

Florida (Un)Chained

Charles W. Calomiris, Columbia, UATX, and NBER
Matthew Jaremski, Utah State and NBER

“The Florida land boom was the first indication of the mood of the Twenties, the conviction that God intended the American class to be rich.” - Galbraith (1955)

“Dead subdivisions line the highways, their pompous names half-obliterated on crumbling stucco gates. Lonely street lights stand guard over miles of cement sidewalks, where grass and palmetto take the place of homes that were to be.” -Villard (1928)

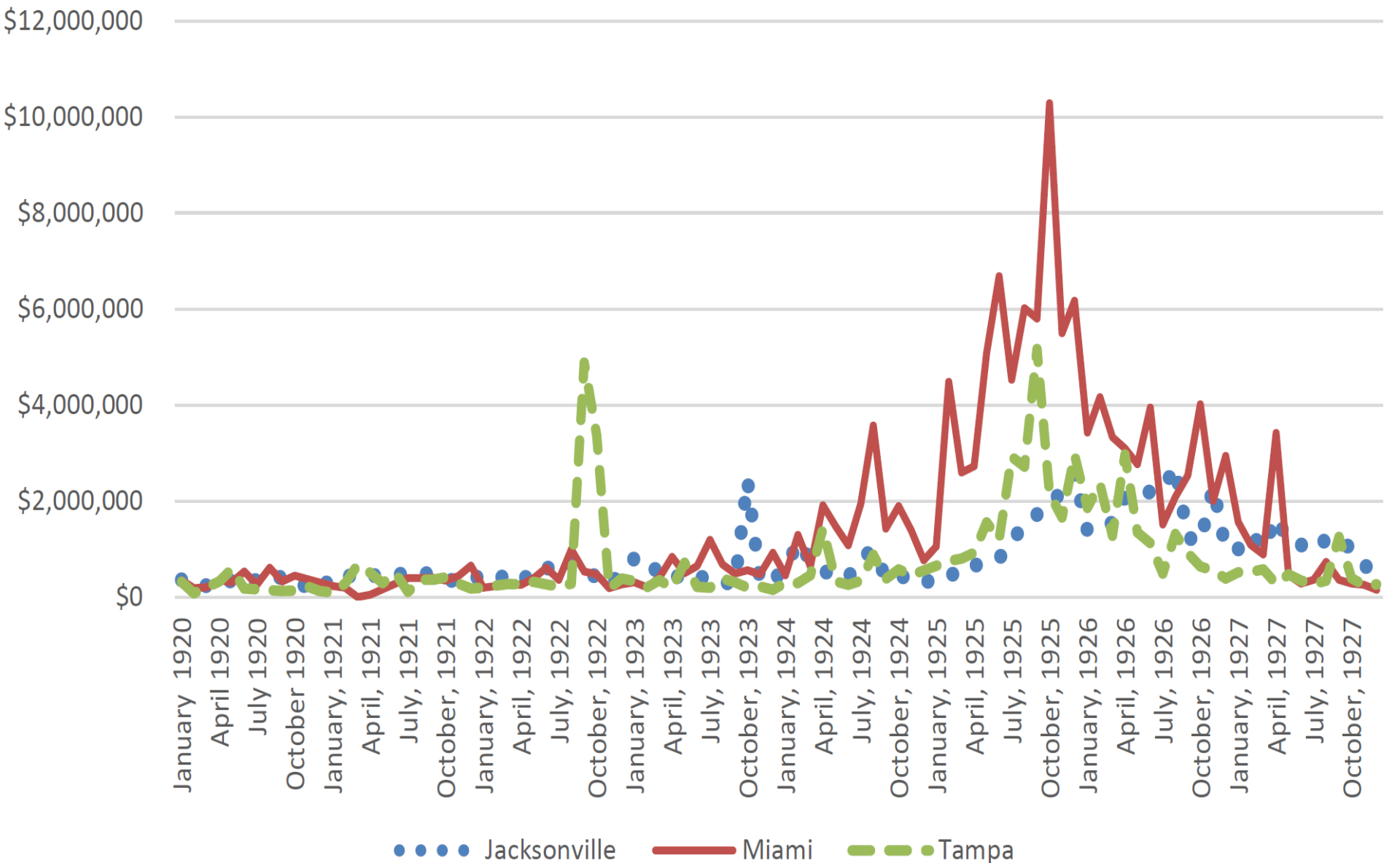
Florida Land Boom of the 1920s

- 20+ million lots were for sale in Florida
- Anecdotes of land prices rising by 1000-fold
- Nearly \$900 million in deposits flowed into Florida from investors throughout the nation
- Crescendo of the nation-wide housing boom that decreased investment during the Great Depression
 - e.g., Gordon (1951); Field (1992); Brocker and Hanes (2014)
- Over 10% of Florida's banks suspended or failed in 1926
 - Almost all associated with Manley-Anthony chain

What Causes Asset Price Booms?

- Notable authors argue booms are result of irrational cycles of greed and fear
 - e.g., Minsky (1975); Kindleberger and Aliber (2011)
 - Also recent literature on cycles of risk tolerance/pricing
- However, many scholars have shown that booms often have distinctive aspects that suggest different causal mechanisms (limited information, shocks)
 - e.g., Garber (2000), Nicholas (2008), Carey (1990),
 - Temin and Voth (2013)
- Crucial to pay attention to who has information and when, the incentives lenders face in fueling boom, changes in risk pricing, and whether people ignored observable risk

Monthly Building Permits By City



Miami Beach, Florida

America's Winter Playground

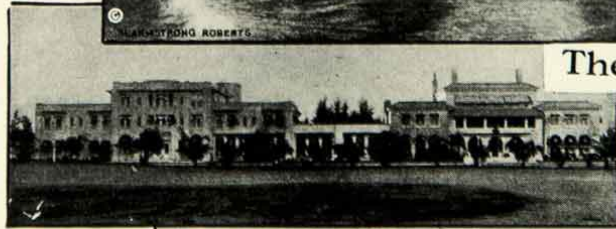
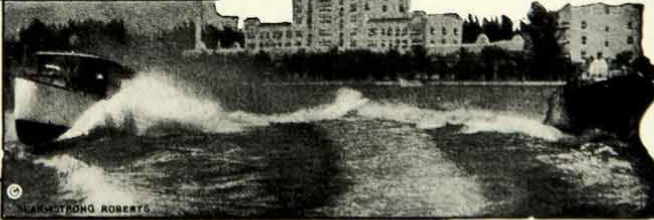
The Care of Fisher Hotels



*Florida's
foremost resort
hotels*

The Nautilus
Geo. S. Krom, Mgr.
Opens Jan. 2nd

The Flamingo
C. S. Krom, Mgr.
Opens Dec. 15th



The Lincoln

B. Lundberg
Mgr.
Opens Nov. 1st

The King Cole
Wm. M. Gale, Mgr.
Opens Dec. 15th



Our Paper

- Seeks to understand the boom's foundation using a range of narrative and empirical evidence
- Determine whether people acted reasonably (under incomplete information) or increased their tolerance for observable risk?
- Focus on how and why banking market fueled the boom and concealed risk

