

BUSINESS TAX REFORM: THE ECONOMIC EFFECTS OF A "BORDER ADJUSTMENT" TAX

FEBRUARY 2, 2017

what does **REIMI say**? sm





Background and Political-Economic Context

Border Adjustment Considerations

Hypothetical Scenario: Import/Export Cost Changes – Industry and State Implications

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The Trump Plan



"Fixing a tax code that is outdated, overly complex, and too onerous will unleash America's economy, creating millions of new jobs and boosting economic growth." White House Economic Plan



Photo: Whitehouse.gov

- □ As a candidate, Trump proposed:
 - Cutting the corporate tax from 35% to 15%
 - Apply 15% to small businesses and passthrough entities currently paying individual rate
 - Consider tariffs on companies that move jobs overseas
- Trump initially expressed skepticism about border adjustments
- Administration officials recently indicated they are open to idea

what does **REMI** say? sm

Sources: White House, Trump campaign website, Bloomberg

Ryan-Brady Blueprint

- House Republicans released tax reform plan in June 2016
- Reform taxes on business
 - Reduce corporate rate from 35% to 20%
 - Adopt "cash-flow based approach" to replace "income-based approach" to taxation
 - Replace current worldwide tax system, exempting dividends from foreign subsidiaries
 - Border adjustments exempting exports and taxing imports

Source: paulryan.house.gov

Sources: House Republican's "A Better Way", KPMG





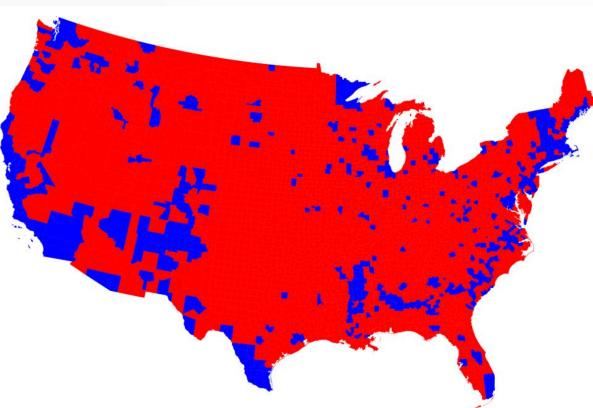
Political-Economic Context



- Tax reform is about economic growth, but it is also a political decision
 - Need to understand not only the total macroeconomic effects, but also:
 - Industry effects
 - State and Regional Effects
- State and industry dynamic analysis is critical to informing Congress

A House Divided: Rural-Urban Split

2016 Election Results by County



Mark Newman, Department of Physics and Center for the Study of Complex Systems, University of Michigan

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Border Adjustments



- Border-adjusted corporate tax
 - Revenues from the sale of exports would not be taxed
 - Costs of imported parts and goods for use or resale would no longer be deductible
- Border adjustment could raise an additional \$1 trillion over 10 years – Tax Foundation estimate
- However, change could be coupled with tax rate cuts, so overall business revenue could fall

Sources: Tax Foundation, Reuters

Border Adjustment Issues REMI

- Border adjustment reduces export costs, increases import costs
 - The effects of this policy depend on other components of tax reform, such as the corporate profits tax
- Full employment and the Fed
 - If the economy is at "full employment," then job gains in one sector must be offset by job losses elsewhere
 - Can hysteresis effect be reversed?

Exchange Rate Adjustment



- Exchange Rate Adjustment
 - If dollar increases, this will offset the import cost increase/export cost decrease.
 - If the border adjustment is 10% and the exchange rate is 10%, relative cost differences are offset
 - The primary effect of the border adjustment may then be in the shift away from income-based taxation towards a consumptionbased taxation
 - Questions regarding exchange rate adjustment:
 - What is the timing? Immediate or long-term?
 - Does exchange rate adjustment offset 100%? 50%? 75%?

