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Assessing the Macroeconomic Consequences of the Inflation Reduction Act of 2022

Introduction

Lawmakers appear close to passing into law the Inflation Reduction Act of 2022. The legislation is born out of the Build Back Better agenda that President Biden proposed more than a year ago. It raises nearly $750 billion over the next decade through higher taxes on large corporations and wealthy individuals and lower Medicare prescription drug costs, to pay for nearly $450 billion in tax breaks and additional government spending to address climate change and pay for lower health insurance premiums for Americans benefiting from the Affordable Care Act. The remaining more than $300 billion goes to reducing the federal government's future budget deficits. Broadly, the legislation will nudge the economy and inflation in the right direction, while meaningfully addressing climate change and reducing the government's budget deficits.

Assessing the Macroeconomic Consequences of the Inflation Reduction Act of 2022

BY MARK ZANDI, BERNARD YAROS AND CHRIS LAFAKIS

Lawmakers appear close to passing into law the Inflation Reduction Act of 2022. The legislation is born out of the Build Back Better agenda that President Biden proposed more than a year ago. It raises nearly $750 billion over the next decade through higher taxes on large corporations and wealthy individuals and lower Medicare prescription drug costs, to pay for nearly $450 billion in tax breaks and additional government spending to address climate change and pay for lower health insurance premiums for Americans benefiting from the Affordable Care Act (see Table 1). The remaining more than $300 billion goes to reducing the federal government's future budget deficits (see Chart 1). Broadly, the legislation will nudge the economy and inflation in the right direction, while meaningfully addressing climate change and reducing the government's budget deficits.

Table 1: Inflation Reduction Act of 2022

Static budget effect, calendar yr, $ bil

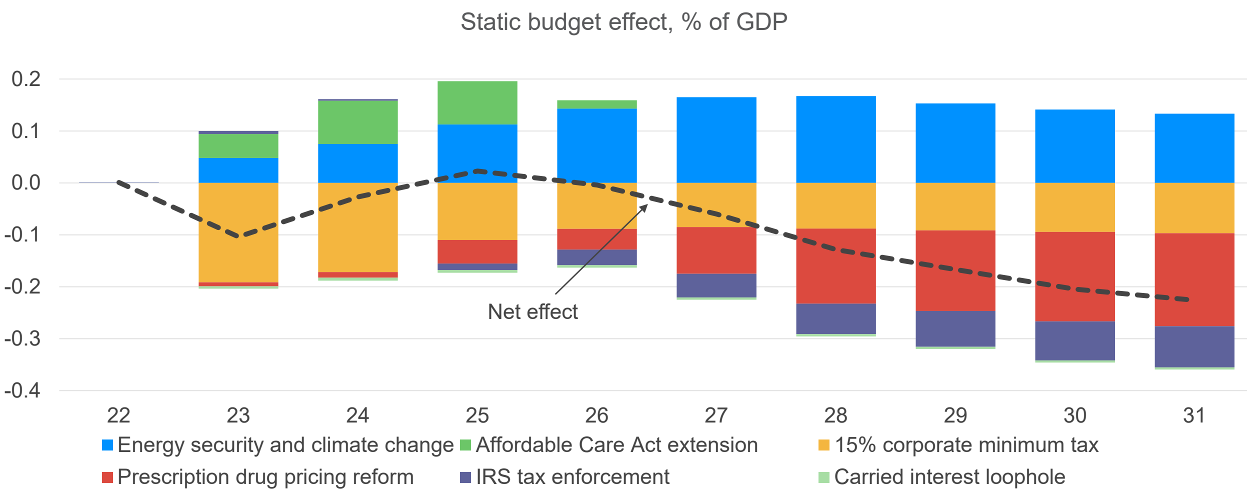
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2022-2027	2022-2031
Net budget effect	**0.2**	**-27.2**	**-7.4**	**6.6**	**-1.2**	**-18.9**	**-42.3**	**-57.3**	**-73.2**	**-84.0**	**-29.1**	**-304.8**
Investments	**0.1**	**24.7**	**43.7**	**56.6**	**48.1**	**52.1**	**55.1**	**52.6**	**50.5**	**49.6**	**173.2**	**433.0**
Climate and energy provisions	0.1	12.6	20.7	32.5	43.3	52.1	55.1	52.6	50.5	49.6	109.2	369.0
Extension of enhanced ACA premium subsidies	0.0	12.1	23.0	24.0	4.9	0.0	0.0	0.0	0.0	0.0	64.0	64.0
Pay-fors	**0.1**	**-52.0**	**-51.1**	**-50.0**	**-49.3**	**-71.1**	**-97.4**	**-109.8**	**-123.6**	**-133.6**	**-202.3**	**-737.8**
15% corporate alternative minimum tax	0.0	-50.3	-47.4	-31.8	-26.8	-26.8	-29.0	-31.4	-33.7	-36.0	-156.2	-313.1
Prescription drug pricing reforms	0.0	-2.0	-3.0	-13.1	-12.1	-28.4	-47.6	-53.3	-61.5	-66.6	-30.2	-287.6
IRS funding to close the tax gap	0.1	1.6	0.8	-3.6	-9.1	-14.4	-19.3	-23.7	-26.9	-29.5	-10.2	-124.0
Carried interest loophole	0.0	-1.2	-1.6	-1.5	-1.4	-1.4	-1.4	-1.5	-1.5	-1.5	-5.7	-13.0

