



Banking Union as a shock absorber

by

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A transatlantic comparison of regional financial crises

Basic issue:

How do different continental 'monetary unions' deal with regional financial stress (US versus EA)?

Financial crisis irregular, EA does not exist for long. So not enough data for econometrics. Use individual examples of localized shocks with similar attributes

Nevada versus Ireland, Spain versus Florida?

(Greece versus Puerto Rico)?



Motivation: Shock absorbing benefits of a Banking Union

EA experiences 'doom loop'.

From sovereign to banks: Greece.

From banks to sovereign: Ireland, Spain, Portugal.

Will not consider feedback from government debt holdings of banks, only from 'real economy to banks to sovereign.

Banking Union for EA meant to 'break' (more modestly reduce virulence of) doom loop.

Contrast with US.



Motivation: Shock absorbing benefits of a Banking Union

The US has a well-functioning *Banking Union*

- Institutional: [Freddie Mac, Fannie Mae](#) and the [FDIC](#) (Federal Deposit Insurance Corporation) spread risks and losses (GSEs through securitization).
- Private sector, through market integration (banks operate US wide and securitization spreads risks) and securitization.
- EA: nothing similar during crisis period.

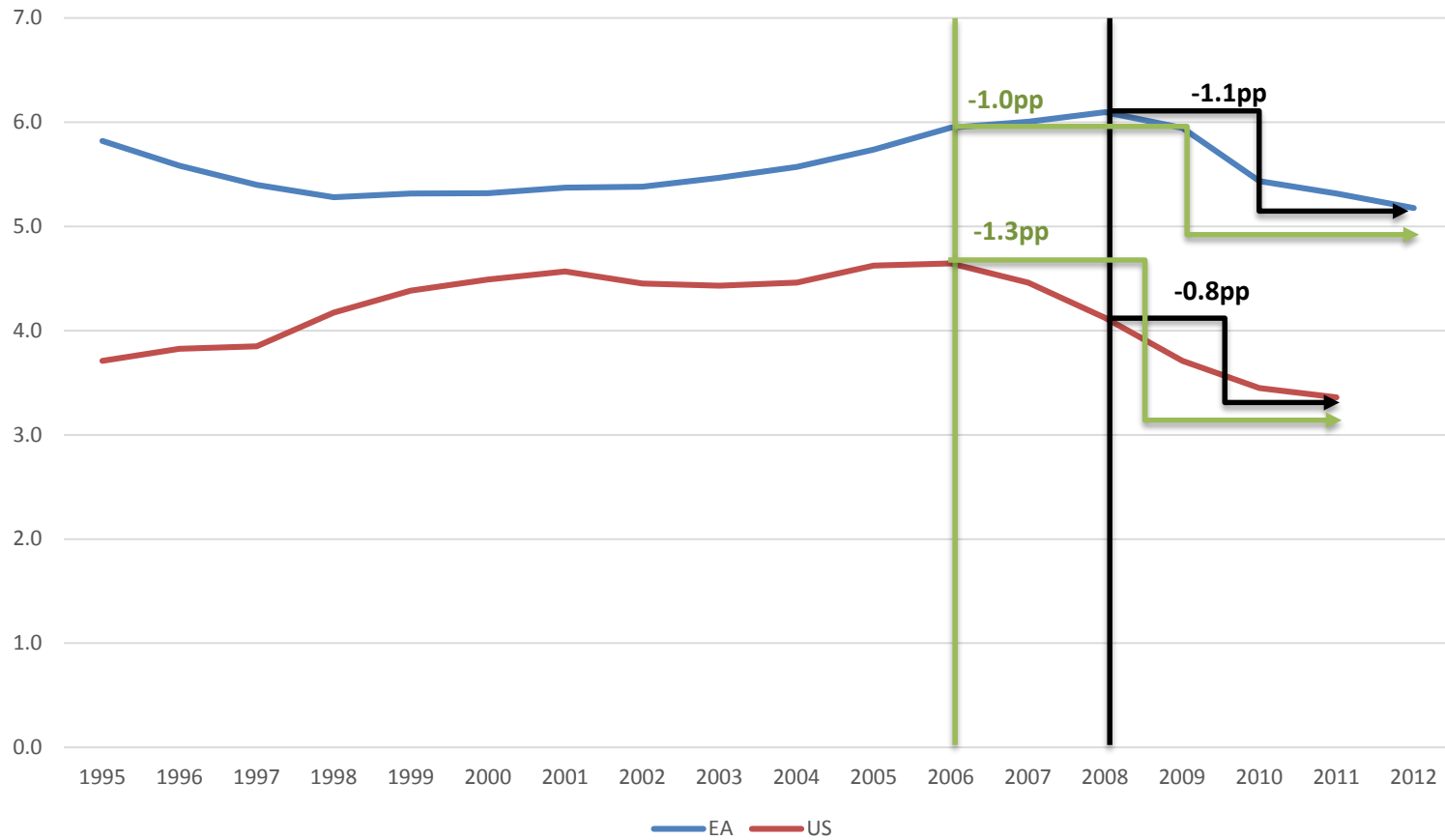
Examples of localized shocks to be used:

