less each week, with no cut to your income?

Snark aside, I don't think anybody objects to removing "unnecessary tasks" or "shortening meetings" – inside or outside of government. The relevant question is, of course, how much that has anything to do with the length of the work week rather than the nature of government work.

May I be so bold and suggest an extension to this hyped-up trial?

Let's go big, and do a 50% reduction in the length of the work week; then we can gradually move towards zero hours worked. At first, I'd be happy to maintain these officials on full pay, just to get them out of their offices, before we'd phase out their pay too. Yes, let's altogether relieve them of their counterproductive working duties. Chances are we'll find a lot more tasks that were "unnecessary," a lot more "services" not doing anything but annoying the public, and a lot of public officials creating work for themselves rather than value for their citizenry.

In a terrible "study," Iceland showed that we can reduce the hours worked by public officials without any meaningful negative outcome to society. Shocking, I know.

– July 13, 2021

Does Classical Liberalism Need Intersectionality Theory?

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This essay was originally part of a May 2020 forum on intersectionality and liberty, hosted by the Cato Institute. We are republishing it in light of the discussion's relevance to the current debate over critical race theory (CRT). In his contribution, Magness addresses the question of whether concepts from CRT such as Kimberle Crenshaw's intersectionality framework are compatible with the study of economics. Here Magness argues that CRT imports strong ideological biases against free-market economics, and suffers from internal inconsistencies that make it poorly suited for tackling the problems of racial and other forms of discrimination.

Although it remains a point of widely varying emphasis across the past two centuries, a clear strain of anti-discriminatory thought undergirds what may be broadly summarized as the classical liberal philosophical tradition. Its applications extend to race, gender, and religion, and generally aim to center the epistemic humility of toleration within its consideration of individuality. This approach was succinctly summarized by eighteenth-century liberal Whig forebearer Charles James Fox, who noted "Persecution always says, 'I know the consequences of your opinion better than you know them yourselves.' But the language of toleration was always amicable, liberal, and just: it confessed its doubts, and acknowledged its ignorance." Such an approach prioritized assessment "from actions and not from opinions," as distinct from prejudicial forms of reasoning that render value judgements out of fixed prior assumptions about an individual's associations, characteristics, or identity.

Although the specific occasion of Fox's comment was a plea for religious toleration, its principle forms the basis of a broader recognition of the interrelation between discriminatory injustices and state institutions. We find a similar recognition in Adam Smith's indictment of the colonial slaveowner who employed political leverage to entrench his institution with a complex system of subsidies and discriminatory laws. Indeed, Fox himself would lead a two-decade parliamentary campaign to dismantle this system's sustaining lifeblood from the transatlantic slave trade. A common current flows through Richard Cobden's intentional pairing of abolitionism and free market theory under the banner of Exeter Hall liberalism. Cobden's economic program was branded the "dismal science" by its adversaries specifically from the threat it posed to entrenched racial and class hierarchies. So pronounced were these sentiments that the proslavery radical George Fitzhugh assailed the liberal maxim of laissez-faire in 1851 for making "war with all kinds of slavery" on account of depriving the state of its tools of hierarchical enforcement. And make war upon slavery they did.

The same liberal tradition provided one of the few consistent voices against progressive eugenic planning in the early twentieth century. Ludwig von Mises chastised Keynes in 1927 for unwittingly opening the political doors to mass atrocity by presumptively elevating this new "science" to a function of state policy. Friedrich A. Hayek's withering dissection of the racial totalitarian Nazi regime a decade later explored the devastation wrought by the same intolerant lines of reasoning.

We find lesser-known manifestations of the liberal anti-discriminatory current in newspaper editor R.C. Hoiles, who took a nearly solitary stance against Franklin Roosevelt's Japanese internment program, and who campaigned against the segregation of Mexican-American students in 1947 as part of an important case precedent for *Brown v. Board*.