Sources: CBO, JCT, Moody's Analytics

Inflation Reduction Act

The Inflation Reduction Act is a scaled back version of part of the Build Back Better agenda proposed by Biden early in his administration. When the BBB was first proposed, it included fiscal support for the

Chart 1: Much to Like in the Inflation Reduction Act



Sources: CBO, JCT, Moody's Analytics

nation's infrastructure, a range of social programs, and climate change. In their entirety, these BBB investments would have cost nearly $4.5 trillion over a 10-year budget horizon, mostly paid for with tax increases on large corporations and high-income, wealthy households. A version of the infrastructure legislation became law last summer, and if the Inflation Reduction Act gets across the legislative finish line, Biden will have gotten almost one-quarter of the BBB agenda that he had originally proposed to Congress into law.

Climate change

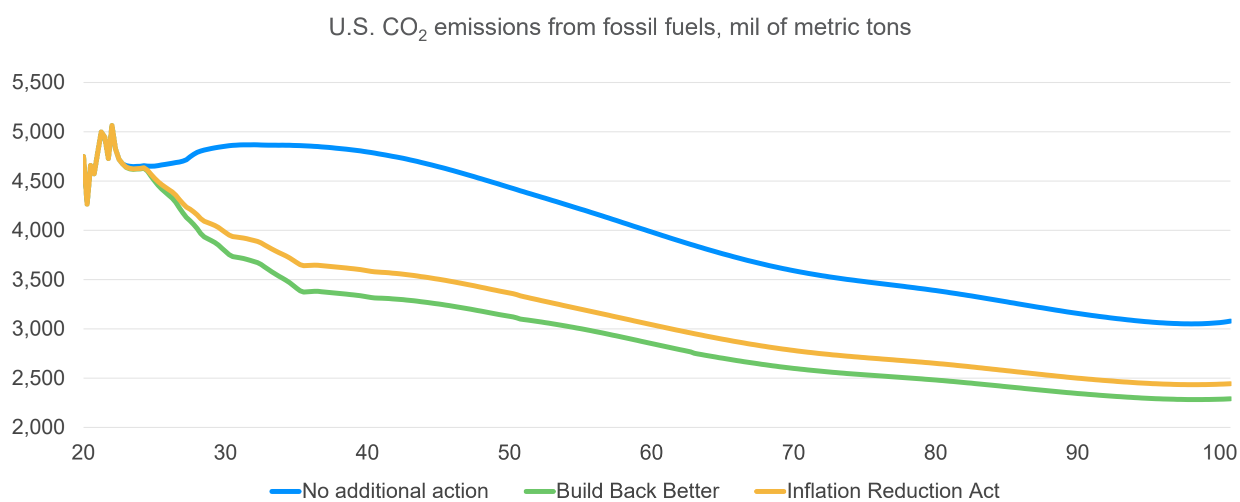
The bulk of the investments in the Inflation Reduction Act, costing an estimated $370 billion over 10 years, are directed toward promoting clean energy and climate resilience. Two-thirds of this amount is in the form of federal tax credits that extend, enhance or create incentives to produce electricity from clean energy sources, invest in renewable energy technologies, and address climate change through carbon sequestration, renewable fuel production, and clean energy manufacturing. These tax expenditures will also lower the cost to households and businesses of investing in energy efficiency and purchasing electric vehicles.