Nevada versus Ireland, Spain versus Florida

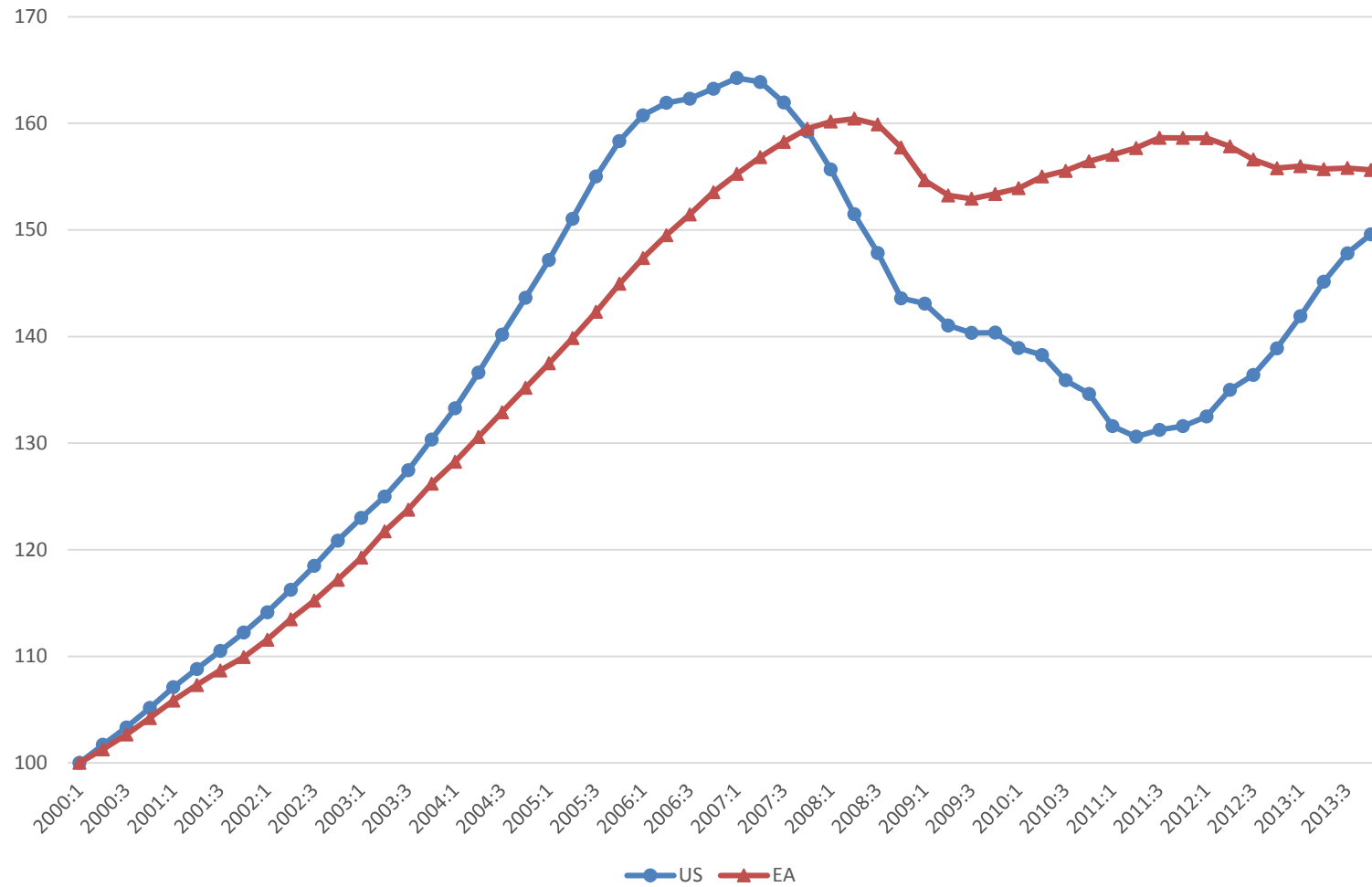
Key source of financial instability is often estate sector:

- 1) Housing financed by debt with high leverage, by leveraged institutions (banks).
 - 2) Booms and busts usually regionally concentrated ('location, location, location')
- => losses regionally concentrated.

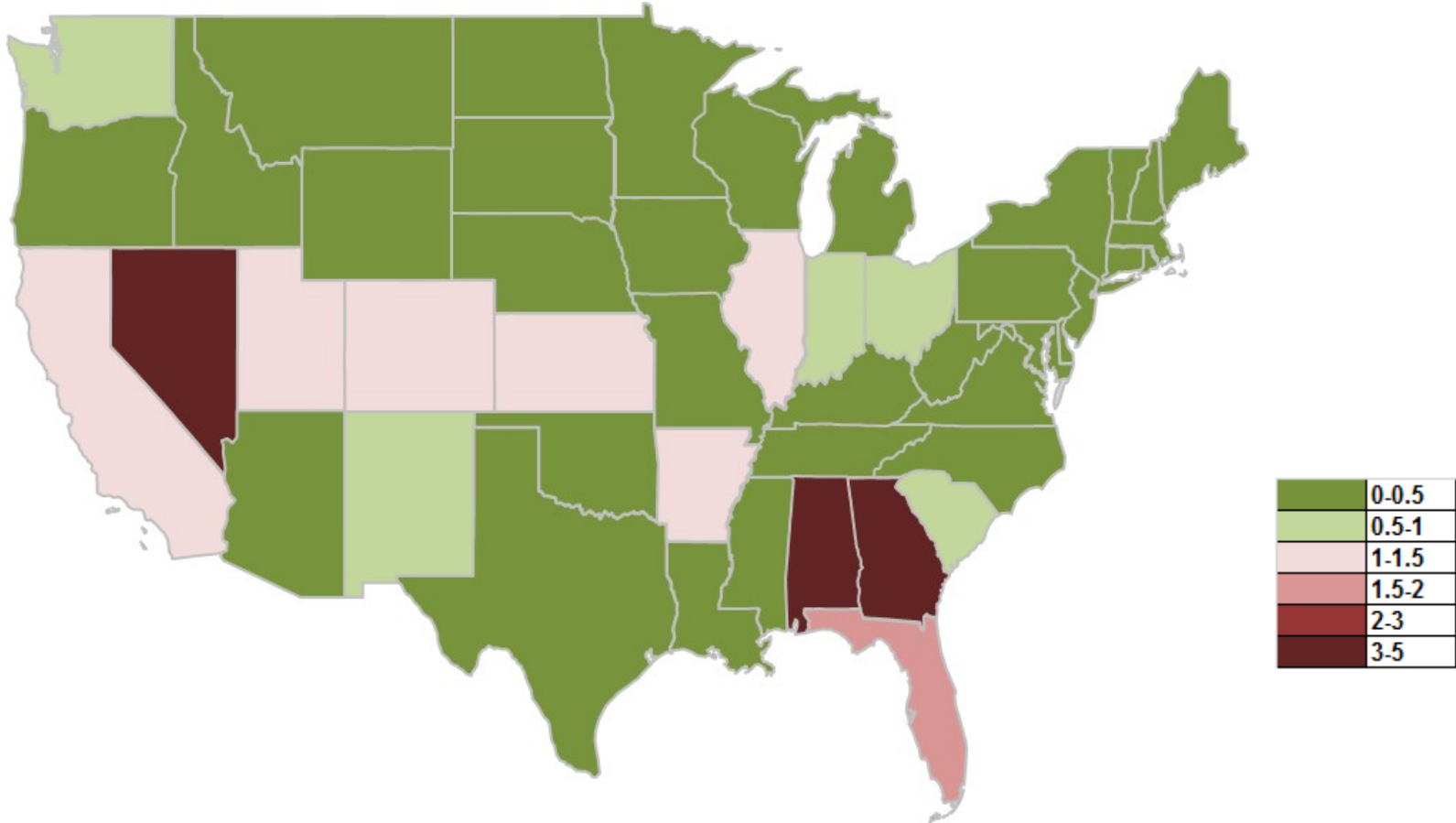
US vs. EU area wide: Construction as % of GDP