In the postwar era, classical liberalism provided a basis for scholarly investigation of the symbiosis between state power and racial discrimination, as seen in W.H. Hutt's dissection of the South African Apartheid regime, Gary Becker's empirics-driven formalization of an economic theory of discrimination, the public choice subfield's investigations of discriminatory political institutions, and liberal constitutional theorizing around a non-discriminatory generality norm.

I suspect that Jacob Levy would join me in lamenting how the principles of toleration and non-discrimination have languished from underdeveloped attention in some libertarian circles. Yet I also question a presumptive claim from his lead essay that "[w]e astonishingly manage to forget that in the United States racism has been a source of statism, that state power has been expanded to enhance and entrench racial domination." Clearly as the foregoing examples illustrate, cognizance of this very problem runs deep within the last two and a half centuries of the liberal intellectual tradition. Levy nonetheless proceeds from the belief that a gap exists in classical liberal theory's treatment of racial and other forms of discrimination. His argument, then, holds that that this gap may be filled with what he describes as the "essential insights" of intersectionality analysis.

First posited by legal theorist Kimberlé Crenshaw in the late 1980s, intersectionality has become an immensely fashionable epistemic framework in academic discussions of race, gender, and other social identities, particularly as they interact under discriminatory or oppressive circumstances. Yet it also has come under fire for its own ideological baggage, and particularly its association with a number of far-left activist causes, including overt hostility to free-market economic theory. While Levy largely discounts these charges as a caricature of a mode of analysis he finds useful, they nonetheless warrant consideration when assessing the relationship between intersectionality theory and classical liberalism.

That brings us to the question of what intersectionality theory has to offer to the same classical liberal tradition. If it is a largely innocuous device for understanding how "racism and misogyny work and interact at a social and cultural level," as Levy contends, such considerations might be expected to augment the aforementioned anti-discriminatory current to liberal thought. But if, as its critics often charge, intersectionality theory serves primarily to import anti-capitalist, Marxist, and other far-left ideological priors into social scientific analysis, an obvious tension emerges between it and the liberal tradition. Indeed, that tension would be tantamount to a complete inversion of the conscious historical links between anti-discriminatory toleration and free market theory, dating back to Fox, Smith, Cobden, and Hayek.

In attempting to answer these questions, I will note that it is not my intention to dispute whether the problems of discrimination may be interpreted through the framework of intersectional theory. Obviously they can, and they are with great frequency in the academic literature on race and gender. Rather, we must ask whether an intersectional framework is a necessary tool for understanding the interacting effects of discriminatory experiences, to the extent that any tradition that attempts to grapple with these problems will come up short in the absence of that framework. And we must also consider both the robustness of intersectionality as an analytical tool and its vulnerability to epistemic or ideological baggage, as the concept's critics allege.

Between Two Intersectionalities

Before turning directly to these issues, it is helpful to develop a functional definition of the concept of intersectionality. In doing so, allow me to suggest that there are actually two forms of the concept at play in the associated academic literature, including Crenshaw's original presentation. For convenience of this discussion I will designate them as its elementary and compound forms.

Elementary intersectionality offers a relatively straightforward observation. Drawing on the analogy of a traffic intersection in which cars flow from multiple directions and, should a collision occur, the quickly compounding effects that follow, Crenshaw presents the term as a mental model for understanding social interactions as well. Elementary intersectionality thus asserts that interactions traversing multiple social identities (race, class, gender, religion, sexuality, politics, and so forth) will produce distinct modes of experience that are different from the experience of any one of those identities when viewed in isolation. This in turn shapes how a social encounter is received by its participants, especially in face of discrimination against one or more component social identity. "[T]he intersectional experience is greater than the sum of racism and sexism," she explains. As a result "any analysis that does not take intersectionality into account cannot sufficiently address the particular manner in which" a member of multiple identity groups (Crenshaw uses the example of an African-American female) experiences discriminatory subordination.

