Key Points

- On Thursday November 9th, 2017 the Senate Committee on Finance majority released its version of the Tax Cuts and Jobs Act that changes both individual and business taxes.
- Penn Wharton Budget Model (PWBM) finds that the bill lowers tax revenues by $1.4 to $1.7 trillion over 10 years, including accounting for growth effects. Debt rises by $1.9 to $2.0 trillion over the same period. Looking beyond the 10-year budget window, by 2040, revenue falls between $4.3 trillion and $5.2 trillion while debt increases by $7.0 to $7.6 trillion.
- PWBM projects that GDP will be between 0.3% to 0.8% larger in 2027 relative to its value in that year with no policy change, and between -0.2% and 0.5% larger in 2040. Over the long-run, additional debt reduces the positive impact on GDP.

The Senate Tax Cuts and Jobs Act (11/9/17): Static and Dynamic Effects on the Budget and the Economy

Introduction

On November 9nd, 2017 the Senate Committee on Finance majority released the Tax Cuts and Jobs Act that would fundamentally change the U.S. tax system. This brief uses the Penn Wharton Budget Model (PWBM) to report the projected impact on the federal budget and the economy. Readers are encouraged to read our previous analyses of the House version of the Tax Cuts and Jobs Act for related definitions used in this brief. (An update to our analysis of the House version of the bill, which includes their amendments, can be found here.)

The Senate Tax Cuts and Jobs Act: Main Features

The Senate Tax Cuts and Jobs Act (TCJA) reduces taxes on both individuals and businesses in addition to implementing international reforms. Tables 1 and 2 show the reforms that are included in the Senate TCJA and compares them to current policy[1] and the House TCJA which we described here.

For individuals, Table 1 shows that the Senate TCJA retains seven brackets, but reduces the top rate to 38.5 percent. Both the Senate and House bills roughly double the standard deduction, repeals personal exemptions, switches to chained CPI, and eliminates the alternative minimum tax (AMT), and enhances the Child Tax Credit (CTC). One difference is that the Senate bill repeals the deduction for state and local income and property taxes and retains the deduction for mortgage interest while the House version repeals the deduction for state and local income taxes (and caps property deductions at $10,000) and limits the deduction for mortgage interest. Finally, the Senate retains the estate tax (with an expanded exemption) while the House repeals it.

Table 1: Reforms to Individual Tax Provisions in the Senate Tax Cuts and Jobs Act

Tax Provision	Tax Cuts and Jobs Act House	Senate	Current Policy (2017)
Individual Taxes			
Individual rate	12%, 25%, 35%, 39.6%	10%, 12%, 22.5%, 25%, 32.5%, 35%, 38.5%	10%, 15%, 25%, 28%, 33%, 35%, 39.6%
Individual tax rate bracket thresholds	12% bracket: up to \$45,000 (single), up to \$90,000 (married)	10% bracket: up to \$9,525 (single), up to \$19,050 (married)	10% bracket: up to \$9,325 (single), up to \$18,650 (married)
	25% bracket: \$45,000 to \$200,000 (single), \$90,000 to \$260,000 (married)	12% bracket: \$9,525 to \$38,700 (single), \$19,050 to \$77,400 (married)	15% bracket: \$9,325 to \$37,950 (single), \$18,650 to \$75,900 (married)
	35% bracket: \$200,000 to \$500,000 (single), \$260,000 to \$1,000,000 (married)	22.5% bracket: \$38,700 to \$60,000 (single), \$77,400 to \$120,000 (married)	25% bracket: \$37,950 to \$91,900 (single), \$75,900 to \$153,100 (married)
	39.6% bracket: more than \$500,000 (single), more than \$1,000,000 (married)	25% bracket: \$60,000 to \$170,000 (single), \$120,000 to \$290,000 (married)	28% bracket: \$91,900 to \$191,650 (single), \$153,100 to \$233,350 (married)
	12% bracket phased out for high income taxpayers	32.5% bracket: \$170,000 to \$200,000 (single), \$290,000 to \$390,000 (married)	33% bracket: \$191,650 to \$416,700 (single), \$233,350 to \$416,700 (married)
		35% bracket: \$200,000 to \$500,000 (single), \$390,000 to \$1,000,000 (married)	35% bracket: \$416,700 to \$418,400 (single), \$416,700 to \$470,700 (married)
		38.5% bracket: more than \$500,000 (single), more than \$1,000,000 (married)	39.6% bracket: more than \$418,400 (single), more than \$470,700 (married)
Unearned income of children	Current Policy	Child's tax rates & trusts and estates	Parent's tax rates

