BARGAINING AND WAR

CIVIL WAR AND INTERNATIONAL SYSTEMS

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williamspaniel.com/classes/pscir-265-2015/

Admin Stuff

- Newly registered? Write your first and last name on a note card
- Problem set is online
- Prerequisites?

Agenda

1. Experiment #1
2. Courtroom Analogy
3. Unitary Actor Assumption
4. War's Inefficiency Puzzle
5. Robustness
6. Empirical Implications

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WHY DO CIVIL WARS OCCUR?

Answers

NO MORE TALKING

Take out a piece of paper.

1) Write your full name

2) Have you taken intro to IR? (Yes/No)

3) Guess 1/2 the Average

- Write a number 0-100
- Justin will find the average
- The person closest to 1/2 that average will earn $1

4) The Real Game

- You are a government
- I am a rebel group thinking of revolting
- I am demanding concessions from you, otherwise I’m starting a war

4) The Real Game

- There is $10 in the front of the room
- Your task: propose a division of that money
  - If I like it, we will implement that division
  - If not, I am going to fight you

The Rules

- My rebel group is very popular. If we fight, I will win 65% of the time. The winner takes all of the money.
- War is costly. We will have to raise armies, people will die, buildings will get destroyed, our economy burn in flames.

The Rules

- We will each “pay” $1 to represent this
- In making my decision whether to accept or reject, I only care about how much money I am receiving
  - I will accept if indifferent

4) The Real Game

- Make your offer to me on line #4
- It must be between $0 and $10 and in $.10 increments

PLEASE PASS
THEM UP

Question

- Spend the next couple of minutes discussing how you arrived at your proposal

WHO WINS?

Was There War?

- If yes, a lucky person will receive the “costs” of war
- If not, we’ll be playing two more games next week

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Analogy

- A man falls in your store and sues you for negligence
- Your lawyer and his lawyer agree that:
  1. There is a 60% chance the lawsuit will be successful
  2. If he wins, you will have to pay him $40,000
  3. Court costs each of you $10,000 in lawyer fees

Possible Resolutions

1. You let the court decide the matter
2. One of you concedes immediately
3. You reach an out-of-court settlement

Possible Resolutions

1. You let the court decide the matter
2. One of you concedes immediately
3. You reach an out-of-court settlement
   - Which outcome should we expect?

1. Let the Court Decide

- 60% chance he wins, $10,000 cost
  - (.6)($40,000) + (.4)($0) – $10,000 = $14,000
- 40% chance you win, $10,000 cost
  - (.6)(-$40,000) + (.4)($0) – $10,000 = -$34,000

2. One of You Concedes

- If he concedes, he receives $0
  - Worse than going to court and taking $14,000
- If you concede, you pay $40,000
  - Worse than going to court and losing $34,000

2. One of You Concedes

- If he concedes, he receives $0
  - Worse than going to court and taking $14,000
- If you concede, you pay $40,000
  - Worse than going to court and losing $34,000
- Neither of you will concede

3. Out of Court Settlement

- Let x be the settlement offer
- He is better off accepting if x > $14,000
- You are better off accepting if x < $34,000
- X is mutually preferable if $14,000 < x < $34,000

Conclusion

- It would be weird if the issue went to court
- Both of you would be better off agreeing to some amount between $14,000 and $34,000
- Reality: ~95% of cases settled

War Application

- Trials and war are very similar
  - Both are costly
  - Both have some chance of being won or lost
  - Both are negotiated over
- Should wars be settled as well?

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The Unitary Actor

- For now, assume that state groups are unitary actors
  - There are no cleavages between leaders and their constituencies
  - Leaders act to maximize group welfare

Why?

- It is the “hard case”
  - War is easy to explain if leaders are just power-hungry jerks
  - If wars occur despite perfect leaders, the prospects of peace are not good

Why?

- It tests a leader's honesty
  - Leaders never say "I like randomly starting wars to distract you from the poor economy"
  - They do say "this war is in our best interest"

Why?

- We make simplifying assumptions about everything in our lives
  - Makes problems more tractable
  - Always better to start with simple problems and then increase complexity from there

When Are Assumptions Bad?

- “This model doesn’t account for x and is therefore bad”
  - Never, ever say this
  - Model still tells us what is true without x
  - Does x even matter for the result? If not, then why include x at all

Problem Set #1

- The model we are working with in this unit is very simple
- Problem Set #1 asks you to relax some of its assumptions
  - Goal: show its central conclusions remain true

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The Basic Model (Fearon 1995)

- Two actors: r(ebels) and g(overnment)
- Actors must consider a division of the stakes (tax revenue, political rights, autonomy)
- Actors could accept or fight war

The Basic Model (Fearon 1995)

- If war, then:
  - R wins with probability p_R
  - G wins with probability p_G
  - Assume no draws, so $p_R + p_G = 1$
    - Problem set will relax this assumption

The Basic Model (Fearon 1995)

- If war, then:
  - Actors pay costs $c_R > 0$, $c_G > 0$
    - Costs reflect how much you care about the issue (resolve) and physical costs of fighting
    - More resolve => costs are smaller
    - More destruction => costs are higher

The Basic Model (Fearon 1995)

- If war, then:
  - Winner takes everything, loser goes home with nothing
  - Total value of the good is worth 1 (100%)
- If peace, actors split the good as offered

Calculating Payoffs

- If R fights, it earns
  - $p_R(1) + (1 - p_R)(0) - c_R$
  - $p_R - c_R$

Calculating Payoffs

- If g fights, it earns
  - $p_G(1) + (1 - p_G)(0) - c_G$
  - $p_G - c_G$

Calculating Payoffs

- Recall $p_R + p_G = 1$
  - $p_G = 1 - p_R$
- So G's war payoff can be written as
  - $p_G - c_G$
  - $1 - p_R - c_G$

Deciding to Fight

- Let x be R's peaceful share of the stakes
- To be satisfied, R must receive at least its war payoff
  - $x \geq p_R - c_R$

Deciding to Fight

- G receives the remainder of the peaceful deal
  - So G receives $1 - x$
- To be satisfied, G must receive at least its war payoff
  - $1 - x \geq 1 - p_R - c_G$
  - $x \leq p_R + c_G$

Peace Constraints

- For peace to work, the following must hold:
  - $x \geq p_R - c_R$
  - $x \leq p_R + c_G$
- So $p_R - c_R \leq x \leq p_R + c_G$ must hold

Is Peace Possible?

- x is some division, so $0 \leq x \leq 1$
  - This is the same as saying $0\% \leq x \leq 100\%$

Is Peace Possible?

- So if $p_R - c_R \leq x \leq p_R + c_G$ to be possible, it must be that $p_R - c_R \leq p_R + c_G$

Is Peace Possible?

- So if $p_R - c_R \leq x \leq p_R + c_G$ to be possible, it must be that $p_R - c_R \leq p_R + c_G$
  - $c_R + c_G \geq 0$

Is Peace Possible?

- So if $p_R - c_R \leq x \leq p_R + c_G$ to be possible, it must be that $p_R - c_R \leq p_R + c_G$
  - $c_R + c_G \geq 0$
  - Recall that $c_R > 0$ and $c_G > 0$
  - This must hold, so settlements always possible

Visual Version

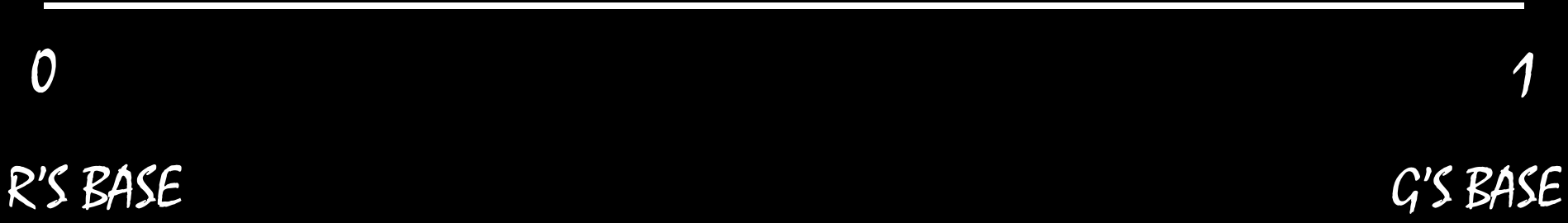
- Two actors: R and G
  - Imagine they are bargaining over how large the rebel group's autonomous region should be

R'S BASE

G'S BASE

Visual Version

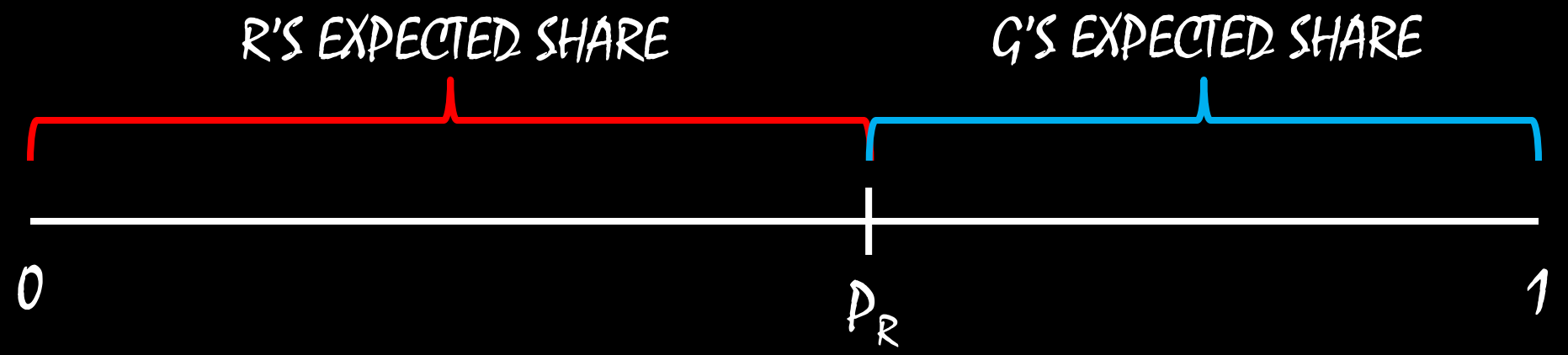
- Two actors: R and G
- Value of the bargaining good is worth 1


