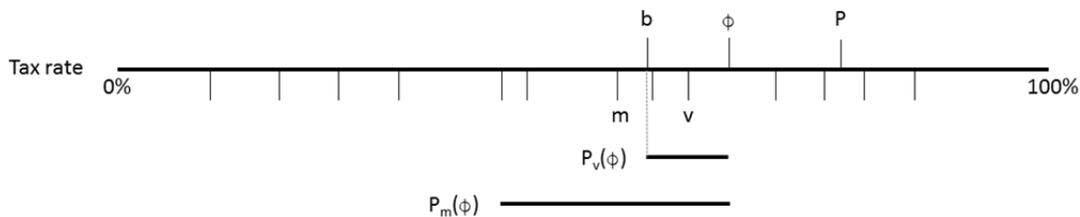


Part I.

The following figure illustrates the answer. The bill that could pass Congress, withstand a veto, and please the median the most (given the veto constraint) is labeled b on the figure.



This is why.

To pass Congress, the bill must make the median better off compared to ϕ . With a 13-member Congress, the median is the 7th member, counting in from either direction. I have labeled this member as m .

Because ϕ is in the contract curve between P and m , the only way for a bill to pass lowering the tax rate would be to enlist the aid of the veto pivot. To overcome a veto, you need 2/3 of Congress to approve the bill. Note that $13(2/3) = 26/3 = 8 \frac{2}{3}$. Therefore, to overcome the veto, you'll need nine votes. Counting from the left, the 9th member is labeled v , for veto pivot.

A bill that would pass Congress and overturn a veto must be in the intersection of the preferred-to sets of v and m against the status quo. These are labeled as $P_v(\phi)$ and $P_m(\phi)$ on the figure.

Note that the left end of $P_v(\phi)$ is the part of $P_v(\phi)$ that is closest to m . Therefore, this is the best bill that m can get that will also beat a veto.

Full credit was given for people who identified the location of b on the figure and then gave an explanation that indicated they knew that the bill would be on the part of $P_v(\phi)$ that was closest to m . (Most people didn't express it this way, but if I understand that this was what you were thinking, you got full credit.) Because we weren't using compasses and other measuring devices, some people described the answer properly, but located b slightly to the left or right of where it should be. If the description was right, but the drafting was a little bit off, you got full credit.

Some people chose the ideal point of the 8th member (the one closest to b) as the location of bill. Sometimes, this was because of a drafting error, in which case you got full credit. Other times, this was because you wrote that the 8th member's ideal point would be the location of the bill, which is incorrect. You got partial credit.

Part II.

1. “Pure majority rule is a stylized mode of group decisionmaking in which new motions to alter the status quo are allowed and majority votes are taken on those motions until the group decides, via majority vote, to stop taking motions.” (*Analyzing Congress*, pp. 21 & 51)
2. The industrial party system retained most of the regional balance of the Civil War system (Democrats predominated in the South and Republican predominated in the North), but voters who were benefited by industrialization also tended to gravitate toward Democrats and those who didn’t benefit so much from industrialization tended to gravitate toward Republicans.
3. Opportunity costs are the benefits foregone by giving up one office and running for another. For instance, if a state senator gives up his/her seat to run for Congress, the opportunity costs are the pay and other benefits (like power and influence) that accrue to a state senator.
4. The amount of turnover in the 2010 congressional election was historically large, especially for the House. As a consequence of the 2010 election, the House became controlled by Republicans, thus beginning a period of intense conflict between the House and President Obama. Republicans gained control of the House because of the success of the “Tea Party” movement, which showed its oats for the first time in 2010. Their success created a fissure in the Republican Party that continues to make it difficult for Republican Party leaders to control the chamber.
5. The two major explanations for the midterm loss are (1) a loss of the presidential coattails that swept a disproportionate number of the president’s co-partisans into office in the preceding on-year election and (2) a desire by some more moderate voters to produce ideological balance between the president and congress. In particular, these would have been voters who in the previous election voted for the opposite party’s presidential candidate, but the incumbent president’s congressional candidate. These are the voters who shift to the opposite party’s congressional candidate.

Part III.

There were two parts of this essay, and you needed to answer both to get full credit. (Some people either ran out of time or didn’t read the prompt carefully and didn’t answer the part about 2018. These essays were marked down.)

The first part of the prompt asked you to predict what would happen in the congressional election in 2016. Although I graded the exams after the election, I pretended that the election hadn’t happened yet, so you weren’t penalized for mis-predictions. (You also weren’t given a bonus for predicting the outcome, either.)

There are two major explanations that should have guided your predictions about 2016: (1) You should have noted that presidents tend to have coattails and that the winning presidential

candidate tends to bring in more people to Congress. A full answer would have made a prediction about who would win the presidential election (or at least note the fact of coattails) and therefore predict that the winner's party would do better. (2) There were also particular races in the House and Senate, plus there was the difference between the House and Senate. (On the latter point, the Senate was much more vulnerable to a Democratic takeover than the House, because of factors such as gerrymandering and the fact that incumbent senators in 2016 had been elected in 2010 (an especially good year for Republicans.) To get full credit for this half of the exam, you needed to say something about both factors.

As for 2018, were again two general points you should have touched on. The first was simply the pattern of midterm loss for the incumbent president. You should have predicted that whichever party won the presidency in 2016 would lose seats in the House in 2018. If you didn't, you got marked down. Second, 2018 will be good for Republicans, because the Democrats up for reelection benefitted from Obama's coattails in 2012.

The more you brought in examples from specific races or specific statistics (e.g., the number of seats in the House currently held by Democrats or Republicans), the better.

Grading

I assigned points to each answer to help me keep track of how close to a perfect answer you gave to each question. A perfect answer would receive 20 points for Part I, 8 points for each question in Part II, and 56 points for Part III. I then summed the points. This allowed me to rank-order each of the exams from the top (100) to the bottom (54). I then decided where the A/B/C divisions were, according to my adaptation of the rules of the faculty for letter grades (see below). I further assigned pluses and minuses to indicate how close you were to the letter-grade boundary.

The following are MIT's grades, as described by section 2.62.1 of the Regulations of the MIT Faculty:

- **A** Exceptionally good performance, demonstrating a superior understanding of the subject matter, a foundation of extensive knowledge, and a skillful use of concepts and/or materials.
- **B** Good performance, demonstrating capacity to use the appropriate concepts, a good understanding of the subject matter, and an ability to handle the problems and materials encountered in the subject.
- **C** Adequate performance, demonstrating an adequate understanding of the subject matter, an ability to handle relatively simple problems, and adequate preparation for moving on to more advanced work in the field.
- **D** Minimally acceptable performance, demonstrating at least partial familiarity with the subject matter and some capacity to deal with relatively simple problems, but also demonstrating deficiencies serious enough to make it inadvisable to proceed further in the field without additional work.

In adapting these grades to the midterm, I focus on the first adjective in each sentence. An “A” exam is “exceptionally good,” a “B” exam is “good,” a “C” exam is “adequate” and a “D” is “minimally acceptable.” If you received a B and think it is a mistake, consider whether you think your exam was exceptional. If you can make the argument with a straight face, I will listen to it. I will probably also remind you that good is still good. (If I made an outright grading error, please bring that to my attention irrespective of the letter grade. That is a different issue altogether.)