	Tax Cuts and Jobs Act		
Tax Provision	**House**	**Senate**	**Current Policy (2017)**
Standard deduction	Standard deduction of $12,000 single, $24,000 married.	Standard deduction of $12,000 single, $24,000 married.	Standard deduction of $6,350 single, $12,700 married.
Deduction for elderly & blind	Repealed	Current policy	Yes
Personal exemptions	Repealed	Repealed	$4,050 each for taxpayer, spouse & dependents
Alternative Minimum Tax (AMT)	Repealed	Repealed	Yes
Index	Chained CPI	Chained CPI	CPI
Itemized Deductions	Limits repealed	Limits repealed	Subject to limits
Tax preparation expenses, taxes not paid or accrued in a trade or business	Repealed	Repealed	Yes
Expenses attributable to being an employee	Repealed	Current Policy	Yes
Contributions to medical savings accounts	Repealed	Current Policy	Yes
Educator expenses	Repealed	Current Policy	Yes
Interest on home equity debt	Current Policy	Repealed	Yes
Certain miscellaneous expenses	Current Policy	Repealed	Yes
Personal casualty losses	Repealed, other than for those affected by certain hurricanes	Repealed, other than for disasters	Yes
Medical expenses	Repealed	Current Policy	Yes
State and local income and sales taxes	Repealed	Repealed	Yes

	Tax Cuts and Jobs Act		
Tax Provision	**House**	**Senate**	**Current Policy (2017)**
State and local property taxes	Up to $10,000	Repealed	Yes
Home mortgage-interest	Up to $500,000 on new loans	Current policy	Up to $1M
Charitable contributions	Certain contributions are limited and repealed	Increase percentage limit for cash to public charities	Yes
Wagering losses	Limited to wagering winnings	Modified	Yes
Alimony Payments	Not deductible by payer nor income for payee	Current policy	Yes
Child Tax Credit (CTC)	$1,600 per qualified child	$1,650 per qualified child, qualified child age limit increased to 18	$1,000 per qualified child
	$1,000 refundable portion would be indexed and not rise above $1,600	$1,000 refundable portion would be indexed to nearest $100, refundable up to 15% of income over $2,500	Refundable up to 15% of income over $3,000
	$300 credit for non-child dependents, including the taxpayer, non-refundable, expires after 2022	$500 credit for non-child dependents	No
	Phase out income thresholds $115,000 (single) and $230,000 (married)	Phase out income thresholds $500,000 (single) and $1,000,000 (married)	Phase out income thresholds $75,000 (single) and $110,000 (married)
Credit for adoption	Current policy	Current policy	Yes
Credit for elderly or disabled	Repealed	Current policy	Yes
Credit for electric motor vehicles, interest on certain home mortgages	Repealed	Current policy	Yes

Tax Cuts and Jobs Act

Tax Provision	**House**	**Senate**	**Current Policy (2017)**
CTC, Earned Income Tax Credit (EITC), American Opportunity Tax Credit (AOTC)	Work-eligible SSN required to claim refundable portion, SSN for child to claim enhanced CTC, other modifications to EITC	SSN required for each child to claim refundable portion of CTC	Yes
Education			
AOTC, Hope Scholarship Credit (HSC), Lifetime Learning Credit (LLC)	Credit for first $2,000 of certain higher education expenses, 25% of next $2,000, fifth year at 1/2 of the first 4, with $500 refundable	Current policy	Yes
Coverdell Accounts	No new contributions to Coverdell accounts	Current policy	Contributions of $2000 per beneficiary
529 Plans	Elementary and high school expenses up to $10,000 and apprenticeship programs will be qualified expenses, a child in utero may be a beneficiary	Current policy	Yes
Deduction for student loan interest, tuition and expenses	Repealed	Current policy	Yes
Exclusion for savings bonds for education expenses, qualified tuition programs, employer-provided education programs, student loan forgiveness	Repealed, changes made to student loan forgiveness	Current policy	Yes
Exclusions			

