

The background of the slide is a close-up, slightly blurred image of the American flag. The stars and stripes are visible, with the stars appearing as a grid of white dots on a dark blue field in the upper left, and the red and white stripes flowing across the rest of the image. The overall tone is somewhat muted and historical.

Microeconomics: American Economic & Military History

Princeton University

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Migration to the “New World”

- 1492: Columbus sails from Spain trying to reach India
- He lands in the Caribbean but thinks he found India until his third voyage in 1498
- Major Atlantic “colonial powers” conquered and divided up most of the western hemisphere:
England, France, Spain, Portugal
- Mayflower (1620): English Pilgrims settled in North America (modern day Massachusetts)
 - Sought religious freedom
 - 1621 harvest: origin of Thanksgiving



Original 13 British Colonies: Early Natural Advantages

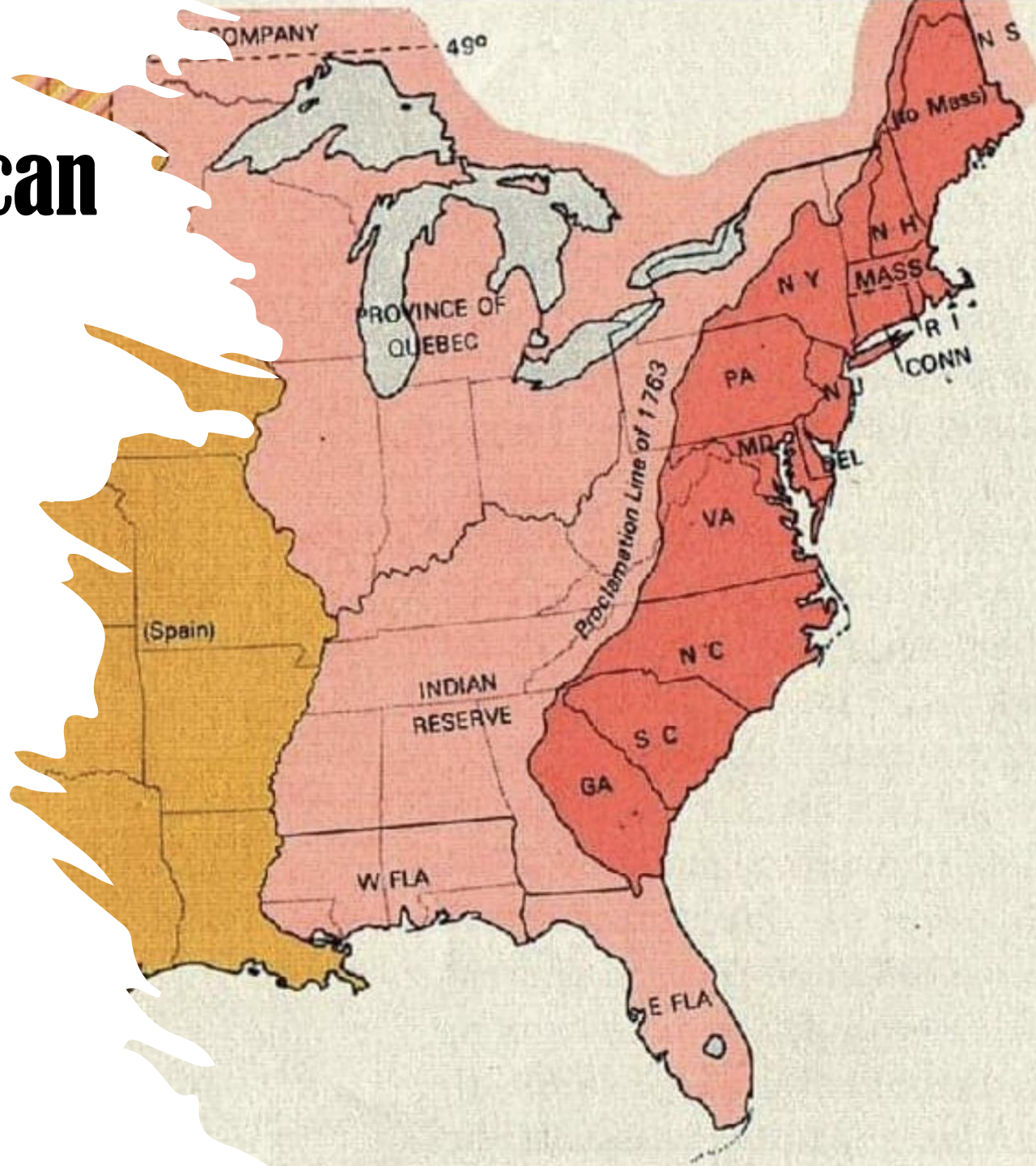
- Extensive natural river systems made trade cheap & efficient
 - Industries like lumber thrived (sending building materials down the Hudson River – enabled early development of New York and other cities)
 - Many resources never mined or exploited before (unlike in Europe) because most indigenous people in eastern North America were not geographically fixed
 - Exploitation of resources and exports were extremely profitable for settlers
- American colonists were actually more wealthy (per capita) than the British before the start of the revolution
- Unique early makeup of cultures and attitudes in the colonies





