PENN WHARTON UNIVERSITY *of* PENNSYLVANIA Budget Model

The Impact of the Build Back Better Act (H.R. 5376) on Inflation

Summary: PWBM projects that the spending and taxes in the Build Back Better Act (H.R. 5376), as written, would add up to 0.2 percentage points to inflation over the next two years and reduce inflation by similar amounts later in the decade. As an illustrative alternative, if temporary major spending provisions were made permanent, the bill would add up to a third of a percentage point to near-term inflation and have a negligible impact on inflation later in the decade.

Key Points

- PWBM examines how each of the more than 500 provisions in the Build Back Better Act (H.R. 5376) would impact consumption expenditures over the next decade. PWBM projects that the bill, as written, would add 0.1 to 0.2 percentage points to consumer price inflation over the next two years. The bill would reduce inflation later in the decade as temporary provisions phase out.
- PWBM considers an illustrative alternative where temporary major spending provisions in the bill were made permanent. In this case, we project that bill would add up to a third of a percentage point to near-term inflation and have a negligible impact on inflation in later years.
- The bill's impact on inflation could be largely mitigated, however, if monetary policy responds to counteract the increase in consumer demand.

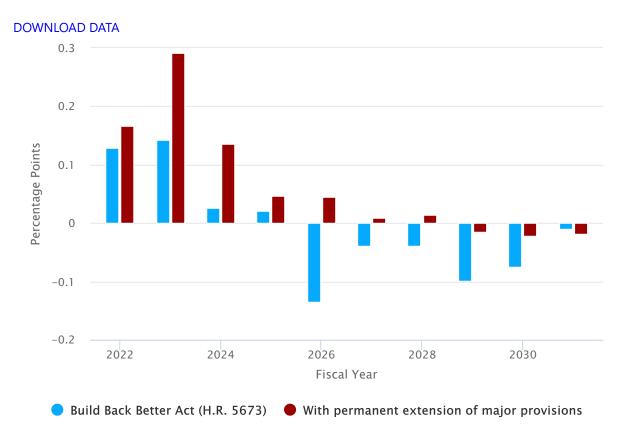
Introduction

On November 19th, the House of Representatives passed H.R. 5376, the Build Back Better (BBB) Act, which is now under consideration in the Senate. PWBM estimates that H.R. 5376 includes \$2.1 trillion in new spending and tax expenditures, offset by \$1.8 trillion in new revenues and other savings. With consumer prices rising at the fastest pace in decades, policymakers have raised concerns about the legislation's impact on inflation, especially if

provisions scheduled to expire after several years were extended permanently. In this brief, PWBM analyzes BBB's impact on inflation over the coming decade.

PWBM's analysis is based on an examination of how each of H.R. 5376's more than 500 provisions would affect the demand for goods and services. Some provisions affect aggregate spending in the economy directly, others do so indirectly, and others would have no impact on demand even though they involve a budgetary outlay or revenue change. Given these differences, the legislation's impact on aggregate expenditures – and the resulting inflationary pressure – cannot be inferred from its impact on the budget deficit. PWBM's section-by-section analysis of the bill accounts for this important distinction.

Figure 1. Effect of the Build Back Better Act (H.R. 5376) and Illustrative Permanent Extension Alternative on Consumer Price Inflation



Note: Inflation is measured as growth in the price index for personal consumption expenditures from the last quarter of one fiscal year to the last quarter of the next. Source: Penn Wharton Budget Model.

Figure 1 summarizes PWBM's projections of the legislation's impact on consumer price inflation.¹ PWBM estimates that H.R. 5376 would add 0.1 to 0.2 percentage points to inflation over the next two years and reduce inflation by about 0.1 percentage points in later years as temporary provisions phase out. If major temporary provisions of H.R. 5376 were enacted permanently, inflation would be 0.1 to 0.3 percentage points higher over the next three years and roughly unchanged later in the decade.