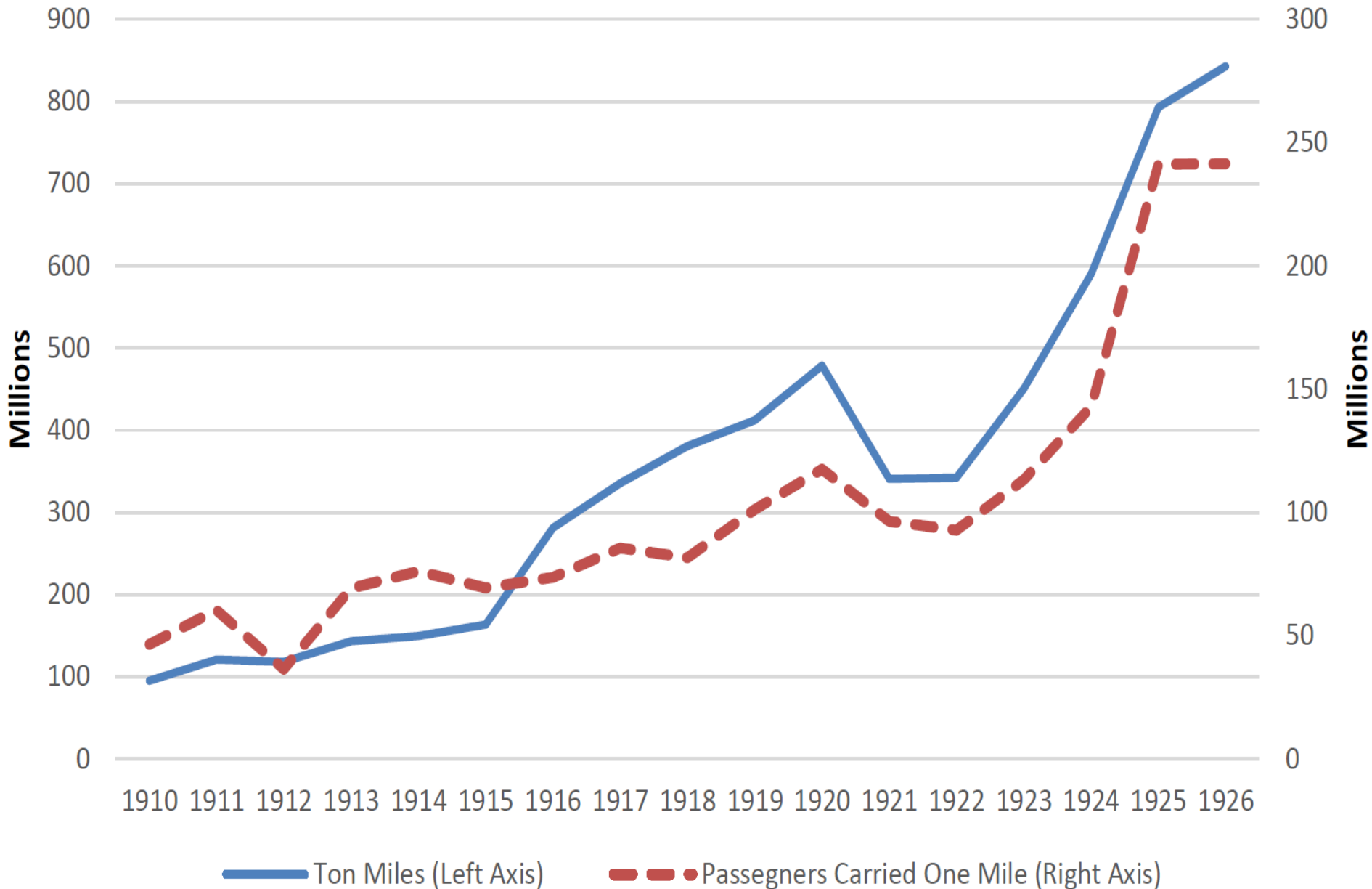
Conclusions

- Evidence consistent with bounded rationality
- Land was often sold sight unseen and aggregate amount of building was unknowable
- Risk taking seems concentrated in Manley-Anthony chain
 - Developers bought into the chain to obtain loans
 - Bank regulators allowed undiversified lending and tunneling of assets to insiders
 - Key: Maintained low observable risk characteristics

Florida Land Boom

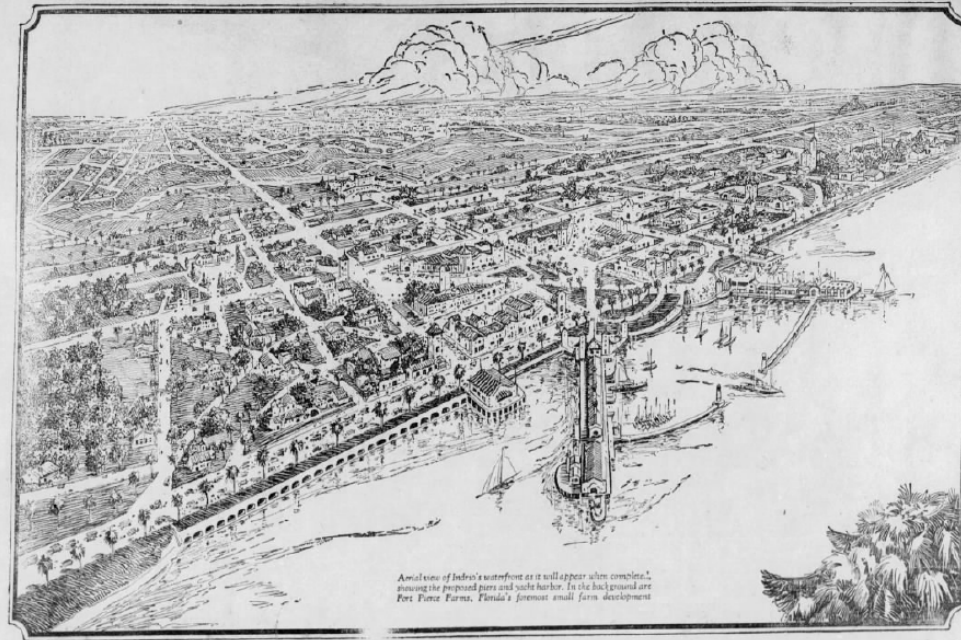
- Southern Florida devoid of large cities until the 1910s
- Henry Flagler financed Florida East Coast Railway and built a series of grand hotels along the route
 - Stretched from Jacksonville to Key West by 1912
- Developers planned new communities around lavish hotels, nightclubs, golf courses, etc.
 - Names evoked tropical images, foreign destinations, and fantastical settings
 - Miami Beach, Coral Gables, Boca Raton, West Palm Beach, etc.

Freight and Passengers on Florida East Coast Railway



Advertising

- Marketed high society luxury to the middle class
- Elaborate ads and special sections ran in nationwide newspapers
 - Journalists were often wined and dined in Florida
- Billboards highlighted the sun, leisure, and fun of Florida in northern cities during winter
- Many people bought land through the mail



Aerial view of Indrio's waterfront as it will appear when complete, showing the proposed pier and yacht harbor. In the background are Fort Pierce Farms, Florida's foremost small farm development.

INDRIO to Open September 12th

First unit of "America's Most Beautiful Home Town" to be placed on sale



On the Dixie Highway and East Coast Railway

A Location Without Equal

Indrio's location on the Indian River is one of unrivaled beauty. The country abounds with tropical foliage, and deer still haunt the verdant woods. Game fish are found in the Indian River, along which there also is plentiful duck shooting in season. The climate, of course, is delightful. In summer cool breezes sweep in from the sea, while winter days are made balmy by the nearby Gulf Stream. Nowhere else in Florida can be found so enchanting a spot.

AFTER months of planning and preparation, the first unit of Indrio is about to be offered to an expectant public. Promptly at 8:30 next Saturday morning, September 12th, will occur the formal opening of America's most beautiful home town.

Since our initial announcement, which appeared only one week ago, Indrio has become the sensation of Florida and the country at large. From all over the state and America as well have come inquiries regarding this remarkable townsite development.

The public has been quick to sense the fact that Indrio is in a class apart from any other development in Florida today. Conceived by men of large affairs with millions at their command, it is destined to surpass all similar projects in the magnitude and beauty of its improvements.

So heavy have been reservations to date that entire blocks of property have been spoken for. From present indications it is clearly evident that the first unit of Indrio will be oversold. Therefore, for your own protection, we urge immediate action.

Avoid Disappointment by Acting at Once! Make Reservations NOW at 10% Discount

Although no lots will be sold prior to the formal opening, reservations are now being accepted at our various sales offices.

