

CELEBRATING

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1978-2018

THERE'S STILL ROOM FOR GROWTH – BUT WHERE?

What cities will outperform at this stage in the cycle? An array of themes – ranging from industrial mix, Fed policy, to how people want to live – are unfolding to answer this question.

Matthew Mowell, Head of Americas Regional Analytics
Oxford Economics



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WHAT WILL CAUSE CITIES TO OUTPERFORM...



Opportunity and lifestyle brings newcomers

Cities that host highly productive industries, especially w/ a global reach, are well-positioned.



(Skilled) labor force growth



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...AND SOME TO FALL BEHIND?



Overweight exposure to legacy mfg.



Overweight to low-productivity industry mix



Weak labor force growth...

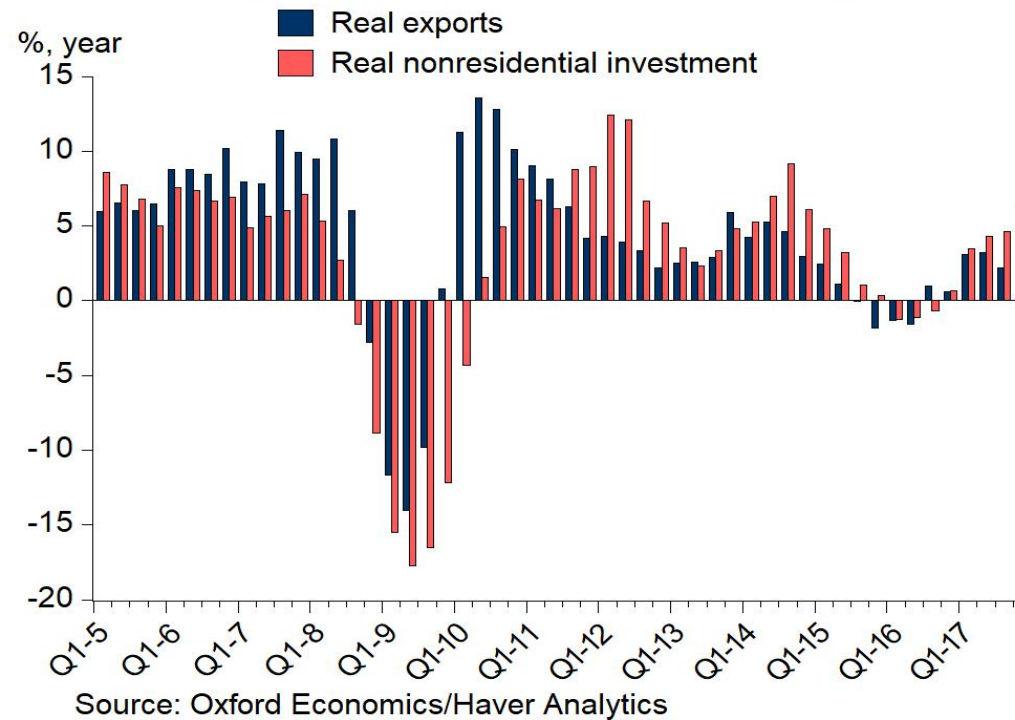


MACRO TRENDS ARE CERTAINLY IMPORTANT (I)...

- Policy changes will add 0.7pp to '18 GDP (+2.9%)
- Growth will pivot to biz investment (nearly 7% in '18)

Stronger global & domestic growth and commodity markets are supporting biz investment. A lower USD is also helpful.

US: Real exports and investment slowing



MACRO TRENDS ARE CERTAINLY IMPORTANT (II)...

LABOR MARKET OUTLOOK

- Job growth will slow (180K/month); Unemployment to 3.7%
- Wages to grow 3% y/y in '18 (up from 2.5% in '17)

MONETARY AND FINANCIAL EXPECTATIONS

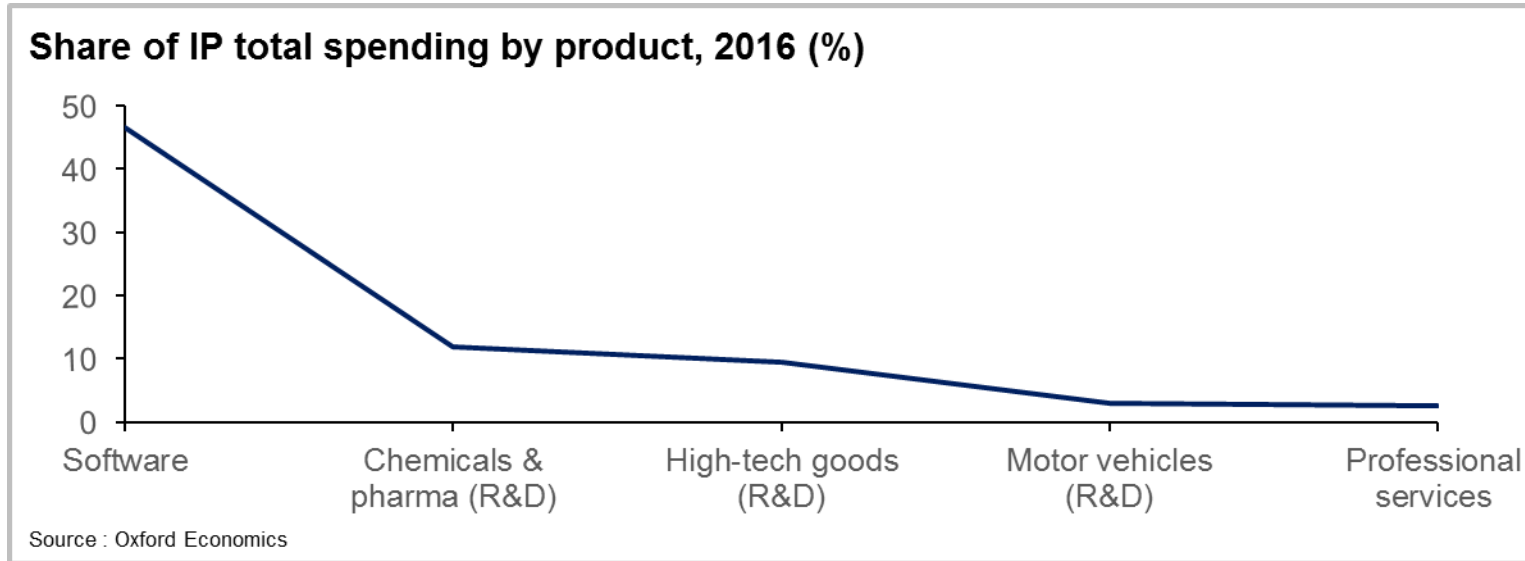
- New voting members of the Fed have a 'hawkish' bias
- We expect four rate hikes this year
- A spike in bond yields is not expected (10Y at 3.1 by YE)
- We expect core CPI to hit 2.2%; some upside risk w/wages