Modeling Impacts



- Scenario for simulation
 - Increase import costs, lower export costs
 - Constructed as balance where change in import costs = change in export costs, approximately "revenue neutral"
 - Other factors need to be considered; scenario is intentionally oversimplified
 - No exchange rate change

Simulation: Border Adjustment



- Simulation: increase import cost, decrease export costs
 - Adjusted direct export cost savings to equal import cost increase (revenue neutral)
 - Decrease export costs by 10%, increase import costs by the same dollar amount
 - Baseline exports (2015): \$1.67 trillion
 - Baseline imports (2015): \$2.18 trillion
 - 10% of exports: \$167 billion
 - \$167 billion/2.18 trillion=7.64%
 - In 2015, export costs are decreased by 10% and import costs increased by 7.64%

Border Adjustment (No Fed Response): Imports



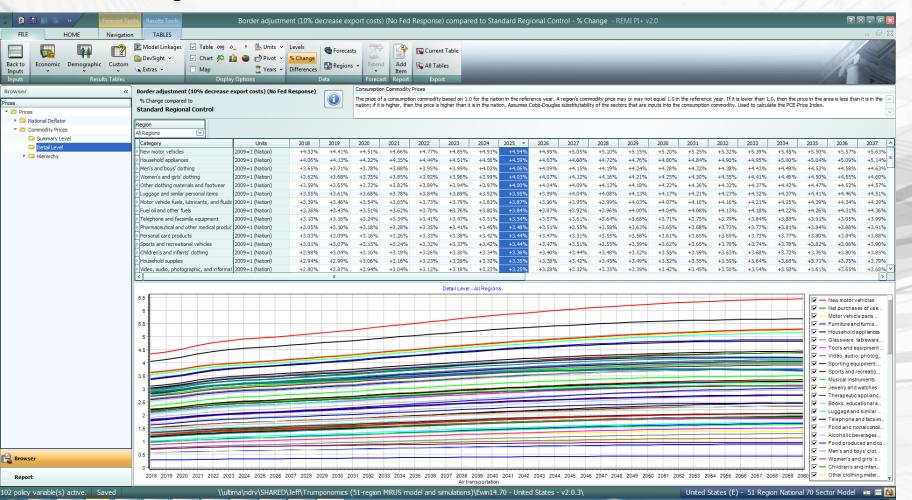
States affected most by changes in imports from the border adjustment are in darker shades of green

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Border Adjustment (No Fed Response): Prices



States affected most by changes in imports from the border adjustment are in darker shades of green



Border Adjustment (No Fed Response): Exports



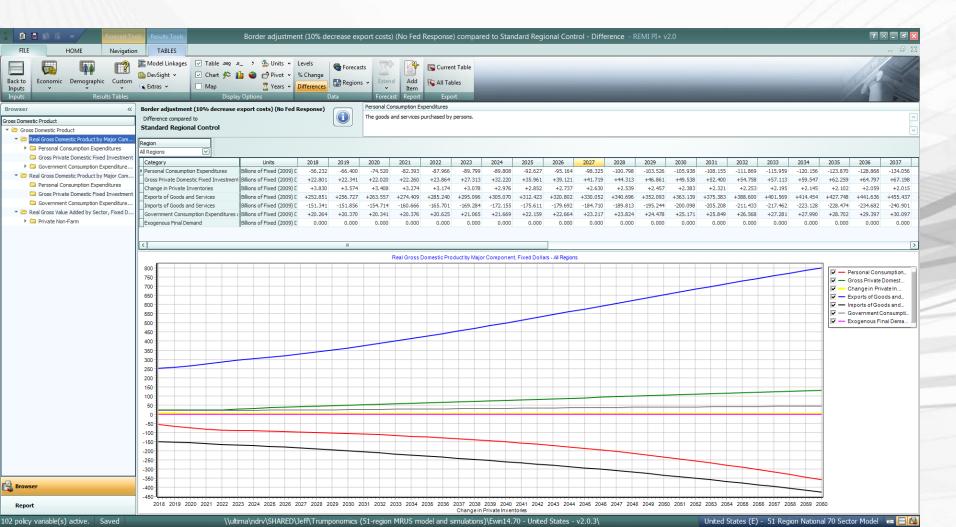
States affected most by changes in exports from the border adjustment are in darker shades of green

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Value-Added	720	
Labor Productivity	700	
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Border Adjustment (No Fed Response): GDP Impact