Tax Provision	House	Senate	Current Policy (2017)
Gain from sale of a principal residence	Must be principal residence for 5 out of the previous 8 years, only used once every 5 years, phased out for high income	Must be principal residence for 5 out of the previous 8 years, only used once every 5 years	Must be principal residence for 2 out of the previous 5 years
Employee achievement awards, dependent care assistance programs, adoption assistance programs, employer provided housing	Repealed, employer provided housing limited & phased out for high income, dependent care continues through 2022	Current policy	Yes
Employer-provided bicycle commuter fringe benefit	Current policy	Repealed	Yes
Employer-provided qualified moving expense reimbursement	Repealed, retained for Armed Forces	Repealed, retained for Armed Forces	Yes
Pension Savings and Retirement	Modifications, including to the minimum age for in-service contributions, hardship withdrawals and distributions, and the recharacterization of ROTH IRA contributions as traditional IRA contributions	Current Policy	Yes

For businesses, Table 2 shows that the Senate TCJA reduces the corporate tax rate to 20 percent, but not until 2019. Like the House, the Senate bill also allows full expensing for five years and limits the net interest deduction. The Senate includes a deduction for pass-through businesses, while the House introduces a special rate of 25% for pass-throughs.

Table 2: Reforms to Business, International, and Other Tax Provisions in the Senate Tax Cuts the Jobs Act

Tax Cuts and Jobs Act

Tax Provision	**House**	**Senate**	**Current Policy (2017)**
Business Taxes			
Corporate rate	20%, 25% for personal services corporations	20%, starting in 2019	15%, 25%, 34%, 39%, 34%, 35%, 38%, 35%
Corporate Alternative Minimum Tax (AMT)	Repealed, carryforward changed	Repealed, carryforward changed	20% on income above $40,000
Deduction of investment expenses in the same year "full expensing"	Allowed for 5 years & 179 expensing expanded for certain businesses	Allowed for 5 years & 179 expensing expanded	Depreciation over time, some limits
Net interest deduction	Capped at 30% of income, modifications including small business exemption	Capped at 30% of income, carry forward of denied deduction	Yes, subject to limitations
Certain business tax expenditures, including amortization of research and experimentation expenditures, contingent fee cases, qualified equity grants and those related to energy, insurance, net operating losses, bonds, compensation, small business accounting and exempt organizations	Repealed and modified	Repealed and modified	Yes
Other Taxes			
Pass-through rate	Top rate of 25%, for certain income, bottom rate of 9% phased in for certain income	Individual income tax rates	Individual income tax rates

Tax Cuts and Jobs Act

Tax Provision	House	Senate	Current Policy (2017)
Prevent conversion of wage income to business income by wealthy individuals as a result of new pass-through rate and pass-through conversion to C corporations	Active owners pay individual rates on 70% of income from pass-through business or according to their "capital percentage", 25% rate does not apply to professional services pass-through businesses such as lawyers and financial services, and treatment of S corporation conversion to C corporations modified.	No	No
Determination of active ownership	Based on number of hours spent participating in activities of the business	No	No
Deduction	No	17.4% deduction for certain non-service income, exception for service income below $75,000 (single) and $150,000 (married), exception is phased out over next $25,000 (single) and $50,000 (married)	No
Active pass-through losses	Current policy	Repeal above $250,000 (single), $500,000 (married)	Yes

Tax Cuts and Jobs Act

Tax Provision	House	Senate	Current Policy (2017)
Partnerships	3-year holding period for long term capital gain for certain partnership interests	Modified, including to tax on sale, definition of built in loss for loss transfers, allowance of partner's share of loss, worker classification safe harbor and withholding, reporting thresholds, and information reporting requirements	Yes
Income subject to Self-Employment Contributions Act (SECA) treatment	Current policy	Current policy	Earnings from a trade or business carried on as a sole proprietor, independent contractor or partner
Estate tax and generation skipping transfer tax	Exclusion doubled and indexed or inflation, repealed after 2023, step-up in basis is unchanged	Exclusion doubled	Top tax rate is 40% with estates over $5.49 million (single), $10.98 million (married) subject to tax.
	Gift tax top rate of 35%, exclusion is unchanged and indexed for inflation	Exclusion doubled	Yes
International Taxes			
One-time repatriation rate	14% on cash, 7% non-cash, paid over 8 years	10% on cash, 5% non-cash	No
Territorial tax system	Yes	Yes	Global tax system
Excise tax on outbound related-party payments; ECI election	Choice to treat as connected income, for certain payments	No	No
Other international reforms	Repealed and Modified	Modified	Yes

For businesses that operate internationally, the Senate introduces a territorial tax system. The bill also allows for a special one-time repatriation rate for the previous profits of foreign subsidiaries.