The other one-third of the legislation's clean energy and climate investments represent appropriations by the federal government. These include funds to support conservation practices that will help mitigate emissions from agriculture and forestry. Grants, rebates and federal procurement will promote the adoption of clean energy technologies, as well as energy efficiency improvements in housing. The legislation also invests in the climate resilience of at-risk communities and addresses air pollution.

The climate policies in the Inflation Reduction Act will meaningfully reduce carbon emissions, and thus the acute and chronic physical risks and economic losses resulting from climate change. Physical risks result from inaction on addressing climate change and global temperature rise, which cause serious changes in the physical world. Acute physical risks are natural disasters such as hurricanes, wildfires and floods, which are occurring more frequently and with greater intensity because of rising temperatures. These disasters cause large economic losses, only some of which are insured, pressuring governments to provide disaster relief. Chronic physical risks are the fallout of rising temperatures over longer periods of time, often decades, and include sea level rise caused in part by melting polar ice caps, and oppressive heat. Chronic physical risks weigh on labor force productivity growth; have serious consequences for agriculture, tourism and other industries; and cause significant changes in global immigration.

We estimate the reduction in CO2 emissions due to provisions in the Inflation Reduction Act based on work done by the REPEAT project. By 2050, we estimate emissions will be reduced by nearly 30% compared with a scenario in which there is no additional policy changes to address climate change (see Chart 2). This is not quite as much as would have occurred if the $555 billion in clean energy spending from the original BBB proposal had become law, but it is substantial.

Chart 2: Lower Carbon Emissions Under the Inflation Reduction Act



Sources: EIA, REPEAT, Moody's Analytics

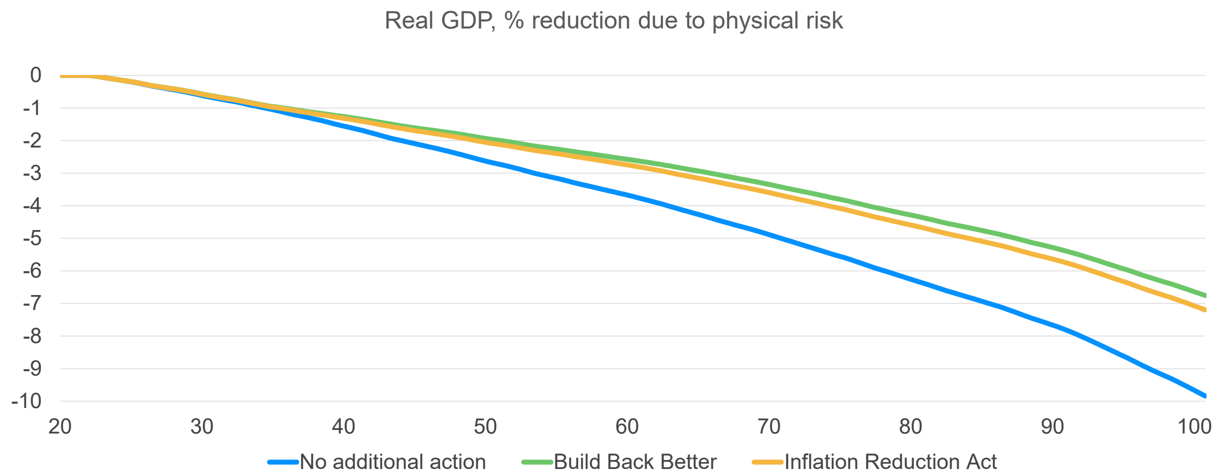
The Inflation Reduction Act also mitigates the economic cost of inaction. Compared with the scenario where no additional climate change action is taken by government, real GDP is approximately 0.1% higher a decade from now because of the Inflation Reduction Act, 0.6% higher by 2050, and 2.7% higher by 2100 (see Chart 3). The clear lesson is that upfront investments in addressing climate change reap substantial long-term economic benefits.