What Build Back Better Buys

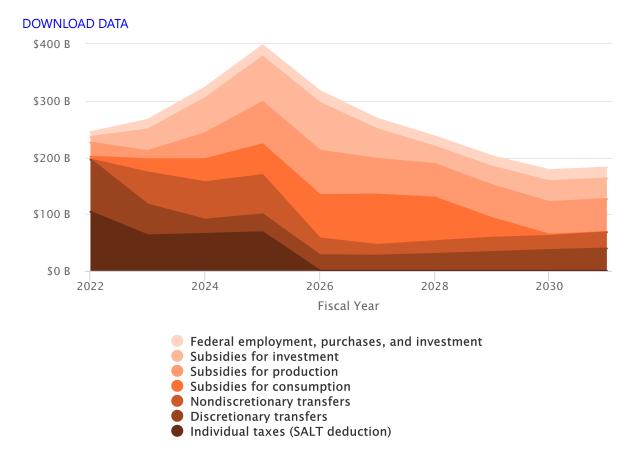
H.R. 5376 provides funding for child and family benefits, for improvements in health insurance coverage and affordability, and for investments in education, energy, climate resilience, workforce development, and infrastructure. It raises new revenues primarily from higher taxes on large corporations and high-income households, with additional savings from reforms to reduce prescription drug costs.

To estimate the legislation's impact on aggregate demand for goods and services, PWBM identified how each spending or revenue provision would enter the economy and affect different kinds of public and private expenditures. Spending provisions are classified into seven categories based on what would be purchased and which sector of the economy would record the expenditure. The different types of purchases are for final goods and services, for intermediate goods and services (such as raw materials) or other inputs, and for fixed assets (capital).² The different sectors are households, businesses, nonprofit institutions, state and local governments, and the federal government.

- *Federal employment, purchases, and investment*: Direct expenditures by the federal government for final goods and services (including the services of federal employees) or for fixed assets added to the stock federal government-owned capital.
- *Subsidies for investment*: Payments to businesses, nonprofit institutions, or state and local governments for the acquisition or maintenance of a fixed asset.
- *Subsidies for production*: Payments to businesses, nonprofit institutions, or state and local governments for purchases of intermediate goods and services, for wages and other labor costs, or to bolster producers' profits.
- *Subsidies for consumption*: Payments to businesses, nonprofit institutions, or state and local governments for purchases of final goods and services on behalf of households.
- *Nondiscretionary transfers*: Payments to households for purchases of final goods and services. These transfers are nondiscretionary (sometimes called "expenditure-based") because the benefit is tied to the purchase of a particular good or service, such as health insurance.³
- *Discretionary transfers*: Payments to households in cash or a cash-like form. These transfers are discretionary in that households choose how much to spend on final goods and services and the timing of such spending.
- Individual taxes (state and local tax deduction): The state and local tax (SALT) deduction is a tax expenditure that like discretionary transfers affects households' disposable incomes. Relative to current law, H.R. 5376 raises the deduction (a tax cut) through 2025 and then limits the deduction (a tax increase) through 2031. To align the classification with the directional impact on demand, PWBM classifies the tax cut component as spending and the tax increase component as an offset.⁴

Figure 2 shows the composition of spending in H.R. 5376 across these categories.

Figure 2. Spending in the Build Back Better Act (H.R. 5376)



Notes: SALT = state and local tax.

Changes to SALT deduction are classified as spending in years they reduce revenues and as an offset in years they raise revenues.

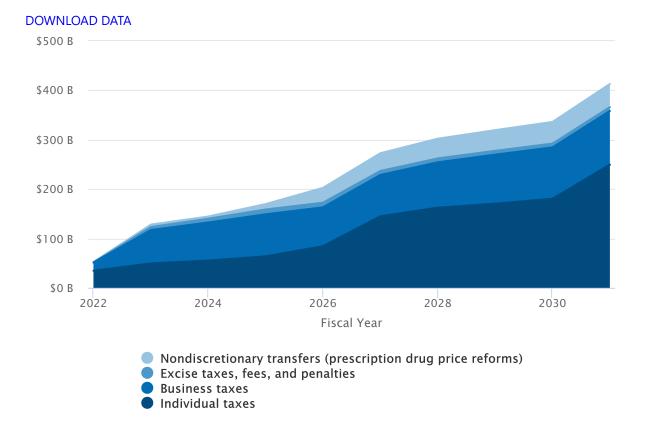
Sources: Penn Wharton Budget Model, Congressional Budget Office.