KEY RISKS

- Protectionist uncertainty
- Elevated equity market valuations



THERE'S A GEOGRAPHY OF BUSINESS INVESTMENT



State share of US industry growth (2018-22) – Top Performers

- CA (34%)
- NY (11%)
- WA (7%)

- TX (22%)
- CA (19%)
- IN (9%)
- NC (9%)

- CA (25%)
- OR (21%)
- TX (9%)
- MA (5%)
- NC (5%)

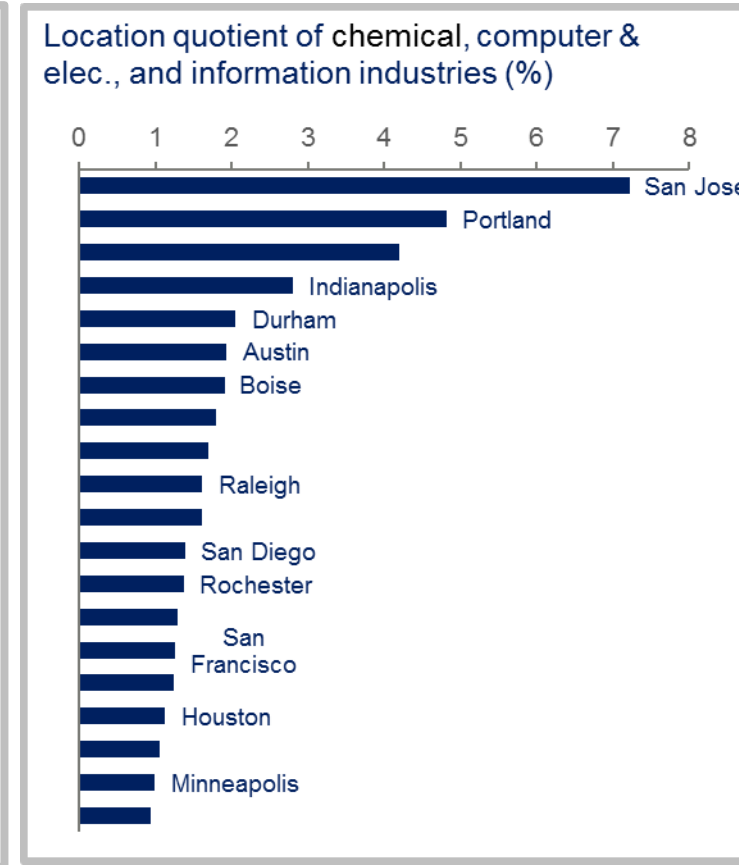
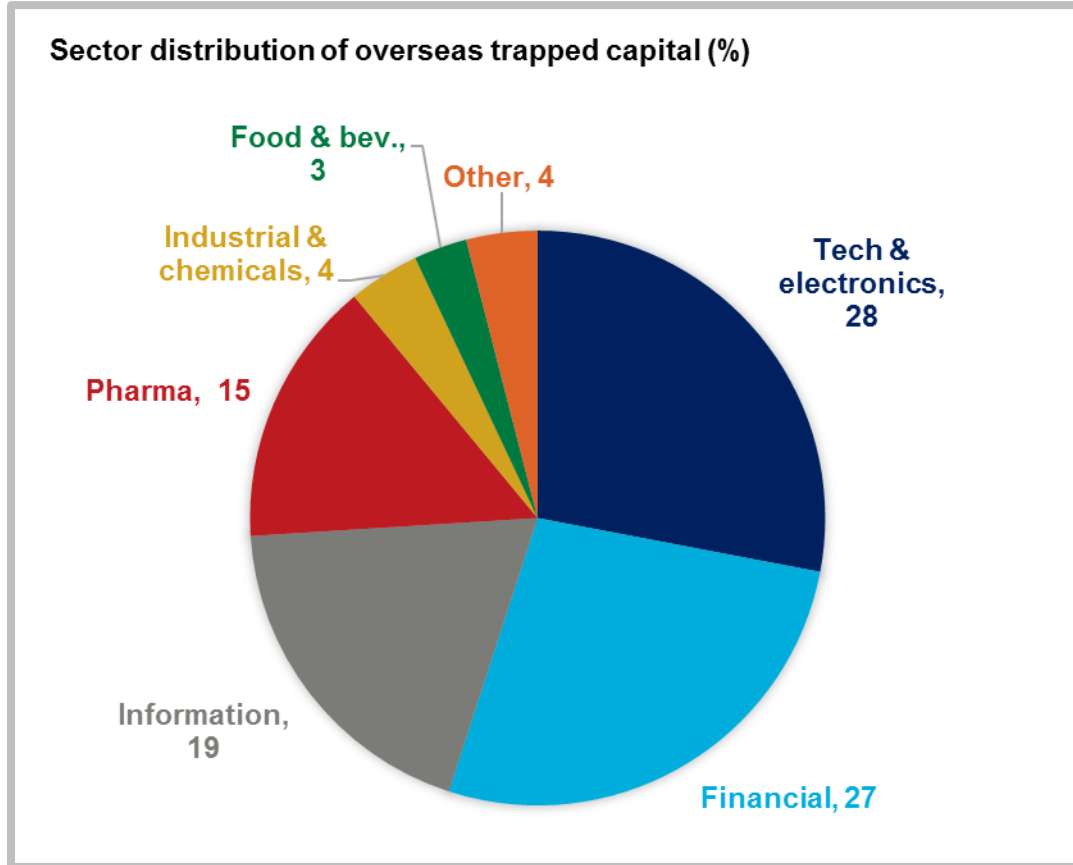
Expect a lot of IP activity in CA & TX but also smaller clusters in OR, NC, and MA