Healthcare

The Inflation Reduction Act also extends enhancements to the Affordable Care Act provided in last year's pandemic relief package, the American Rescue Plan. The ARP expanded eligibility for the premium tax credits to Americans with incomes above 400% of the federal poverty level to purchase health insurance on ACA marketplaces. The law also increased the size of the premium subsidies, thereby reducing or eliminating out-of-pocket premiums for millions of ACA enrollees. Under current law, these enhancements to the premium tax credits expire at the end of this year; the Inflation Reduction Act would extend them through 2025 at a 10-year cost of some $64 billion.

According to the Urban Institute, if the enhanced premium tax credits lapse as in current law, the number of uninsured people will increase by more than 3 million, and these individuals will consume less healthcare than if they remained insured, contributing to a more than $11 billion hit to spending on health services and goods. Moreover, those who continue to buy insurance on the ACA marketplaces, typically with incomes of

Chart 3: The Economic Cost of Climate Inaction Is Severe



Sources: Aon, NGFS, Moody's Analytics

between 150% and 400% of the federal poverty level, would see their insurance premiums more than double, making it cost prohibitive for many.

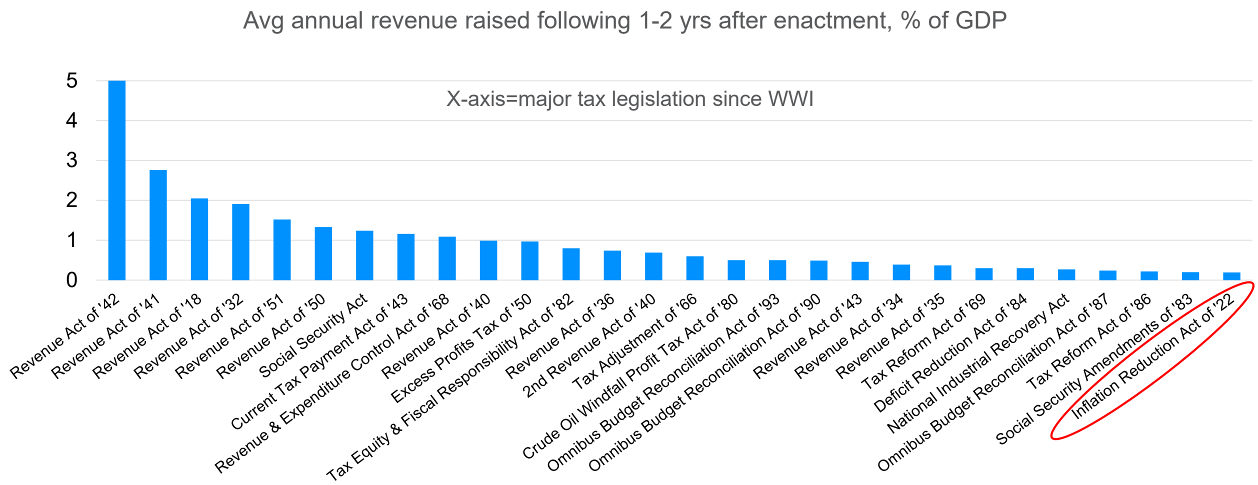
Taxes on corporations and the wealthy

To pay for the investments in the Inflation Reduction Act, large corporations and wealthy, high-income taxpayers will pay more taxes. Most significantly, some $313 billion over 10 years in revenues would come from a new 15% minimum tax on book income for large companies that report large profits to investors but have little or no taxable profits. There will also be stiffer tax enforcement by the Internal Revenue Service to ensure greater taxpayer compliance at a time when the tax gap—the difference between the taxes owed under law and revenue collected—is large and increasing. On net, stronger IRS enforcement will reduce the cumulative deficit by $124 billion over 10 years. The legislation will also tax more carried interest that general partners of investment funds receive for implementing investment management services as ordinary income, raising $13 billion in additional revenue over 10 years.

