

04. Slavery and the Civil War

Econ 373: US Economic History

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Slavery in social sciences

“The most magnificent drama in the last thousand years of human history is the transportation of ten million human beings out of the dark beauty of their mother continent into the new-found Eldorado of the West. They descended into Hell; and in the third century they arose from the dead, in the finest effort to achieve democracy for the working millions which this world had ever seen. It was a tragedy that beggared the Greek; it was an upheaval of humanity like the Reformation and the French Revolution.”

–W.E.B. Du Bois, *Black Reconstruction*

- Deeply disturbing aspects of American institutions
e.g., slave trade, slavery, plantation system, . . .
- We will be using economics but won't turn these into ends
- Economics is useful for understanding people and their social environments

A brief taxonomy of labor coercion

1. Different levels of coercion: chattel slavery, serfs, peonage, semi-free workers, forced marriage, . . .
2. Different durations: hereditary, life, temporary, . . .
3. Different foundations: racial versus non-racial slavery
4. Different origins: extrusive versus intrusive

Labor coercion interacts with absence of markets in land to incentivize specific mode of production

Property rights over people's labor

- Property rights view of slavery focuses on more than how enslaved people were employed in work processes
- This has significant economic implications:
 - Under American slavery, property rights in people allowed spatial population distribution of workers that looked very different from free labor
 - Southern elite more interested in maintaining financialized claims over mobile human assets than building infrastructure, courting manufacturing, developing human capital

Slavery

The decline of slavery?

- 1780: VA had about 2K free black persons; 1810: there were over 30K
- In MD and DE, manumission more common, with MD having 53K free black persons in 1830, about half of African American population
- In SC, numbers rose from 1,800 in 1790 to 7,900 in 1810, then stopped
- 20 percent of US merchant sailors were free black men
- Led some to believe that slavery might disappear

Resurgence of slavery

- Invention of cotton gin (short for engine) changed incentives
 - Led to “second slavery” in Atlantic world
- Colonial slavery was spent, but not slavery itself
- Eli Whitney (1765-1825) gets patent for cotton gin in 1794
 - Prior to invention, separating fibers from seeds in upland short-staple cotton was tedious (previous gins for long-staple cotton, but less common)
 - Gin enabled one worker to clean 23 kg of lint per day
 - Dovetails with Industrial Revolution, growth of world economy in 19thC

Cotton boom

- Cotton is cash cow, like sugar before and oil after
- Opening of land (e.g., acquired by Louisiana Purchase) makes cotton dominant crop and creates opportunity for planters
- Cotton production increased from 73K bales in 1800 to 720K bales in 1825 to 2.85 million bales in 1850; 4.5 million bales on eve of Civil War
- 1800: US produces 9% of world cotton; 1850: nearly 70%
- 1816-1820: cotton accounts for 39% of exports; 1836: accounts for 59%

Slavery and economic change in the early 19thC

- 1790-1850: workers required cotton production increased by 200 times
Enslaved persons rose from 700,000 in 1790 to 3.2 million in 1850
- Chattel slavery becomes firmly entrenched, as does domestic slave trade
(Deep South becomes slave society, Chesapeake region becomes exporters, slave value on cotton plantation far exceeded his value in production of tobacco)
- Paradox: terrible institution “turbocharged” by growth of national market, freedom of contract, advanced financial system, etc
- Result is complex, dynamic slave society

Legal protections for slave property

- Between 1820 and 1860, legal protections for slavery become stronger:
 - Various barriers to manumission were erected
 - Life of free blacks becomes harder (e.g., free black sailors arriving at Charleston had to spend their time in prison)
 - In the North, voting rights of free blacks are often reduced
 - Failed 1822 insurrection organized by Denmark Vesey led to crackdown on enslaved persons
 - Insurrection made punishable by death in 11 states
 - In 13 states inciting insurrection by white man was made capital crime
 - Dred Scott case (1857)