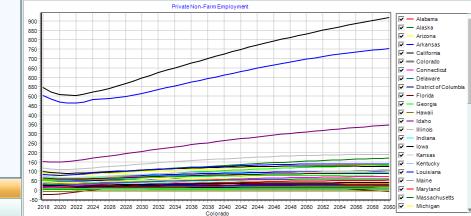
States affected most by the border adjustment are in darker shades of green

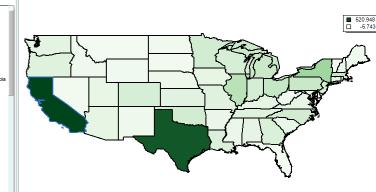


Border Adjustment (No Fed Response): Employment Impact



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Employment	Difference compared to Standard Regional Control				Employment comprises estimates of the number of jobs, full-time plus part-time, by place of work for all industries except government and farm. Full-time and part-time jobs a active partners are included, but unpaid family workers and volunteers are not included.											are counted	at equal wei	jht. Employee	s, sole proprie	etors, and \land		
🔻 🗁 Industry	Region	Units	2018	2019	2020	2021	2022	2023	2024 🔻	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037 ^
Private Non-Farm	▶ California	Thousands (Jobs)	+545.410	+521.717	+508.106	+504.796	+503.805	+510.417	+520.948	+529.447	+540.939	+552.669	+566.652	+581.409	+595.184	+610.591	+625.047	+638.072	+650.460	+663.010	+675.769	+687.641
🔻 🗁 Private Non-Farm Employment	Texas	Thousands (Jobs)	+503.979	+483.630	+469.013	+463.637	+461.895	+469.451	+482.651	+484.242	+487.574	+491.911	+498.215	+506.154	+514.761	+524.998	+534.696	+544.518	+554.343	+564.397	+574.234	+583.520
Sector Level	New York	Thousands (Jobs)	+152.508	+148.872	+149.134	+152.656	+156.765	+162.716	+169.565	+175.001	+181.039	+186.732	+193.135	+199.578	+205.588	+212.271	+218.387	+224.002	+229.398	+235.159	+240.722	+245.996 =
Summary Level	Illinois	Thousands (Jobs)	+115.467	+110.634	+108.762	+109.421	+110.818	+113.877	+117.854	+120.783	+124.104	+127.320	+130.918	+134.514	+137.859	+141.556	+144.881	+147.851	+150.568	+153.530	+156.190	+158.618
🕨 🗀 Hierarchy	Ohio	Thousands (Jobs)	+97.395	+91.845	+89.141	+88.751	+89.016	+90.896	+93.628	+95.497	+97.680	+99.730	+102.053	+104.334	+106.419	+108.726	+110.621	+112.303	+113.782	+115.363	+116.695	+117.806
Intermediate Demand Employment	Pennsylvania	Thousands (Jobs)	+81.895	+78.640	+78.130	+79.635	+81.649	+85.017	+89.092	+91.789	+94.594	+97.050	+99.784	+102.417	+104.839	+107.633	+110.014	+112.124	+114.086	+116.424	+118.510	+120.364
Local Consumption Demand Employ	Massachusetts	Thousands (Jobs)	+84.804	+82.267	+81.337	+82.193	+83.354	+85.308	+87.838	+90.032	+92.635	+95.144	+97.974	+100.899	+103.779	+107.068	+110.098	+112.983	+115.555	+118.231	+120.855	+123.339