0
1
R'S BASE
G'S BASE

Visual Version

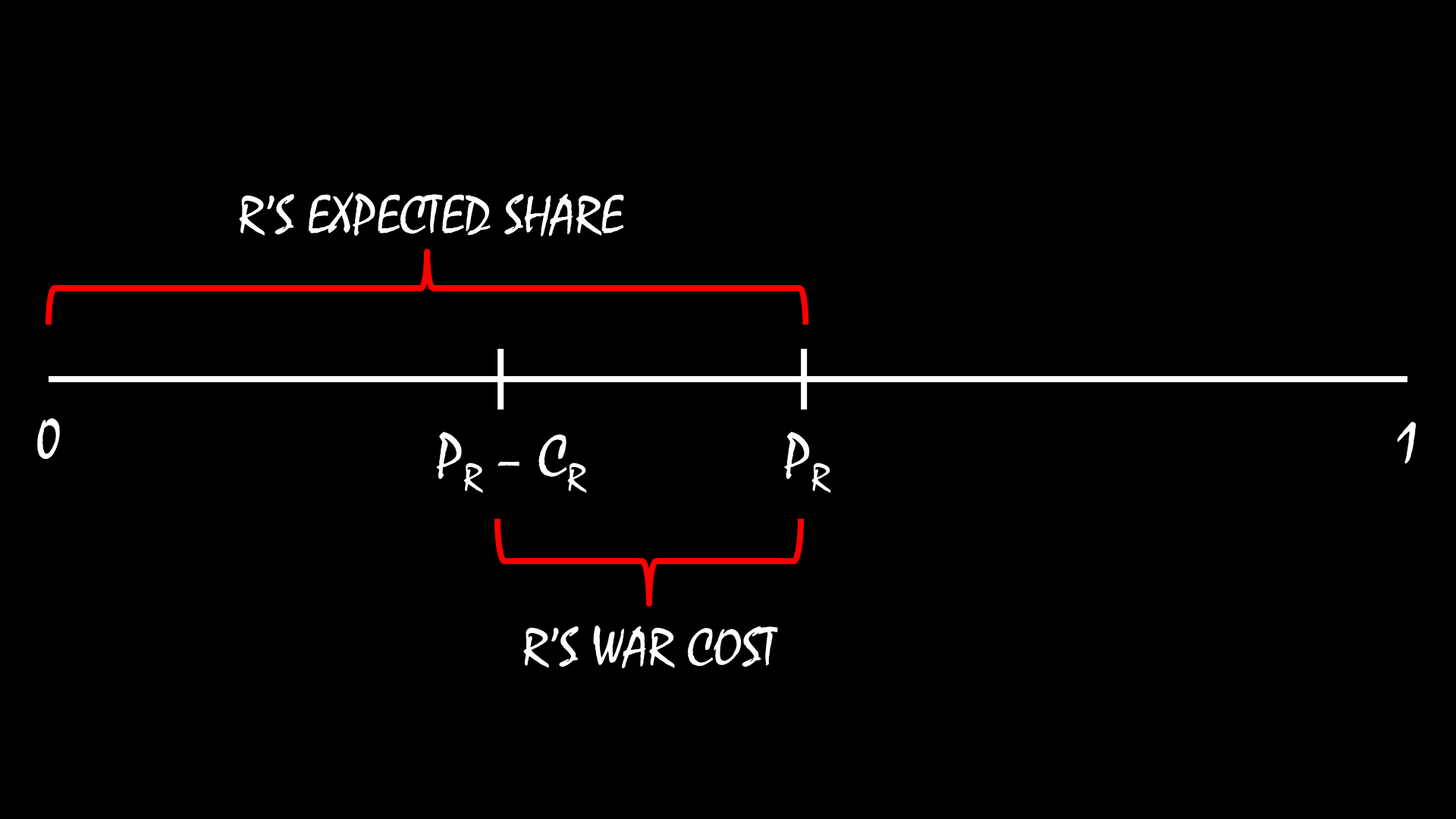
- Two actors: R and G
- Value of the bargaining good is worth 1
- p_R = probability R wins = R's expected share from fighting
- $1 - p_R$ = G's expected share from fighting