Reservations made now will be subject to the 10% introductory discount which will apply only on the opening day.

Should the first unit of Indrio be oversold, those who made reservations too late to be accommodated will have their deposit checks

returned to them at once. They will, however, be given first choice of lots in the additional units to be opened shortly.

If you desire to visit Indrio, just call at our nearest sales office and make known your wish. Should you prefer to come by yourself, either the Dixie Highway or the East Coast Railway will bring you directly here. Representatives will be found on the property.

PHELPS-HENDRICKSON COMPANY

Exclusive Selling Agents for East Coast Development Co., John I. Beggs, Pres.

MIAMI 121 N. E. 2nd St.	FORT PIERCE 22 W. Monroe St.	MILWAUKEE 16 W. Nat'l Bank Bldg.	INDRIO	ST. LOUIS 211 N. 7th St.	KANSAS CITY Viceroy Bldg.	WEST PALM BEACH 211 Clematis St.
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Advantages that Assure a Sound Investment

Indrio has excellent advantages that make for speedy growth and substantial increases in property values. Among them are:

A high, dry location on the Indian River, the Dixie Highway and the Florida East Coast Railway.

A comfortable climate the year 'round, average annual temperature 75 degrees.

Proven improvements to include a million-dollar hotel, bathing casino, pleasure and boat pier, yacht harbor, tennis and racquet courts, tennis paths and an 18-hole golf course.

An abundance of shady parks, plazas and boulevards, the latter to range from 100 to 200 feet in width.

All residence lots to be 100 feet wide, and to face either an avenue or a boulevard.

Architectural harmony assured by the adoption of the appropriate Mediterranean style of architecture as standard. All structures to be approved by the city planners before erection.

Paving, sidewalks, water, electricity and sewers to be installed without expense to the buyer.

An inexhaustible supply of pure drinking water.

Rapid restrictions to exclude undesirable elements.

Excellent game fishing and hunting at all seasons of the year. Surrounded by Fort Pierce Farms, Florida's most productive farming and fruit raising land.

Channel now under construction will connect the Indian River with the Atlantic, making Fort Pierce (only 6 miles distant) an ocean port.

Conceived by Men of Affairs

Indrio is the practical vision of practical men, who command the financial resources and active genius necessary to insure its realization. These men include John I. Beggs, a leader in the public utility field and a director of the North American Co., the First Wisconsin National Bank of Milwaukee and the First National Bank of St. Louis; Edwin B. Miesner, president of the St. Louis Car Co.; Richard McCulloch, formerly head of the United Railways of St. Louis and now a director of the St. Louis Car Co.; Frank B. Shotts, owner of the Miami Herald; Edwin Barney, president of Barney & Smith, New York; Charles O. Reynolds, investment banker of Chicago, and George T. Baker, banker, Fort Pierce, Fla.

Wm. C. King, J. T. Herberington and M. D. Herberington, eminent city planners of Chicago, are the city planners of Indrio. Charles W. Murray, for eight years city engineer of Miami, is in charge of development.





**Immense Building Activity
Is Now in Progress at**

Lakewood Terraces at SEBRING

**Nature Laid Out
This Location
for a City**

On the shore of Florida's second largest lake—at the top of the wondrously beautiful Ridge—where in every direction an enchanting picture meets your gaze—There we are building, building, building—creating a city of magnificent size, a city of charm and beauty.

Millions of dollars worth of construction is under way at this minute.

Contracts already let call for the completion of the following ambitious building program by January, 1926.

Harder Hall, a \$1,000,000 hotel.
40 Modern Homes, to cost from \$5,000
to \$25,000 each.
Numerous Business Buildings.
A Country Club.
A Community House.
20 miles of Paving.
An 18-hole Golf Course.
Miles of Water Piping.
More Miles of Hard Surface Roads.
More Miles of Electric Wiring.

An army of men is busy, working energetically to make Lakewood Terraces the City Beautiful of the famous Scenic Highlands.

**Come to
Lakewood Terraces
as Our Guest**

Come and see the active building operations that are raising this city as if by magic on the shores of Lake Jackson. Call at any of our offices and reservations will be made for you to come at your convenience. You will see one of the four greatest developments in Florida.

**Lakewood Development
Corporation**
SEBRING, FLORIDA

West Palm Beach St. Petersburg
2 Duane Arcade 161 Central Ave.
Rite and Beer W. J. Williams, Mgr.

If you haven't seen SEBRING — you haven't seen Florida!



Reasons for Villa Rica's Values

- 1.-The Atlantic Ocean
- 2.-Ocean Boulevard
- 3.-Florida Coast Line Waterway
- 4.-Dixie Highway
- 5.-Florida East Coast Railway
- 6.-Midway between Palm Beach and Miami
- 7.-Private beach for residents
- 8.-Beautiful Casino on Ocean Front
- 9.-Famous Townend Studios
- 10.-Magnificent Villa Rica Inn
- 11.-Broad Avenues and Boulevards
- 12.-Complete City White Ways
- 13.-Its Own Railway Passenger Station
- 14.-Program of Beautification
- 15.-Improvements now under way

ALL these wonderful things are a part of your investment in Villa Rica at Boca Raton. They substantiate your investment in a manner that nothing else could do. There are many other excellent features in this beautiful new city by the sea, but if it possessed no others than the first five mentioned in this advertisement, that would be sufficient to make Villa Rica a truly superior investment opportunity as well as a truly delightful home site opportunity. Villa Rica is supremely accessible. It is endowed lavishly with superb natural advantages, but this is not all. A wonderfully complete improvement program has been adopted and is now being carried out. You see why those who know the real, dominating causes of true values, and profits incident thereto, have insisted upon buying properties in Villa Rica at Boca Raton.



PROCRASTINATION is the THIEF of TIME---

Eyes of World Watching Florida

The United States of America—Yes, Europe, Asia, and every country in the world is watching with eyes wide open—with mouths gasping for breath—watching the development of Florida—Where and when it is all going to stop. There is no stopping this State of Florida. Just when you begin to think that buying has slowed up a trifle. The news begins to spread that a few million more dollars has just been appropriated for a big development.

Play with Big Boys

You are in the big man's game. The man that knows how to make money. You are in the midst of the richest territory in Florida. Your profits will be judged strictly by the amount of your investment. You cannot go wrong if you close your eyes—touch your finger on the map of Florida—say, "I want a piece of property right in this vicinity. Let me have some." It would probably make you money.

Opportunity to Speculate

Okeechobee—How many people know what we are offering? Are you standing idly by and letting one of the biggest projects in the state go unmindful of your own personal investigation? They bought property on Flagler Street in Miami for a few hundred dollars a foot—Today this same property is selling for Forty Thousand Dollars—Within the past week a sale was registered on Flagler Street in Miami, Florida, for Fifty Thousand Dollars. We don't look for this big advance in Okeechobee, but we have every reason to believe that your money will make you more money.

Development Program

OKEECHOBEE COUNTRY CLUB DISTRICT—That's where much of the big money will be made in Florida. Improvements are to include eighty miles of streets and boulevards through the sub-division—

OKEECHOBEE COUNTRY CLUB DISTRICT—That's where the opportunity of real speculation lies—A contract to construct a Golf Course and Club House in the center of the sub-division.

OKEECHOBEE COUNTRY CLUB DISTRICT—What will the next year do for you and every other person who wisely invests in or near the city—The spot that is going to be the big money maker of Florida.

Okeechobee will not wait for you—You will have to get on your feet and go right to the office. Talk to any of our salesmen. Men who are familiar with the facts. They will treat you with courtesy and tell you about an opportunity to invest in real Florida Land—

OKEECHOBEE COUNTRY CLUB
DISTRICT

Money Does Not Grow on Trees

Thousands of people in America are wondering—they are asking—they say DOES MONEY GROW ON TREES IN FLORIDA?—NO—You can make money here by wise investment. You can make money by investing in Florida land from the East Coast to this West Coast. The opportunities are right within your reach.