13 Colonies: American Revolutionary War

- Boston Tea Party (1773): colonist anger over 3 cent tax per pound of tea led to broader rebellion and July 4, 1776 Declaration of Independence
- Americans used innovative fighting tactics: “minutemen” & guerilla warfare
- Major US victory in Saratoga signaled ability to win: Europeans updated probabilities and expected values with this new information
- French strategic calculation to step in and assist the rebels: “enemy of my enemy is my friend”
- George Washington victorious in 1781



American Independence & Initial Debt Problem

- Alexander Hamilton: US debt (owed to European powers, especially France) became backed by rights to new land
- The US federal government consolidated the individual state debt and issued new bonds to take them out at par to establish US creditworthiness at the Federal level.
 - Interest on these was paid using excise taxes (e.g. Whiskey tax) and tariffs on imported goods (supports manufacturing).
 - They could have paid down at the depressed values of where the original ones were trading at but wanted to emphasize credit worthiness.
 - There were federal land sales but that wasn't the main source of repayment for the debt: land was used as collateral on some of the state level debt and land speculation but not material.
- Incentives to push west and take more land

War of 1812 & Britain's Cost/Benefit Analysis

- Canada was the main theatre initially: significant reinforcements following the 1814 defeat of Napoleon
- Britain: increasingly war-weary following Napoleonic wars and America viewed as a side theatre without decisive advantage
- British merchants suffering from loss of trans-Atlantic trade with US: pushing for resumption of normal trade / end of war
- Britain essentially quits the war (not worth the cost to continue) without making decisive gains...
 - Was this a smart EV calculation?
 - How does this relate to discounting?





Civil War: Two American Economies

- The North was industrialized (factories/manufacturing) with a much larger population (~22 million northerners)
- The South was an agricultural economy (cotton-based) benefitting from the widespread exploitation of slave labor (~9 million southerners including ~3.5 million slaves)
- Both exported substantial amounts... but much higher proportion of cotton exports (~57% export value)



American Civil War: Trade & Blockade

- Major question of whether there was a grand strategic vision of the war...? (South win condition: inflict damage to induce the North to quit)
- Navy was set on blockades of major naval ports (Anaconda strategy / Winfield Scott) but these were largely avoided via blockade runners
- Main damage was the avoidance by larger hold/slower vessels of confederate ports and a 95% decline in cotton exports
- Indirect damage from inability to receive European financing

America's "Gilded Age" (1870s – 1900s)

- Rapid industrialization unleashes massive expansion of productive power, value creation, and economic inequality
- Market consolidation drove unprecedented wealth accumulation: "robber baron" industrialists such as Rockefeller, Carnegie, Vanderbilt...
- Extreme corporate power and growth of political corruption: total lack of regulations and companies buying control of government
- Eventually led to the rise of environmental conservation efforts, organized labor and worker protections, other "progressive" movements and policies

Is today's environment reminiscent of this?

Are we in a new Gilded Age of regulatory capture?