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TAX LAW CHANGES COULD SUPPORT MORE IP INVESTMENT



If Apple is a guide, the repatriation of overseas profits could raise cap ex by a baseline of 2.3% this year. Specifically, this could help centers of US IP production.

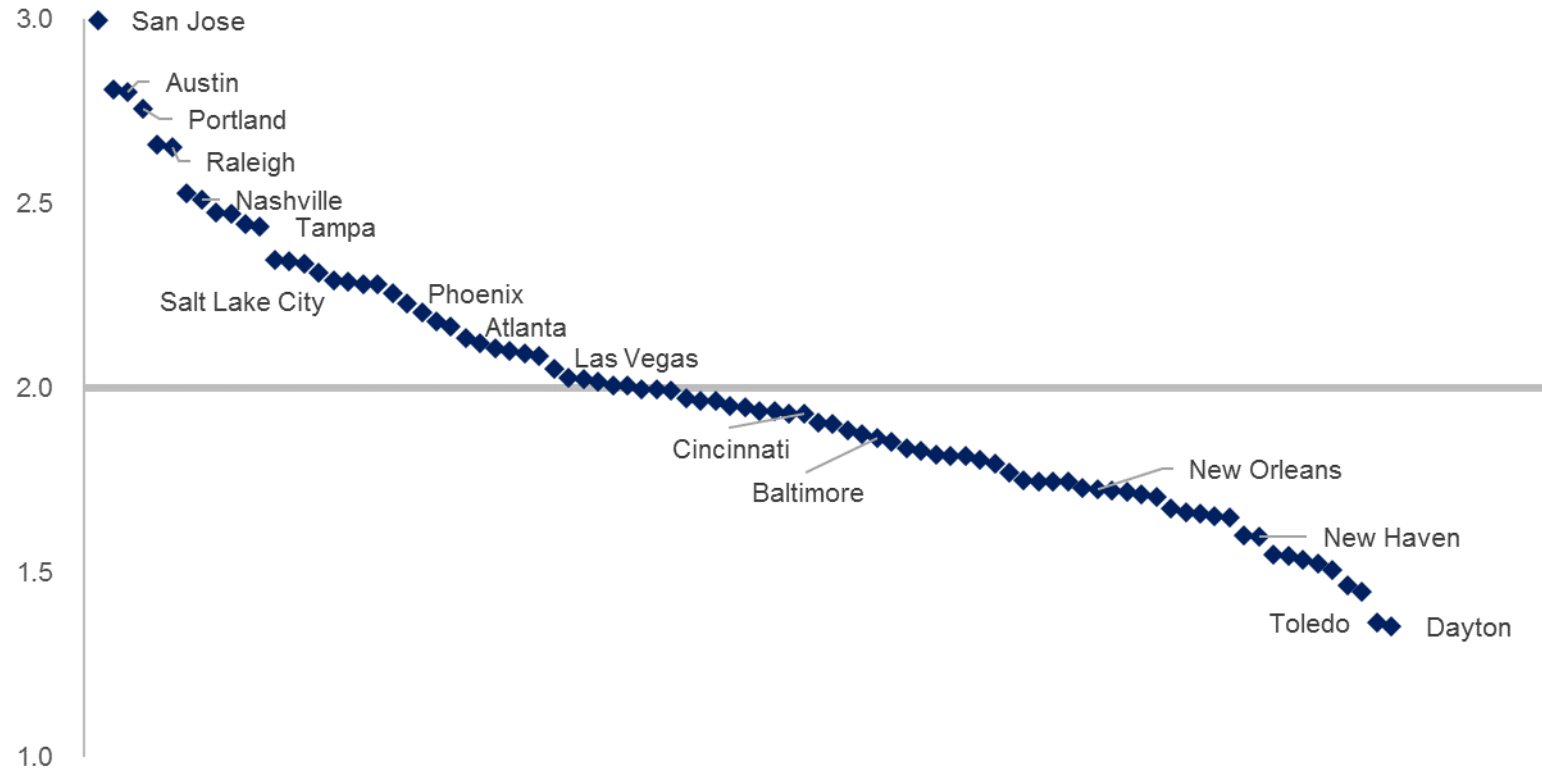


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THUS, LATE CYCLE PERFORMANCE WILL VARY