Development Program Involves Millions

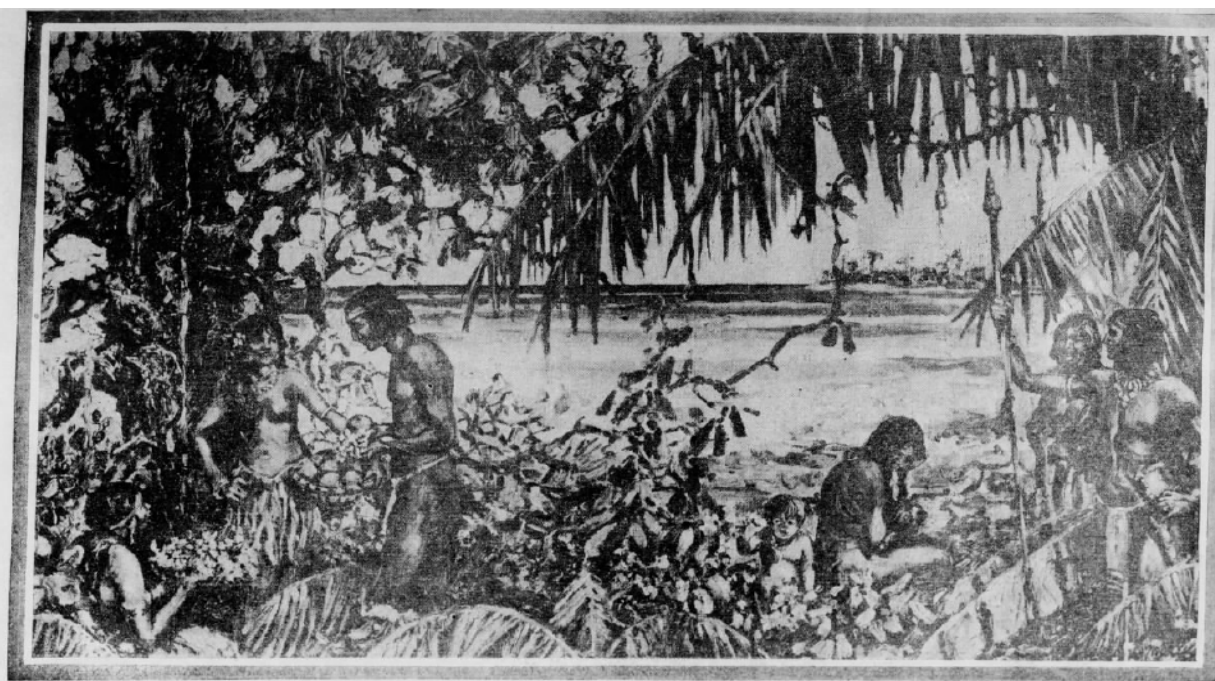
Stand right facing the front of the street. Watch the wealth in Florida, in Miami, in Palm Beach, in St. Petersburg, in Jacksonville, in Tampa—yes, in every nook and corner of the state. Several Hundred Million dollars would not take care of the development programs that are planned for this big land buying boom.

This is the Time to Buy

This is a buyer's paradise. Buyers are becoming rich. Dozens of people are sick worrying over the eagerness to sell—take a small profit. Those people have lost money. This is no time to think about disposing of your property, of selling—this is buying time and the sooner you get on the Band Wagon with the rest of the Florida land owners you are going to cash in more money—you can't sell anything that doesn't belong to you—Buy Okeechobee Lots right now.

Okeechobee Offers an Abundance of Wealth

Okeechobee is destined to be one of the greatest cities in the State of Florida. Okeechobee has the natural resources to support a population of a half-million—The most vital necessity to the staff of life is right at Okeechobee—There is no use talking, sugar will make Okeechobee one of the richest parts of the entire state of Florida—You have the one real opportunity to participate—get on the ground floor of some real development and tell the world that you are in for your share of money.



The Magic Touch

FOR countless centuries, Florida lay barren, peopled only by a few breech-clothed savages. It was a waste, a place for alligators. Its thousand miles of winding crystal beach, which soon will be the chief delight of millions of Americans, lay silent except for the rattle of the surf, bathed in a seeming eternity of monotonous sunshine.

Then came the early settlers—later, the tourists—and finally the men of genius and enterprise at whose magic touch Florida awakened to fulfill her destiny.

These men, the magicians of art and commerce, are the men who will create the really beautiful and convenient cities which will

attract wealth, power, brains, energy and the millions of people who, finally, will make up the population of Florida.

Watch where these men go! They are as important as climate, soil and transportation. They wield the powers of brain, muscle and money. They have the vision that inspires and the energy that builds armies. They have the magic touch that pulls cities from the earth and draws people from all parts of the world to fill them.

Just as surely as Jim Hill made the Northwest, so will Addison Mizner and the men of national prominence associated with him establish at Boca Raton one of the most beautiful of world resorts—a credit to America.

Mizner Development Corporation

NEW YORK—GRANT BUILDING, 120 N. 5TH ST. PHOENIX ARIZ.
 MIAMI—1515 EAST FLORIDA ST. TAMPA FLOR.
 LAKE WORTH—401 LAKE AVENUE
 BOSTON—LAFAYETTE HOTEL—CORNER STATE ST. BOSTON

MIAMI GARDEN—BANK BLDG. PHOENIX—TRUST BLDG.
 MIAMI BEACH—425 COLLIER AVE. PHOENIX ARIZ.
 TAMPA—1515 EAST FLORIDA ST.
 OFFICE AT BOCA RATON

NEW YORK—BELL BLDG. INC. 110 NASSAU ST.
 MIAMI—1515 EAST FLORIDA ST. MIAMI FLORIDA
 MIAMI BEACH—425 COLLIER AVE.
 BOSTON—LAFAYETTE HOTEL—CORNER STATE ST. BOSTON

Developers of Boca Raton

Unique Advertising

- Joseph Wesley Young purchased buses to collect sales for Hollywood-by-the-Sea across the nation
- Carl Fisher staged sports events such as boat races and polo tournaments in Miami Beach
 - Purchased a baby elephant for photo ops
- George Merrick had William Jennings Bryan give Bible lessons at the Coral Gables' Venetian Pool