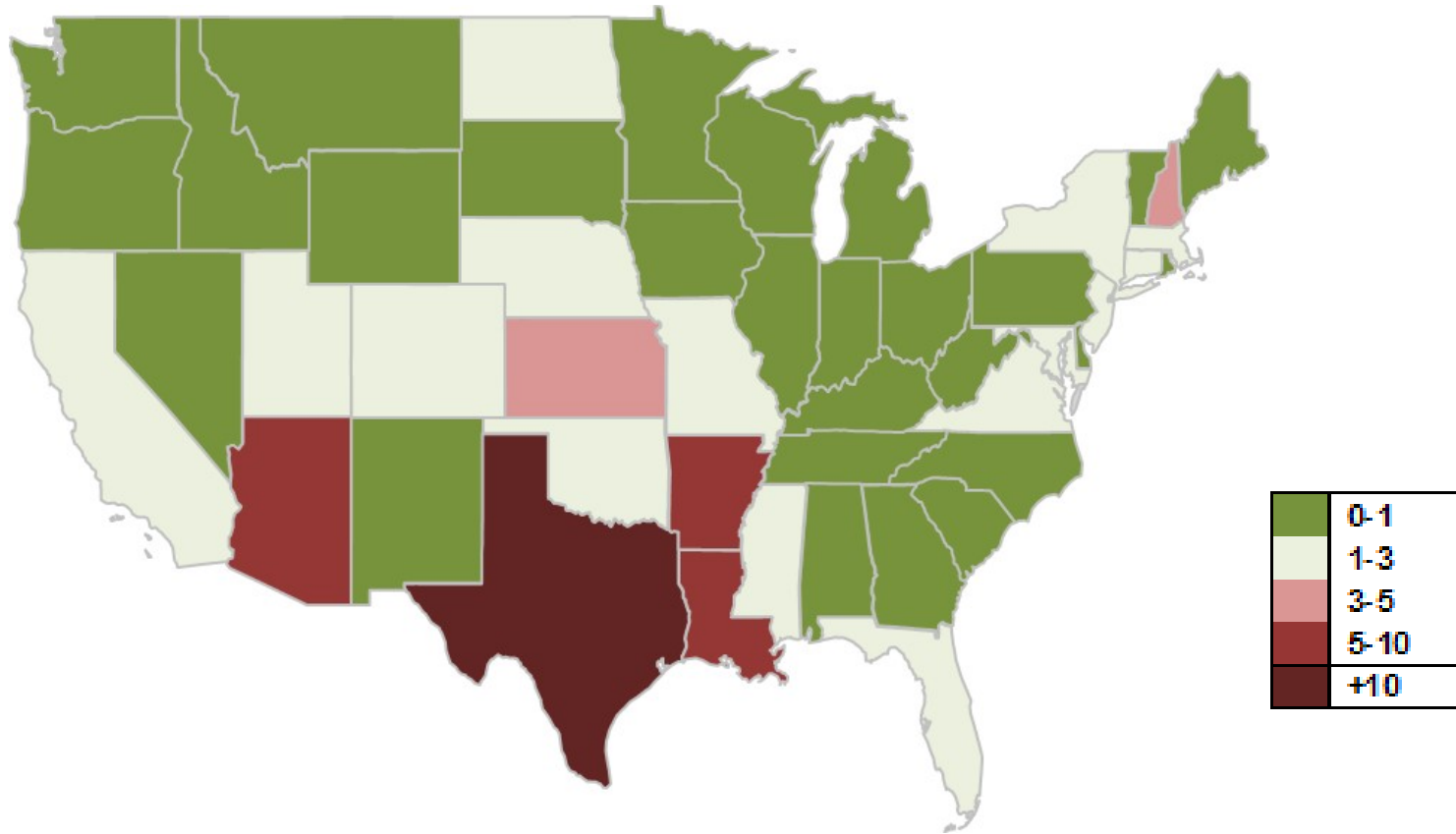
US vs. EU: House prices, 2000=100



Sub prime: a national crisis? (FDIC losses as % of State GSP)



(An aside: Savings and loans crisis: mainly Texas)
(FDIC losses as % of State GSP)