The Senate Tax Cuts and Jobs Act would make many changes to both individual and business tax provisions. More information on the Senate Tax Cuts and Jobs Act can be found at the Senate Finance Committee and in analysis by the Joint Committee on Tax.

Static Revenue Effects of the Senate Tax Cuts and Jobs Act

Table 3 shows PWBM's estimate revenue effects of TCJA over the 10 year budget window and over the long-run. Table 3 also compares PWBM's estimated revenue losses against those estimated by JCT, which is staffed by leading government tax economists. PWBM estimates a static revenue loss from 2018 - 2027 equal to $1,751 billion, or about $255 billion more than that estimated by JCT. The difference in revenue losses are due to several factors: moderately different macroeconomic forecasts and parameters; PWBM's forecast of demographic changes compared to JCT's focus on tax filers; and, interactions when changing multiple parts of the tax code at the same time. From 2018 - 2040, PWBM estimates federal revenues will be $5,052 billion lower under the bill than otherwise.

Table 3: Estimates of the Effect of the Senate Tax Cuts and Jobs Act on Federal Tax Revenues

	Revenue Effect 2018-2027		Revenue Effect 2018-2040
Tax Provision	**JCT**	**PWBM**	**PWBM**
Individual			
New tax rate and bracket structure	-1,326	-1,576	-4,697
Expand the standard deduction and repeal personal exemptions	651	596	1,714
Index tax provisions to chained CPI	131	87	751
New pass-through business deduction	-460	-494	-1,438
Pass-through business loss limits	176	201	640
Expand Child Tax Credit (CTC) and new non-child dependent credit	-582	-580	-1,607
Repeal and modifications to itemized deductions	1,266	1,022	3,082
Repeal Alternative Minimum Tax (AMT) 2	-707	-347	-1,059
Reforms to certain deductions and credits 3	34	25	61
Reforms to certain exclusions 4 5	7	7	22
Estate Tax Exemption Doubled 6	-94	-94	-303
Subtotal	*-903*	*-1,152*	*-2,833*
Corporate			
New corporate tax rates and repeal of corporate Alternative Minimum Tax (AMT)	-1,370	-1,340	-3,959
Net Interest Deduction capped at 30% of income	308	296	809
Deduction of investment expenses in the same year "full expensing" allowed for 5 years	-61	-47	-27
Modification to net operating loss deductions	170	111	288
Repeal of Domestic Production Deduction	81	101	285

	Revenue Effect 2018-2027		Revenue Effect 2018-2040
Tax Provision	**JCT**	**PWBM**	**PWBM**
Reforms to certain business tax expenditures 7	174	170	613
Subtotal	*-697*	*-709*	*-1,990*
International 8			
Territorial System	-216	-154	-436
Special one-time repatriation rate	190	143	146
Other international reforms 9	130	121	61
Subtotal	*104*	*110*	*-229*
TOTAL	**-1,496**	**-1,751**	**-5,052**

Note: Estimates are net of effects on federal spending.

The above estimates are net of effects on federal tax refunds, which are recorded as outlays, as is consistent with JCT's methodology. PWBM finds that the 10-year revenue loss that does not incorporate effects on outlays is $1.8 trillion.

Dynamic Budget Effects of the Senate Tax Cuts and Jobs Act

Table 4 shows that over the 10-year budget window, The Senate Tax Cuts and Jobs Act is projected to reduce federal tax revenues between $1.4 trillion (high initial return to capital) to $1.7 trillion (low initial return to capital). Debt rises by more, by about $1.9 trillion to $2.0 trillion, over this period, due to debt services. By 2040, revenue falls between $4.3 trillion and $5.2 trillion, whereas debt increases by $7.0 trillion to $7.6 trillion.

Table 4: TCJA Effects on Revenue and Debt Relative to Current Policy

	Revenue (billions of $)			Debt (billions of $)		
	Static	**Dynamic**		**Static**	**Dynamic**	
Years		**High return to capital**	**Low return to capital**		**High return to capital**	**Low return to capital**
2018-2027	-$1,781	-$1,422	-$1,677	$2,046	$1,875	$2,019
2018-2040	-$5,288	-$4,272	-$5,173	$7,681	$7,004	$7,627

Note: The above estimates focus on the official definition of "revenue" and, therefore, do not incorporate tax refunds, which are recorded as outlays. Debt rises faster than lost revenue due to debt service costs, which revenue estimates ignore.