Government Demand Employment	Michigan	Thousands (Jobs)	+88.757	+83.918	+81.489	+81.021	+81.028	+82.411	+84.520	+86.261	+88.381	+90.484	+92.832	+95.200	+97.442	+99.920	+102.066	+104.003	+105.834	+107.722	+109.458	+111.018
Investment Activity Demand Emplo	North Carolina	Thousands (Jobs)	+74.631	+69.635	+67.152	+66.603	+66.533	+67.770	+69.669	+71.601	+73.851	+75.926	+78.213	+80.469	+82.476	+84.712	+86.590	+88.132	+89.478	+90.896	+92.138	+93.180
Exports to Multiregions Employment	Minnesota	Thousands (Jobs)	+71.653	+68.475	+66.723	+66.256	+66.236	+67.055	+68.443	+69.442	+70.736	+72.078	+73.695	+75.426	+76.993	+78.754	+80.277	+81.605	+82.787	+84.030	+85.142	+86.199
Exports to Rest of Nation Employm	Oklahoma	Thousands (Jobs)	+70.978	+68.330	+66.484	+65.864	+65.621	+66.537	+68.115	+67.805	+67.687	+67.764	+68.093	+68.700	+69.465	+70.497	+71.535	+72.682	+73.867	+75.082	+76.320	+77.494
Exports to Rest of World Employment	New Jersey	Thousands (Jobs)	+58.288	+56.733	+56.913	+58.423	+60.340	+63.068	+66.237	+68.642	+71.216	+73.555	+76.173	+78.749	+81.175	+83.879	+86.242	+88.384	+90.422	+92.698	+94.810	+96.804
Exogenous Industry Sales Employ	Indiana	Thousands (Jobs)	+70.556	+66.414	+64.075	+63.335	+63.024	+63.790	+65.146	+66.196	+67.526	+68.860	+70.381	+71.962	+73.419	+75.039	+76.441	+77.703	+78.837	+80.021	+81.087	+82.007
Exogenous Industry Demand Empl	Wisconsin	Thousands (Jobs)	+64.306	+61.152	+59.294	+58.709	+58.624	+59.309	+60.474	+61.532	+62.876	+64.231	+65.821	+67.394	+68.825	+70.412	+71.787	+72.990	+74.071	+75.214	+76.282	+77.311
Government	Colorado	Thousands (Jobs)	+53.069	+51.726	+51.276	+51.825	+53.049	+55.116	+57.768	+59.122	+60.502	+61.810	+63.274	+64.853	+66.511	+68.372	+69.987	+71.514	+72.972		+75.951	+77.395
Occupation	Georgia	Thousands (Jobs)	+53.461	+49.393	+47.708	+47.537	+47.947	+49.547	+51.714	+53.739	+55.921	+57.816	+59.863	+61.775	+63.473	+65.314	+66.785	+67.953	+68.981	+70.132	+71.029	+71.771
	Louisiana	Thousands (Jobs)	+47.078	+45.649	+45.183	+45.711	+46.573	+48.425	+50.819	+51.351	+51.873	+52.289	+52.846	+53.457	+54.121	+54.944	+55.620	+56.277	+56.917	+57.626	+58.233	+58.759 🗸
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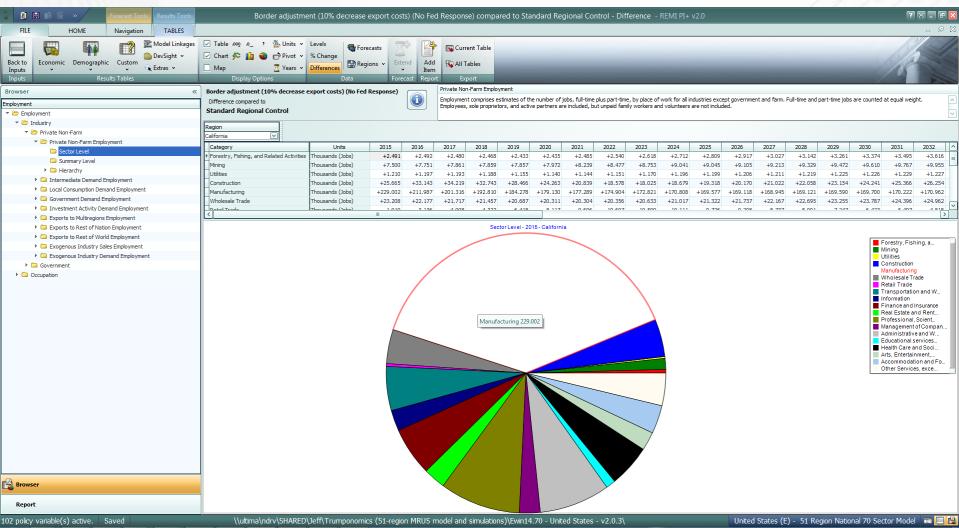


