

EMPORIA STATE UNIVERSITY

SCHOOL OF BUSINESS

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Outline

- Emporia State Economic Index is a new measure of economic activity in Kansas



What's Wrong with State GDP?

- The ultimate measure of the economy: GDP
- Look at the last year for Kansas:
 - 2016Q3 – Jul-Aug-Sept – \$153,801
 - 2016Q4 – Oct-Nov-Dec – \$154,574
 - 2017Q1 – Jan-Feb-Mar – \$155,204
 - 2017Q2 – Apr-May-Jun – we do not know yet
 - 2017Q3 – Jul-Aug-Sept -- we do not know yet
- Two problems:
 - Timeliness
 - Frequency



How Can We Do Better?

- What do we know that is timely and frequent?
 - Employment Data
 - Housing Sales
 - Philadelphia Fed Coincident Index
 - Imports-Export Data
 - Sales Taxes
 - Oil Prices
- We use this data to estimate monthly state GDP

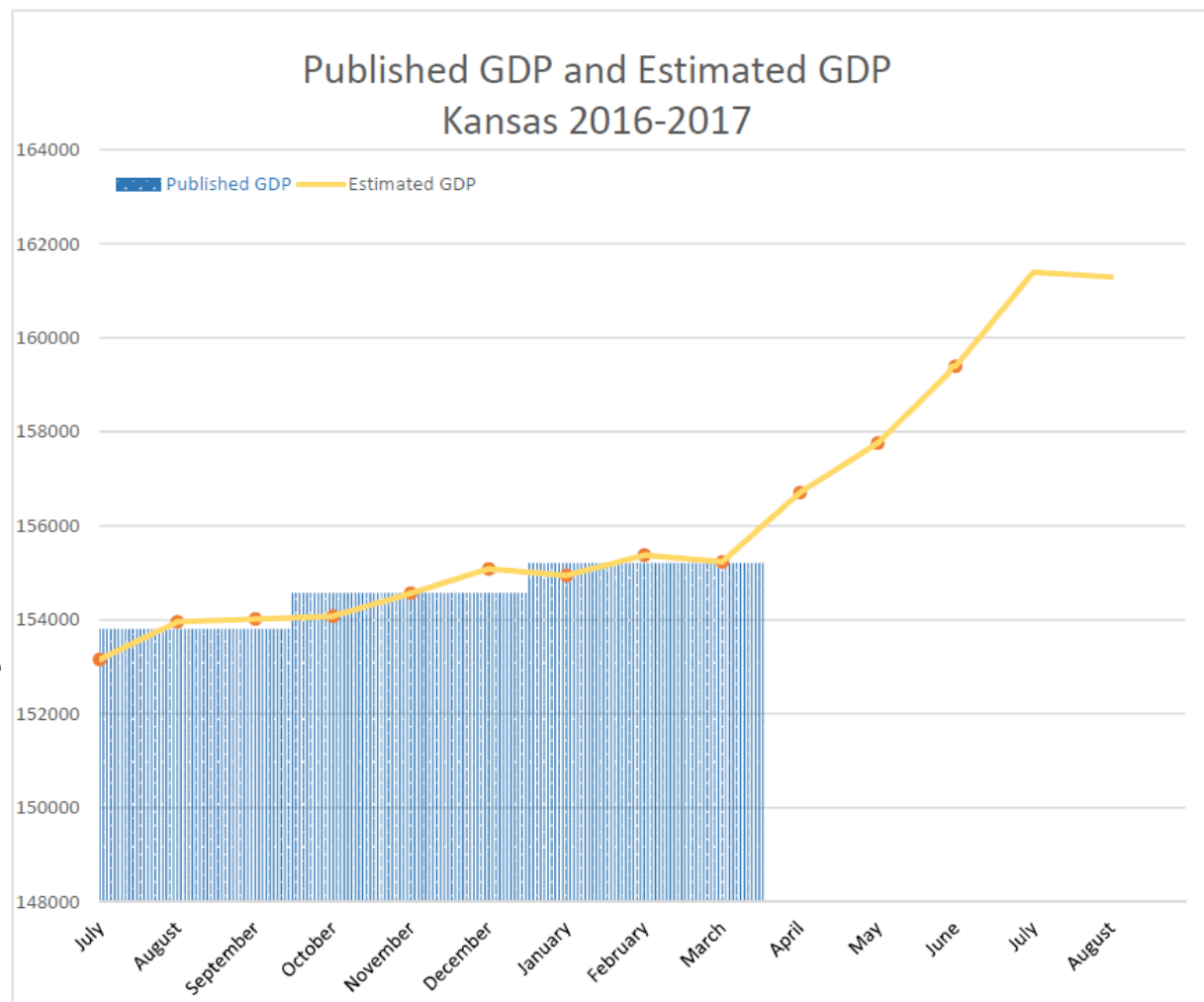


Measured vs. Estimated GDP

*Step 1: Use quarterly data to understand the relationship between GDP and those variables.