GDP CAGR, 2018-22 (%)



Source : Oxford Economics *Horizontal axis denotes US average growth

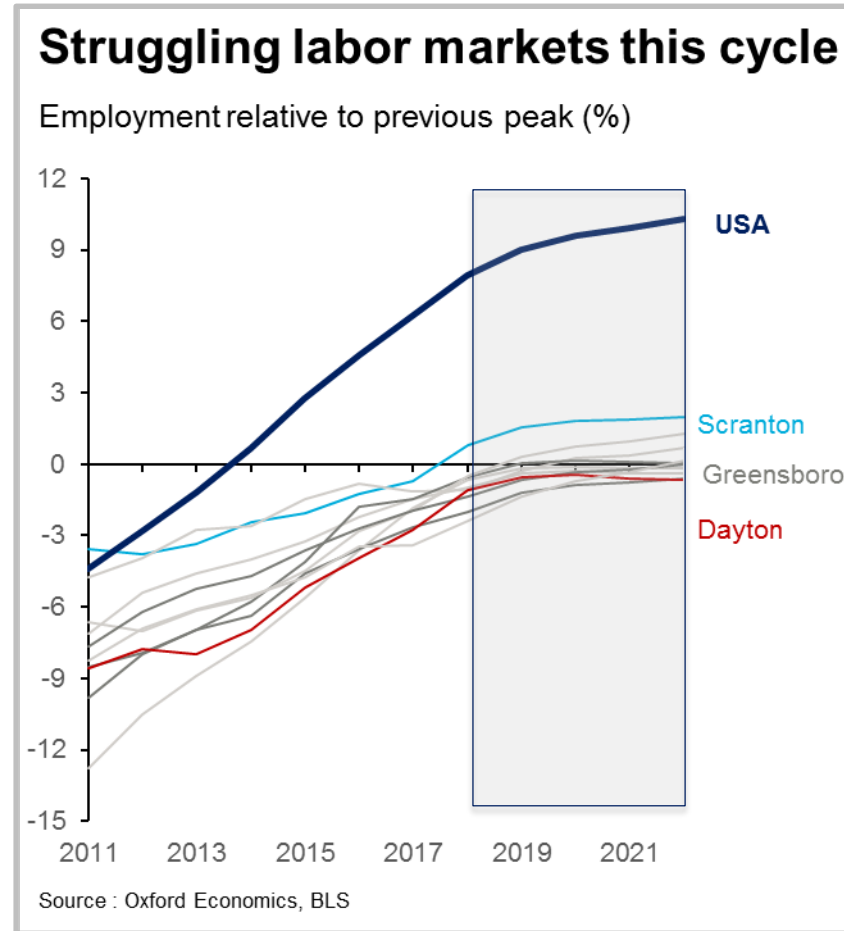
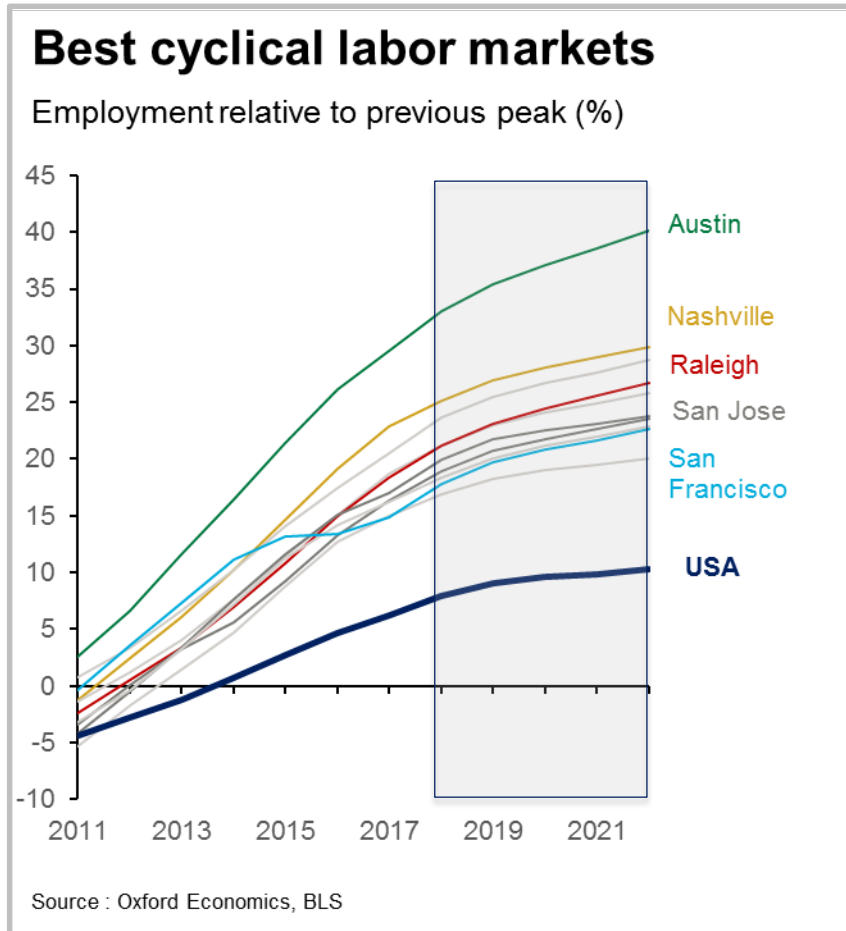
Industry mix and demographics are key drivers of performance