Concrete example of US Banking Union in action

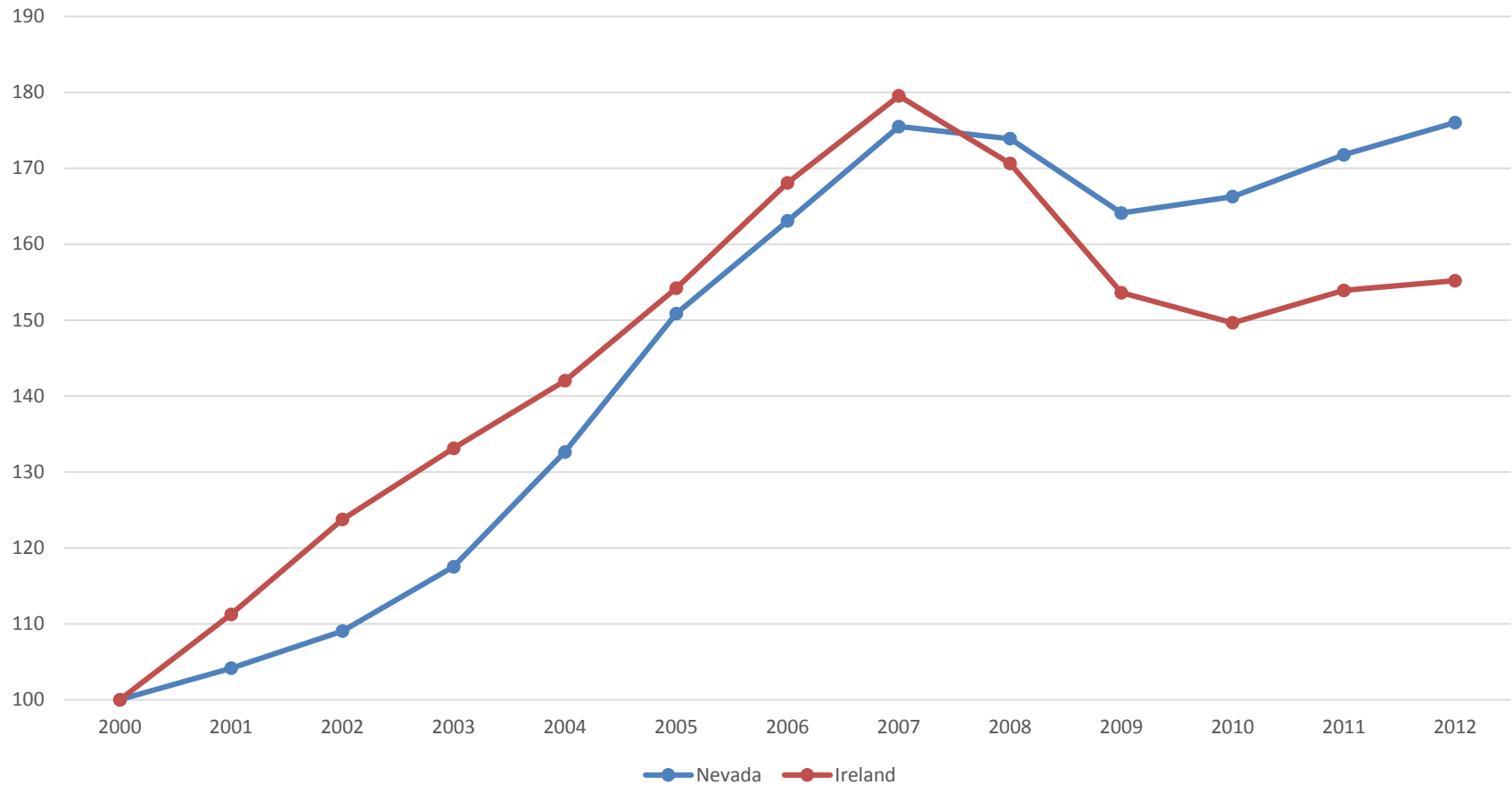
Identify US States of US similar in size and regional boom bust to EA states.

Identify losses absorbed by 'out of State' actors (federal institutions or investors).

Ireland vs. Nevada

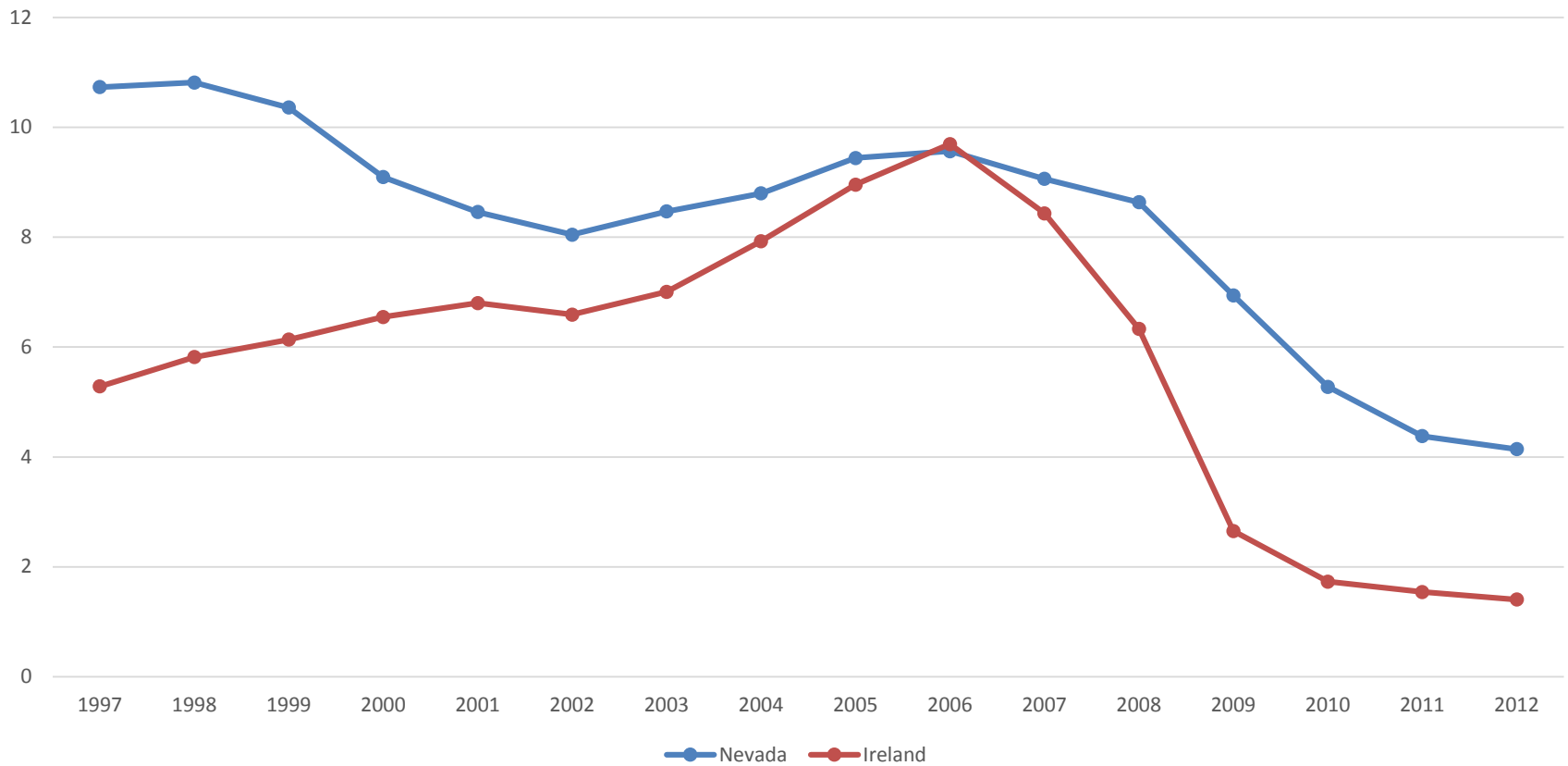
	Nevada	Ireland
Population (in million, 2011)	2.7	4.5
GDP (in \$ billion, 2011)	120	200
Change in GDP (2007-2010)	-5.3%	-17.6%
Unemployment rate (2011)	13.5%	14.4%