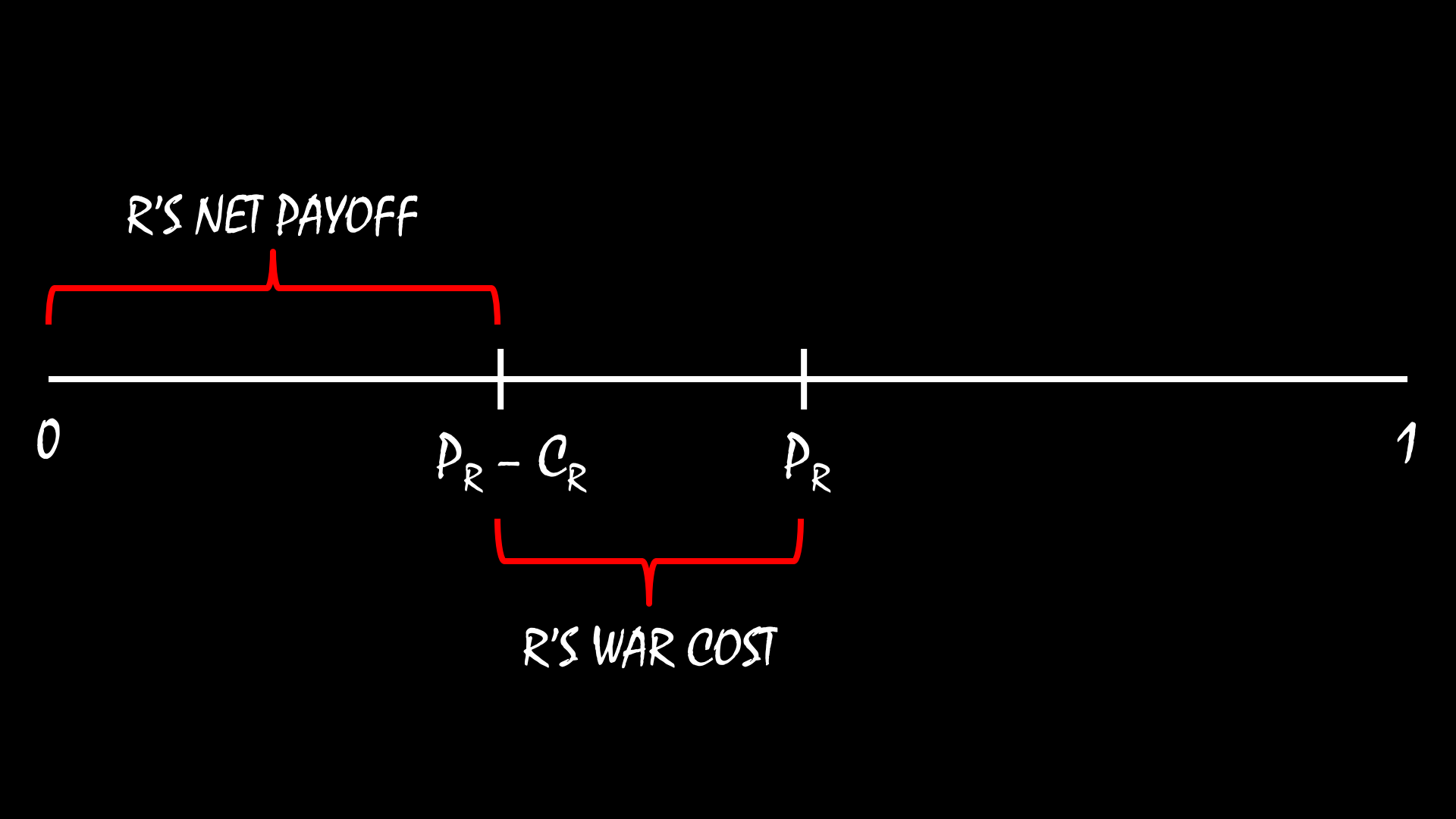

0
p_R
1


R'S EXPECTED SHARE
G'S EXPECTED SHARE
0
p_R
1

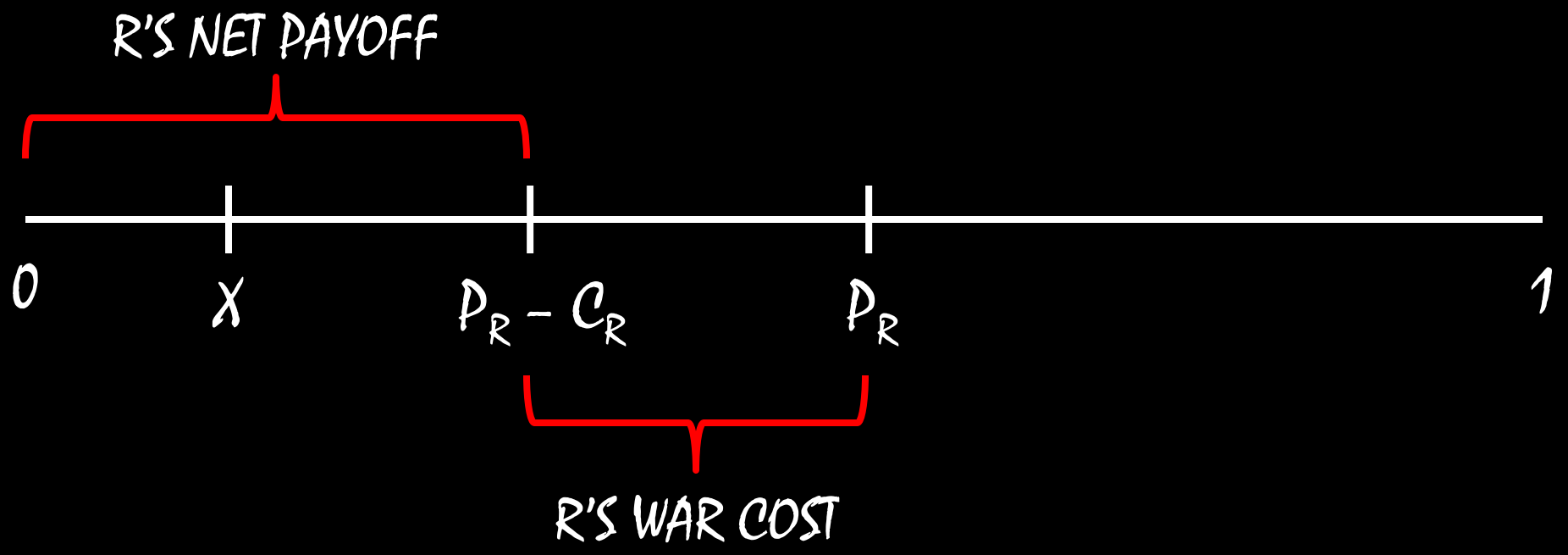
Visual Version

- War costs $c_R > 0$ and $c_G > 0$

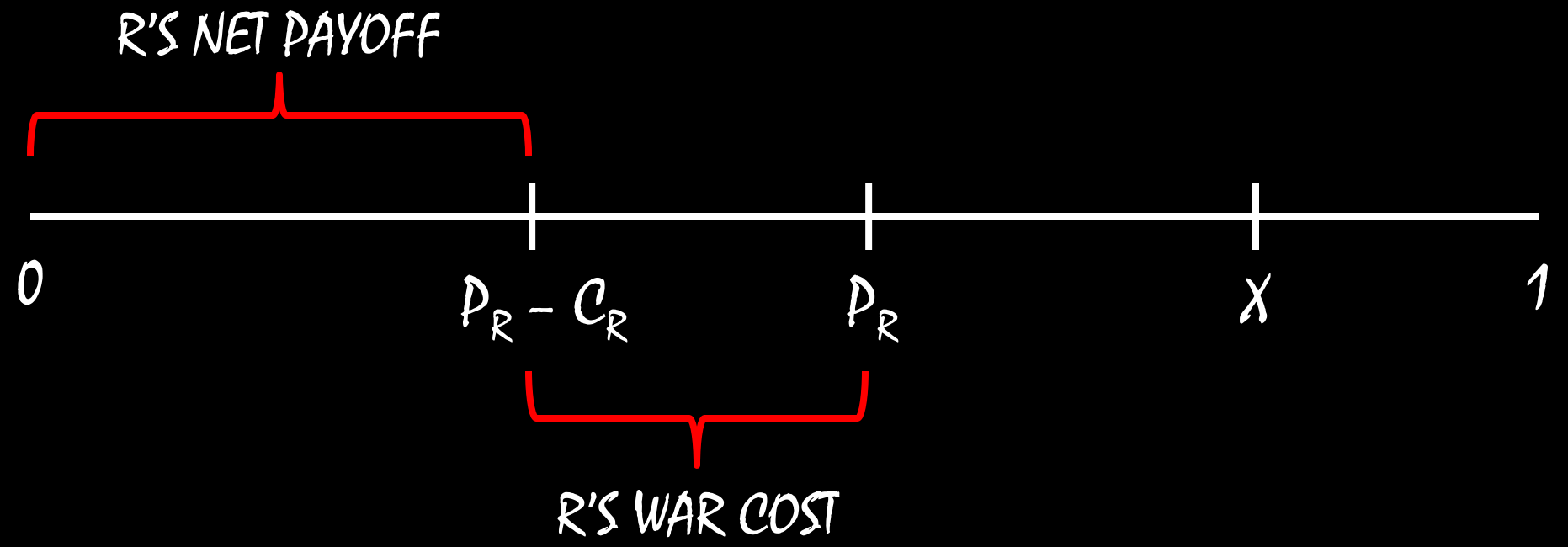

R'S EXPECTED SHARE
0
$P_R - C_R$
P_R
1
R'S WAR COST


R'S NET PAYOFF
0
$p_R - c_R$
p_R
1
R'S WAR COST

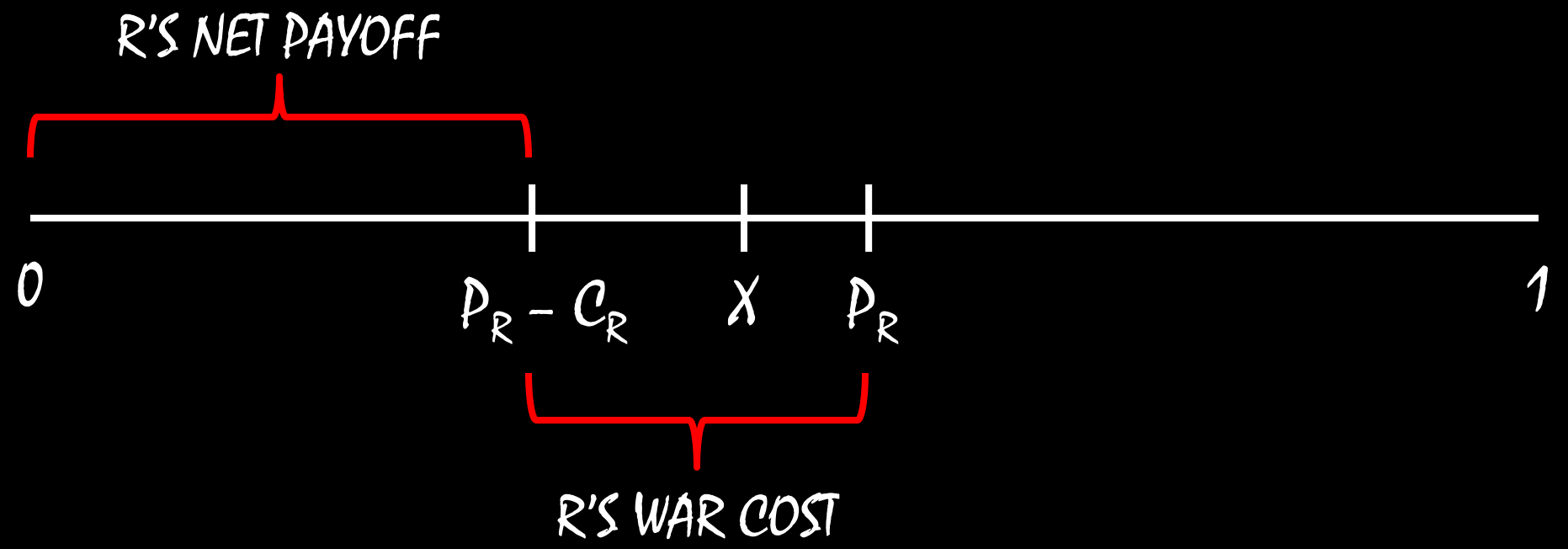
WHAT HAPPENS IF X IS HERE?

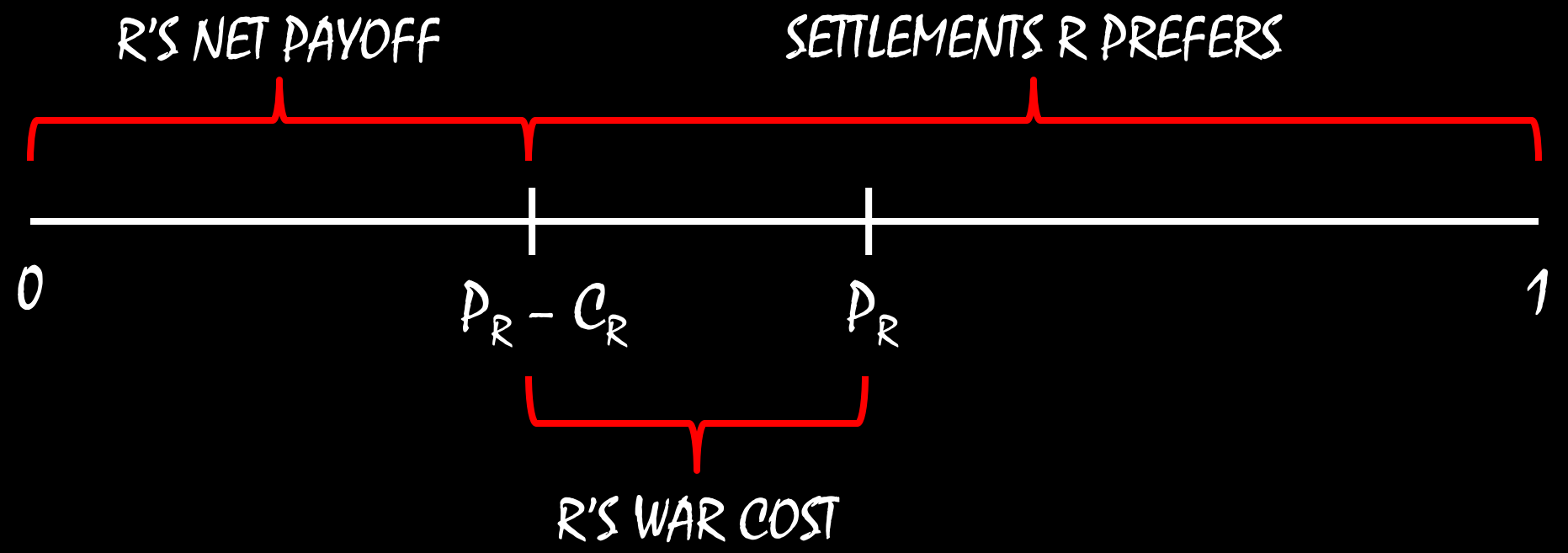


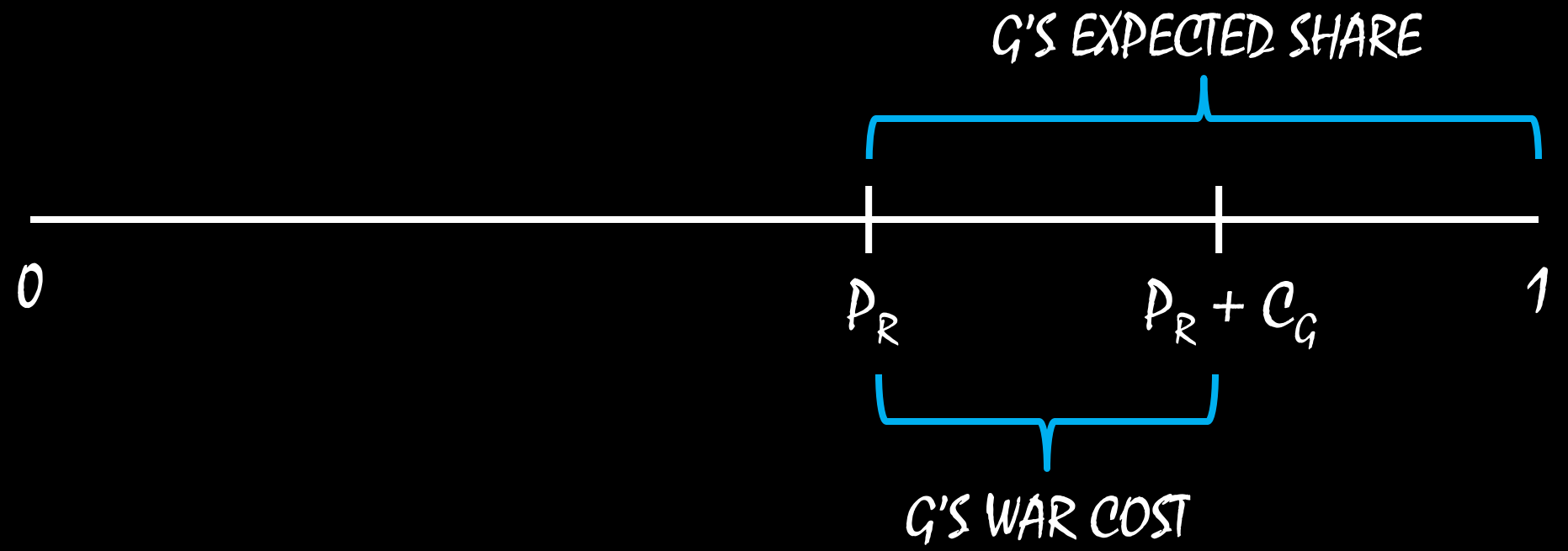
WHAT HAPPENS IF X IS HERE?