Taxes and other offsets are classified into four categories based on how the savings would be realized or which sector of the economy would record the tax.

- *Individual taxes*: Payments by households to the federal government for individual income tax liability. Most individual taxes in H.R. 5376 would be paid by high-income and wealthy households.
- *Business taxes*: Payments by businesses to the federal government, generally for corporate income tax liability. Most business taxes in H.R. 5376 would be paid by multinationals and large corporations.
- *Excise taxes, fees, and penalties*: Payments by households, businesses, or nonprofit institutions to the federal government for taxes on goods (such as nicotine), user fees, fines, and other collections unrelated to income.
- Nondiscretionary transfers (prescription drug price reforms): A reduction in payments by the federal government for purchases of prescription drugs consumed by households.⁵

Figure 3 shows the composition of offsets in H.R. 5376 across these categories.

Figure 3. Offsets in the Build Back Better Act (H.R. 5376)



Note: Changes to SALT deduction are classified as spending in years they reduce revenues and as individual taxes in years they raise revenues.

Sources: Penn Wharton Budget Model, Congressional Budget Office.

How Build Back Better Would Impact Consumption Expenditures

The principal channel through which the BBB legislation would affect consumer price inflation – particularly in the near-term – is its impact on aggregate expenditures for consumption goods and services. When producers face an increase in demand, they meet the rise in spending either by raising quantities sold or by raising prices. If producers respond by raising prices, inflation rises. The bill's impact on inflation is therefore dependent on (and limited by) its impact on consumption demand.

Some provisions of H.R. 5673 affect demand directly through the appropriation of funds to purchase goods and services consumed by households. These include subsidies for consumption and nondiscretionary transfers. In these cases, the effect on consumption expenditures is the same as the budgetary effect, since every dollar of budgetary outlay is spent on consumption.

Other provisions influence demand by changing households' disposable income or wealth, which affects their consumption spending decisions. This is how discretionary transfers, individual taxes, and business taxes affect spending. In these cases, the budgetary effect generally corresponds to the change in disposable income. The impact on demand depends on households' marginal propensity to consume (MPC), which measures how much consumption spending changes in response to a change in income. PWBM specified MPC values for transfers and

taxes based on a survey of empirical estimates from recent decades and PWBM's review of more recent evidence. However, MPCs are highly uncertain in the current economic and policy environment, so PWBM considered a range of MPCs higher or lower than its central estimates.⁶

Many provisions of H.R. 5673 would have no immediate effect on demand for consumption goods and services. Federal government purchases consist largely of the services of federal employees and do not change personal consumption expenditures. Subsidies for investment direct spending towards investment in fixed assets, not consumption. Subsidies for production are spent on inputs to production, not on final goods and services.

The Role of the Federal Reserve

The discussion thus far describes the "first-order effects" of the different types of outlays and revenues – what happens at the point a transaction occurs, a federal government account is debited or credited, and the budgetary effect is recorded. In general, this corresponds to how each provision would affect the calculation of gross domestic product in the national accounts, assuming no further changes. But for many provisions, the ultimate impact on demand could be greater or smaller than the first-order effect.

An initial transaction could set off a "multiplier" effect as it flows through to the rest of the economy, where producers and workers respond to the initial change in income by adjusting their consumption, which affects the income of other producers and workers who adjust their consumption, and so on. The multiplier effect magnifies the impact on demand. On the other hand, monetary policy might respond to the change in fiscal policy, stabilizing demand to maintain the Federal Reserve's target for inflation. This would offset any multiplier effect and possibly the first-order effect as well.