Dynamic Economic Effects of the Senate Tax Cuts and Jobs Act

The Senate Tax Cuts and Jobs Act has effects beyond federal revenues, including effects on GDP, labor income and U.S. capital services, summarized in Table 5. By 2027, GDP is between 0.3 percent and 0.8 percent larger than current policy in that year. However, this initial boost fades over time as more debt accumulates. By 2040, GDP is between 0.2 percent less and 0.5 percent larger than current policy in that year.

Table 5: TCJA Effects on Key Macroeconomic Variables Relative to Current Policy in Year Shown

	GDP (% change)		Labor Income (% change)		Capital Services (% change)	
Year	**High return to capital**	**Low return to capital**	**High return to capital**	**Low return to capital**	**High return to capital**	**Low return to capital**
2027	0.8%	0.3%	0.8%	0.2%	2.6%	0.8%
2040	0.5%	-0.2%	0.5%	-0.3%	2.1%	-0.3%

Note: Percentage change relative to current policy in 2027 and 2040, respectively. Consistent with our previous dynamic analysis and the empirical evidence, the projections above assume that the U.S. economy is 40% open and 60% closed. Specifically, 40% of new government debt is purchased by foreigners.

Table 5 shows changes in the level of GDP in the shown years relative to current policy. An alternative measure, as shown in Table 6, is to examine changes in the annual growth rate of GDP that is needed to produce the different levels shown in GDP. PWBM finds that over the next ten years, average annual GDP growth will be 0.03 percentage points to 0.08 percentage points higher under TCJA than with no tax changes. However, from 2028 to 2040, average annual GDP growth will be 0.02 percentage points to 0.04 percentage points smaller than under current law, due to the effects of larger debt.

Table 6: TCJA Effects on Average Annual GDP Growth Relative to Current Policy over Period of Time Shown

	Average Annual GDP Growth Rate (percentage point change)	
	Dynamic	
Years	**High return to capital**	**Low return to capital**
2018-2027	0.08	0.03
2028-2040	-0.02	-0.04

Note: Percentage point change relative to current policy from 2018–2027 and 2028–2040, respectively. Consistent with our previous dynamic analysis and the empirical evidence, the projections above assume that the U.S. economy is 40% open and 60% closed. Specifically, 40% of new government debt is purchased by foreigners.

Conclusion

The Senate Tax Cuts and Jobs Act would make many changes to both individual and business tax provisions. Penn Wharton Budget Model projects that the changes in the bill reduce federal tax revenue in both the short- and long-run relative to current policy. In the near term, there is a small boost to GDP, but that increase diminishes over time due to debt buildup.

1. PWBM’s integrated model includes both revenue and spending policy. For our tax simulator, we model “current law” that allows tax provisions to expire as scheduled, consistent with JCT’s approach. For our spending side, we model “current policy” that does not, for example, allow changes to mandatory changes when, for example, the Social Security’s trust funds are exhausted. This integration provides a more holistic analysis since some government benefit formulas, including the initial calculation of Social Security benefits upon retirement, are explicitly tied to the growth in average wages throughout a participant's lifetime. ↩
2. PWBM's estimate of the revenue effect of repealing the individual AMT compared to baseline is $515 billion. ↩
3. Reforms to certain credits and deductions includes requiring Social Security numbers for for each child to claim refundable portion of CTC and repeal of the moving expense deduction. ↩
4. Reforms to certain exclusions includes repeal of exclusion for employer-provided bicycle commuter fringe benefit and qualified moving expense reimbursements and modified exclusion of gain from sale of a principal residence. ↩
5. For these items PWBM applies PWBM's macroeconomic forecast to JCT estimates. ↩
6. For these items PWBM applies PWBM's macroeconomic forecast to JCT estimates. ↩
7. For these items PWBM applies PWBM's macroeconomic forecast to JCT estimates. ↩
8. PWBM's estimates include lower cross-border profit flows than JCT's. ↩
9. For these items PWBM applies PWBM's macroeconomic forecast to JCT estimates. ↩