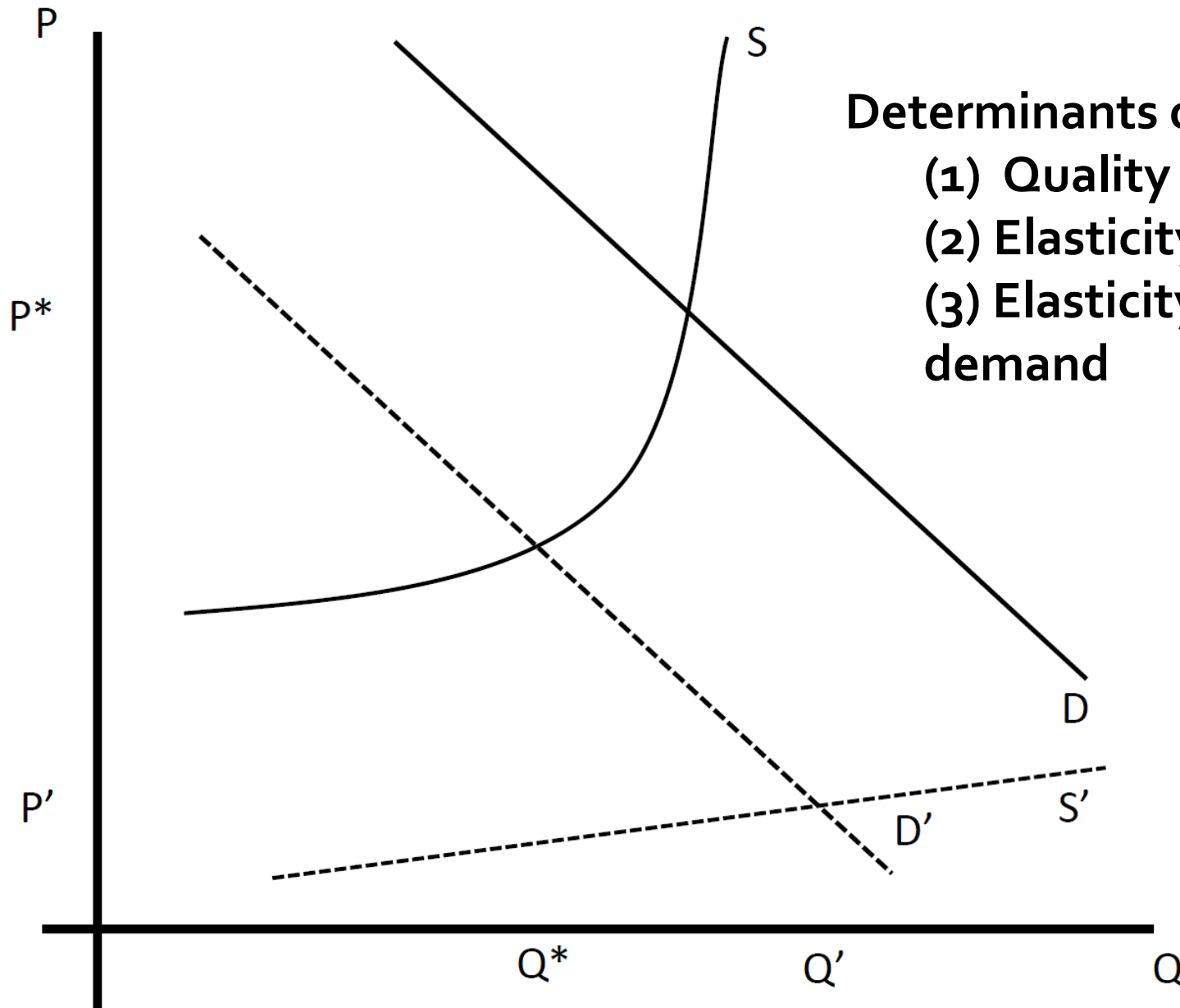
Florida's Slow Bust

- Negative press begins to grow in late 1925
- Events raised costs and questions of sustainability
 - Railroad moratorium on non-perishable goods in Oct. 1925
 - *Prinz Valdemar* overturned in Miami harbor in Jan. 1926
- Symbolic end: a category-4 hurricane caused \$100 million in damages to Miami-area in Sept. 1926

Florida Land Market Conclusions

- Development was often in new areas, and few visited their lot before purchase
- No aggregate data on lots for sale or prices
 - Construction data only available for a few cities but no land price data
- Developers sold land that was under water
 - Soil was dredged up to create beach front property
 - Land was being drained of water to allow building
 - Hard to know what version supply/demand to believe

Market For Land

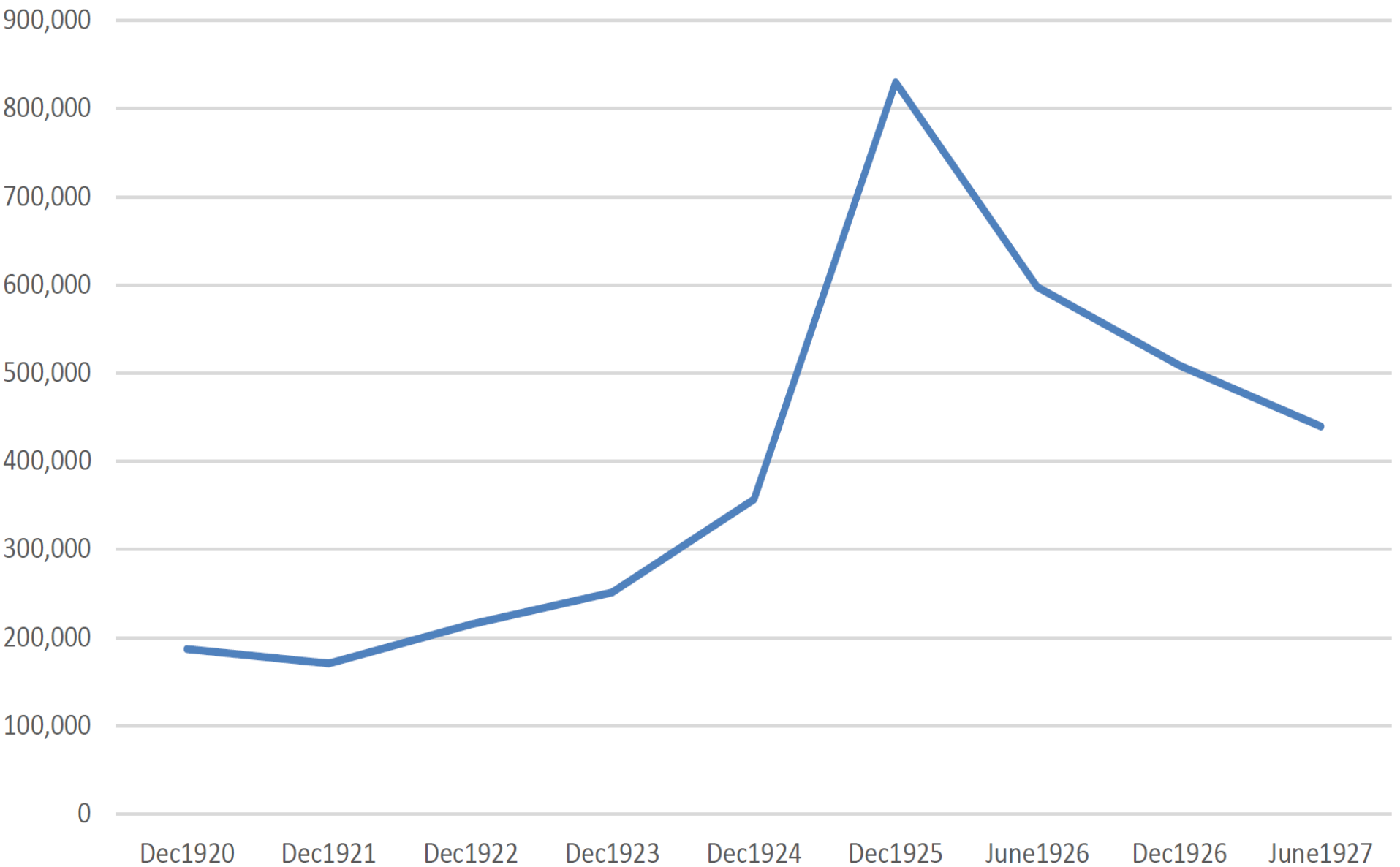


- Determinants of land value:**
- (1) Quality of the land
 - (2) Elasticity of land supply
 - (3) Elasticity of land demand