The profitability of slavery

- First serious attempt to calculate plantation profitability was made by economists Alfred Conrad and John Meyer in 1958
 - Previously historians views were based on sketchy evidence and supposition
 - Prevailing view was plantations were unprofitable, slavery would crumble
- Methodology is similar to deriving the return on physical assets

Step 1: “capital cost” of slave including tools, animals used, market price

Step 2: gross revenue produced by slave from estimates of productivity, cotton price

Step 3: net revenue by subtracting maintenance and supervisory cost

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$$PV = \sum_{i=1}^n \frac{NP_i - w_i}{(1+r)^i}$$

The profitability of slavery

- Calculate lifetime net revenue using mortality tables
- Return was found to be between 5-8%
 - Older less fertile territories 2-5% and in the more fertile areas 10-13%
- Calculation for enslaved female more complex, need to account for value of children: came up with between 7.1-8.1%
- Even plantations in less productive areas earned profit

The profitability of slavery

- Subsequent scholars criticized estimates
 - Critics claim Conrad and Meyer overestimated number of children, assumption that all enslaved persons lived average age of life, underestimated costs of enslaved person upkeep including medical care, managerial costs, and food and clothing
 - Conrad and Meyer also underestimated productivity of a prime field laborers, and females and overestimated maternity costs as well as equipment needed by young and older enslaved persons
 - Also made erroneous assumption capital used by enslaved person fully depreciated at person death
- Conrad and Meyer underestimated net return: closer to 10% and rate of return on males and females were roughly equal

The profitability of slavery

- Return comparable to rates of return in most non-agricultural businesses
 - For example, rate of return on 9 most profitable textile firms was around 10% (1844-53), and rate of return on 12 southern railroads was 8.5% (1850-60)
- Prevailing view among historians in 1950s that owning slaved persons was largely for conspicuous consumption is not in evidence
- Enslavers appear to have run their plantations in businesslike manner
- Evidence in relationship between age profile of slave prices and productivity

Relative efficiency of slavery

- Can also consider the efficiency of slave plantations, computed as:

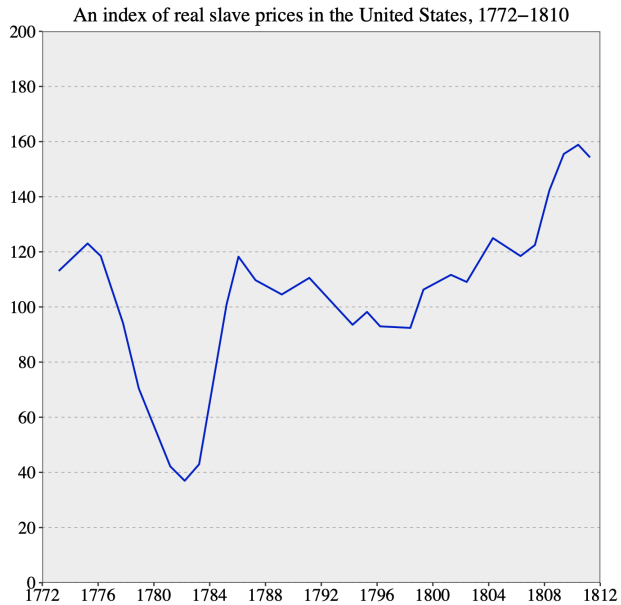
$$G_s/G_n = \frac{Q_s/Q_n}{(L_s/L_n)^{\alpha_L}(K_s/K_n)^{\alpha_K}(T_s/T_n)^{\alpha_T}}$$