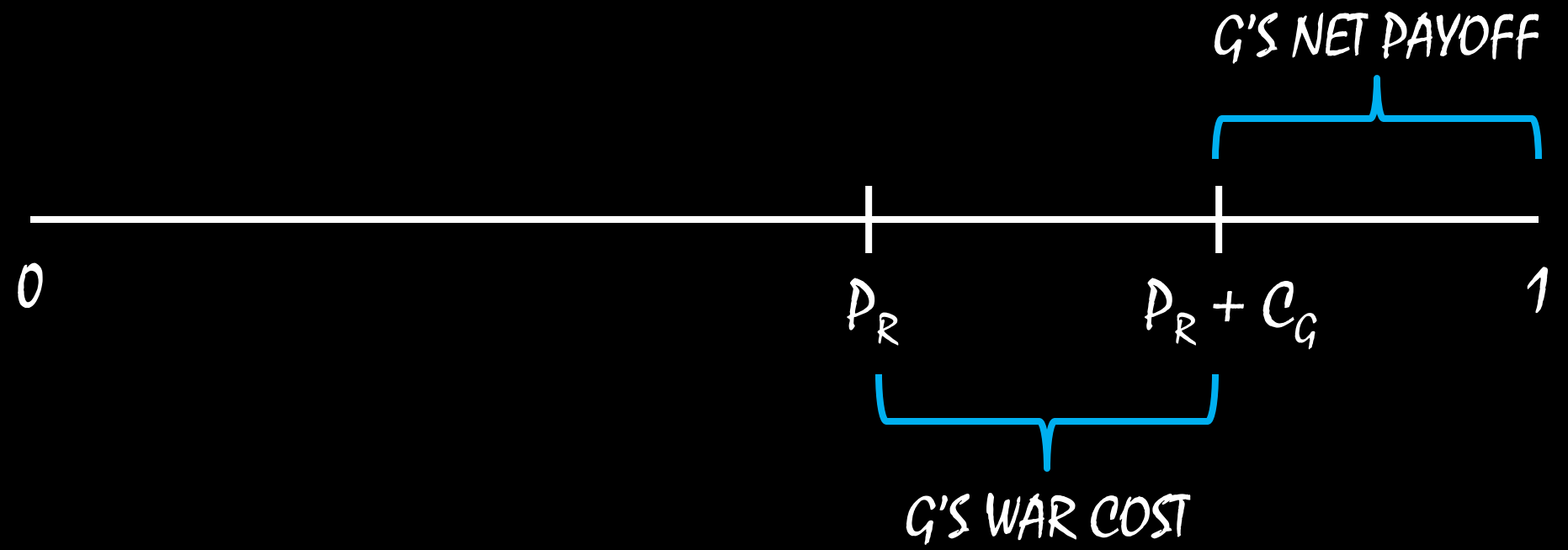


WHAT HAPPENS IF X IS HERE?

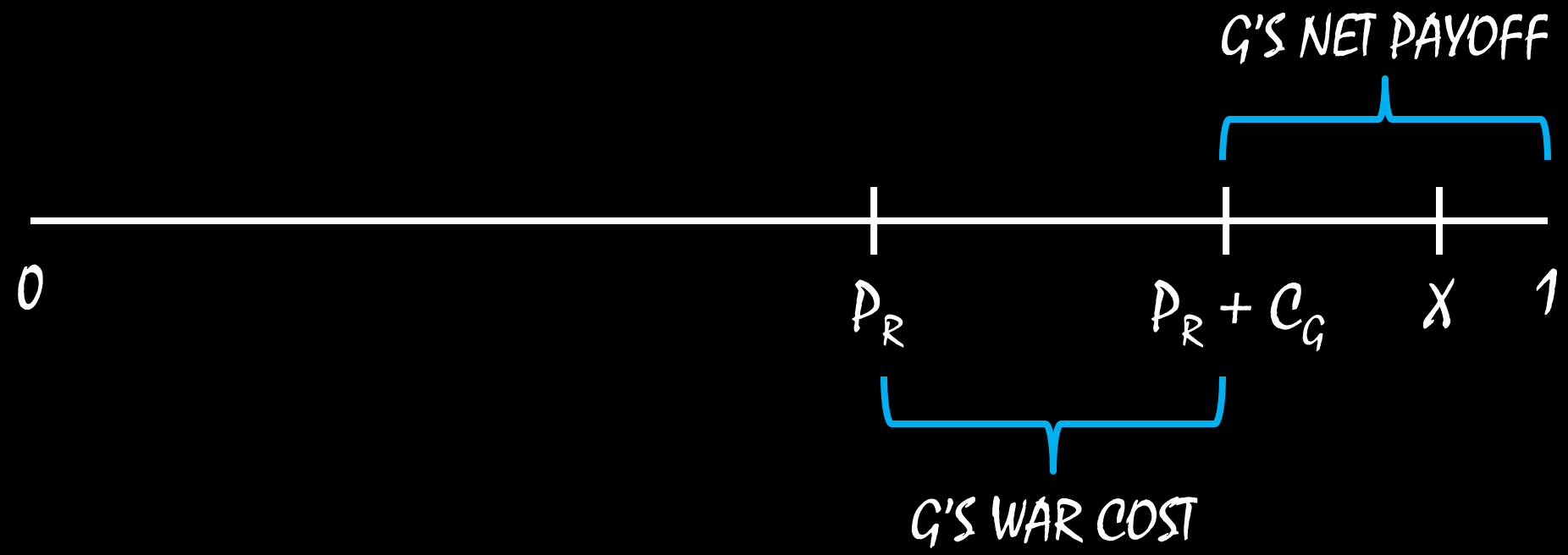



R'S NET PAYOFF
SETTLEMENTS R PREFERS
0
$P_R - C_R$
P_R
1
R'S WAR COST

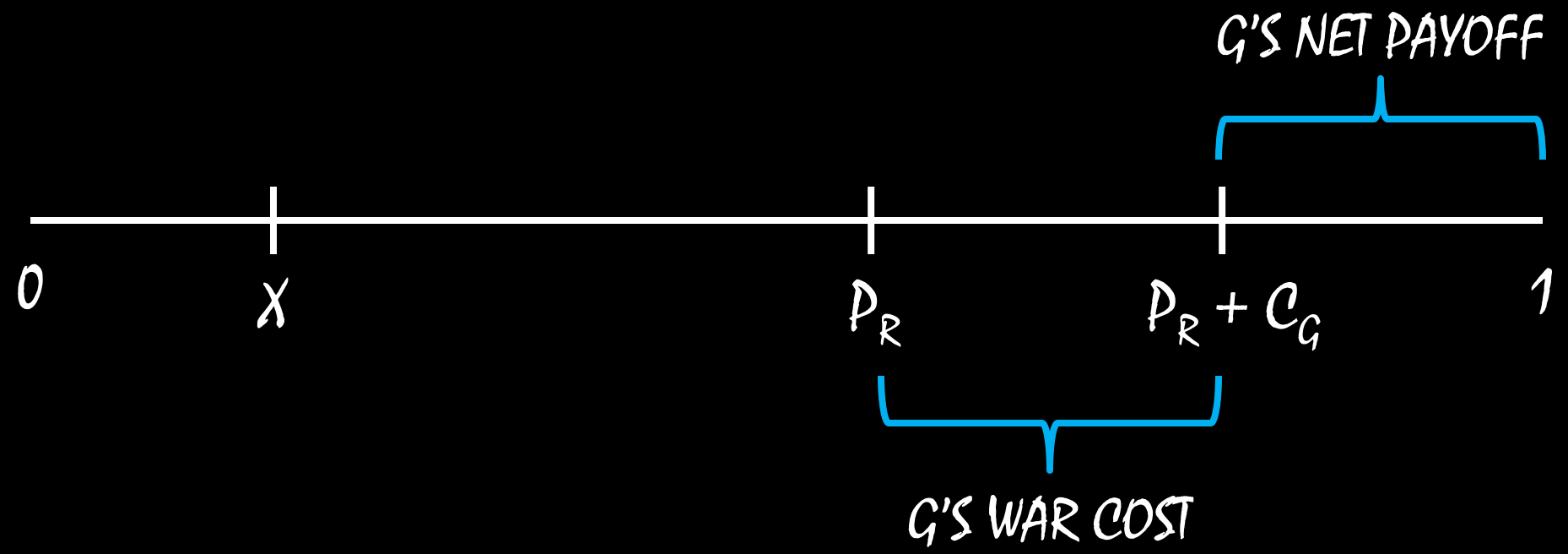

G'S EXPECTED SHARE
0
P_R
$P_R + C_G$
1
G'S WAR COST


G'S NET PAYOFF
0
P_R
$P_R + C_G$
1
G'S WAR COST

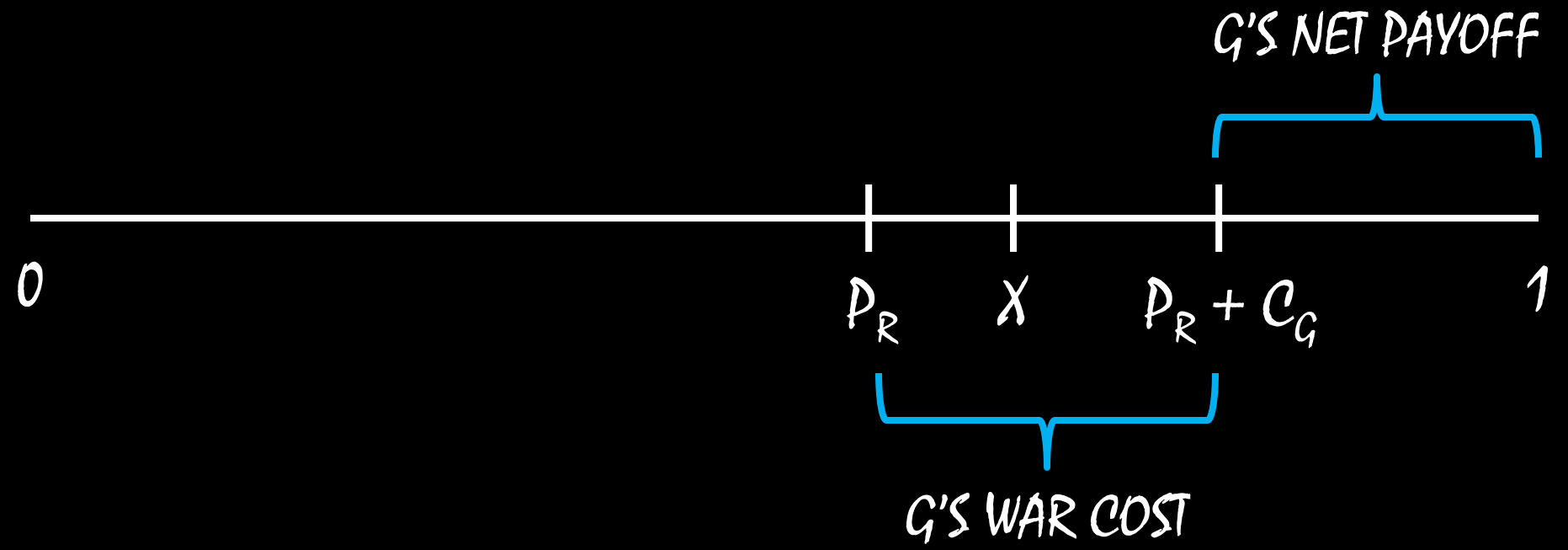
WHAT HAPPENS IF X IS HERE?