Private Non-Farm Employment - 2024

Report

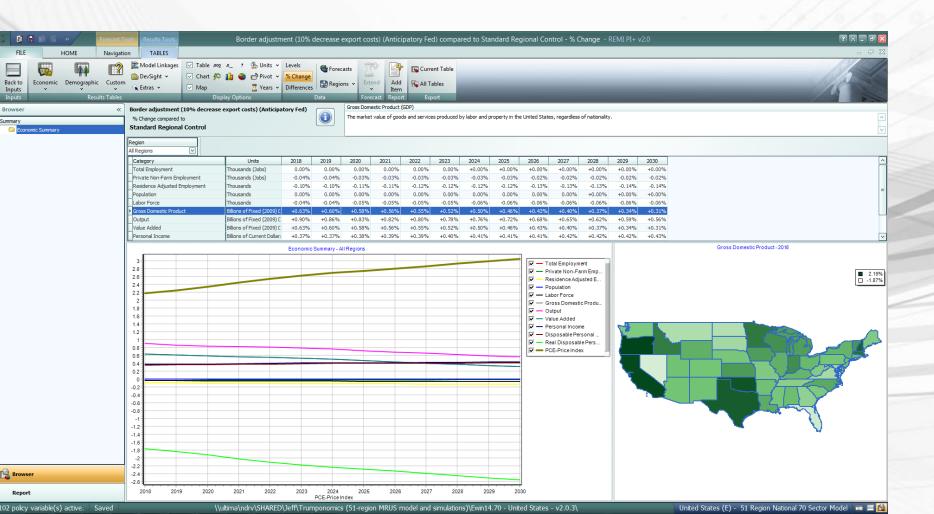
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California Industry Employment REMI Impact



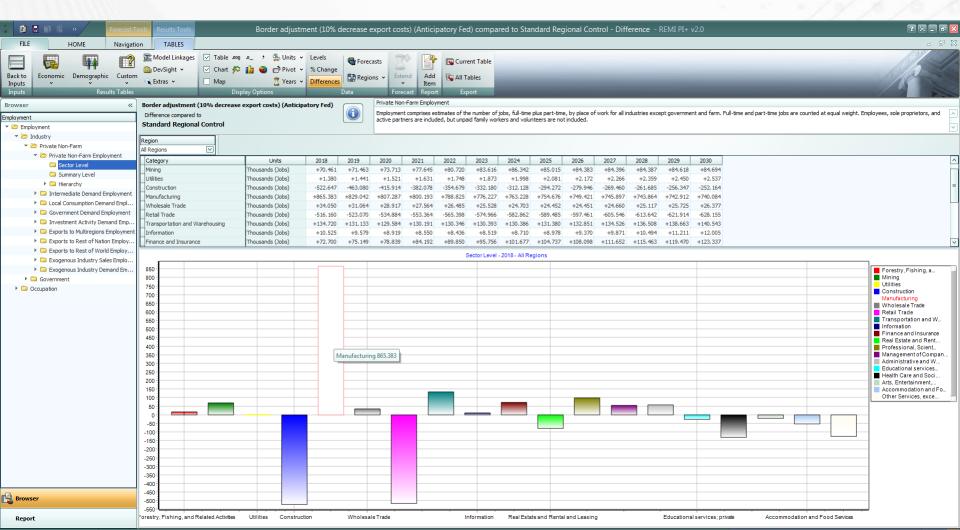
Border Adjustment (Anticipatory REMI

Anticipatory Fed: Employment no change from baseline, GDP increase



Anticipatory Fed: Employment





102 policy variable(s) active. Saved

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United States (E) - 51 Region National 70 Sector Model 🛛 📼 🚍 🔛

Conclusion



- Simplified scenario identifies potential industry and regional gains and losses
- Additional considerations: context of overall tax plan, exchange rate adjustment, labor force constraints and hysteresis
- Political Economy:
 - Economy: tax reform and economic growth
 - Political: inform Congress of industry effects, and what it means at the state and district level