which is relative total factor productivity

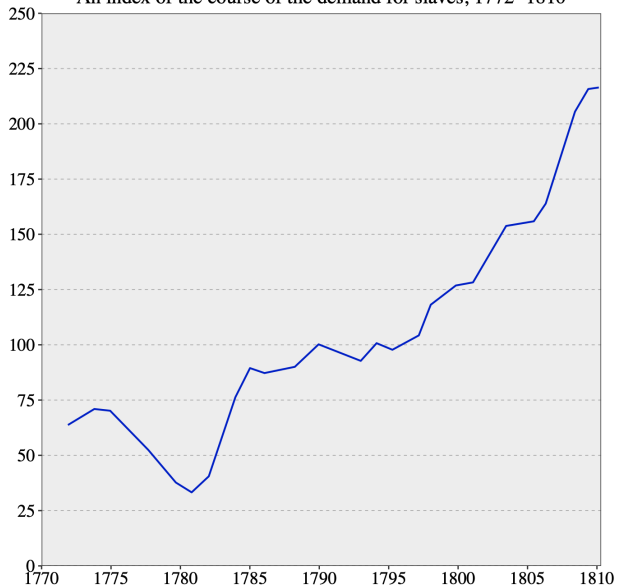
- Calculation by Robert Fogel and Stanley Engerman yielded 9.2% in 1860
 - Later calculation even higher: 34.7%
- Due to efficiency of slavery and efficiency of free agriculture in South

Economics for all slavery

- Prices of slaves and demand for their labor recover, remain high, and/or increase in early part of 19thC



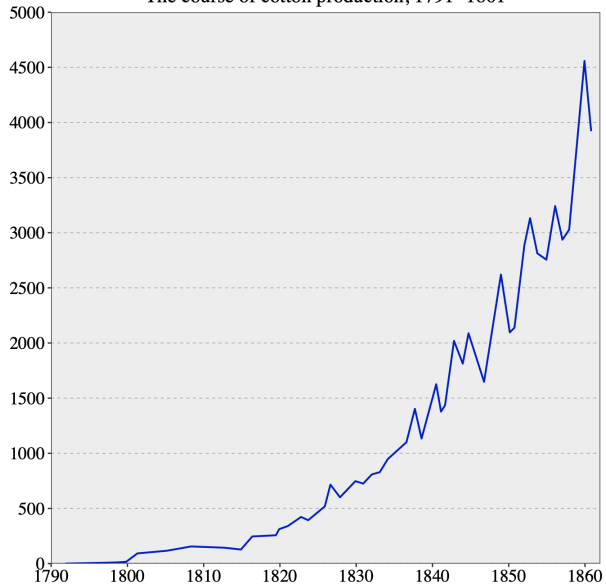
An index of the course of the demand for slaves, 1772–1810



Economics of slavery

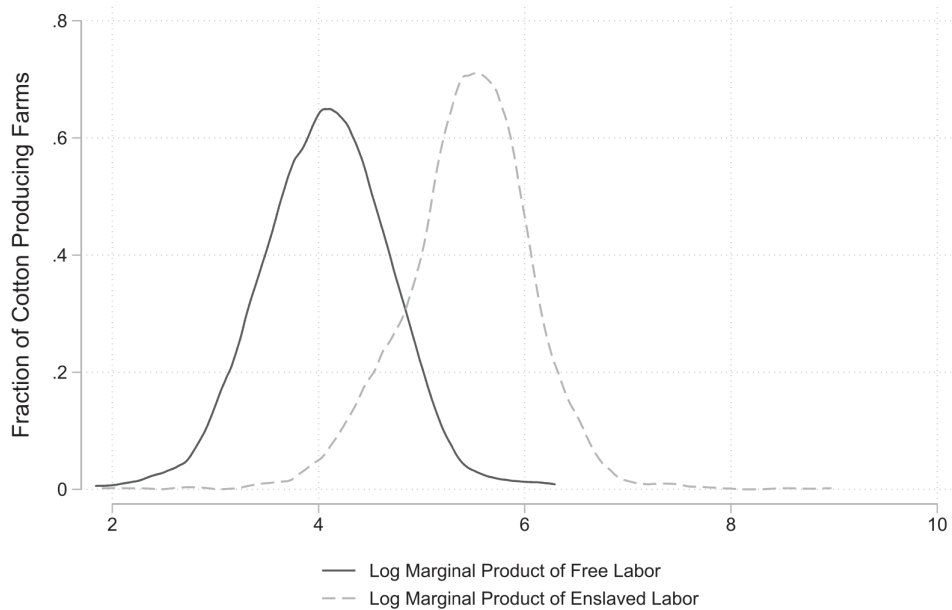
- Prices of slaves and demand for their labor recover, remain high, and/or increase in early part of 19thC
- Throughout 19thC until Civil War, increase in output of cotton