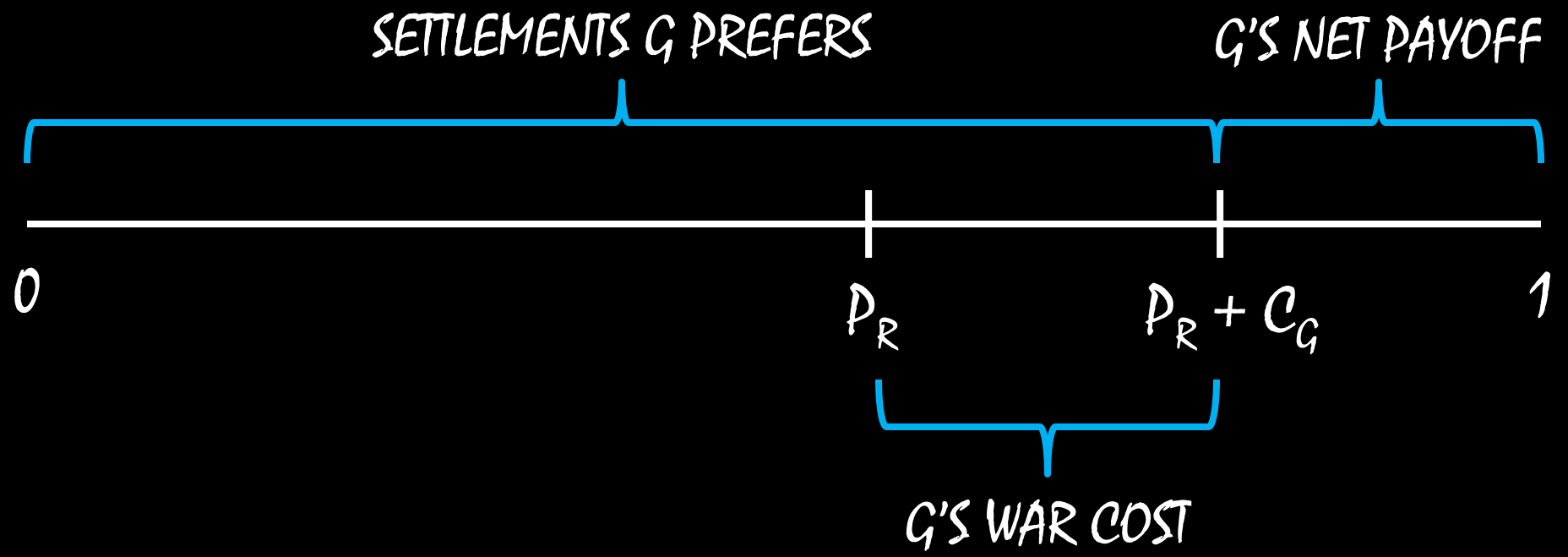


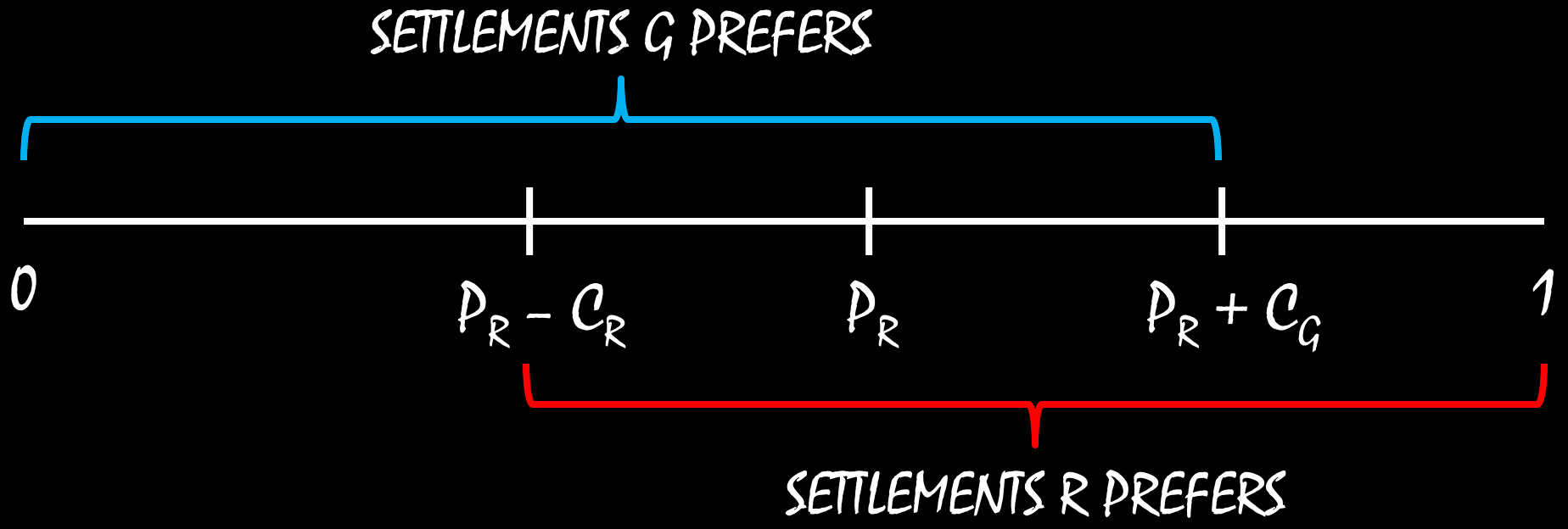
WHAT HAPPENS IF X IS HERE?

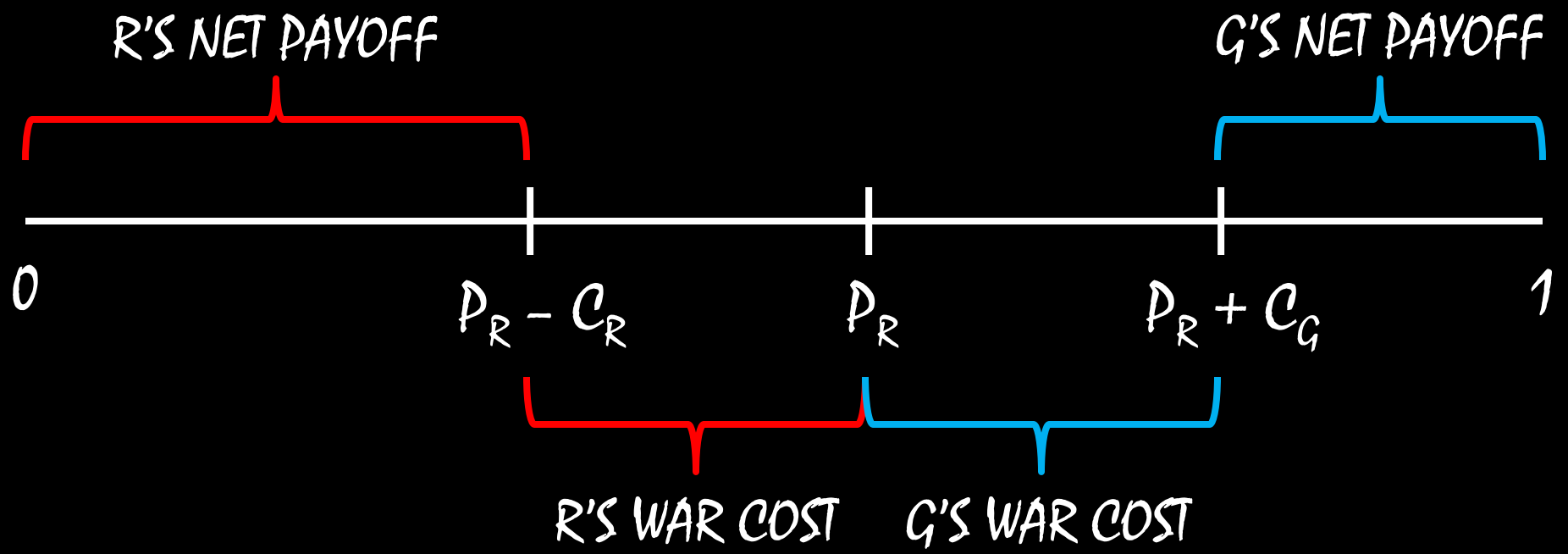


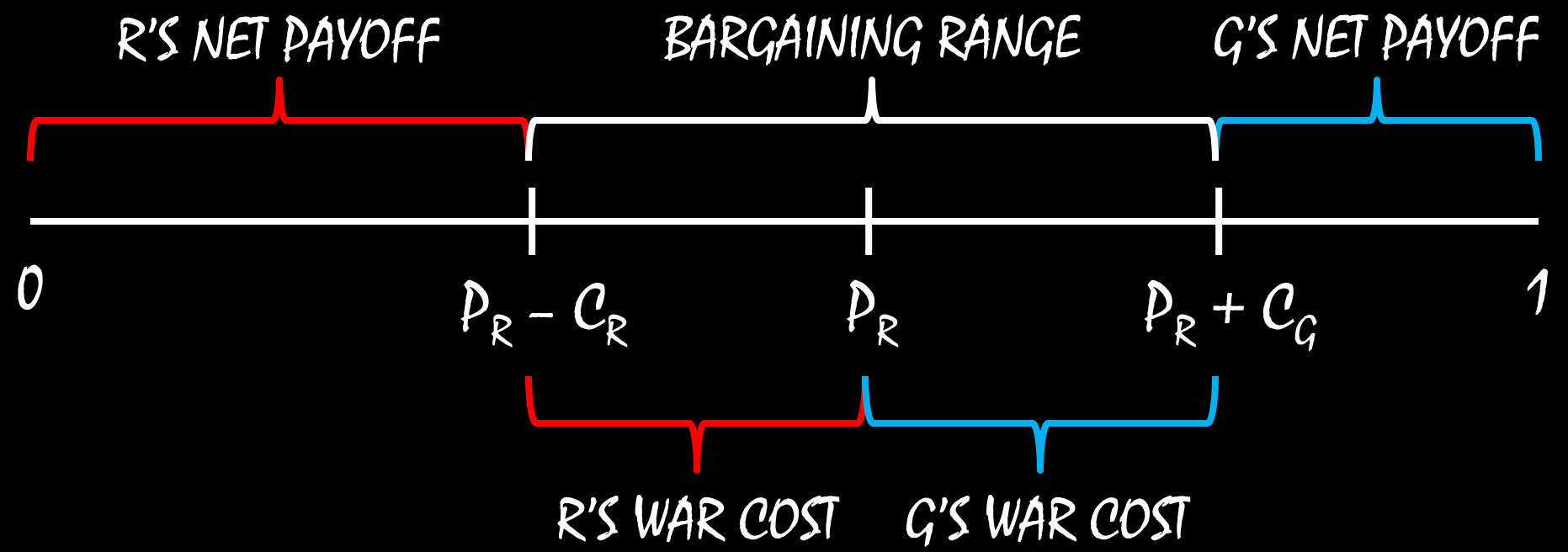
WHAT HAPPENS IF X IS HERE?