Crenshaw's claim here is fairly innocuous in its elementary form and rings true as a simple descriptive observation. This elementary usage is also consistent with what Levy refers to as intersectionality "rightly understood" in his essay. But that "truth" is also banally so, even to the point one might legitimately wonder whether its basic insight is significant enough to warrant so much ink—or whether such interactive complexities were not already a matter of other human intuitions long before the specific coining of the term.

Intersectionality's academic fashionability likely derives from the path dependency of the scholarly literature it emerged from, as Levy also acknowledges. Crenshaw first presented the concept as a corrective to the shortcomings of earlier feminist theory, which in her critique had placed the white middle-class female experience at the center of feminism to the neglect of other identities, including overlapping experiences that diverged from this archetype. This critique may be entirely appropriate given where mainstream feminist theory stood at the time of Crenshaw's original article. Its extension to other modes of analysis becomes another matter, particularly given that the intersectionality literature has long since expanded its reach beyond the mid-century feminist genre typified by Betty Friedan's The Feminine Mystique. Here we also begin to encounter the concept's limitations.

Outside of the normative philosophical universe of critical theory, social scientists have long used a fairly similar conceptual tool to place the study of compound social interactions of almost all types on a firmer empirical basis. Levy's lead essay openly acknowledges this similarity by way of comparison. But multivariate regression analysis aims not only to quantify the effects of multiple variables upon an observed social phenomenon—it also provides a testable approach for discerning correlations between those terms.

Teasing out the compounding effects of multiple interacting variables is arguably the great challenge of this line of empirical analysis, and it carries with it a benefit that casual intersectionality theorizing often lacks: scientific falsifiability. Of course a related challenge is the limitations of empirical approaches in assessing variables that are not easily quantified, which is where Levy proposes the parallel value of qualitative intersectional analysis. But "difficult to measure" does not mean "impossible to measure." And in this elementary form, even a charitable interpretation of intersectionality theory begins to look a lot like armchair multivariate regression wherein weak or missing data are made up for by injecting unfalsifiable normative speculation about how race, gender, and other identity categories interact with each other.

Let us turn then to the second form of intersectionality theory though, which I again refer to here as compound intersectionality for purposes of convenience. Whereas I'm somewhat inclined to agree with Levy that conservatives have caricatured the elementary intersectionality claim as delineated above, their charges against the concept gain greater salience when redirected to the compound form.

So what do I mean by compound intersectionality? Here I refer to the scholarly literature, including subsequent contributions by Crenshaw, that takes the relatively uncontroversial if also mundane elementary iteration of the concept then extends it to a universal mode of socio-political analysis and, with it, socio-political activism.

Examples of compound intersectionality theory abound in the scholarly literature, often taking the form of sweeping denunciations of disliked beliefs, concepts, and social institutions. In most forms it functions as a normative identification strategy to imbue the characteristics of racism, sexism, white supremacy, and other bigotries onto the oppositional target of the activist's political agitation. Generalized assaults on "late capitalism," "market ideology," or the trendy pejorative moniker "neoliberalism" are commonplace in this literature, as are blanket denigrations of prominent thinkers and liberal intellectual traditions—Milton Friedman (frequently deemed an "architect" or "guru" of "disaster capitalism"), Friedrich A. Hayek (also a "chief architect" of "neoliberalism"), Public Choice theory, and libertarianism in general—as irredeemably tainted by white supremacy, even in the absence of tangible evidence for this charge. Marxist ideology and its many schismatic derivatives from the critical theory world are often baked into this same literature, as are overt activist strategies, making the heavy normative baggage of this mode of analysis an unavoidable feature. In fact, a prominent subset of the compound intersectionality literature is even explicitly devoted to protecting the concept from the supposed corrupting incursions of "neoliberal" hierarchies and "knowledge economies," which are depicted as existential threats to the activist objectives of a supposed intersectional "political project."