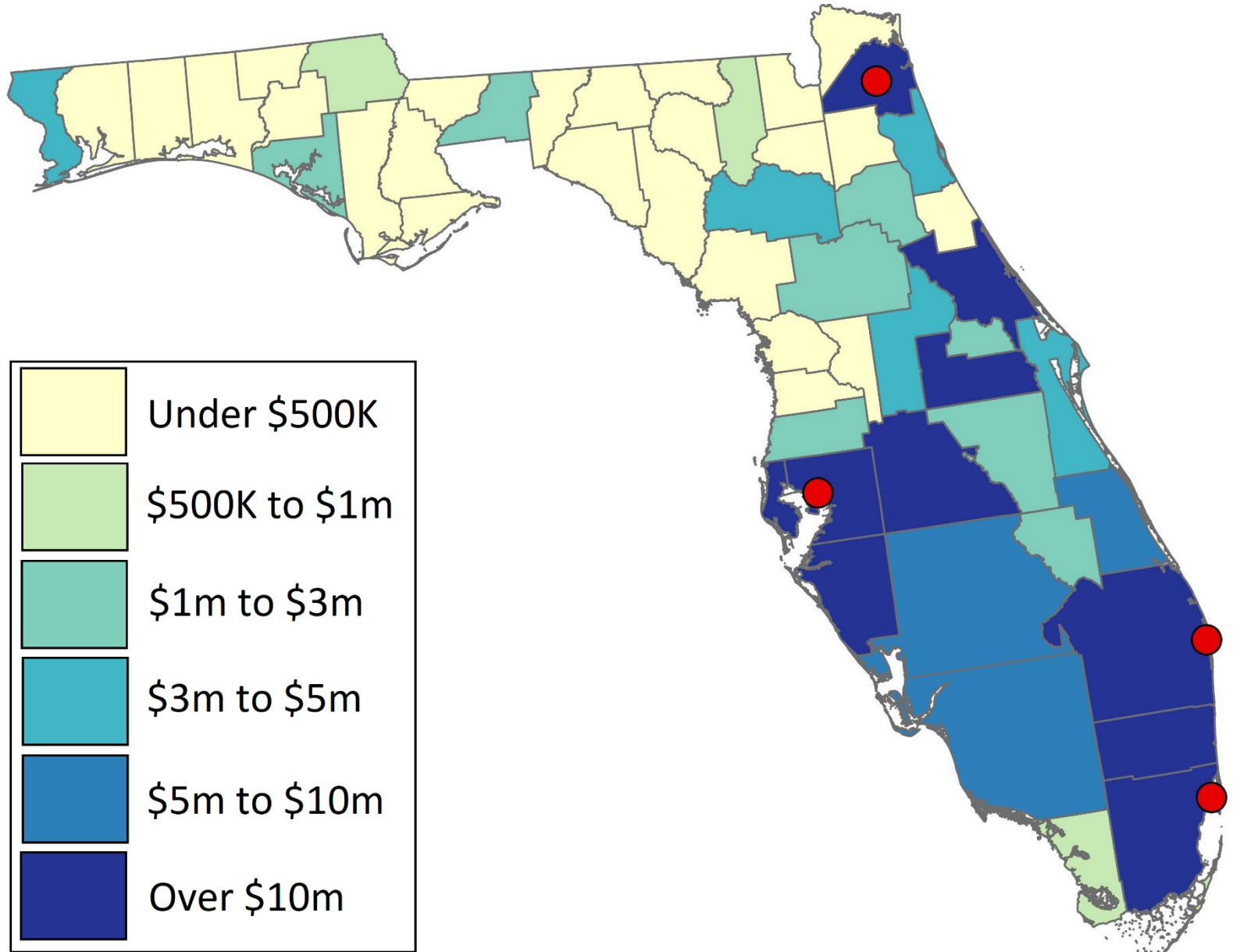
Market for Deposits

- Depositors price risk and demand very low perceived default risk
 - e.g., Gorton and Pennacchi (1990), Calomiris et al. (1995), Martinez Peria and Schmukler (2001), etc.
- Bank regulators and examiners are expected to ensure prudent lending, honest disclosure
- Were banks observably becoming riskier?
 - Loans / Assets
 - Cash + Due from Banks / Total Deposits
 - Capital + Surplus / Assets
 - Surplus / Capital + Surplus
 - Loans-to-Buffer = Loans / (Capital + Surplus + Cash + Due from Banks)