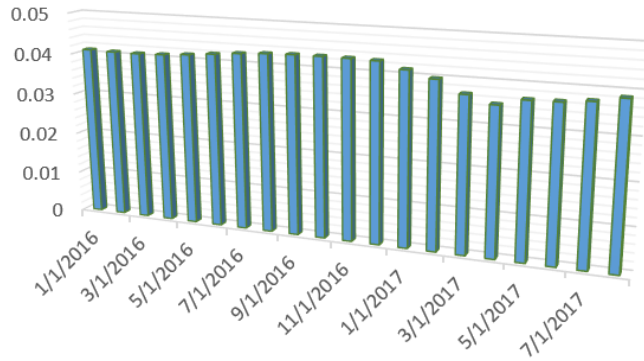
*Step 2: Use this knowledge to estimate monthly GDP.

*Step 3: Use the known quarterly data to correct the estimates.

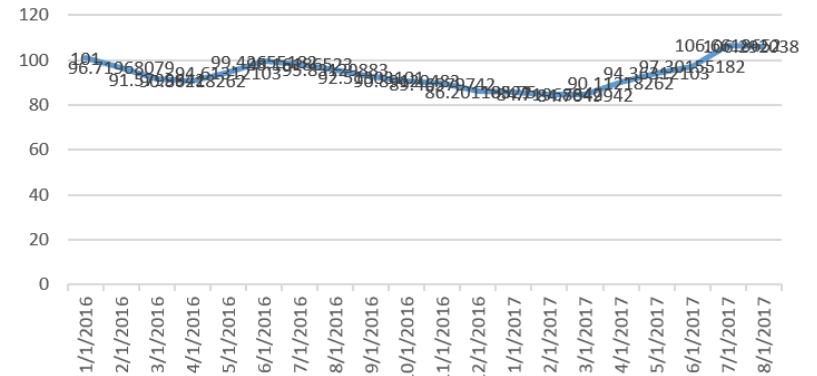


Kansas GDP in Context

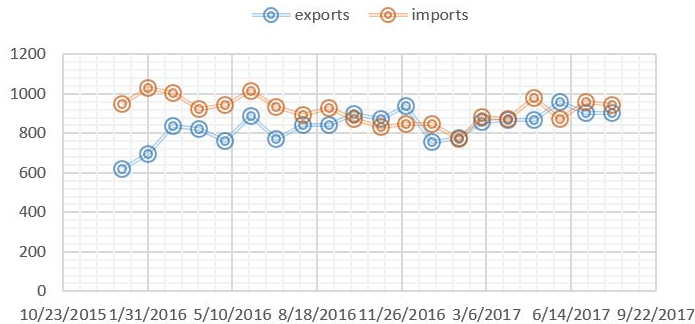
unemployment



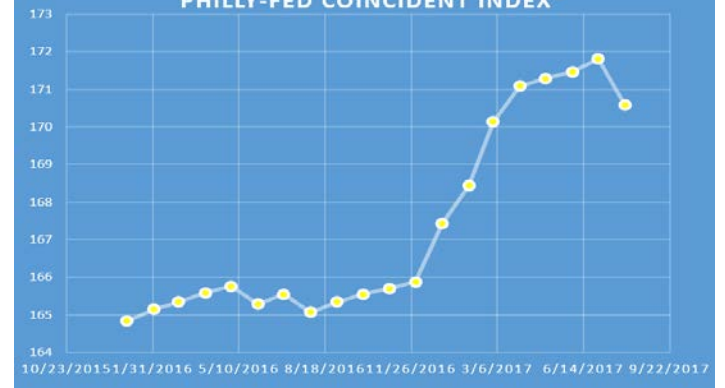
Housing - Days on Market



Exports vs Imports 2016-2017

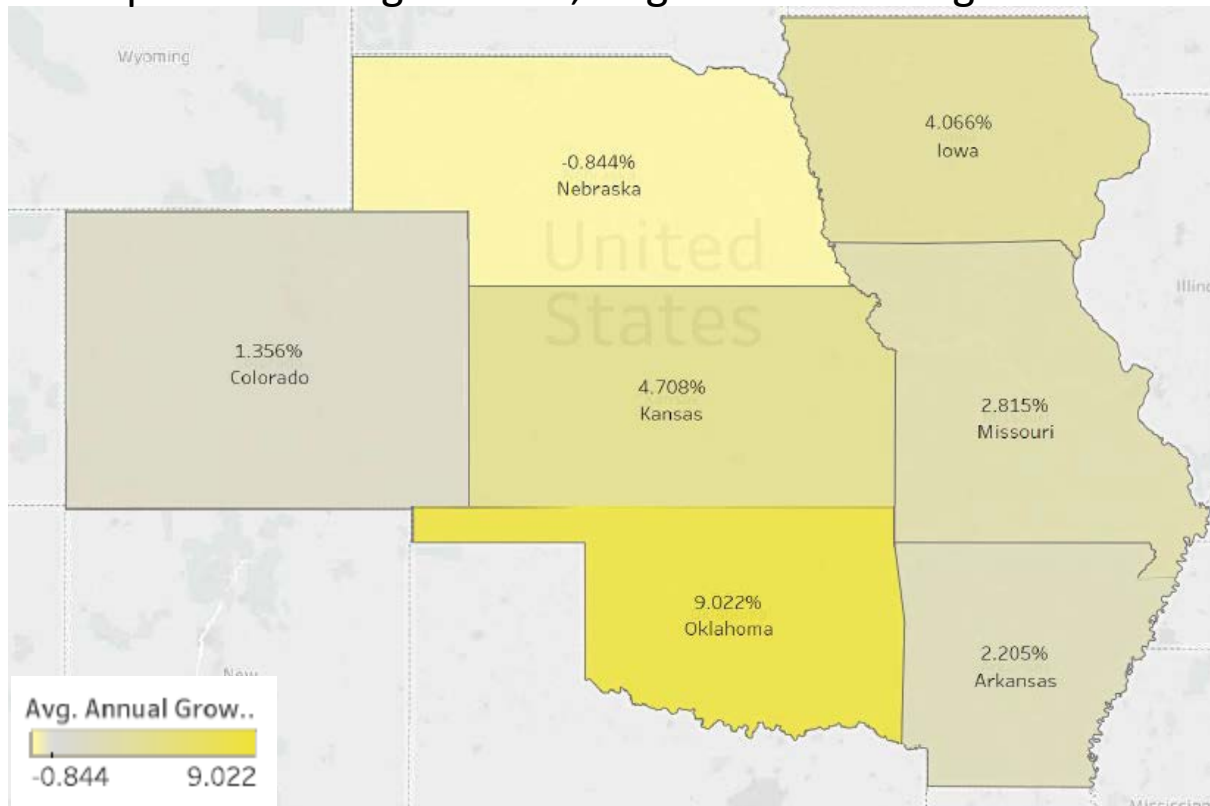


PHILLY-FED COINCIDENT INDEX



Kansas GDP in Context

percent change of ESEI, August 2016 to August 2017



We predict GDP for Kansas plus a 6-state reference group



Emporia State Economic Index

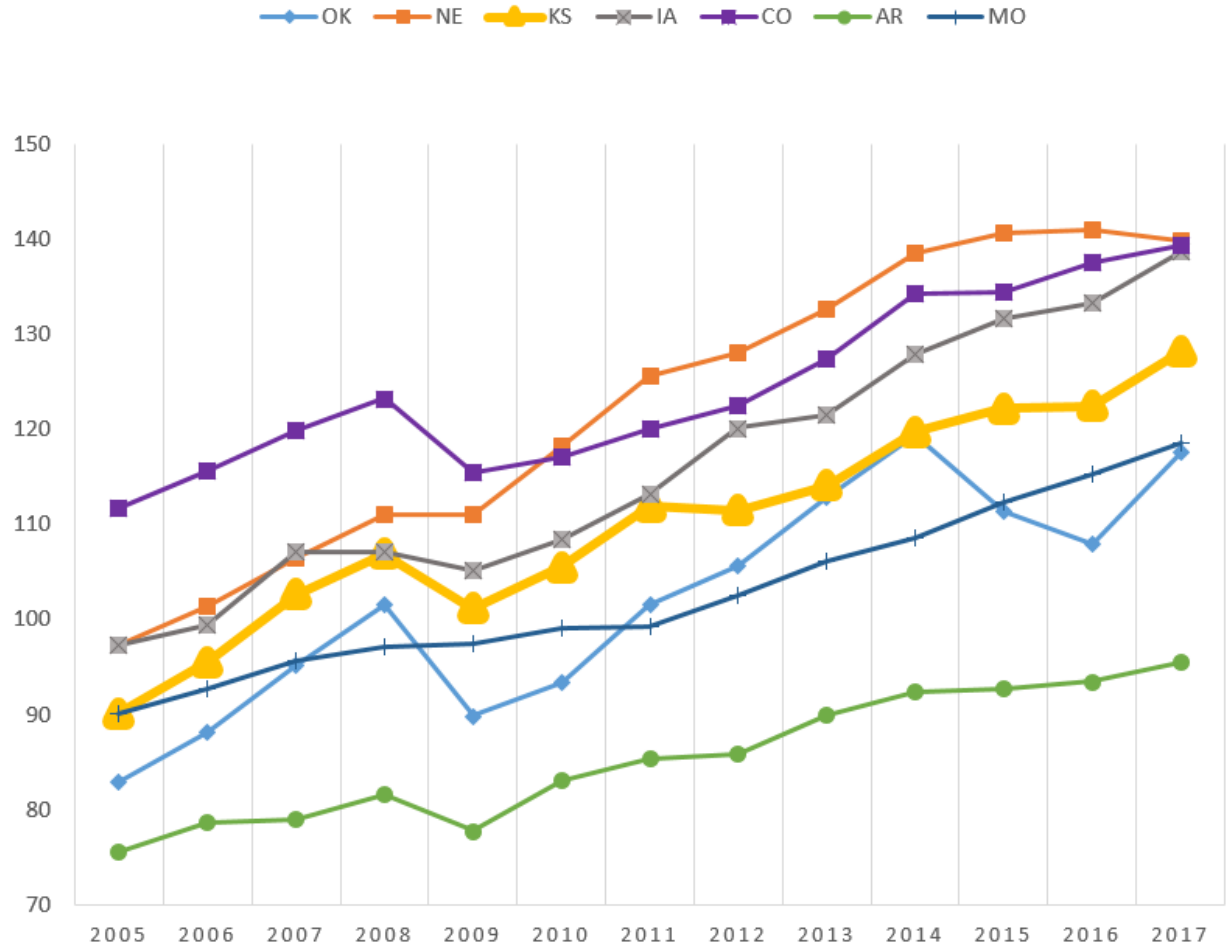
- From the GDP estimate, we calculate an Index
 - First we calculate per capita GDP