In its ubiquitous academic deployment, compound intersectionality theory functions as an epistemic trump card wherein the vantage point of an identity group or groups is invoked in the place of weak evidence to establish a social scientific claim as "true," or to shut down and exclude a competing viewpoint with stronger evidence. We see this pattern frequently in arguments that seek to dismiss salient criticisms of a weakly attested normative proposition on account of presumptive observations about the critic's own race, gender, class, religion, or other identity category.

While it may be tempting to dissociate these ideological manifestations from the core of intersectionality theory, simply returning to Crenshaw reveals a frank admission that an ideological project lay at the root of its elementary form. "Recognizing that identity politics takes place at the site where categories intersect thus seems more fruitful than challenging the possibility of talking about categories at all," she explained in a 1990 expansion of the concept. "Through an awareness of intersectionality, we can better acknowledge and ground the differences among us and negotiate the means by which these differences will find expression in constructing group politics." It offers no use to pivot back to the elementary form of the concept as a means of avoiding the substantial ideological baggage and far-left political activism of its compound iteration, as the two are inextricably linked in its original formulation.

In noting this conundrum, one need not embrace the oversimplified formulations of its underlying critique that come from the editorializing of the political right. Such arguments are still heavy on political rhetoric and uncharitable to the intersectionality concept, even as they touch upon very real problems with its compound form.

A more robust and intellectual criticism of the operative mechanisms may instead be found within scholarly criticisms of the broader critical theory framework. A handful of pertinent examples come to mind. Adam Martin's assessment of "the New Egalitarianism" identifies two characteristics at play in much of this literature, and compound forms of intersectionality theory seem acutely susceptible. First, such contributions are often intentionally obscurantist, which is to say they adopt an intellectual style to "evade critical scrutiny" of their claims. Harry Frankfurt applies the moniker "bullshit" to this style of argumentation, differentiating it from an outright deception by noting that the academic bullshitter is characterized by a disregard for truth in the service of a narrative or persuasive aim. With its already tenuous relationship to falsifiability in the elementary form, compound intersectionality seems particularly susceptible to sliding down the obscurantist slope of purposeful indulgences in cluttered exercises of proprietary jargon that attempt to imbue its baser political aims with an air of intellectual sophistication.

The second feature of such literature, as Martin notes, is its epistocratic tendencies, achieved by self-invocation of the intersectionality literature as an arbiter of its own validity. Intersectionality's origins within a relatively narrow slice of literature on mid-century feminism may render it particularly vulnerable on this count, as seen in Crenshaw's "discovery" of what may in its elementary form be little more than a prosaic approximation of quantitative analysis, minus the social scientific validation of empirical testing. When shifted to its compound iteration, the process of self-validation becomes an acroamatic exercise, which is to say that intersectionality theorists adopt a posture of preemptively excluding viewpoints that emerge exogenously to the intersectional literature, including older and competing conceptual frameworks for the study of race, gender, and compounding interactions involving social identity. The very act of contestation of an intersectional claim, including its built-in ideological implications, thus becomes discountable by casting it as an untrained "misunderstanding" of what intersectionality means. The combination of the two, obscurantism and epistocracy, thus functions to elevate a weak and ideologically loaded social scientific claim into a position of being politically unassailable.

As a final consideration, the compound and politically loaded form of intersectionality theory carries with it the distinct risk of crowding out more conceptually robust attempts to provide substantive understanding of the problems of racial and other forms of discrimination, including their overlapping effects. Perhaps this subject will elicit further discussion in the responses, but two potential avenues warrant brief mention. The first is within the classical liberal line of anti-discriminatory theory noted at the outset of my response essay, and perhaps most recently explored through the public choice literature on the operation of discriminatory non-market institutions. The second is to turn to the economic literature on race, and particularly the evolution of different barriers to economic and social life as experienced by persons facing discrimination. Such discussions, drawing upon a multitude of methods and intellectual traditions outside of the critical theory world, offer meaningful insights for combatting the harms of both explicit and soft bigotries. Social scientific analysis of this subject suffers though if competing and exogenous attempts to grapple with the problem of discrimination are pushed aside by or subordinated to the pronounced ideological activism of the intersectionality literature.