World War 1

- British establish naval blockade of northern Germany to prevent access to neutral shipping and its colonies
- Restrictions of neutral trading almost resulted in acrimonious relations between the US/Britain over inability to access other neutral countries
- Early January 1917: decision made for unrestricted submarine warfare:
 - Expectation that Britain would capitulate before the US would be antagonized into the conflict.
 - Mid Jan: send Zimmerman telegram.
 - Early Feb, pick-up in U-Boat sinkings as unrestricted submarine warfare implemented.
 - Late Feb: British share Zimmerman telegram with US government.
 - Early March: becomes public.
 - April 1917, US enters the war.

Strategic consideration: Pattern of alliances between major naval & land powers

- Britain assisting France in WW1 – only had an agreement with the Belgians (1839 Treaty of London) ... many conversations about containing German aggression
- WW2:
 - USA & Soviet Union
 - USA & China
 - Germany & Japan
- Relates to concept of convexity (complementary preferences)



World War II : Pearl Harbor

- USA economically & strategically pressuring Japan... especially on key resources such as the oil embargo (July 1941)
- Japanese surprise attack was a very risky move intended to re-draw lines of control in the pacific and remove both strategic naval powers from the pacific
- Failure to hit major Pearl Harbor targets (no carriers sunk, submarine base intact, oil reserves intact)
- Massive unexpected attack immediately shifted US sentiment towards supporting war instead of remaining neutral. US was basically trying to figure out how to enter the European war, unexpected boon to be able to also enter European war on the back of it given public outcry
- Allegedly the first night British PM Winston Churchill slept well in years

"No American will think it wrong of me if I proclaim that to have the United States at our side was to me the greatest joy. England would live; Britain would live; the Commonwealth of Nations and the Empire would live. How long the war would last or in what fashion it would end, no man could tell, nor did I at this moment care. Once again in our long Island history we should emerge, however mauled or mutilated, safe and victorious. We should not be wiped out. Our history would not come to an end. I went to bed and slept the sleep of the saved and thankful."