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LABOR MARKETS ALSO SHOW VARYING PERFORMANCE



New industries versus legacy industries

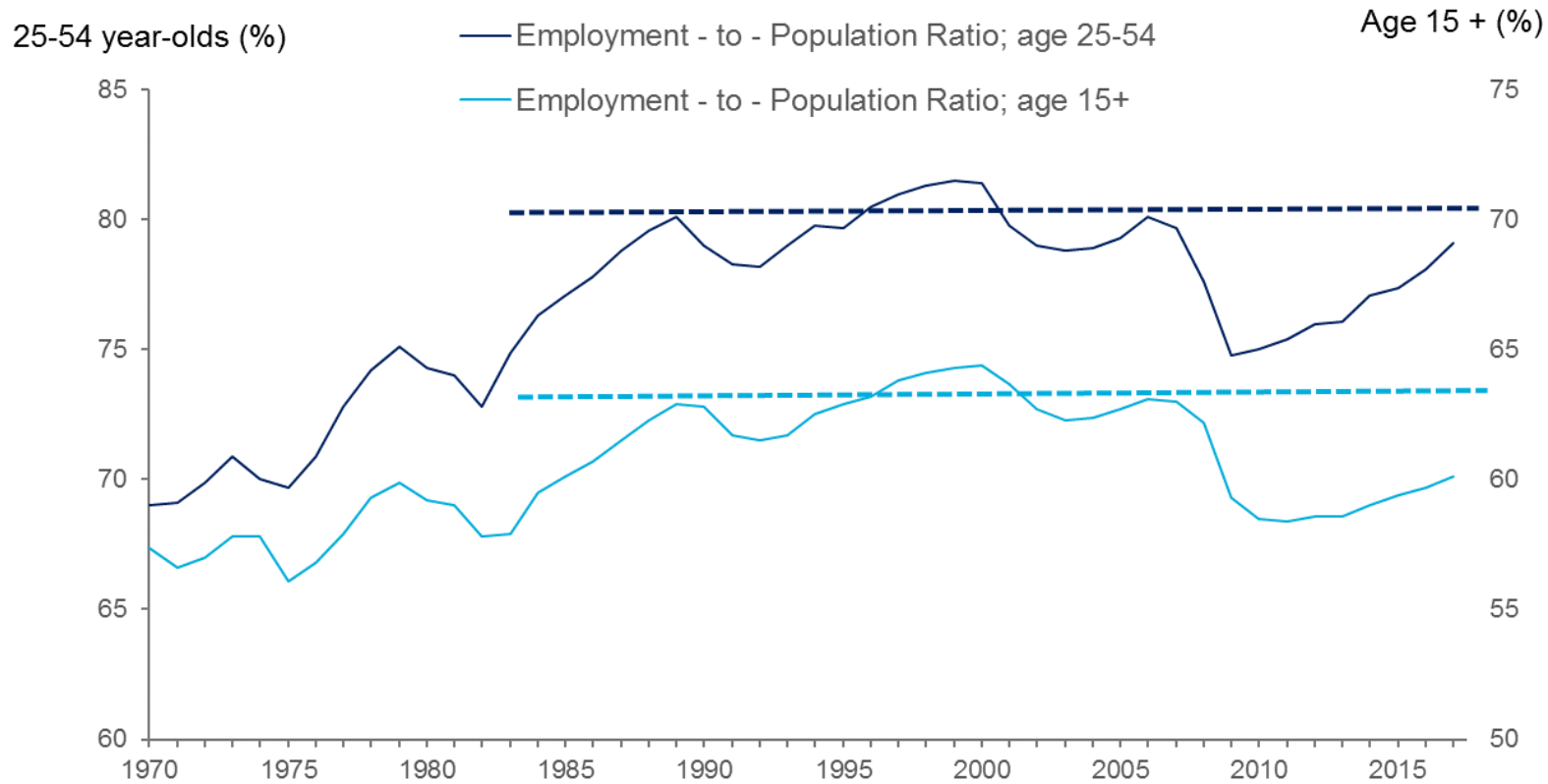


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NATIONALLY, THE LABOR MARKET IS TIGHTENING...