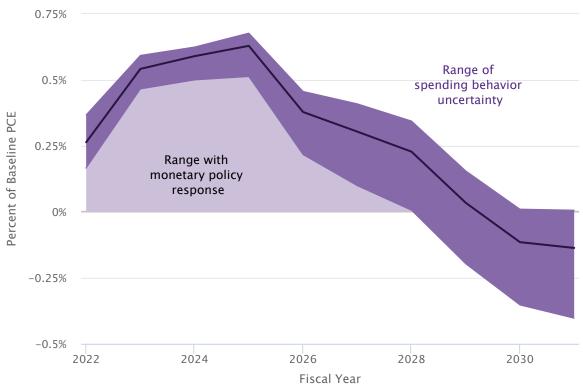
With recent inflation well-above its 2 percent long-run target, the Federal Reserve announced this week that it would accelerate reductions in asset purchases and the expected pace of increases in the policy rate, reducing the degree of monetary policy support for demand. In this context, PWBM expects that the Federal Reserve would not accommodate a significant increase in demand induced by fiscal policy. PWBM's estimates of the first-order impact of BBB legislation should therefore be viewed as an upper bound on its ultimate impact.

The Estimated Impact of Build Back Better on Consumption Expenditures

Figure 4 shows the projected impact of H.R. 5376 on consumption expenditures over the next decade. The darker shaded area shows how different marginal propensities to consume would affect the estimate. This range encompasses scenarios in which households rapidly spend a large share of any changes in income and scenarios in which households adjust consumption gradually and save a larger share of changes in income. The lighter shaded area highlights the potential impact of monetary policy, which could offset the increased demand in part or in full. PWBM projects that H.R. 5376 would raise consumption by about 0.5 percent over the next several years. This increase would fade over the second half of the decade as the bill's temporary provisions phase out. By the end of the decade, H.R. 5376's impact on demand would fall to between zero and a reduction of around 0.2 percent, depending mainly on how much high-income households adjust their consumption spending in response to tax increases.

Figure 4. Effect of the Build Back Better Act (H.R. 5376) on Personal Consumption Expenditures



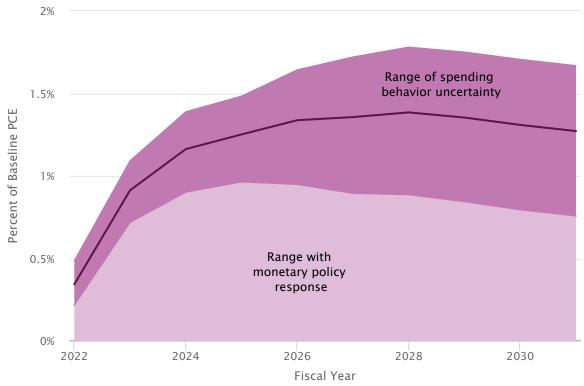


Note: PCE = personal consumption expenditures. Source: Penn Wharton Budget Model.

Figure 5 shows how consumption expenditures would change if major temporary provisions of H.R. 5376 were enacted on a permanent basis. Temporary provisions include the legislation's child care and universal preschool provisions, expansions of child tax credit and earned income tax credit, health insurance tax credits and Medicaid funding, and changes to the state and local tax deduction. If these provisions were made permanent, PWBM projects that the legislation would lead to a sustained increase in consumption spending of around 1 to 1.5 percent over the next decade. There is substantial uncertainty around this estimate, mainly because of uncertainty around how households would spend increased transfers like the child tax credit.

Figure 5. Effect of Illustrative Build Back Better Act with Permanent Extension of Major Provisions on Personal Consumption Expenditures





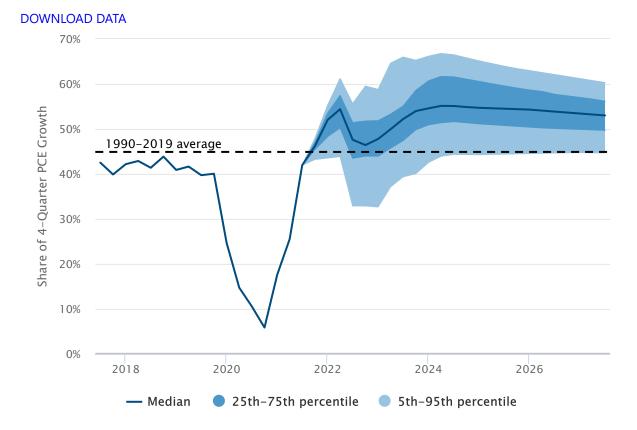
Note: PCE = personal consumption expenditures. Source: Penn Wharton Budget Model.