World War II : Nazi push east & Russian winter

❖ Classic Russian military strategy: slow retreat over many hundreds of miles

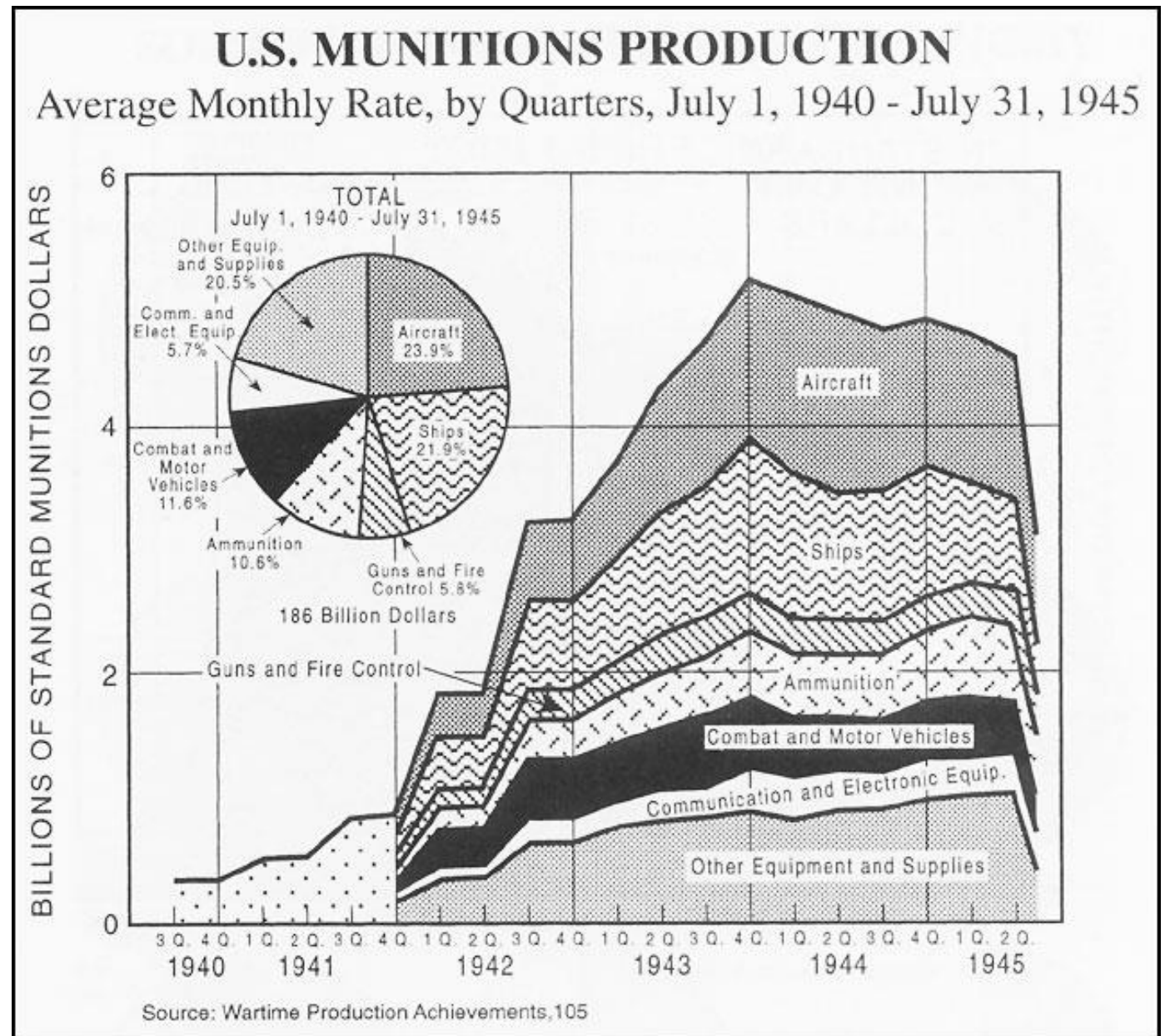
- Taking heavy casualties but making advance long and painful for enemy
- Budget constraint & utility function: manpower not as scarce...
- Compression of defensive forces in retreat boosts supply chain efficiency while increasing offense's required effort and complexity to sustain resource delivery
- Soviets move entire supply chain/factories east to preserve war-making potential (1,500 factories and ~16 million people)

❖ Winter came early: stalled Nazi advance and broke the momentum... Germany was unequipped to deal with weather conditions and did not have soldiers prepared to handle this given its expectation for a short war.



World War II:

American Industrial Power Unleashed





US Nuclear Strikes:

EV and/or Game Theoretic Analysis ?

- Sequential rather than simultaneous game logic here
- Decision tree might incorporate the belief that Japan would fight to their last person otherwise, and therefore the world's only use of nuclear warfare may have reduced total deaths incurred on both sides...
 - Japanese seemed "credibly committed"
 - Navy and army have different versions of victory conditions and politically acceptable losses
 - Strategic bombing and blockade already effective
- Major ethics questions: modern implications

Cold War: “Mutually Assured Destruction”

- Simultaneous example:
 - MSE of $(1/16, 1/16)$ directly implies a $1/256$ chance of $\{\text{Attack}, \text{Attack}\}$ being the outcome of this game
- Sequential Game: symmetric trees
 - Attack is first mover's dominant strategy
 - Second mover forced to choose peace as best response
- Production & wealth NOT symmetric:
 - US achieves victory via... economics?

		Russia	
		Attack	Peace
USA	Attack	-3000 -3000	0 200
	Peace	200 0	0 0



COLD WAR:

“Mutually assured destruction”