Ireland vs. Nevada: GDP cycle, nominal



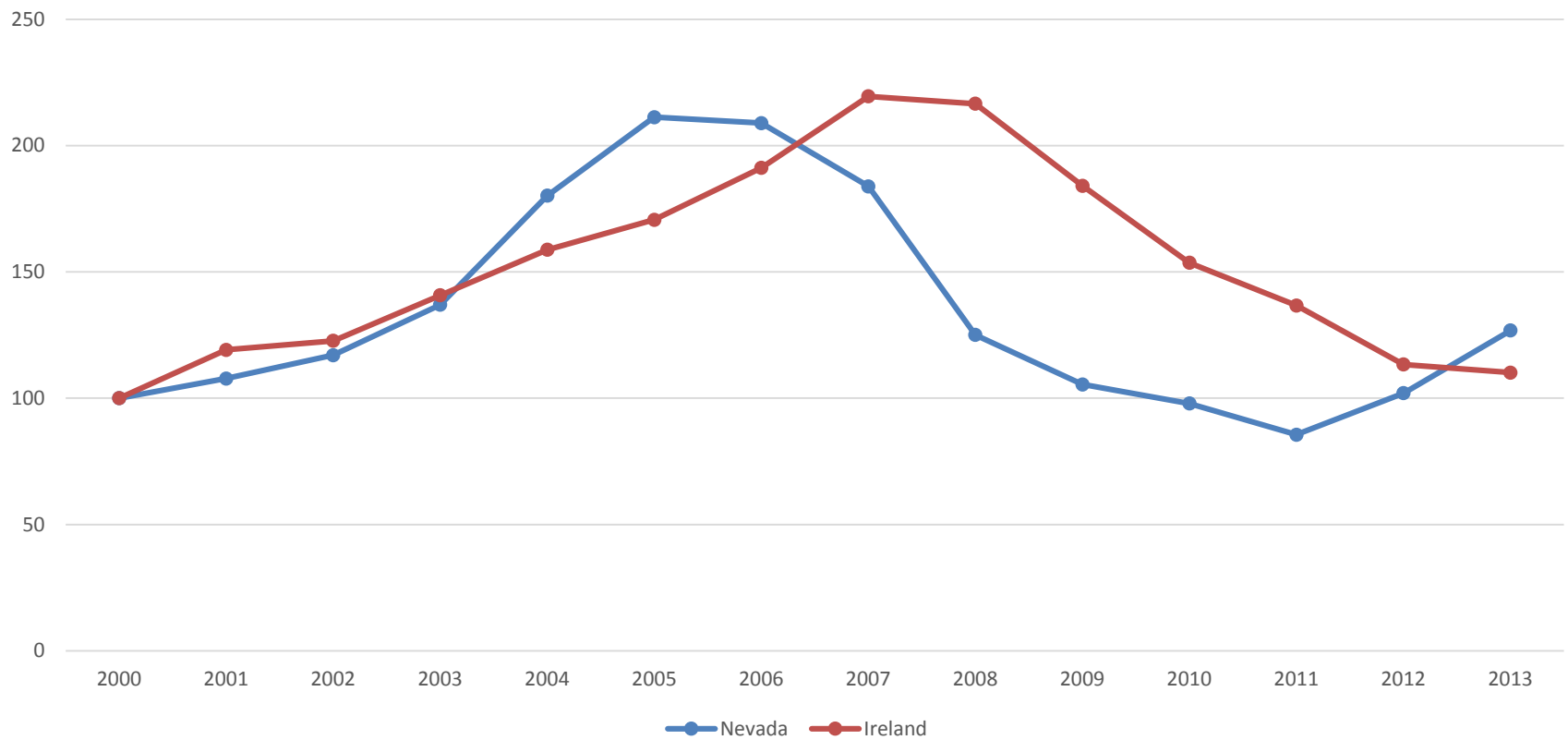
Ireland vs. Nevada: Construction

Construction as % of GDP

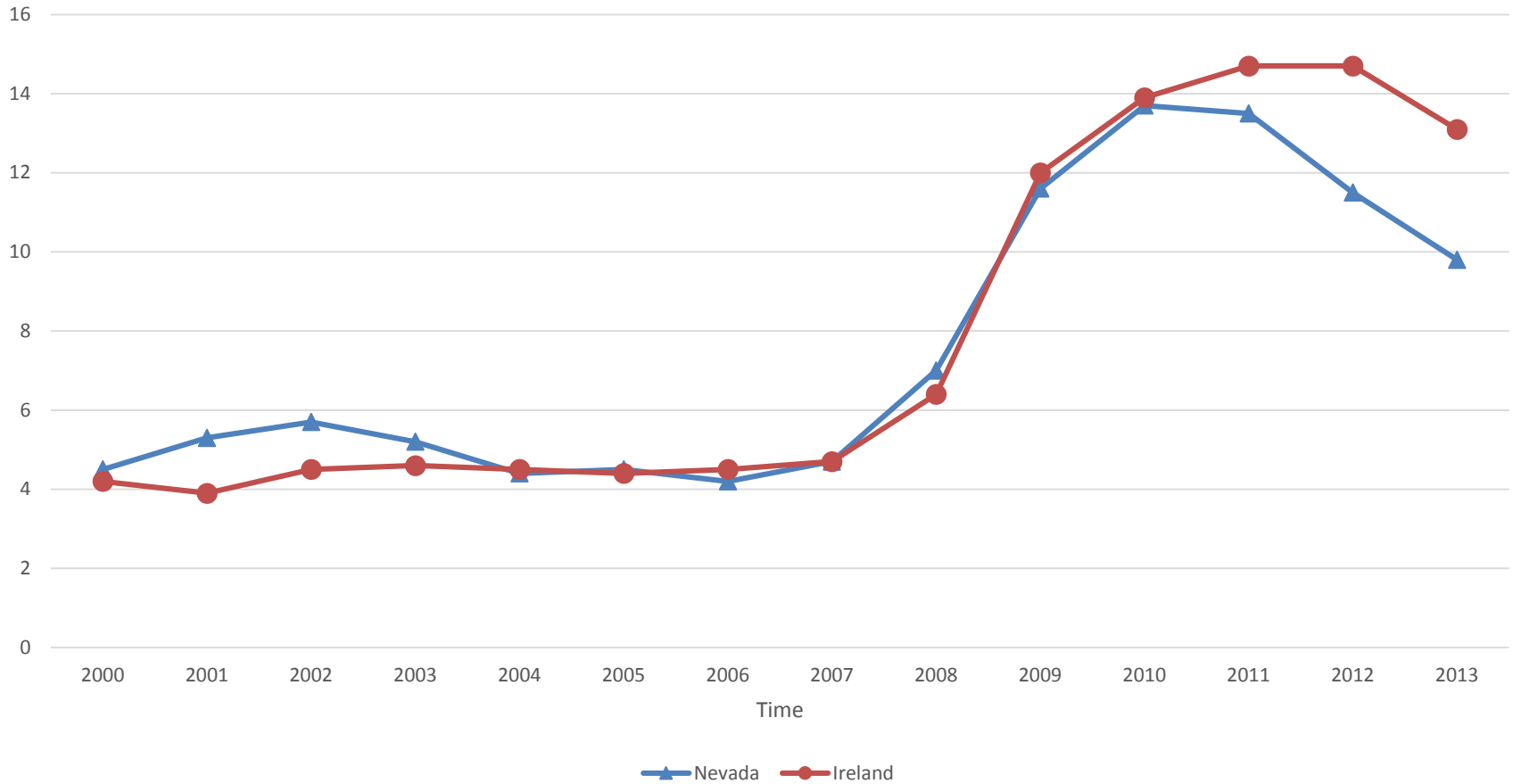


Ireland vs. Nevada: House prices

House price index



Ireland vs. Nevada: Unemployment

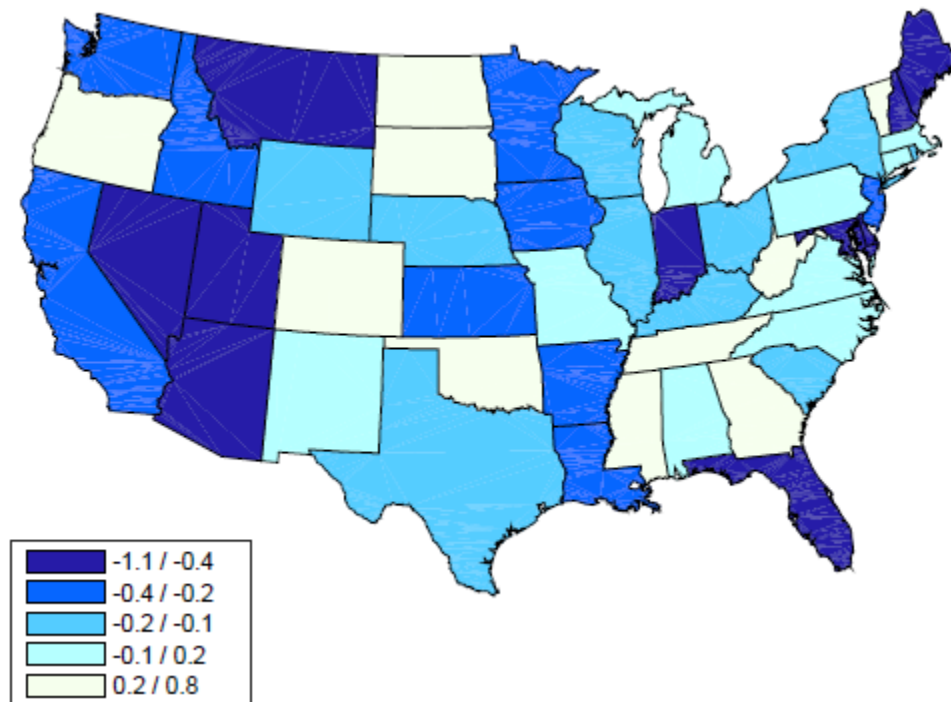


Nevada's Advantage

- 2008-09: FDIC closed 11 banks headquartered in NV
 - Assets of over \$40 billion =30% NV GSP
 - Losses incurred by FDIC of roughly \$4 billion
- Federal loss sharing through Fannie Mae & Freddie Mac of \$8 billion since 2008 (losses concentrated in Nevada, borne by federal government).
- Total direct 'loss absorption' : about 12 billion, 10 % of GSP.
- Not counted: High market share of out-of-state banks in NEV, also, partially in Ireland (HSBC, etc.) = Market banking union.
- => Total loss protection much higher than 10 % of GDP!