On Intersectionality and Classical Liberalism: Is there a common thread?

Returning to the question of what room, if any, exists for commonality between intersectionality and classical liberalism, allow me to offer a few observations in light of the foregoing discussion. First, I agree with Levy that the elementary form of intersectionality is largely non-objectionable when presented in isolation. It has also been uncharitably depicted in conservative editorializing, at least when understood as that same isolated elementary form. My one caveat, and where I likely diverge from Levy on the point, is that the elementary version of intersectionality just isn't all that profound of an insight. It is perhaps a convenient neologism for a common intuitive observation. Insofar as classical liberal theory is concerned, its isolated form does not necessarily conflict. But our sympathies for the least well-off, and our legitimate desires to grapple with the persistent problems of discrimination and bigotry in social interactions, would be much better served by tapping the long and vibrant intellectual tradition of liberal toleration and its many anti-discriminatory extensions.

Compound intersectionality presents a much trickier set of problems vis-à-vis the same liberal tradition due its ideological baggage. Insofar as the compound form is an inextricable and consciously projected political activist iteration of its elementary framing—and as we've seen Crenshaw treats it as such—it may be irreconcilable.

Multiple prominent intersectionality theorists, expounding the compound form, have made no effort to conceal their own hostility to classical liberal thought and thinkers, to free market economics, to capitalism, to "neoliberalism"—whatever that is other than a derisive term for the aforementioned concepts —and to libertarian perspectives as a whole. And even more so, much of this hostility takes the form of invoking unfalsifiable esotericism to "detect" hidden strains of racism, sexism, white supremacy, and other contemptible bigotries in the DNA of that which the intersectionality literature derides for political reasons. In its most abusive manifestations, this serves little other purpose than to preemptively discredit any external scrutiny that might otherwise challenge the accompanying ideological propositions of the compound form by casting them outside of the realms of respectable dialogue. Whether classical liberal thought may still incorporate intersectionality theory, or at least its compound forms, may therefore depend on considerations beyond our control, as much of the intersectionality literature has already adopted an explicit rejection of the very same proposition.

This concluding thought will likely be unwelcomed among those who see greater hope for constructively adapting intersectional analysis to liberal philosophy. But it needn't rest on my own pessimism toward the concept.

Crenshaw herself has effectively rendered the same judgement in her most recent book. That book amounts to a broadside against the very notion of economic sciences. "The emergence of economics as a discipline…" she contends, "suppressed the study of socially constructed institutions" by reducing human behavior to "the sum total of autonomous actions by universally interchangeable rational and self-interested acquisitive subjects." This caricature is rendered all the more astounding in her identification of what she sees as a primary culprit for this supposed trend, namely the emergence of the public choice subfield.

This mid-twentieth century outgrowth of classical liberal economic theory might strike the independent observer as uniquely suited to the study of socially constructed institutions and the harmful incentive structures therein, including discriminatory collective action. Crenshaw, however, preemptively dismisses it. And she does so by adopting the above-mentioned patterns of obscurantist deflection and self-referential curation to exclude this line of analysis entirely. Drawing explicitly upon the conspiratorial historical falsifications of Nancy MacLean, Crenshaw contends "the 'public choice' paradigm…linked attacks on a broad range of public institutions (especially public education) with the preservation of American apartheid." She continues, declaring that "the core logic of an entire academic subfield," public choice, is "implicitly constituted around assumptions of white supremacy, even as it disavowed any racial intent and animus."

If you still hold out hope that classical liberal thought can be constructively reconciled with intersectionality theory in a way that meets Crenshaw's own terms, I can only suggest that you are likely being as dismissive of underlying problems with intersectionality as the political right is with intersectionality itself.

– July 2, 2021

Is Inflation Merely Catching Up?

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Everyone is talking about inflation. And rightly so. The consumer price index (CPI) grew by 5.4 percent from June 2020 to June 2021. That is a far cry from double-digit inflation. Nonetheless, comparisons with the 1970s abound.