The course of cotton production, 1791–1861



Economics of slavery

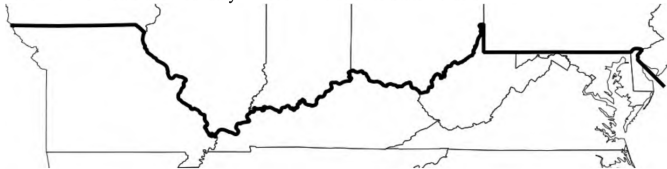
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- *From perspective of employers*, slaves “more productive” than free labor



Economics of slavery

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- Throughout 19thC until Civil War, increase in output of cotton
- *From perspective of employers*, slaves “more productive” than free labor
- But what was impact of economy overall?
 - Did South and/or entire United States “do better” due to slavery?

Panel A: The Free/Slave Boundary in 1860 in Relation to State Borders



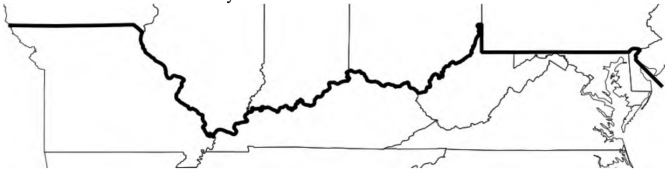
Panel B: Nonwhite Population, by County, 1860



Panel C: Rural Population, by County, 1860



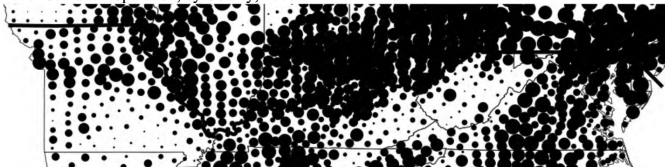
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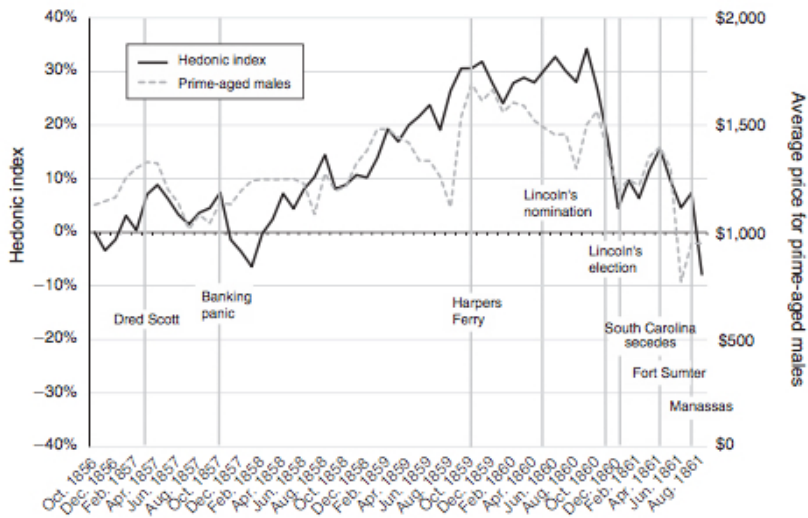
Economics of slavery

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 - But what was impact of economy overall?
 - Did South and/or entire United States “do better” due to slavery?
- Lower population, lower land values, higher wages under slavery
- Combine these three results and what do you conclude?