Example of private loss sharing: RMBS (Price fall on private label (Sub prime))

Source: Ospina and Uhlig (2018))




Spain vs. Florida

	Spain	Florida
Population (in million, 2011)	46.1	19.1
Nominal GDP (in € billion, 2011)	1063	542 (770 bn. USD)
Change in nominal GDP (2007-2011)	1.0%	-0.9%
Unemployment rate (2011)	21.7%	10.5%
Change in unemployment rate (2007-2011)	13.4pp	6.5pp

Florida's Advantage

Losses in Florida borne by BU	
FDIC	14.054
Fannie	13.982
Freddie	7.998
Total	36,0
GSP 2011 (in Bn \$)	754,3
Total as % of GDP	4,8

Loss sharing in Eurozone?

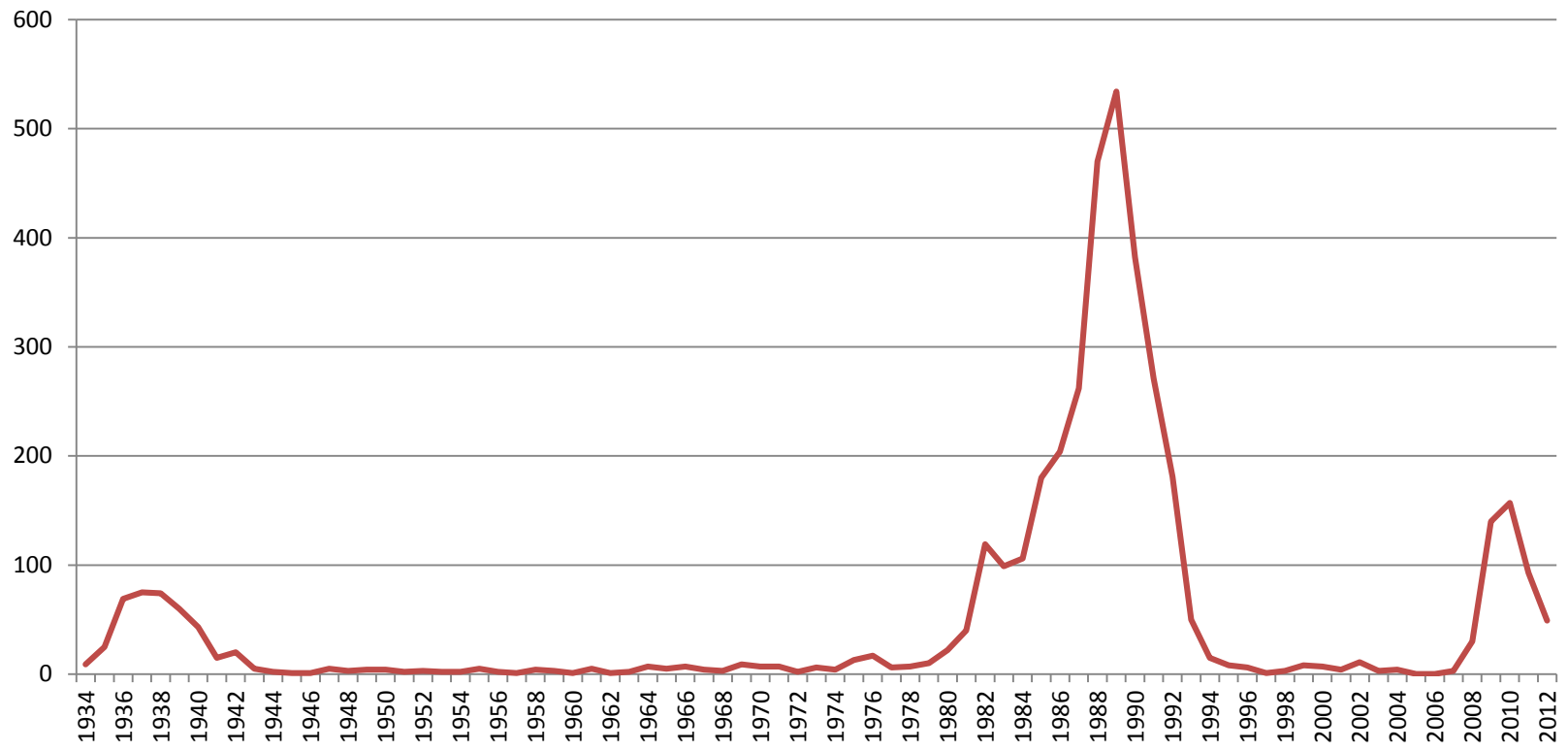
- The US banking union supported Nevada with a transfer worth over 10%, possibly up to 20% of its GDP
- Ireland, Spain did not profit from a Banking Union. Baltics did (market banking union).

More shock-absorbing capacity from BU than could ever be provided by any 'fiscal capacity'.

Two qualifications

- Financial crisis/intervention of FDIC 'rare' events, come bunched.
- Crisis usually implies overshooting (boom bust cycle in risk recognition/aversion) => during crisis losses over-estimated. (Ospina Uhlig (2018) for AAA subprime: losses 3.5 %)
- But over-estimation important since crisis leads to liquidity problems.