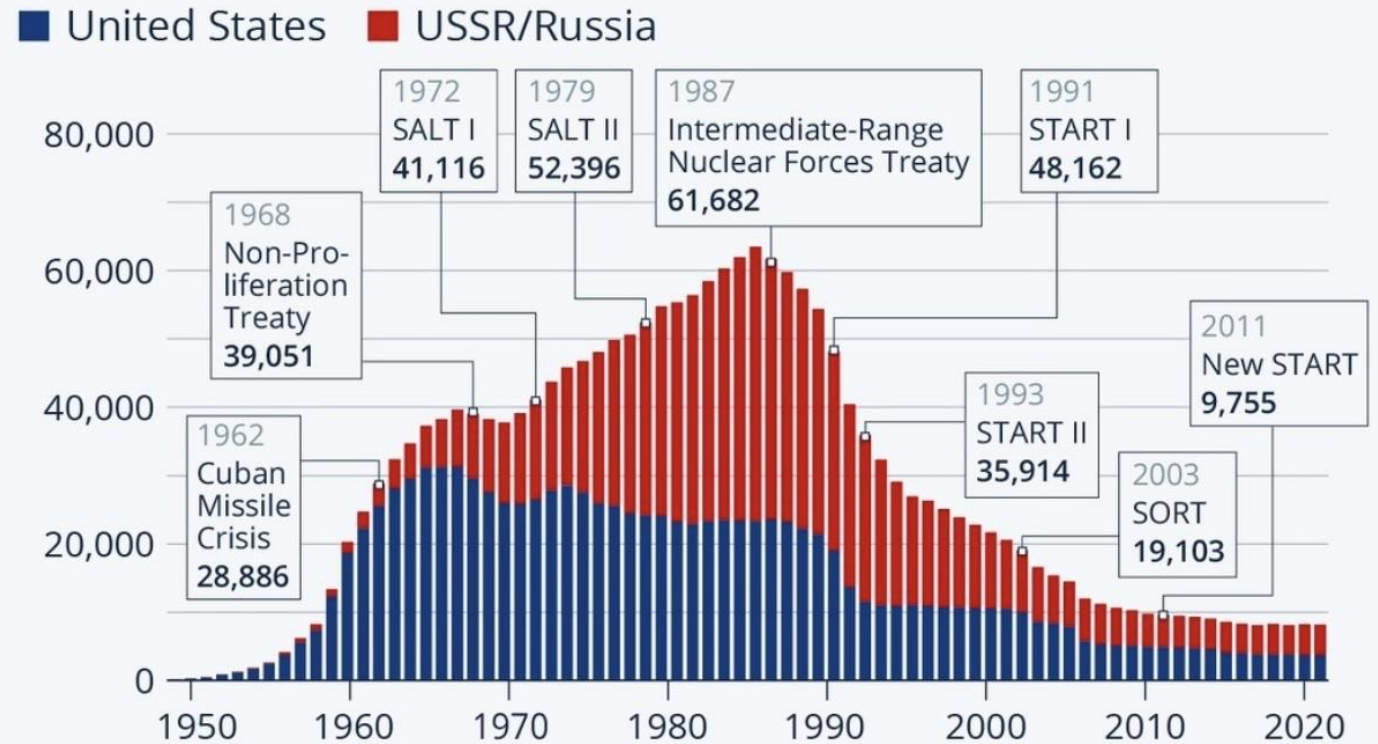
Simultaneous game example
(already seen)

Sequential game: symmetric
(attack always worse for both)

Economic Production &
Wealth are NOT symmetric:
major USA advantage

How U.S. and Russian Nuclear Arsenals Have Evolved

Estimated nuclear warhead stockpiles of the United States and USSR/Russia



Excluding retired but still intact warheads in the queue for dismantlement.
Source: Federation of American Scientists

Brief History of US banking

- Highly competitive market in 1800s
- Modern consolidation: moving towards oligopoly
- Regulation & Crisis: deregulation, 2008 problems, new rules...
- Shifting risky trading activity from banks to non-bank institutions and central clearing
- Banks less of a source of warehousing space for risk as regulations increasingly constrain... (e.g. Fed response to Covid)



Modern Considerations: **Other Topics**

- Gold Standard & USD as reserve currency
- Globalization & Trade:
 - Can trade prevent military conflict? (costs/benefits)
 - Self-fulfilling prophecy of expanding protectionism & conflict probability?
- Demographic changes and global economic trajectory
 - Aging population – when will we peak?
 - Agriculture -> Industrialization -> Services -> ?