The tax increases included in the Inflation Reduction Act will weigh on economic growth, all else being equal, but the impact will be small. Though the tax increases being considered are the most meaningful ones since the early 1990s, they are still modest from a historical perspective (see Chart 4).

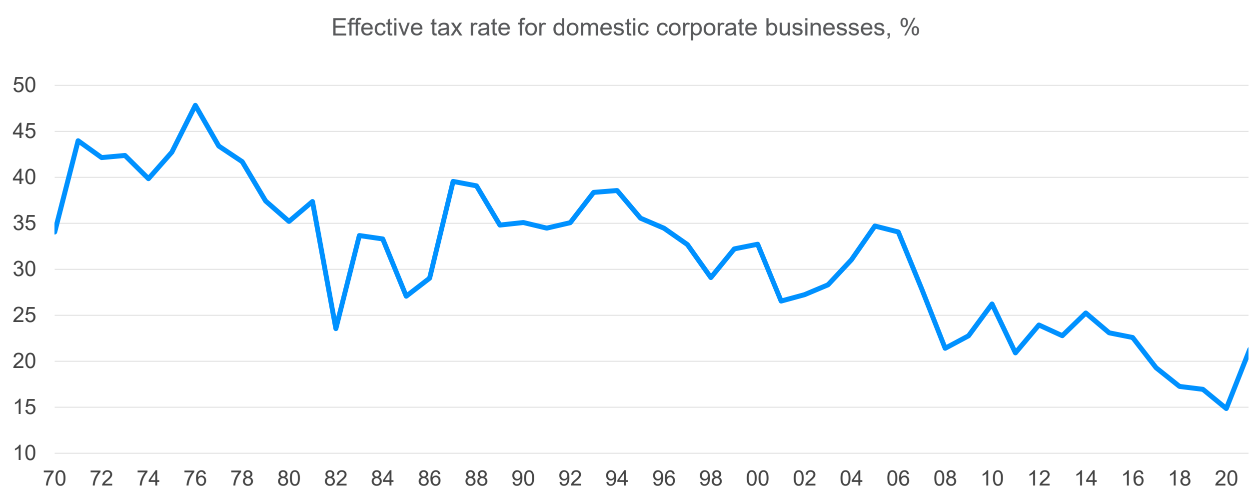
The tax increases on large corporations will also not appreciably hurt economic growth. This conclusion is supported by the experience with the large tax cuts corporations received under the Tax Cuts and Jobs Act of 2017. This includes the reduction in the top marginal corporate tax rate from 35% to 21%. There is little evidence that the TCJA led to a meaningful sustained increase in business investment, hiring or wages, or prompted businesses to shift production to the U.S. from overseas as intended. Although it is difficult to disentangle all that is going on in the economy to isolate the impacts of the TCJA, it is also difficult to conclude that the TCJA's tax cuts have meaningfully supported a stronger economy. Therefore, the corporate tax increases in the Inflation Reduction Act should not have an appreciable impact on the economy, especially given that the effective corporate tax rate has steadily declined for decades and is close to a record low (see Chart 5).

Chart 4: Tax Increases Will Not Be Overly Burdensome on U.S. Economy



Sources: Romer & Romer, U.S. Treasury, Moody's Analytics

Chart 5: Effective Corporate Tax Rate Is Low and Has Steadily Fallen



Sources: BEA, Moody's Analytics

Prescription drug savings

Besides higher taxes on large corporations and well-to-do households, the Inflation Reduction Act includes several provisions that will, on net, reduce federal healthcare costs. Most notably, it allows Medicare to negotiate lower prices for single-source prescription drugs—drugs only available as the original brand without competing generic equivalents from other manufacturers—on which it spends the most. From 2026 to 2029, the number of important drugs subject to negotiations with Medicare would double from 10 to 20.