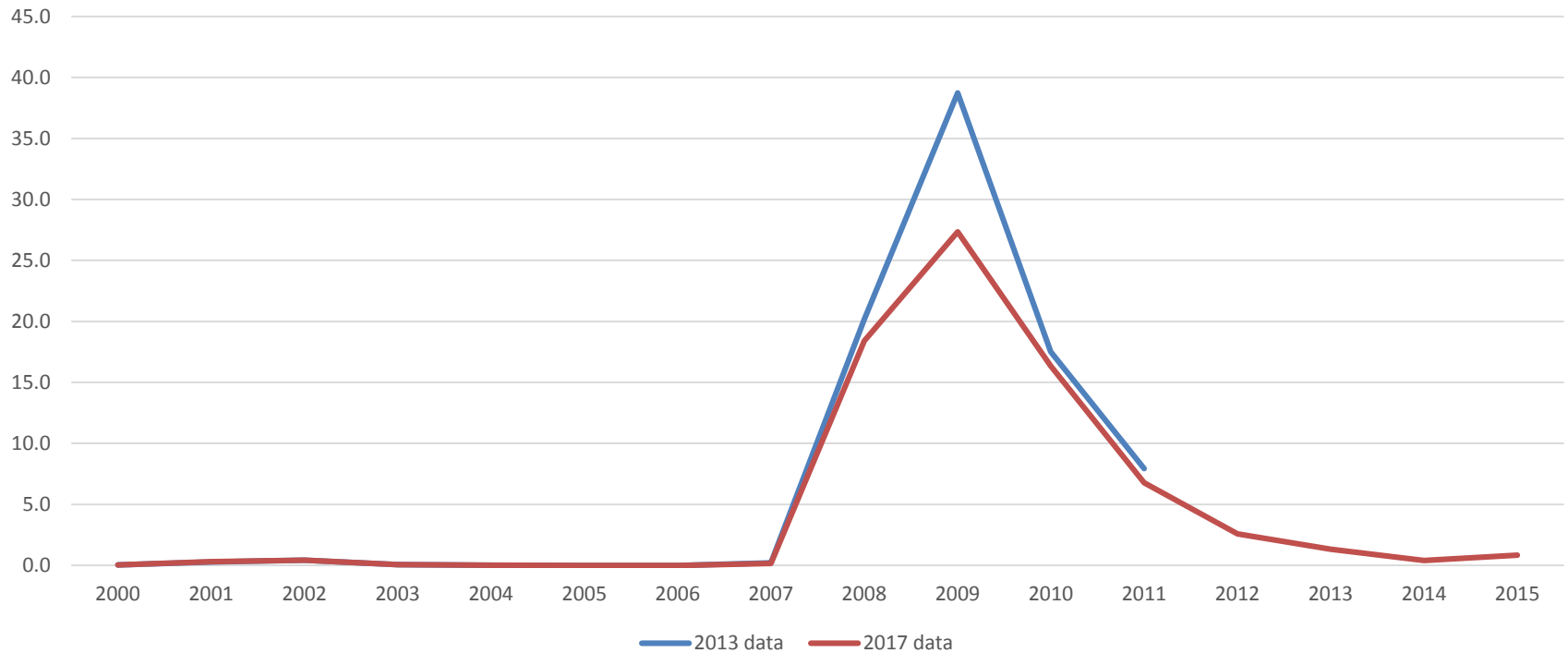
Systemic crisis rare

Bank failures insured by



Losses over-estimated during systemic crisis

Estimated FDIC losses in bn USD



Basic methodology of ‘shock absorption literature’

GDP is disaggregated into the following national accounts aggregates:

- GDP-GNI = ***international factor income***
- GNI-NI = ***capital depreciation***
- NI-NNDI = ***net international taxes and transfers***
- NNDI-(C+G) = ***total savings***

In order to measure the relative smoothing effect of each channel this literature uses the following identity whereby all variables are measured in *real* and per capita terms:

$$(1) \text{GDP}_i \equiv \frac{\text{GDP}_i}{\text{GNI}_i} \frac{\text{GNI}_i}{\text{NI}_i} \frac{\text{NI}_i}{\text{NNDI}_i} \frac{\text{NNDI}_i}{C_i + G_i} * (C_i + G_i)$$

I. Base methodology

⇒ After some transformation we get the following variance decomposition

1. International factor: $\Delta \log GDP_{i,t} - \Delta \log GNI_{i,t} = a_t^{if} + \beta^{if} \Delta \log GDP_{i,t} + \varepsilon_{i,t}$
 2. Capital depreciation: $\Delta \log GNI_{i,t} - \Delta \log NI_{i,t} = a_t^d + \beta^d \Delta \log GDP_{i,t} + \varepsilon_{i,t}$
 3. International transfers: $\Delta \log NI_{i,t} - \Delta \log NNDI_{i,t} = a_t^t + \beta^t \Delta \log GDP_{i,t} + \varepsilon_{i,t}$
 4. Total net savings: $\Delta \log NDI_{i,t} - \Delta \log CONS_{i,t} = a_t^s + \beta^s \Delta \log GDP_{i,t} + \varepsilon_{i,t}$
 5. Total consumption: $\Delta \log TOT CON_{i,t} = a_t^c + \beta^c \Delta \log GDP_{i,t} + \varepsilon_{i,t}$
- Various 'betas' measure the share of smoothing by the various channels

But, 'international (inter-state) transfers' do not comprise loss absorption via BU channels!

Banking Union and (regional) financial stability: no free lunch

‘Official’ BU (= unified supervision, common funds for deposit insurance and restructuring) mutualizes risks.

⇒ Individual country insured against domestic shocks, but more exposed to systemic shocks.

(Example: 2007/8 ‘Western’ banks controlling banking system in Eastern Europe.)

Banking Union and (regional) financial stability

‘Private’ BU (banks operating system wide) likely to be increased by official BU.

Area wide securitization also spreads risk.

Important for US, ‘aspiration’ for EA.

=> Also less domestic control over financial stability.

Conclusion

- Banking Union important shock absorber
- Could be important for EA
- Not just official institutions (SRF, EDIS) but also market integration via cross border banking.
- Membership in BU outside EA also useful?
- Why have banks? Local knowledge, useful in tranquil times. But local knowledge = local concentration or risk: dangerous in crisis.