Economists are quick to point out that we should be careful citing year-on-year growth rates this year. Last year was very, very unusual. And last year serves as the base for this year's year-on-year growth rates. The high inflation rate observed in June, for example, might indicate that the price level was high in June 2021, low in June 2020, or some combination of the two. With this problem in mind, I have half-jokingly suggested we all just stop presenting year-on-year growth rates until July 2022.

To consider whether the price level was too high in June 2021, we must first specify the relevant counterfactual—that is, what the price level should have been. To this end, it is useful to distinguish the trend (or, average) rate of inflation from the rate that results when inflation deviates from trend for a period of time and the Federal Reserve (Fed) takes steps to offset those deviations.

The Fed controls the trend rate of inflation. Conventional macroeconomic theory suggests it should set its inflation target equal to the optimal rate of inflation. Of course, there is some debate about what the optimal rate of inflation is. Some economists argue that it is slightly positive. Some economists argue that it is slightly negative. But most academic journal articles on the topic—and the most highly-cited journal articles on the topic—maintain that the optimal rate of inflation is zero. In practice, this might amount to targeting a slightly positive *measured* rate of inflation since conventional measures of the price level, like the CPI, tend to underestimate quality improvements and, correspondingly, overestimate inflation.

Whatever the optimal rate of inflation is, the welfare consequences of consistently targeting a rate that is a little too high or a little too low are probably small. Far more important is that inflation is in line with expectations.

When people enter long-term contracts, they do so with an expectation of inflation in mind. Business owners agree to pay a nominal wage with some idea of what goods and services they will have to forego in order to compensate their workers over the course of the employment contract. Borrowers agree to a nominal interest rate with some idea of what real resources they will have to give up in order to make monthly payments. And so on.

It is very difficult to distinguish a change in aggregate demand from a change in the relative demand for the goods or services one produces. If aggregate demand declines, inflation falls below what was expected when contracts were entered into and production tends to stall. It is not enough, in that case, for the Fed to increase the rate of inflation to what was expected at the outset, as that would result in a price level that is persistently below the price level anticipated when those contracts were entered into. Business owners would have to forego *more* goods and services to pay their workers the agreed upon nominal wage. Borrowers would have to give up *more* real resources to make their nominal monthly payments. And so on.

In order to deliver a price level in line with what was expected at the outset following a period of time when inflation has been less than expected, the Fed must conduct monetary policy such that inflation temporarily exceeds the rate expected at the outset. It must make up for its past mistake by making an error of equal magnitude in the opposite direction. In doing so, it will cause the price level to increase back to where it would have been if its initial error had never been made and, in doing so, enable all those parties to long-term nominal contracts to continue honoring their agreements as expected, in real terms, from the start.

We know that inflation was relatively low last year. Is the inflation observed over the last few months merely a result of prices catching up to where they otherwise would have been in the absence of low inflation in 2020?

This is a tricky question to answer because it requires knowing (among other things) how much inflation was expected at the outset and how regularly long-term agreements are adjusted. But it is relatively straightforward to make some explicit assumptions, state a clear position, and then let others decide the extent to which those assumptions are reasonable—so that's what I'll do.

Here are my assumptions:

1. The pandemic was unexpected prior to February 2020.
2. Americans entered into long-term contracts prior to February 2020.
3. Americans entering into contracts prior to February 2020 expected x percent inflation.
4. Americans updating their contracts after February 2020 have done so under the expectation that the Federal Reserve would attempt to deliver an average rate of inflation in line with previously established expectations so as not to encourage over- or under-production.

From (3) and (4), it follows that those entering contracts after February 2020 also expected x percent inflation.