SETTLEMENTS G PREFERS
G'S NET PAYOFF
0
P_R
$P_R + C_G$
1
G'S WAR COST


SETTLEMENTS G PREFERS
0
$P_R - C_R$
P_R
$P_R + C_G$
1
SETTLEMENTS R PREFERS


R'S NET PAYOFF
G'S NET PAYOFF
0
$p_R - c_R$
p_R
$p_R + c_G$
1
R'S WAR COST
G'S WAR COST


R'S NET PAYOFF
BARGAINING RANGE
G'S NET PAYOFF
0
$P_R - C_R$
P_R
$P_R + C_G$
1
R'S WAR COST
G'S WAR COST

Bargaining Range

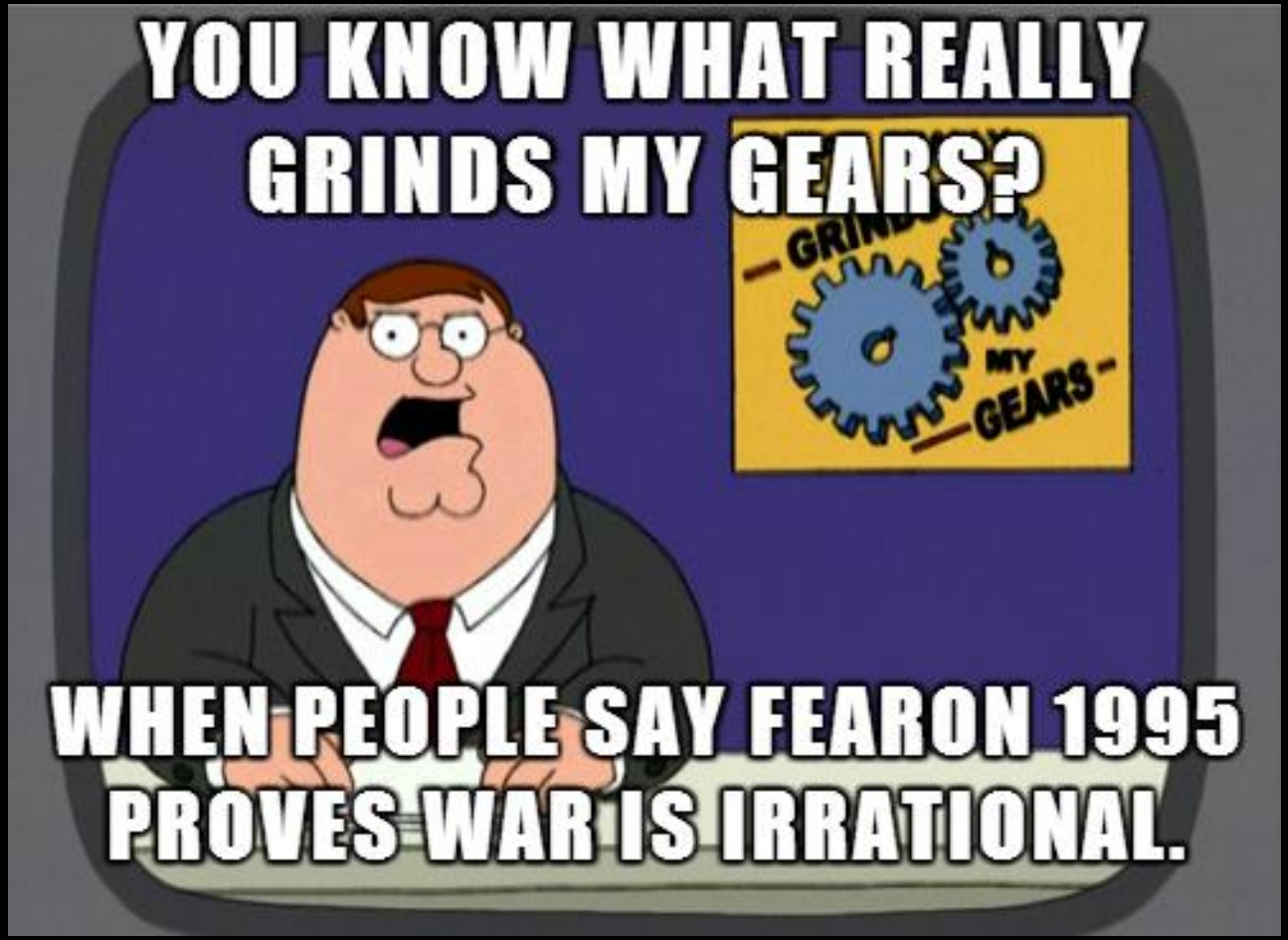
- The bargaining range is the set of settlements mutually preferable to war
- Costs of war ensure the existence of a bargaining range
- Size equal to the sum of costs

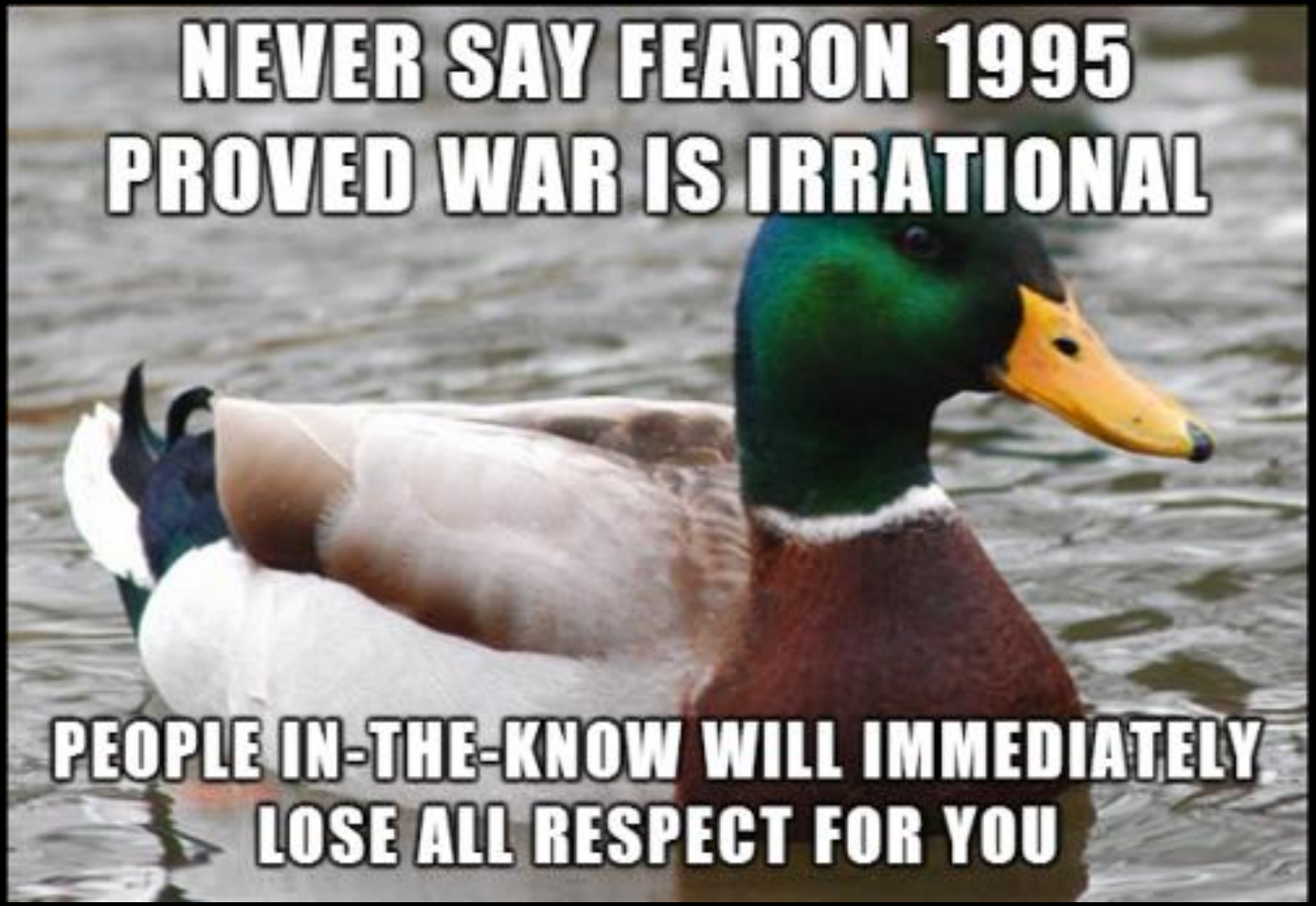
War's Inefficiency Puzzle

- Research question that asks why actors choose to fight wars when there are more efficient solutions (i.e., bargaining)
- Next few lectures will provide some answers

Interpretation

- Does this mean war is irrational?


YOU KNOW WHAT REALLY GRINDS MY GEARS?
GRIND
MY
GEARS
WHEN PEOPLE SAY FEARON 1995 PROVES WAR IS IRRATIONAL.


NEVER SAY FEARON 1995
PROVED WAR IS IRRATIONAL
PEOPLE IN-THE-KNOW WILL IMMEDIATELY
LOSE ALL RESPECT FOR YOU

Interpretation

- Does this mean war is irrational?
  - Not even remotely
  - It just says that war is a puzzle

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Too Simple?

- Is the model too simple to tell us anything about war?
  - No—results are robust to making more realistic assumptions about war

Too Simple?

- Problem Set #1 asks you to relax assumptions about draws, uncertainty about the probability of winning, and personal benefits
- Your task is to show that bargained settlements still exist under these conditions

Example/Practice

- Before: costs were constant regardless of victory or defeat
- More realistic: costs vary if you win or lose
  - Leaders may be killed if they lose the war

New Model

- R wins with probability p_R
- G wins with probability $1 - p_R$
- Winner takes everything

The Twist

- R pays c_R if it wins and c_R' if it loses
  - $c_R' > c_R > 0$
- G pays c_G if it wins and c_G' if it loses
  - $c_G' > c_G > 0$
- So costs are cheaper if you win

Question

- Will this change the result?
  - That is, will this new interaction still have settlements that are mutually preferable to war?

Step 1: R's Expected Payoff

- $p_R(1 - c_R) + (1 - p_R)(0 - c_R')$
- $p_R - p_R c_R - (1 - p_R)c_R'$

Step 2: G's Expected Payoff

- $p_R(0 - c_G') + (1 - p_R)(1 - c_G)$
- $1 - p_R - p_R c_G' - (1 - p_R)c_G$

Step 3: R's Peace Constraint

- R receives x from a settlement.
- $x \geq p_R - p_R c_R - (1 - p_R)c_R'$

Step 4: G's Peace Constraint

- G receives $1 - x$ from a settlement.
- $1 - x \geq 1 - p_R - p_R c_G' - (1 - p_R)c_G$
- $x \leq p_R + p_R c_G' + (1 - p_R)c_G$

Step 5: Mutually Acceptable Offers

- $p_R - p_R c_R - (1 - p_R)c_R' \leq p_R + p_R c_G' + (1 - p_R)c_G$

Step 5: Mutually Acceptable Offers

- $p_R - p_R c_R - (1 - p_R)c_R' \leq p_R + p_R c_G' + (1 - p_R)c_G$
- $- p_R c_R - (1 - p_R)c_R' \leq p_R c_G' + (1 - p_R)c_G$

Step 5: Mutually Acceptable Offers

- $p_R - p_R c_R - (1 - p_R)c_R' \leq p_R + p_R c_G' + (1 - p_R)c_G$
- $- p_R c_R - (1 - p_R)c_R' \leq p_R c_G' + (1 - p_R)c_G$
- $p_R c_G' + (1 - p_R)c_G + p_R c_R + (1 - p_R)c_R' \geq 0$

Step 5: Mutually Acceptable Offers

- $p_R - p_R c_R - (1 - p_R)c_R' \leq p_R + p_R c_G' + (1 - p_R)c_G$
- $- p_R c_R - (1 - p_R)c_R' \leq p_R c_G' + (1 - p_R)c_G$
- $p_R c_G' + (1 - p_R)c_G + p_R c_R + (1 - p_R)c_R' \geq 0$
- Everything on the left is greater than 0, so this holds. Settlements exist.