In addition, the legislation will require drug companies that raise prices for Medicare and private insurance more quickly than the rate of inflation to pay rebates to the federal government to cover the difference. Other prescription drug savings would come from repealing a Trump-era rule that will eliminate legal safe harbor from a federal anti-kickback law for rebates paid by pharmaceutical manufacturers to health plans and pharmacy benefit managers in Medicare Part D. Other smaller but meaningful changes to Medicare will include capping annual out-of-pocket drug expenses for enrollees to $2,000; making vaccines free; and expanding eligibility for the Low-Income Subsidy, which helps beneficiaries pay for prescription drugs. Taken together, these policy changes will cumulatively reduce the nation's budget deficits by $288 billion over the next decade.

Macroeconomic impact

As named, the Inflation Reduction Act will modestly reduce inflation over the 10-year budget horizon. By the fourth quarter of 2031, the consumer price inflation index will be 0.33% lower because of the legislation (see Table 2). This translates into a reduction in CPI inflation of 3.3 basis points per annum on

Table 2: Inflation and GDP Impact of the Inflation Reduction Act

	Consumer Price Index (1982-84=100)			Real GDP (2012$ bil)		
	Baseline	Inflation Reduction Act	% difference	Baseline	Inflation Reduction Act	% difference
2022Q1	284.6	284.6	0.00	19,727.9	19,727.9	0.00
2022Q2	290.9	290.9	0.00	19,705.4	19,705.4	0.00
2022Q3	293.7	293.7	0.00	19,824.5	19,824.5	0.00
2022Q4	296.1	296.1	0.00	19,922.8	19,923.2	0.00
2023Q1	298.0	298.0	-0.00	20,007.7	20,009.3	0.01
2023Q2	299.7	299.7	-0.00	20,100.5	20,102.3	0.01
2023Q3	301.2	301.2	-0.01	20,220.9	20,220.3	-0.00
2023Q4	302.6	302.5	-0.01	20,355.0	20,349.2	-0.03
2024Q1	304.3	304.3	-0.01	20,505.6	20,493.6	-0.06
2024Q2	306.0	306.0	-0.01	20,651.7	20,634.2	-0.08
2024Q3	307.8	307.8	-0.01	20,794.8	20,774.5	-0.10
2024Q4	309.7	309.6	-0.01	20,934.6	20,916.8	-0.09
2025Q1	311.5	311.4	-0.02	21,066.0	21,055.0	-0.05
2025Q2	313.2	313.2	-0.02	21,203.5	21,201.0	-0.01
2025Q3	315.0	315.0	-0.02	21,342.2	21,346.7	0.02
2025Q4	316.8	316.7	-0.03	21,491.0	21,499.0	0.04
2026Q1	318.6	318.5	-0.04	21,640.2	21,648.2	0.04
2026Q2	320.4	320.3	-0.05	21,784.9	21,791.5	0.03
2026Q3	322.2	322.0	-0.06	21,926.9	21,932.3	0.02
2026Q4	324.0	323.7	-0.08	22,068.3	22,074.5	0.03
2027Q1	325.6	325.3	-0.09	22,206.9	22,216.4	0.04
2027Q2	327.3	327.0	-0.10	22,339.1	22,352.8	0.06
2027Q3	329.0	328.6	-0.12	22,477.7	22,495.6	0.08
2027Q4	330.8	330.3	-0.13	22,617.8	22,638.9	0.09
2028Q1	332.5	332.0	-0.15	22,754.9	22,778.4	0.10
2028Q2	334.3	333.7	-0.16	22,892.1	22,917.7	0.11
2028Q3	336.1	335.5	-0.18	23,030.3	23,058.2	0.12
2028Q4	337.9	337.2	-0.19	23,166.5	23,195.8	0.13
2029Q1	339.7	339.0	-0.20	23,299.3	23,329.9	0.13
2029Q2	341.5	340.7	-0.22	23,430.5	23,461.9	0.13
2029Q3	343.3	342.5	-0.23	23,560.7	23,592.7	0.14
2029Q4	345.2	344.3	-0.25	23,688.2	23,720.6	0.14
2030Q1	347.0	346.1	-0.26	23,812.8	23,845.9	0.14
2030Q2	348.9	348.0	-0.27	23,936.5	23,971.0	0.14
2030Q3	350.9	349.9	-0.28	24,059.9	24,096.4	0.15
2030Q4	352.8	351.7	-0.29	24,184.2	24,223.1	0.16
2031Q1	354.7	353.7	-0.30	24,309.0	24,350.5	0.17
2031Q2	356.7	355.6	-0.31	24,435.9	24,480.2	0.18
2031Q3	358.6	357.5	-0.32	24,565.2	24,611.9	0.19
2031Q4	360.6	359.4	-0.33	24,692.2	24,740.7	0.20