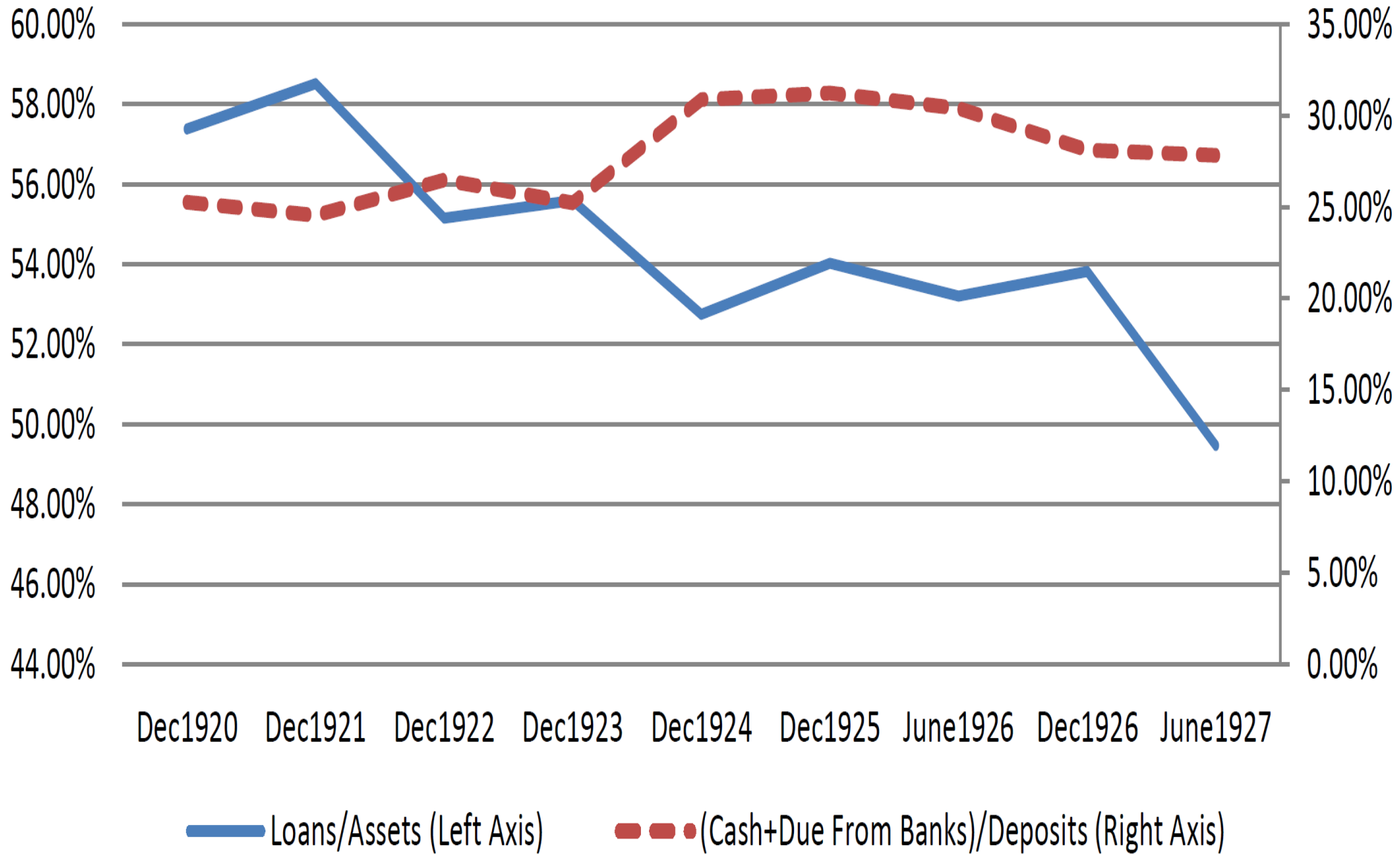
Total Deposits in Commercial Banks



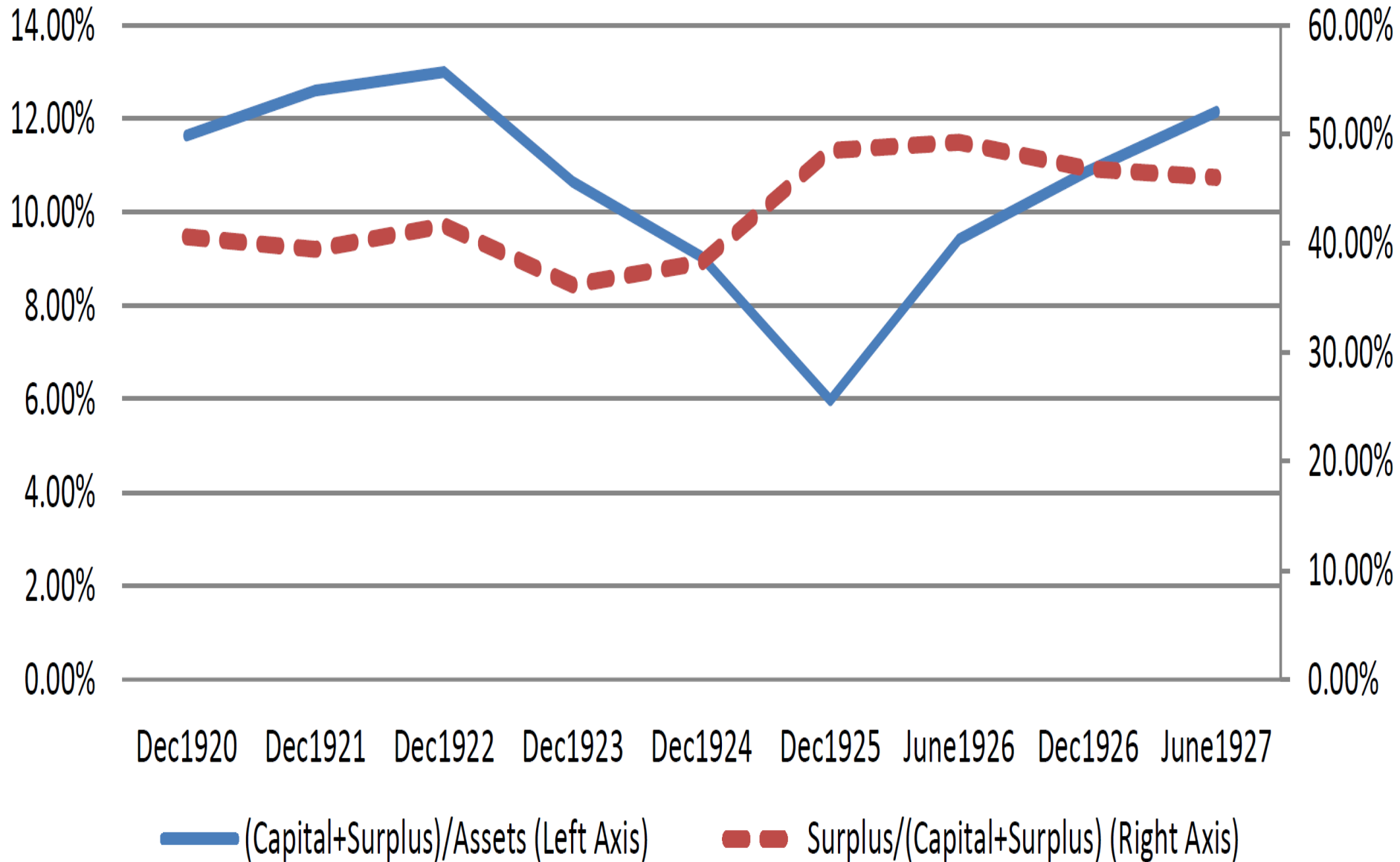
Change in Deposits (1924-1925)



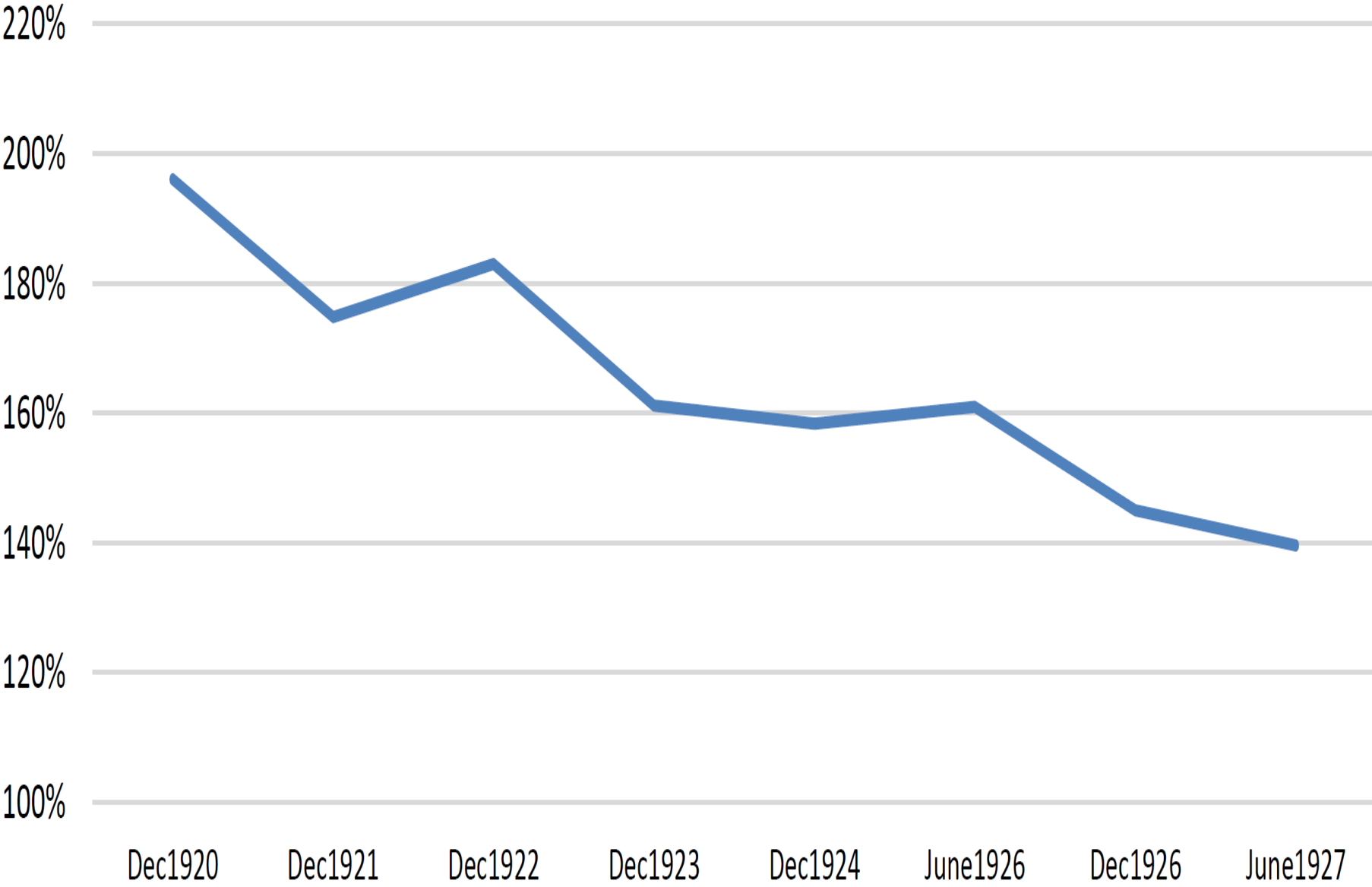
Loans and Reserves



Capital and Surplus



Loans-To-Buffer



Manley-Anthony Chain

- Chain of banks run by W.D. Manley and J.R. Anthony at heart of the risk-taking
- Banks had managerial autonomy, but given investment opportunities by chain
 - Chain managers used funds to make loans to their companies, purchase stocks of other banks, and invest in speculative activities
- Developers often started chain banks or bought interest in them
 - Access to the flood of deposits and lower loan standards

Bank Regulators

- Seem to have been immersed in the chain scheme
- Florida Comptroller received “policy” loans
 - Allowed banks to increase loan risk and the concentration of their lending to developers
 - Appointed receivers of closed banks that allowed tunneling of assets back to developers
- Comptroller of the Currency and the Federal Reserve Bank of Atlanta also supported chain (Vice President Dawes was heavily invested in Florida)