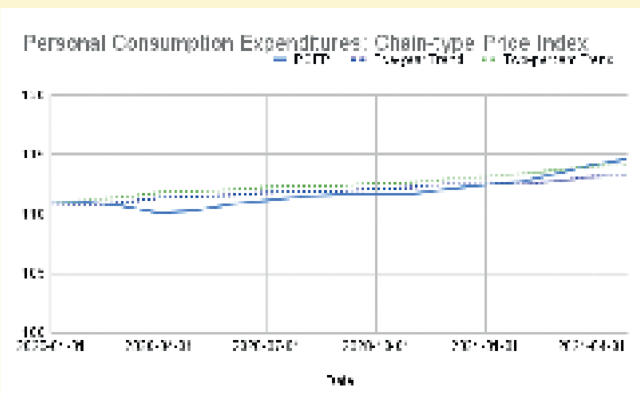
Of these assumptions, (4) is perhaps the most controversial. To the extent that contracts entered into prior to February 2020 have not yet been renegotiated and new contracts have not been entered into, it is of little consequence. But, of course, some contracts have been renegotiated or entered into anew. Still, it seems reasonable to think that most Americans expect the Fed will prevent over- and underproduction to the extent that it can, even if they cannot articulate how or why the Fed would do that.

Assumption (3), of course, is underspecified. What rate of inflation did Americans expect prior to the pandemic? I will consider two possibilities.

One might reasonably think Americans expected the Fed to continue delivering more-or-less the same rate of inflation as it had delivered prior to the pandemic. From January 2015 to January 2020, the personal consumption expenditures chain-type price index (PCEPI), which is the Fed's preferred measure of the price level, averaged around 1.6 percent year-on-year growth.

It would also be reasonable to think Americans expected the Fed would deliver the rate of inflation that it said it would deliver. The Fed has had an explicit inflation target of 2 percent since 2012. It revised its target to a 2 percent average inflation target in August 2020. Of course, the Fed consistently undershot this target in the years before the pandemic. And, for this reason, I think inflation expectations were probably closer to 1.6 percent than 2 percent. Nonetheless, one might reasonably maintain that 2 percent is the relevant rate. Considering a 2 percent rate also allows one to assess the extent to which Fed actions have been consistent with what it has said it would do.

The actual PCEPI is presented as a solid blue line in the following figure alongside the five-year (dotted blue line) and two-percent (dotted green line) PCEPI trends. The five-year trend is constructed under the assumption that the PCEPI continued to grow at a year-on-year rate of 1.6 percent from January 2020 to the present. The two-percent trend is constructed under the assumption that the PCEPI continued to grow at the Fed's stated target rate of 2 percent from January 2020 to the present.



Obviously, some of the high year-on-year inflation rates observed in recent months can be attributed to catching up. However, it is clear from the preceding figure that inflation has not merely restored the pre-pandemic price-level trend. PCEPI has exceeded the five-year trend since February 2021. Inflation hasn't merely been in line with the Federal Reserve's two-percent inflation target, either. PCEPI has exceeded the price level required to maintain an average rate of inflation equal to two percent since April 2021.

The high rates of inflation observed in recent months might be transitory, as Fed officials claim. Short-term supply constraints might push up the price level temporarily without having a lasting effect on the trend rate of inflation. It might be too soon to worry that inflation—that is, a *persistent* increase in the price level—will get out of hand.

But it is simply not the case that the observed inflation has merely been what was required for catching up. The price level today is greater than what it was expected to be in the absence of a pandemic and what the Fed implicitly said it would be given its two-percent inflation target. The price level has more than caught up with expectations. The question, now, is whether it will continue to grow so rapidly, remain elevated, or subside.

– July 25, 2021

Not Smart Financial Regulation

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On July 1st, a new regulation for large U.S. banks, the Net Stable Funding Ratio (NSFR), went into effect. This rule is intended to improve financial stability by requiring banks to maintain long-term funding in excess of their short-term obligations.

However, given that research cited by bank regulators finds that the costs of this rule are likely to exceed the benefits, the NSFR would be more aptly called *Not Smart Financial Regulation*.