Employment-to-Population Ratio



Source : Oxford Economics, BLS, Federal Reserve

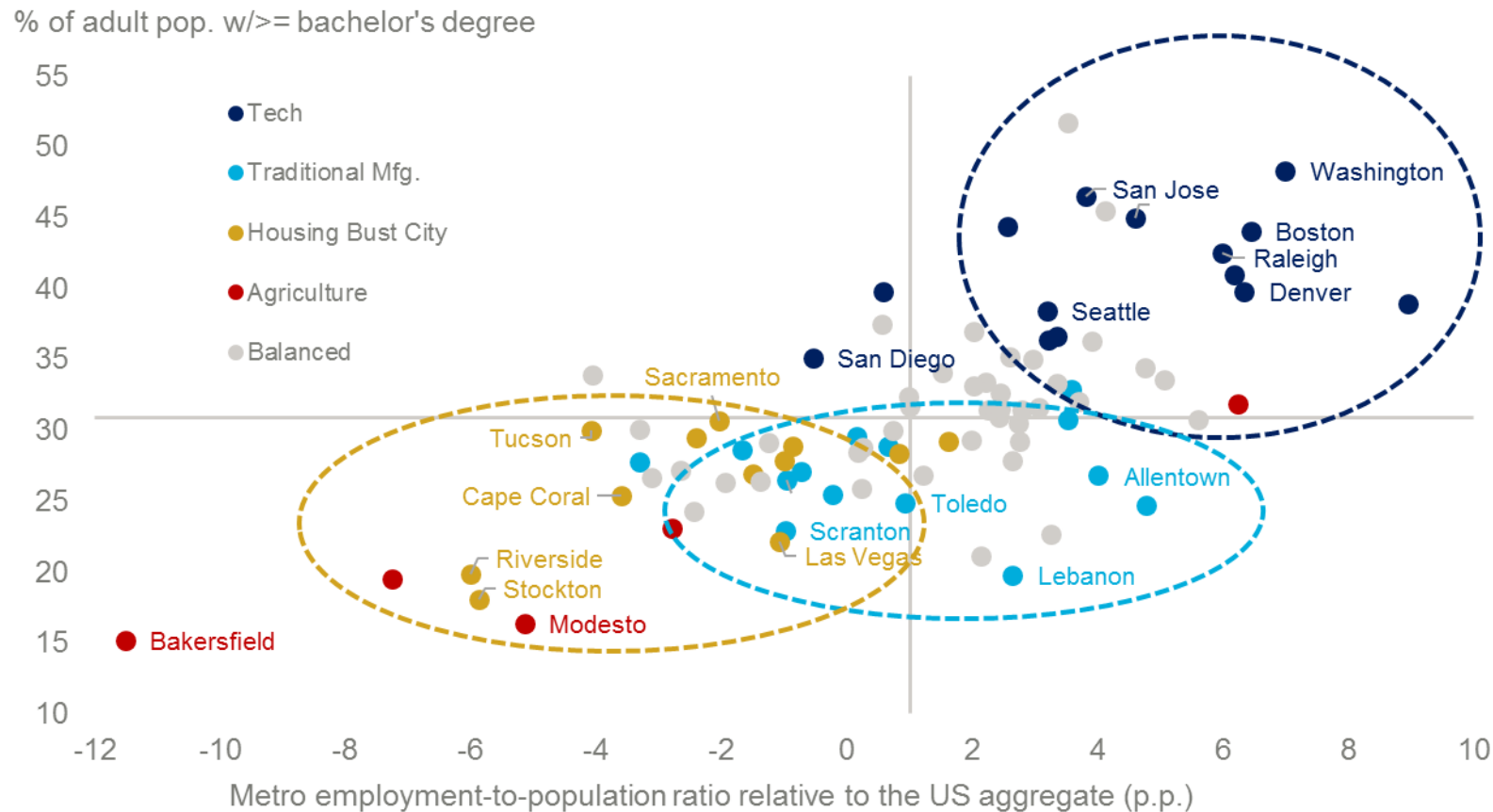
The labor market is showing some late-cycle signs



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...BUT LABOR MARKET CAPACITY VARIES WIDELY



Patterns of structural & cyclical change are influencing labor market dynamics
Labor market engagement is greater in places with a higher-skilled labor force