Outcomes of State Banks Present in December 1924

	Non-Chain Members	Chain Members	Total
Did not Close	168	19	187
Suspended but Reopened in 1926	0	18	18
Closed in December 31, 1926	7	12	19
Closed or Suspended in July 1927	12	5	17

State Banks Present in December 1924

	Non-Chain		Chain	
	Surviving 1926	Closed or Suspended in 1926	Surviving 1926	Closed or Suspended in 1926
# of Banks	180	7	24	30
Ln(Assets)	10.6	10.0	11.3	10.6
Loans/Assets	57.6%	64.8%	57.1%	57.6%
Cash+Due from Banks/Deposits	32.5%	20.1%	32.0%	34.3%
Capital+Surplus/Assets	14.6%	17.6%	9.9%	11.6%
Surplus/Capital+Surplus	30.7%	14.1%	31.1%	23.9%
Loans to Buffer	159.0%	226.8%	177.1%	158.5%
Fraction Any Due To Banks	13.9%	14.3%	37.5%	20.0%
Fraction Any Bills Payable	23.9%	57.1%	33.3%	20.0%

Linear Probability Model

- Dependent Variable: Indicator for whether bank suspended or closed by December 1926
- Explanatory Variables:
 - Indicator for chain membership
 - Balance sheet predictors of risk in December 1924
 - County-level controls: population, urbanization, crop value, manufacturing output value, and farm value
- Standard errors clustered by town

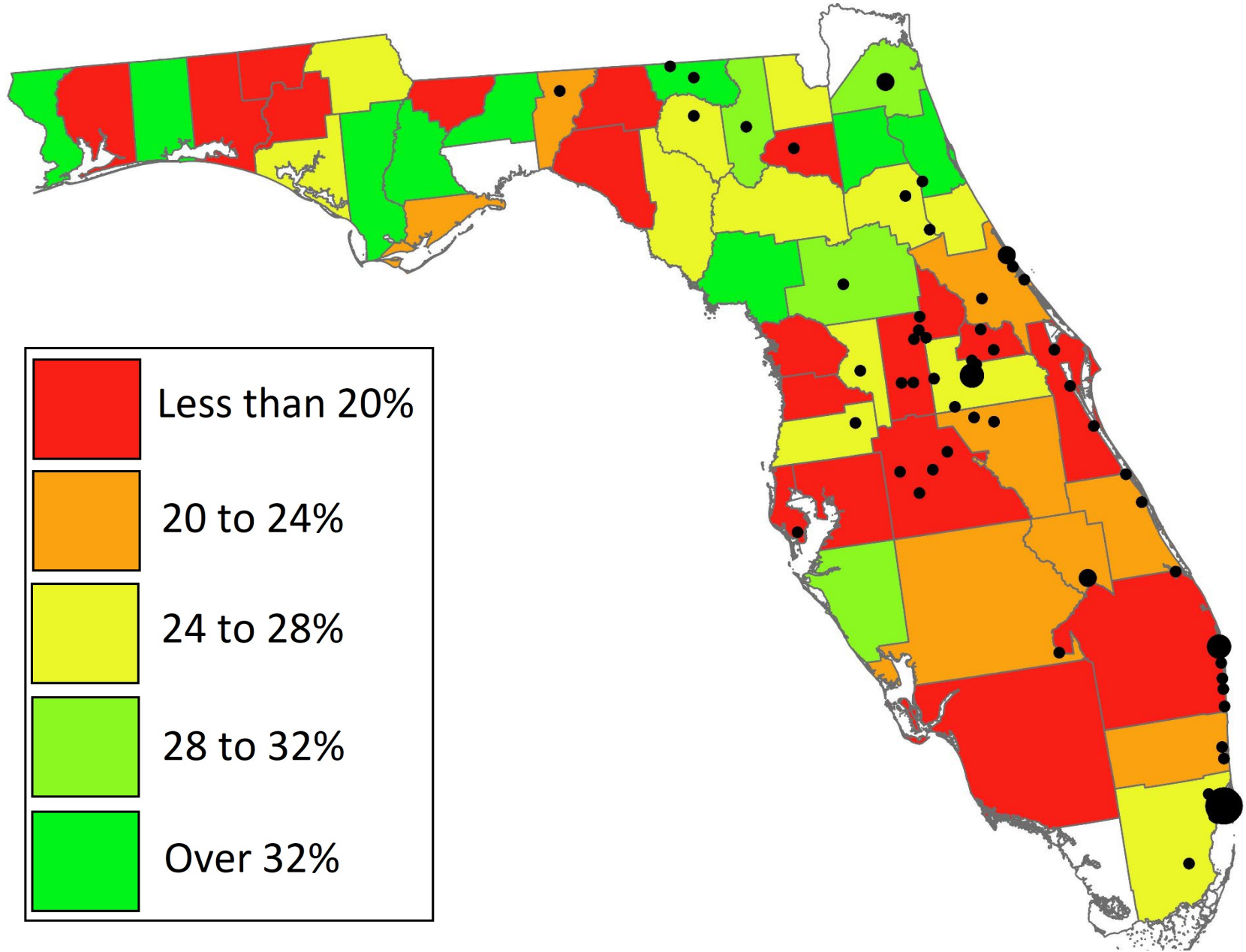
Closed or Suspended Before December 1926

	All Banks		Non-Chain Banks		Chain Banks	
Chain Bank	0.546*** [0.068]	0.546*** [0.067]				
Ln(Assets) in 1924	-0.035* [0.021]	-0.029* [0.016]	-0.001 [0.014]	-0.009 [0.011]	-0.153* [0.081]	-0.154** [0.059]
Loans/Assets in 1924	0.192 [0.244]		-0.187 [0.183]		1.787 [1.074]	
(Due from Banks + Cash)/ Total Deposits in 1924	-0.025 [0.244]		-0.369* [0.194]		1.085 [1.026]	
Due from Banks/(Cash + Due from Banks) in 1924	-0.046 [0.146]		0.001 [0.086]		-0.290 [0.772]	
(Capital+ Profits)/ Assets in 1924	-0.139 [0.274]		-0.035 [0.172]		-0.119 [1.614]	
Any Bills Payable in 1924	-0.039 [0.048]		0.052 [0.038]		-0.229 [0.199]	
Loans to Buffer in 1924		0.024 [0.031]		0.050** [0.025]		-0.069 [0.110]
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	241	241	187	187	54	54
R-squared	0.394	0.391	0.119	0.102	0.331	0.276

Loan Portfolio Differences

- Comptroller breaks out type of loans in June 1926
- Three types reported:
 - Real Estate Loans (26.5%) lower for chain banks
 - Other Collateralized Loans (28.5%)
 - All Other Loans (45%) – in chain, real estate loans in disguise without being collateralized

Real Estate Loans / Total Loans in June 1926



Fingerprints of Fraud

- Looking deeper at balance sheets, we find that closed chain banks had:
 - More funds invested in either loans or due from banks
 - Charged much lower interest rates on loans

Market for Deposits Conclusion

- Aggregate bank statistics suggest less risk-taking
- But, Manley-Anthony chain seems to have manipulated observable data while increasing unobservable risk
- Bank regulators allowed undiversified loans that made depositors junior claimants as well as tunneling during bank liquidation
- Depositors who followed traditional investment rules would have been led astray

Conclusion

- Evidence consistent with limited information in land and banking markets, fraud at banks.
- Land was sold sight unseen and aggregate amount of development was unknowable
- Most bank failures involved the Manley-Anthony chain
 - Developers often bought into the chain to obtain loans
 - Maintained low observable risk characteristics
 - Even comparing failed and surviving banks
 - Made loans to bank **regulators** who allowed undiversified lending and tunneling of assets to insiders
 - Loans were on other collateral which lowered seniority of depositors