Pass-Through from Consumption Expenditures to Consumer Prices

The impact of a change in consumption spending on inflation depends on how sellers respond to the change in demand. This in turn depends largely on supply-side conditions in the economy. If producers can raise output without significantly raising costs, increased demand is likely to be met with an increase in the quantity of goods and services sold. If producers are constrained by the availability of inputs, increased costs are passed along to consumers through higher prices.

Figure 6 shows the share of consumption spending growth absorbed by price increases. Over the last three decades, the share has been a little below half on average. It fell sharply in 2020 as the economy shut down and recovered rapidly in 2021 as it reopened, and is now higher than before the pandemic.

Figure 6. Inflation Share of Growth in Personal Consumption Expenditures



Note: PCE = personal consumption expenditures.

Sources: Penn Wharton Budget Model, Bureau of Economic Analysis, Federal Reserve Bank of Philadelphia *Survey of Professional Forecasters*.

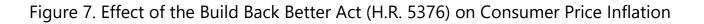
PWBM expects that inflation will absorb a growing share of spending in the near-term, until major supply constraints ease. However, PWBM projects that the share will remain elevated even after the economy stabilizes, reflecting historically tight labor market conditions and a long-run decline in the economy's underlying growth potential. Hence, PWBM's estimates of BBB's impact on inflation reflect a more inflationary economic environment than has been typical in recent decades.

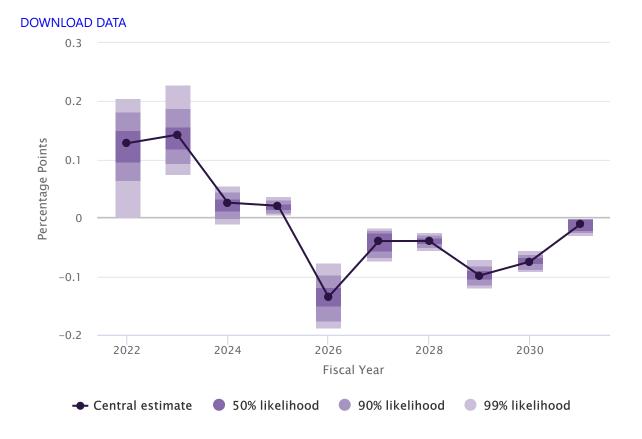
Future supply conditions are currently highly uncertain, so PWBM considered a distribution of possible futures, part of which is shown by the shaded areas in Figure 6. This range is based on a survey of economic forecasters and reflects the degree of disagreement among forecasters. When forecasters express widely differing views about the economic outlook, it signals that the direction of the economy is unclear and uncertainty is high. Uncertainty has been unusually high in recent surveys and this is reflected in PWBM's projections.

The Estimated Impact of Build Back Better on Inflation

Figure 7 shows PWBM's projections of H.R. 5376's impact on consumer price inflation, including the effects of uncertainty around both household consumption behavior and the macroeconomic environment. PWBM

estimates a 90 percent likelihood that inflation would rise between 0.1 and 0.2 percentage points in 2022 and 2023. Inflation would be lower later in the decade as the bill's initial impact on demand reverses.



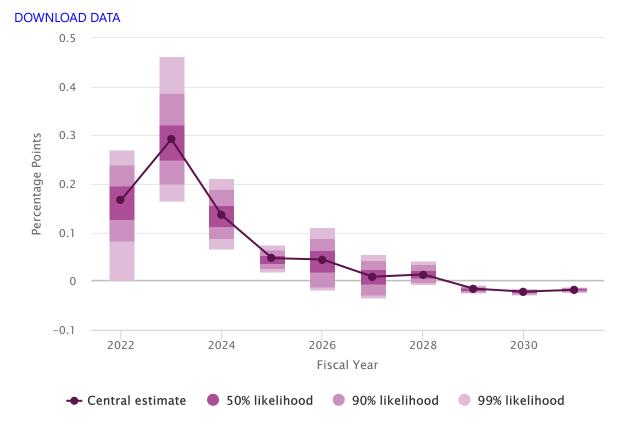


Notes: Inflation is measured as growth in the price index for personal consumption expenditures from the last quarter of one fiscal year to the last quarter of the next.