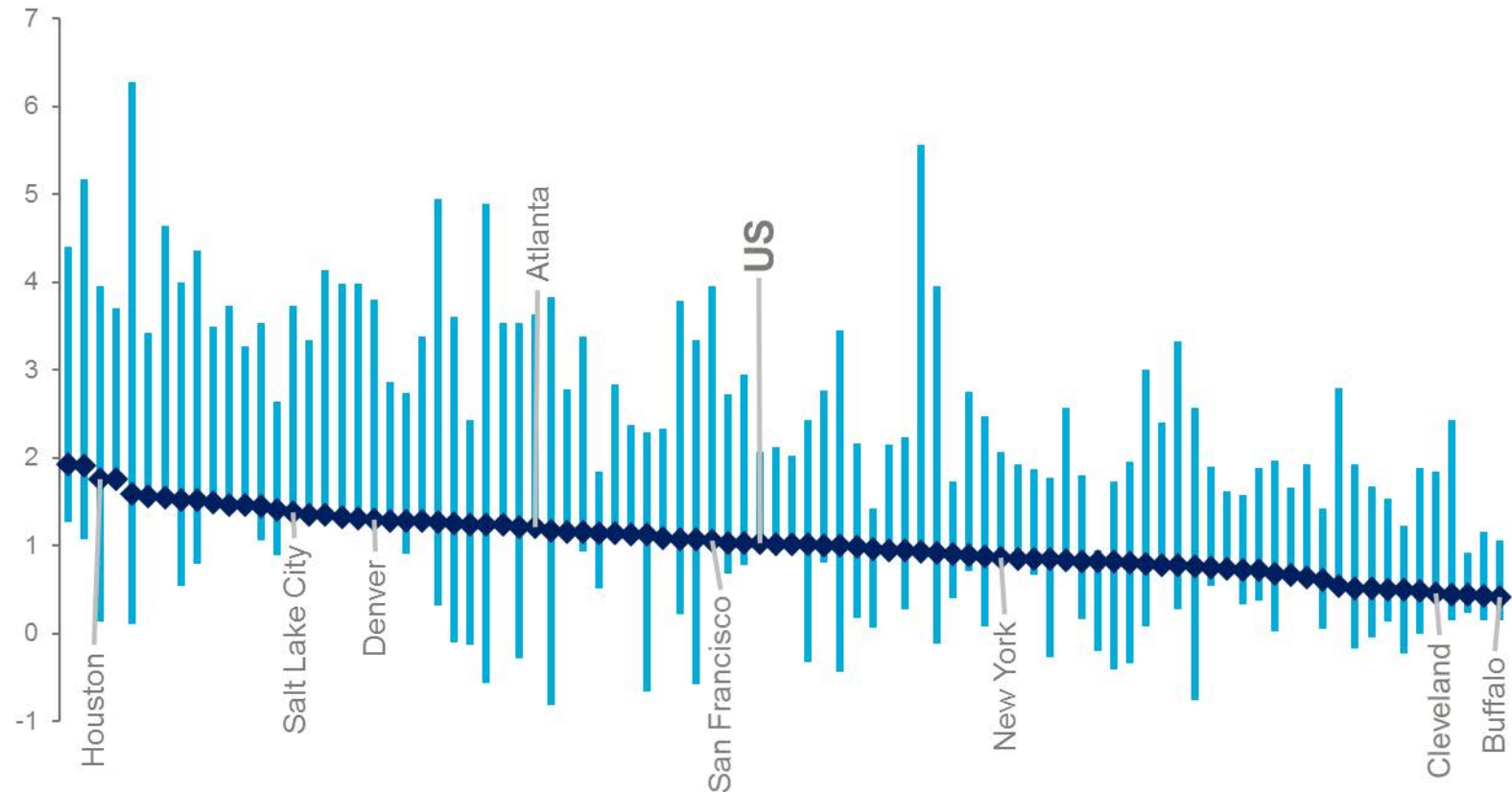


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THUS, THE PACE OF JOB GROWTH IS POISED TO SLOW

2018-19 employment CAGR relative to the max and min annual growth during 2011-17 (%)