The Civil War

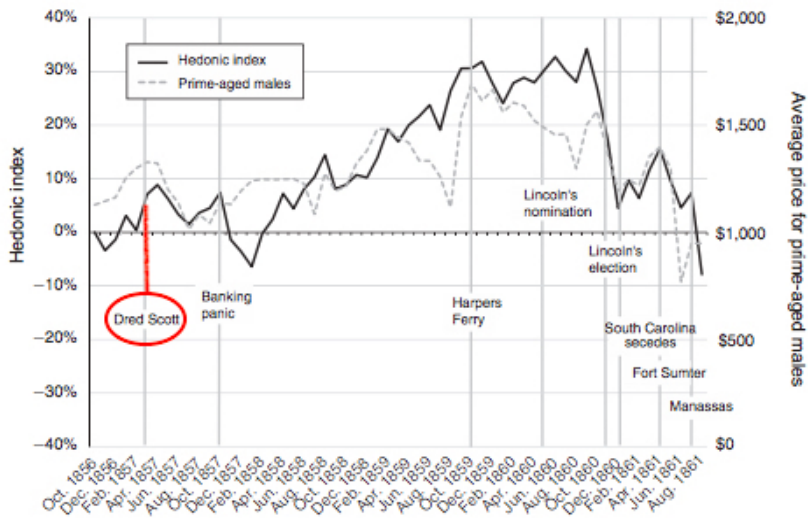
Forecasting civil war

- Struggle over slave-based labor and property system led to conflict. . .
 - . . . culminated with secession, establishment of Confederacy, and war
- What were Southern expectations about cost of war, outcome for slavery?
 - . . . slave prices are forward-looking opinion aggregators
 - . . . measure relative importance of events
 - . . . when was “news” leading about war positive or negative for slaveowners?



Forecasting civil war

- Dred Scott decision was associated with only a small increase in slave prices



Forecasting civil war

- Dred Scott decision was associated with only a small increase in slave prices
- Election of Lincoln was associated with negative changes in slave prices



Forecasting civil war

- Dred Scott decision was associated with only a small increase in slave prices
- Election of Lincoln was associated with negative changes in slave prices
- Negative movements follow Lincoln resolve to blockade, invade. . . unpleasant surprise to slaveholders!
- Price decreases not primarily due to fears of emancipation . . . instead, result of rising fear of war, economic consequences for slaveholders

State	Per Capita Income (all persons)	Per Capita Income (free persons)	Percent Population Enslaved	Percent Potential Income Loss of Whites Postabolition
Alabama	75	120	45	42
South Carolina	80	159	57	36
Florida	89	143	44	34
Georgia	84	136	44	29
Mississippi	125	253	55	29
Louisiana	131	229	47	24
Texas	100	134	30	24
North Carolina	79	108	33	19
Tennessee	75	93	25	18
Arkansas	95	121	26	17
Virginia	88	120	32	17
Total	91	135	38	23

How costly was the Civil War?

- Any war has direct costs (in terms of gov't expenditures)—these are accounting costs

	North	South
Government expenditures	2,291	1,011

A red curved arrow labeled "direct costs" points from the value 1,011 in the South column to the value 2,291 in the North column, indicating a flow of costs from South to North.

How costly was the Civil War?

- Any war has direct costs (in terms of gov't expenditures)—these are accounting costs
- Economic (or opportunity) costs reflect diversion of resources for war. . .
...accounting for a wartime versus peactime military

	North	South
Government expenditures	2,291	1,011
Undercounted labor costs associated with draft	11	20



costs of using the draft
rather than expenditures

How costly was the Civil War?