Sources: BLS, BEA, Moody's Analytics

average over the period. Through the middle of this decade the impact of the legislation on inflation is marginal, but it becomes more meaningful later in the decade.

The legislation weighs on inflation in several ways. Most immediately is through fiscal restraint, as the budget deficit narrows largely because of the taxes on corporations, and results in slower growth. The impact on inflation is small, however, as these growth effects are small. Moreover, large corporations will attempt to pass through some of their higher tax bill to consumers in higher prices for their wares—this will be difficult in competitive markets. The extension of the ACA premium tax credits is also important to quickly reducing inflation, as health insurance costs will rise next year for millions of Americans without the extension.

Weighing on inflation by mid-decade are the reforms to Medicare drug pricing, most importantly being Medicare's ability to negotiate drug prices with pharmaceutical companies. The climate change provisions in the legislation become an increasing headwind to inflation later in the decade. The energy provisions in the Inflation Reduction Act, for example, could reduce the typical American household's spending on energy by an estimated more than $300 per year in today's dollars. Lower property and casualty insurance rates for businesses and homeowners and flood insurance for households due to the reduction in emissions and physical risk also lean against inflation.

The Inflation Reduction Act will also add to real GDP over the 10-year horizon, although here too the impacts will be small, adding an estimated 0.2% to the level of real GDP by the fourth quarter of 2031. This translates into 2 basis points of growth per annum on average over the period. The impact on GDP is on the margin, even a bit negative, through mid-decade, but turns meaningfully positive in the second half of the decade.

Conclusion

It appears increasingly likely that the Inflation Reduction Act will get through the budget reconciliation process requiring all 50 Senate Democrats to vote for the legislation and become law. The legislation marks a major breakthrough in an arduous series of more than yearlong negotiations between Senate Democrats over passing some form of Biden's Build Back Better agenda. Up until this past week the negotiations had seemingly collapsed. Moody's Analytics will likely incorporate its provisions into the August 2022 baseline (most likely) forecast for the U.S. economy.

The Inflation Reduction Act is much smaller in scale and scope than the original Build Back Better agenda from which it comes. Regardless, it will have a material beneficial economic impact. Most immediately it provides financial help to millions of lower-income and elderly Americans with their health insurance premiums and prescription drug costs. It is also the first meaningful effort by the federal government to address climate change and its long-run corrosive economic effects. Moreover, all of this is more than paid for and will thus reduce the government's future budget deficits, which seems sure to soon become a more pressing economic problem. While modest legislation, there is plenty to like in the Inflation Reduction Act.

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Mark Zandi is chief economist of Moody's Analytics, where he directs economic research. Moody's Analytics, a subsidiary of Moody's Corp., is a leading provider of economic research, data and analytical tools. Dr. Zandi is a cofounder of Economy.com, which Moody's purchased in 2005.

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He is a trusted adviser to policymakers and an influential source of economic analysis for businesses, journalists and the public. Dr. Zandi frequently testifies before Congress and conducts regular briefings on the economy for corporate boards, trade associations, and policymakers at all levels. He is often quoted in national and global publications and interviewed by major news media outlets, and is a frequent guest on CNBC, NPR, Meet the Press, CNN, and various other national networks and news programs.

Dr. Zandi is the author of *Paying the Price: Ending the Great Recession and Beginning a New American Century*, which provides an assessment of the monetary and fiscal policy response to the Great Recession. His other book, *Financial Shock: A 360º Look at the Subprime Mortgage Implosion, and How to Avoid the Next Financial Crisis*, is described by the New York Times as the "clearest guide" to the financial crisis.

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