 - $\text{GDP} / \text{Population}$
 - Then we rebase this estimate to the 2009 average across the states
 - $\text{Per Cap GDP} / 2009 \text{ per cap GDP average}$



Economic activity

- KS is mid-pack
- KS leads MO
- AR trails
- AR is below 100
- NE sets the pace

ECON INDEX PER STATE



Most recent activity

Economic Index Growth rate per state

*All numbers are in percentage

	August 2016	September 2016	October 2016	November 2016	December 2016	January 2017	February 2017	March 2017	April 2017	May 2017	June 2017	July 2017	August 2017	Annual Growth
AR	-0.10	0.01	0.41	0.14	0.165417	0.20	0.53	0.65	0.47	0.32	0.08	-0.21	-0.61	2.20
CO	0.58	0.56	-0.06	0.10	-0.23	0.17	0.26	-0.03	-0.01	0.48	0.30	-0.16	-0.04	1.35
IA	-0.15	-0.76	0.642114	0.22	0.77	-0.18	-1.57	1.26	-3.06	2.31	1.37	1.17	1.94	2.30
KS	-0.16	-0.43	0.50	0.47	0	0.02	0.44	-0.20	0.94	0.66	1.03	1.25	-0.07	4.06
MO	0.92	-7.55	6.70	3.21	6.15	-1.48	-0.16	12.26	-6.13	13.52	-0.50	-0.35	7.90	4.70
NE	0.40	0.61	-0.19	0.11	0.14	0.09	-0.84	-0.06	-0.97	0.44	-0.34	-0.71	0.90	-0.84
OK	-0.21	0.22	0.26	-0.17	3.17	1.01	-2.76	1.04	2.27	-0.41	1.72	1.94	0.48	9.02



- KS has strong growth
- OK and MO are stronger
- NE has dropped a bit

Conclusion

- Monthly GDP is an innovative tool to understand and predict economic activity
- The new economic index is more timely and frequent than the BEA data

→ Watch for the ESEI Data Every Month

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