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Frequency of War

- Should war be common or uncommon?

Frequency of War

- Should war be common or uncommon?
  - Uncommon: costs encourage actors to bargain
  - Most possible combatants aren't fighting most other combatants most of the time
  - War is the exception, not the rule

Policy Differences

- Common explanation for war: actor x and actor y disagree over policy z
  - Doesn't explain why the actors couldn't have bargained instead
  - Need issue + bargaining problem

Policy Differences

- Policy differences are a very common explanation for war
  - Be careful not to fall for the trap

Stable Agreements

- What makes a distribution of benefits stable?
  - Hint: the answer should incorporate the probability of victory

Stable Agreements

- Agreements are stable when they (roughly) match the distribution of power
  - Costs of war give some wiggle room

Stable Agreements

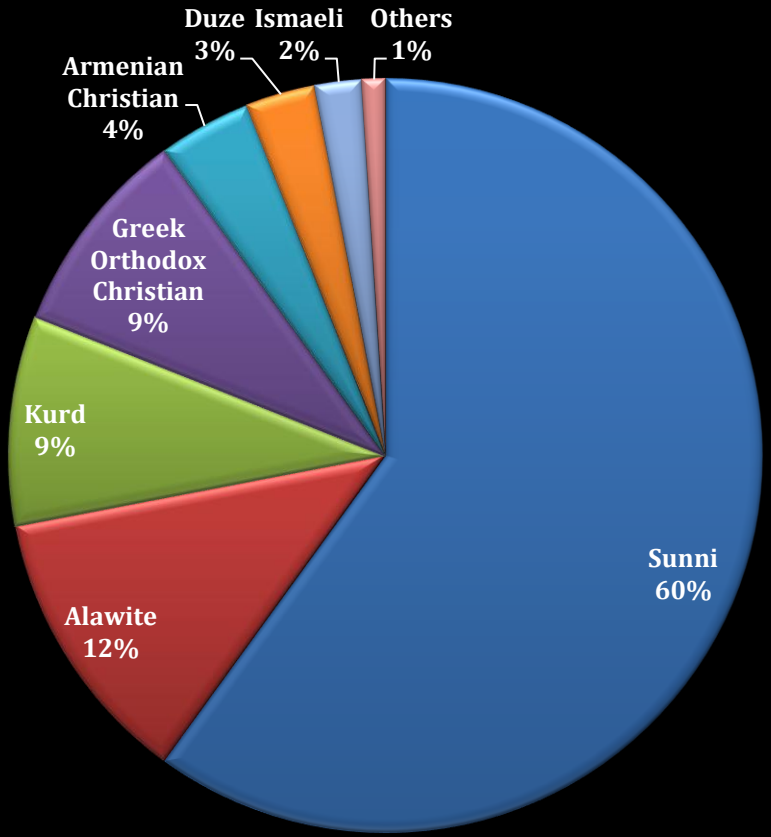
- Fairness? Justice? Democracy?
  - Nice, but concepts of “fairness” quickly disappear when guns come out
  - If you want these things, you need to be smart about the institutions you create

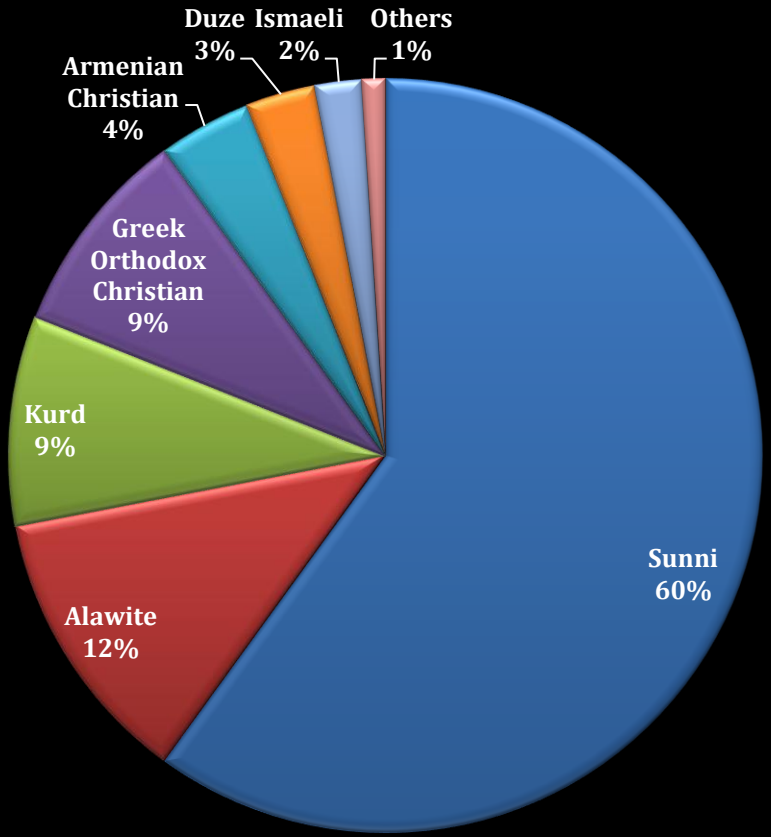
Syrian Civil War (2011-)

- What caused the Syrian Civil War?

Common Answers

- Ethnic fractionalization


Duze 3%
Ismaeli 2%
Others 1%
Armenian Christian 4%
Greek Orthodox Christian 9%
Kurd 9%
Alawite 12%
Sunni 60%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Armenian Christian 4%
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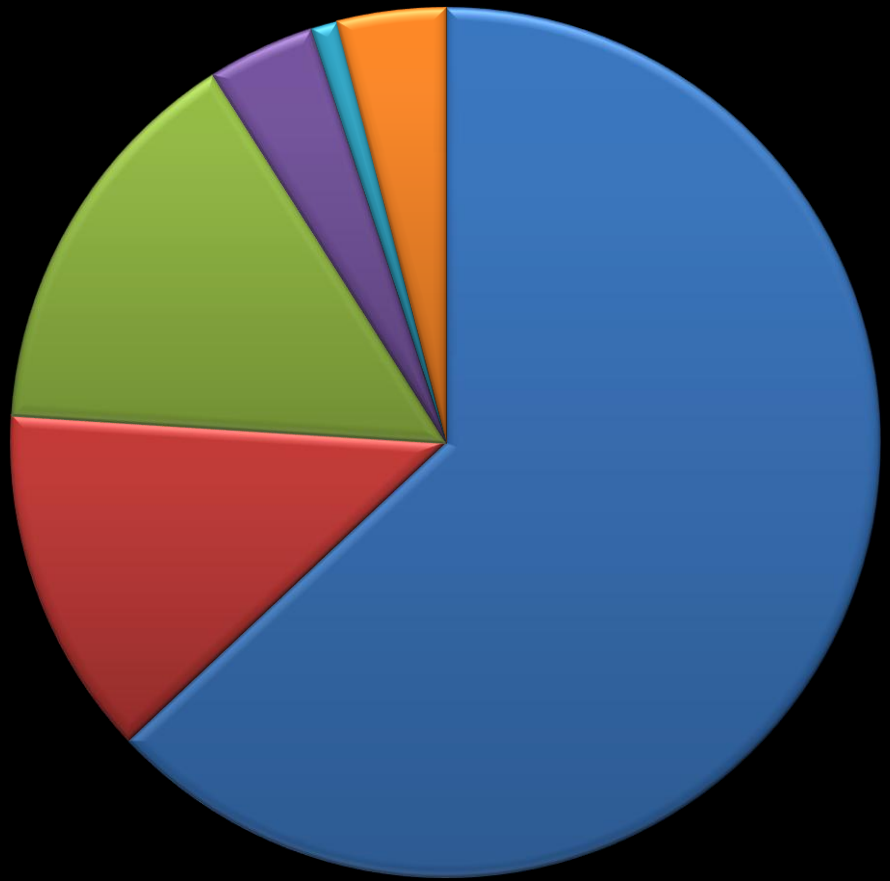
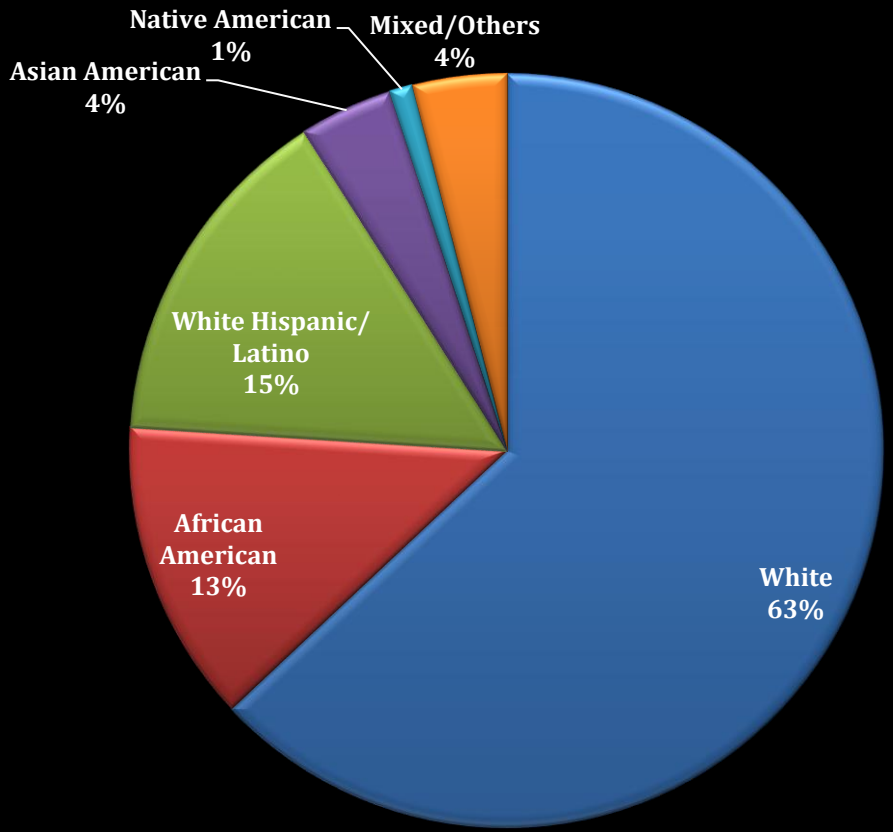
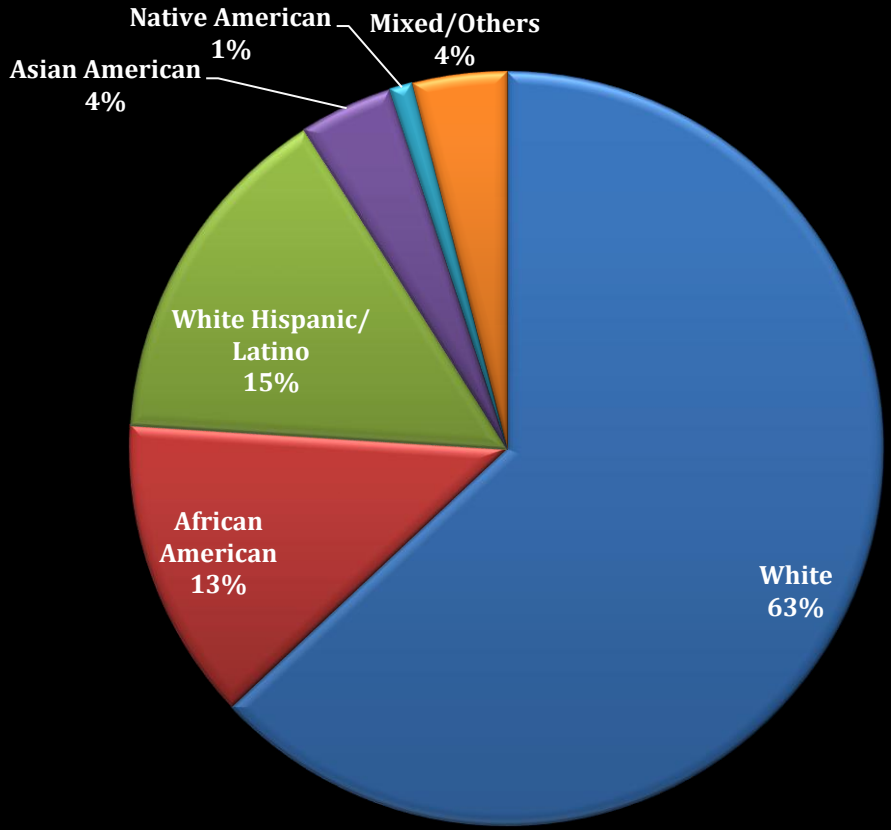
Sunni 60%