Likelihood ranges capture uncertainty about households' spending behavior and the macroeconomic environment. Sources: Penn Wharton Budget Model, Federal Reserve Bank of Philadelphia *Survey of Professional Forecasters*.

Figure 8 shows how enacting H.R. 5376 with major temporary provisions made permanent would affect inflation. PWBM estimates a 90 percent likelihood that inflation would rise between 0.1 and 0.25 percentage points in 2022, between 0.2 and 0.4 percentage points in 2023, and between 0.1 and 0.2 percentage points in 2024. The impact would decline close to zero over the remainder of the decade as the change in demand stabilizes following the initial rise.

Figure 8. Effect of Illustrative Build Back Better Act with Permanent Extension of Major Provisions on Consumer Price Inflation



Notes: Inflation is measured as growth in the price index for personal consumption expenditures from the last quarter of one fiscal year to the last quarter of the next.

Likelihood ranges capture uncertainty about households' spending behavior and the macroeconomic environment. Sources: Penn Wharton Budget Model, Federal Reserve Bank of Philadelphia Survey of Professional Forecasters.

Table 1 presents important context for these estimates. The upper panel shows PWBM's projections for the rate of inflation under current law and if BBB legislation were enacted. Without BBB, PWBM projects that consumer prices will rise 3.1 percent in fiscal year 2022 and 2.1 percent in 2023. Relative to these baseline inflation levels, the 0.1 to 0.2 percentage point impact of enacting H.R. 5376 would leave the near-term outlook for inflation essentially unchanged. The impact on the long-term outlook is even smaller; average inflation over the next decade would be roughly the same regardless of whether BBB legislation is enacted, even if major temporary provisions were permanently extended.

Table 1. Consumer Price Inflation Projections

Percentage points

DOWNLOAD DATA

		Central Estimate	
Fiscal Year	Baseline	Build Back Better Act (H.R. 5673)	With permanent extension of major provisions
2022	3.08	3.2	3.23
2023	2.09	2.24	2.4
2024	2.15	2.18	2.27
2022-2031	2.18	2.17	2.24
		50% Likelihood Range	•
Fiscal Year	Baseline	Build Back Better Act (H.R. 5673)	With permanent extension of major provisions
2022	2.83 - 3.55	2.95 - 3.67	2.99 - 3.71
2023	1.9 - 2.39	2.06 - 2.54	2.2 - 2.71
2024	1.89 - 2.38	1.9 - 2.4	2.01 - 2.53
2022-2031	1.99 - 2.39	1.99-2.38	2.06 - 2.46

Notes: Inflation is measured as growth in the price index for personal consumption expenditures from the last quarter of one fiscal year to the last quarter of the next.

The 50% likelihood range captures uncertainty about households' spending behavior and the macroeconomic environment. PWBM projects a 50 percent chance that inflation falls within this range and a 50 percent chance that inflation falls outside of it.

Sources: Penn Wharton Budget Model, Federal Reserve Bank of Philadelphia Survey of Professional Forecasters.

The lower panel of Table 1 highlights another important aspect of PWBM's analysis: BBB's impact on near-term inflation is small relative to baseline uncertainty around the near-term outlook for inflation Uncertainty is currently unusually high in light of the pandemic, the rapid economic recovery, and ongoing supply chain issues. In this context, changes in inflation of a few tenths of a percentage point would likely be indistinguishable from variation in inflation expected whether the legislation is enacted or not.

This analysis was written by Alex Arnon. Prepared for the website by Mariko Paulson.

- 1. Throughout this brief, consumer prices and inflation refer to the price index for personal consumption expenditures published by the Bureau and Economic Analysis.
- 2. Throughout this brief, goods and services are defined as exclusive of fixed assets (capital goods).
- 3. The distinction between subsidies for consumption and nondiscretionary transfers is ambiguous and generally reflects differences in how a payment is administered, which is not economically significant. The decision to classify a provision as one or the other does not affect the analysis or results.
- 4. This classification choice is expositional and does not affect the analysis or results. \checkmark
- 5. The separation of prescription drug reforms from other nondiscretionary transfers classified as spending is expositional and does not affect the analysis or results. ←
- 6. Download a spreadsheet containing PWBM's MPC assumptions. ↔