The NSFR and how it works

During the 2008 financial crisis, some financial companies such as Lehman Brothers failed because they became illiquid and unable to pay their bills. Their financing relied heavily on short-term funding such as overnight loans and repurchase agreements (repos). Fearing that Lehman and others might fail, investors refused to lend to those companies. As their short-term funding disappeared, the companies did not have the cash to function.

The NSFR is intended to prevent these short-term liquidity problems by requiring that banks be financed by long-term funding. The NSFR is calculated as the banks' "available stable funding" divided by its "required stable funding." The amount of available stable funding must be greater than the required stable funding in order for the bank to comply with the NSFR rule.

Available stable funding is not just short-term versus long-term but is itself calculated as a weighted average of the bank's different funding sources. Required stable funding is similarly determined as a weighted average of bank assets using a weighting system created by bank regulators. The weights are set based on the maturities of banks' assets and liabilities but also by which types the regulators believe to be stable or uncertain.

The NSFR was jointly proposed by the three main U.S. bank regulators: the Federal Reserve, the Federal Deposit Insurance Corporation (FDIC), and the Office of the Comptroller of the Currency (OCC). The final version was published on February 21st of this year with an effective date of July 1st. The rule applies only to large banks with total assets of $100 billion or more. It is based on a proposal by the Basel Committee on Banking Supervision (BCBS) at the Bank for International Settlements (BIS).

The NSFR's benefits and costs

U.S. bank regulators claim that the benefits of the NSFR exceed its costs. As with most regulations, however, they did not conduct a quantitative cost-benefit analysis to confirm that this is the case. Instead, they relied on a study from the BIS that compares the NFSR's benefits and costs.

The NSFR is, in some ways, treated as a substitute for bank capital ratios. Both are intended to reduce bank failures, which stabilizes the financial system and promotes economic growth. The BIS study estimates the benefits of reduced failures and improvements in growth created by the NSFR at various levels of bank capital. As banks increase their capital, there is less need for other long-term funding, so the benefits of the NSFR decline.

The main cost of the NSFR is that it restricts banks' borrowing and investing opportunities, which inhibits lending and limits economic growth. Again, this problem is worse when capital requirements are high since they too can restrict lending and growth.

Because of these tradeoffs, the benefits of the

NSFR are high when capital is low but costly when capital is high. The BIS study includes three scenarios that combine short-term effects of the rule with either large, moderate, or zero long-term effects. In the moderate scenario, they find that the benefits exceed the costs when capital, measured as tangible common equity (TCE), is below roughly 11 percent of bank assets. We must assume that U.S. bank regulators agree with this assessment since the BIS study is the main piece of evidence cited in their NSFR rule proposal.

Expected effects of the NSFR

What effects should we expect from the NSFR in the United States? The BIS found that the benefits of the NSFR exceed the costs when TCE is less than 11 percent. Thus, if banks' capital ratios are below 11 percent, the NSFR will benefit the economy. If capital ratios are above 11 percent, then the costs of the NSFR will exceed the benefits.

If we look back to 2016 when the NSFR rule was first proposed, it turns out that every bank subject to the NSFR had a TCE ratio of more than 11 percent. Every single one.

At the end of 2016, the average capital for banks subject to the NSFR was about 13 percent TCE. My recent paper in the *Journal of Risk and Financial Management* (free version here) estimates the net benefits of the NSFR rule based on the results from the BIS study. Using their estimates of moderate long-run effects plus the implementation costs estimated by U.S. bank regulators, I calculate the NSFR will cost the U.S. economy more than $11.7 billion per year.

Does this result still apply today? Although bank capital ratios fell during the Coronavirus pandemic, they have been quick to recover. The Fed's recent stress tests of the 19 largest banks found that as of the end of 2020, their Tier 1 common equity averaged 13.0 percent. As in 2016, it appears the costs of the NSFR still exceed the benefits.

U.S. financial regulators approved the NSFR despite the fact that their own evidence showed the costs of the rule exceed its benefits. That's Not Smart Financial Regulation.

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