- Any war has direct costs (in terms of gov't expenditures)—these are accounting costs
- Economic (or opportunity) costs reflect diversion of resources for war...
 - ... accounting for a wartime versus peactime military
 - ... accounting physical and human capital losses

	North	South
Government expenditures	2,291	1,011
Undercounted labor costs associated with draft	11	20
Destruction for physical capital	--	1,487
Human capital lost		
killed	955	684
wounded	365	261

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 - ... accounting for a wartime versus peacetime military
 - ... accounting physical and human capital losses
- Address double counting in labor costs

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Less the "risk premium" component of soldier's pay	-256	-178

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- Ultimately total costs were large

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Undercounted labor costs associated with draft	11	20
Destruction for physical capital	--	1,487
Human capital lost		
killed	955	684
wounded	365	261
Less the "risk premium" component of soldier's pay	-256	-178
Total	3,366	3,286

How costly was the Civil War?

- Any war has direct costs (in terms of gov't expenditures)—these are accounting costs
- Economic (or opportunity) costs reflect diversion of resources for war...
 - ... accounting for a wartime versus peacetime military
 - ... accounting physical and human capital losses
- Address double counting in labor costs
- Ultimately total costs were large ... enough ex ante to buy slaves' freedom, make reparation payments, give slave families "forty acres and a mule"

Emancipation

How much would emancipation have cost?

- Emancipation was never discussed as serious “policy” to avoid civil war
- To understand why (from perspective of those making policy) consider total cost financed with long-term borrowing and per capita tax


Plan	Total Cost (million \$)
Immediate emancipation	2,700

roughly 2/3 of GNP in 1860

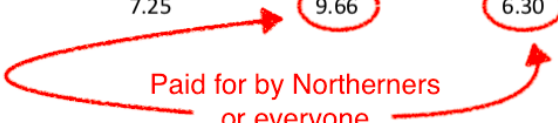


Annual Per Capita Cost		
Plan	Total Cost (million \$)	All Free Persons
Immediate emancipation	2,700	7.25

Per capita tax
(all free persons)



Plan	Total Cost (million \$)	Annual Per Capita Cost		
		All Free Persons	Northerners	All Persons
Immediate emancipation	2,700	7.25	9.66	6.30

Paid for by Northerners
or everyone

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- Alter proposal to include resettlement in Africa (an early consideration)

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		All Free Persons	Northerners	All Persons
Immediate emancipation	2,700	7.25	9.66	6.30
Immediate emancipation + resettlement in Africa	3,084	8.00	10.70	6.90

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- To understand why (from perspective of those making policy) consider total cost financed with long-term borrowing and per capita tax
- Alter proposal to include resettlement in Africa (an early consideration)
- Finally, consider proposals for “gradual emancipation”

Plan	Total Cost (million \$)	Annual Per Capita Cost		
		All Free Persons	Northerners	All Persons
Immediate emancipation	2,700	7.25	9.66	6.30
Immediate emancipation + resettlement in Africa	3,084	8.00	10.70	6.90
Emancipation in the next generation	210	0.56	0.75	0.49
Abolition in 30 years	550	1.50	2.00	1.30

The benefits of emancipation

- Slavery was a distortion in allocation of time
 - Under threat of violence, more time was allocated to work than leisure
- In economic terms, emancipation was reallocation of control over claims on future labor services from slaveowners to former slaves
 - 13 percent of population – former slaves – could use time as they say fit
 - Destruction of wealth embodied in control over slaves
 - Hornbeck and Logan estimate net gains of 10-20% of GDP
- But we need not think of these benefits in economic terms only. . .

“You are loosed from your moorings and free. I am fast in my chains and am a slave! You move merrily before the gentle gale, and I sadly before the bloody whip. You are freedom’s swift-winged angels, that fly around the world; I am confined in bonds of iron. O, that I were free! . . . I am not the only slave in the world. Why should I fret? I can bear as much as any of them. Besides I am but a boy yet, and all boys are bound out to some one. It may be that my misery in slavery will only increase my happiness when I get free. There is a better day coming.”

–Frederick Douglass, “The Bitterest Dregs”