Native American
1%
Mixed/Others
4%
Asian American
4%
White Hispanic/
Latino
15%
African
American
13%
White
63%


Native American
1%
Mixed/Others
4%
Asian American
4%
White Hispanic/
Latino
15%
African
American
13%
White
63%

Common Answers

- Ethnic fractionalization
- Economic inequality

Gini Coefficient

- Measurement of income inequality
  - 0 perfect parity
  - 1 complete inequality

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Gini Coefficient

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- Syria (2004, world bank): .358
- United states (2007, world bank): .45

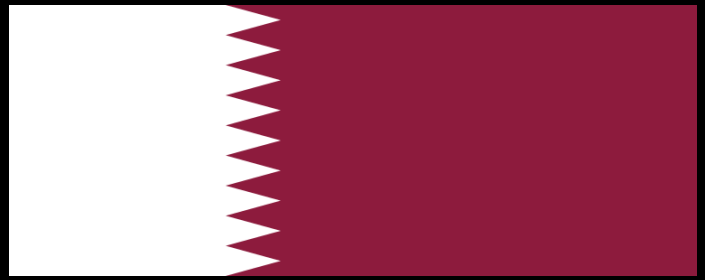
Common Answers

- Ethnic fractionalization
- Economic inequality
- Arab Spring

These Aren't Satisfying

- Fractionalization? Why not just increase social/economic freedoms and avoid war?
- Inequality? Why not give people money?
- Arab Spring? Why not give people money?

Qatar's Solution



- Increase pay!
  - Civilians: 60% increase
  - Unranked military: 50% increase
  - Military staff/officers: 120% increase
  - Pensions to match!

TL;DR

- Standard explanations for Syrian Civil War are unsatisfying
- Why didn’t Assad strike a bargain with the rebels?


الله أكبر

Case Study: Iraq

- Saddam era: minority rule
  - 63% Shi’a Muslim
  - 34% Sunni Muslim
  - 3% other

Case Study: Iraq

- Saddam Hussein was Sunni
  - Sunnis lived the good life, filling most of the gov't positions
  - Shi'a, others repressed

Case Study: Iraq

- Horribly unequal, but made sense
  - Saddam's regime held virtually all of the power
  - Shi'a brutally repressed

Ba’ath Party

- Saddam institutionalized the distribution of benefits with the Ba’ath Party
- Created a one-party system within the country, centralizing power in Saddam’s hands

Ba’ath Party

- If you wanted to be someone of consequence, you had to be a member
  - Civil servants, government positions, military, educators, doctors/nurses, national Olympic committee
  - College students often included, too

Ba’ath Party

- If we were in 2000 Iraq, I would have to have been a Ba’ath Party member
  - I might have joined just because I am good at this, not because I wanted to be BFFs with Saddam

Iraq War

- March 2003: United States invades, wins easily, topples Saddam's regime.
  - Many soldiers ignore orders and go home
- Why not celebrate on an aircraft carrier?


MISSION ACCOMPLISHED

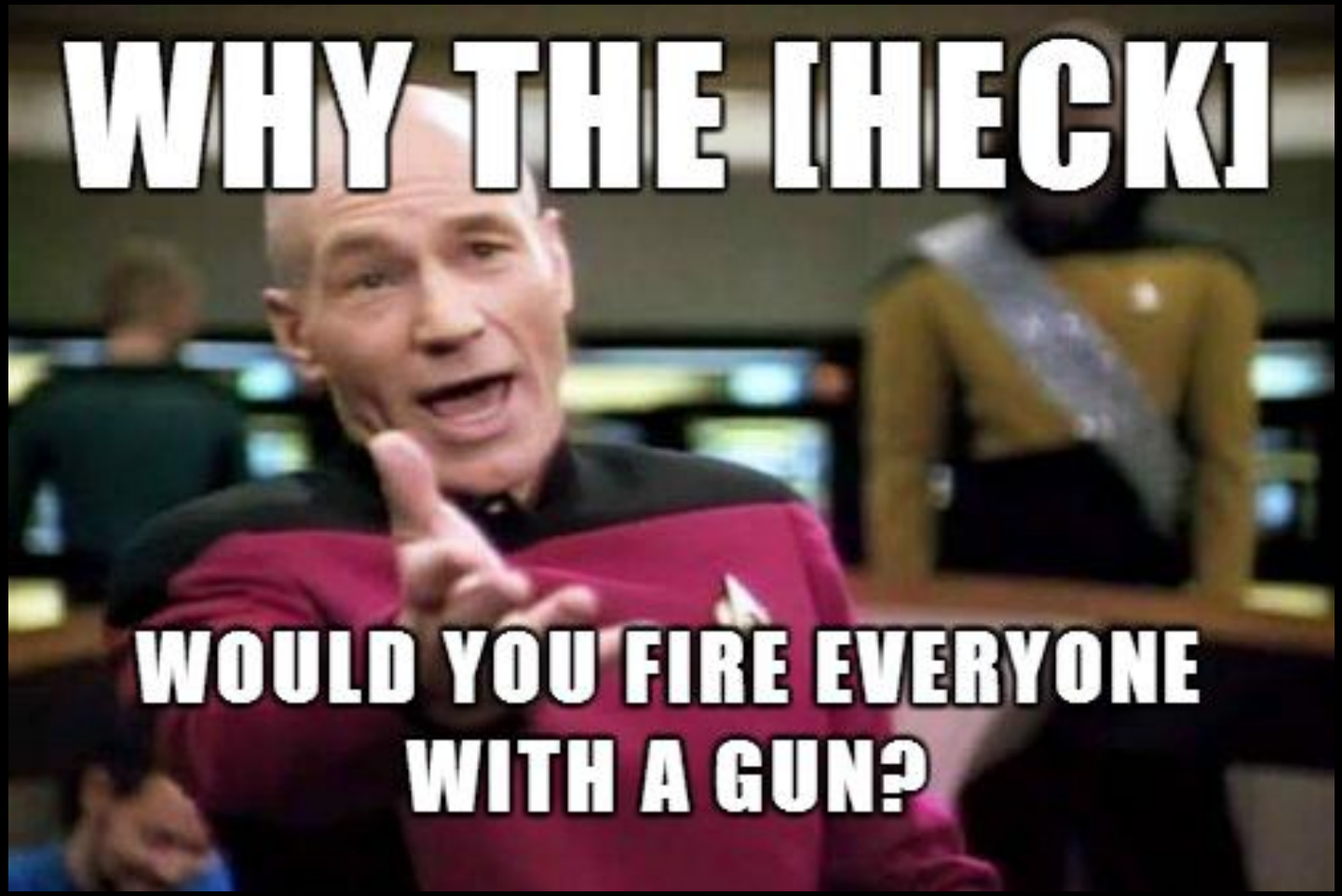
Recap

- With only a little hyperbole…
  - Everyone who was well educated
  - Everyone who knew how to run the government
  - Everyone with a gun
- …was a member of the Ba’ath Party.

GUESS WHAT HAPPENED NEXT...

De-Ba’athification

- All members of the Ba’ath Party were fired and banned from being rehired
- Washington planned to replace them with exiled Iraqis and internal dissidents


WHY THE [HECK]
WOULD YOU FIRE EVERYONE WITH A GUN?

Role Playing

- Imagine you were a professor with a university owned computer
- You learn you are fired and will never, ever be able to get your job back
- What are you going to do?

Role Playing

- Imagine you were a central banker with access to cash reserves
- You learn you are fired and will never, ever be able to get your job back
- What are you going to do?

Role Playing

- Imagine you were a soldier with guns and tactical knowledge
- You learn you are fired and will never, ever be able to get your job back
- What are you going to do?

Making Matters Worse

- Whom does democracy favor?
- Whom does it not favor?

Making Matters Worse

- Democracies favor majorities
  - Iraq: 63% Shi'a Muslim/34% Sunni Muslim

Making Matters Worse

- Democracies favor majorities
  - Iraq: 63% Shi'a Muslim/34% Sunni Muslim
  - Shi'a: had a lot of political power
  - Sunnis: had a lot of guns

Making Matters Worser

- Iraq was in the middle of rebuilding
- The most competent people around to do that were unemployed
- Inefficiency abound

Result

- Insurgency breaks out
- De-Ba’athification policy eventually revised, but a little late in the game

TL;DR

- De-Ba’athification ran contrary to everything we know about bargaining theory
- United States paid the price for it for the next 10+ years

Bush administration's fault?

- Three perspectives
  1. Administration completely failed to anticipate the consequences of de-Ba'athification
  2. Administration failed to plan for post-war Iraq because focus was on winning the war
  3. Bush administration gambled that U.S. forces could quell any uprising