Source : Oxford Economics, BLS

Job growth in coming years is poised to slow to below the cyclical trend

Exceptions include: 1) Energy centers; 2) Slow-recovery cities

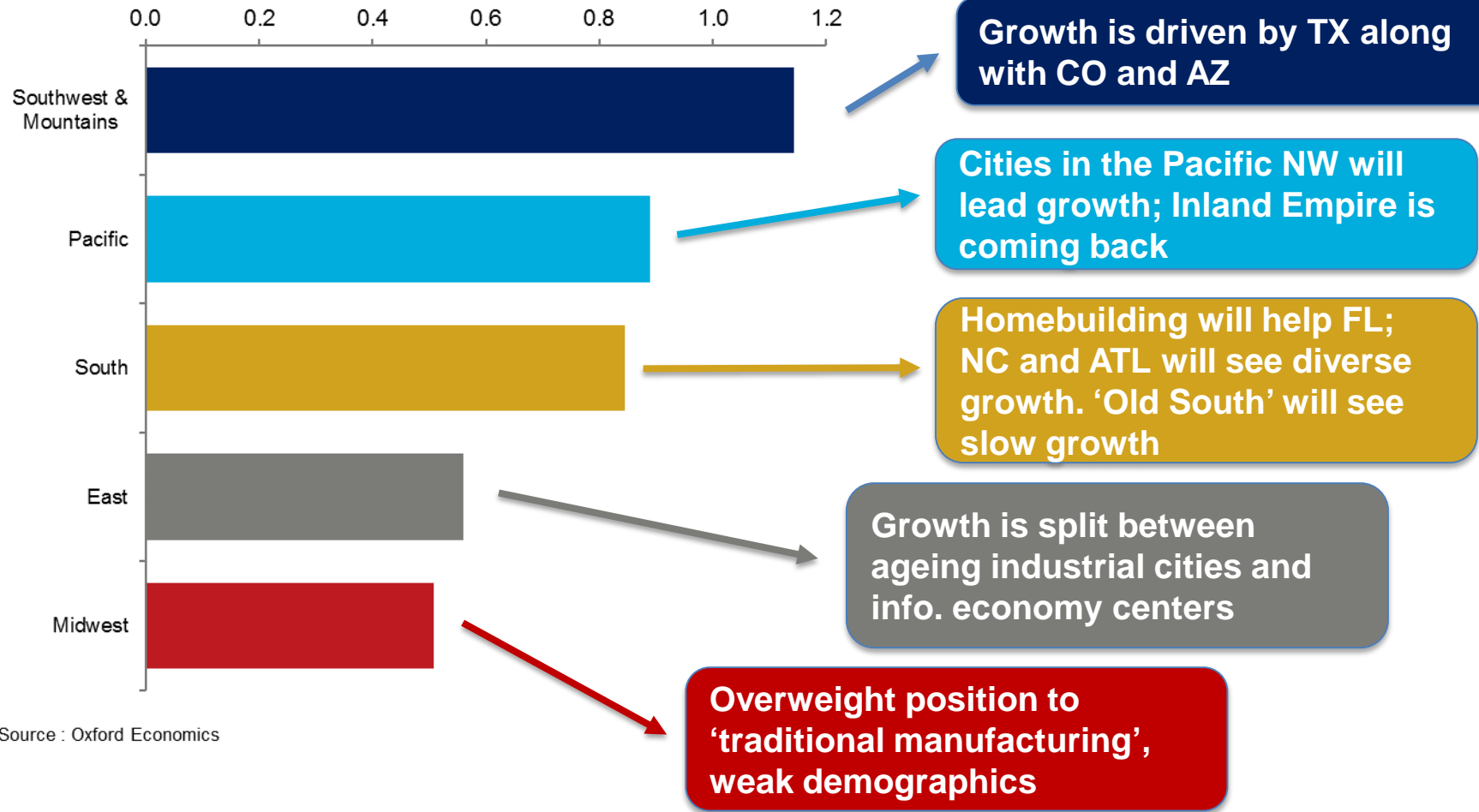


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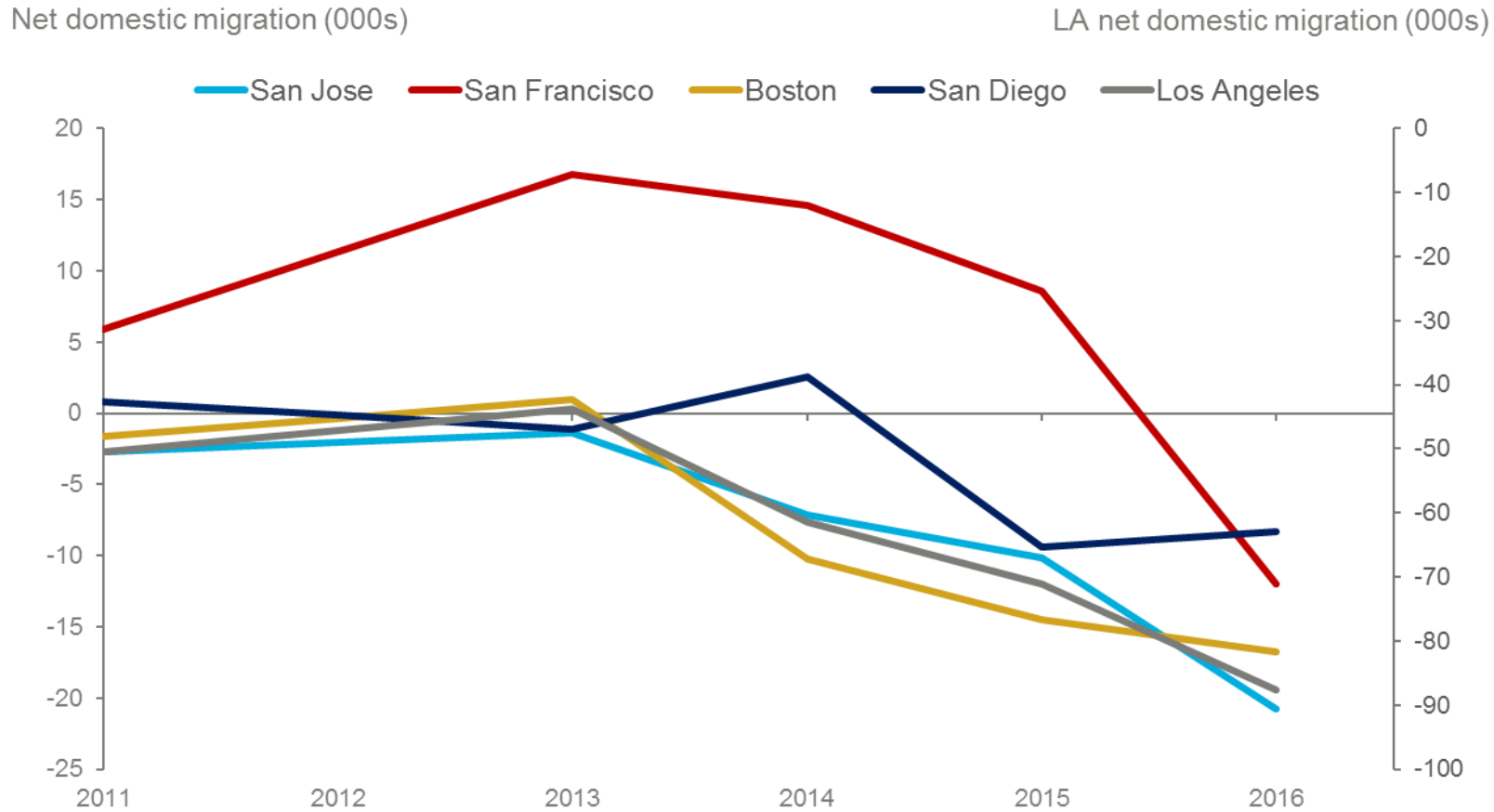


OUTLOOK FOR HIRING ACROSS REGIONS

Employment CAGR, 2018-22 (%)



HIGH-COST, COASTAL LABOR MARKETS FACE OTHER PRESSURES



Source : Oxford Economics, US Census

People are leaving economic successful cities in California and the Northeast



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WHY ARE PEOPLE LEAVING THE *GOLDEN STATE*?



- **1,130 SF** home selling for **\$1,995 / SF** (roughly \$2M)
- **Palo Alto** – close to Stanford, Google, and Facebook



- **7,000 SF** home selling for **\$296 / SF** (roughly \$2M)
- **Preston Hollow** – prestigious neighborhood close to major employment centers in Dallas



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'GONE TO TEXAS'

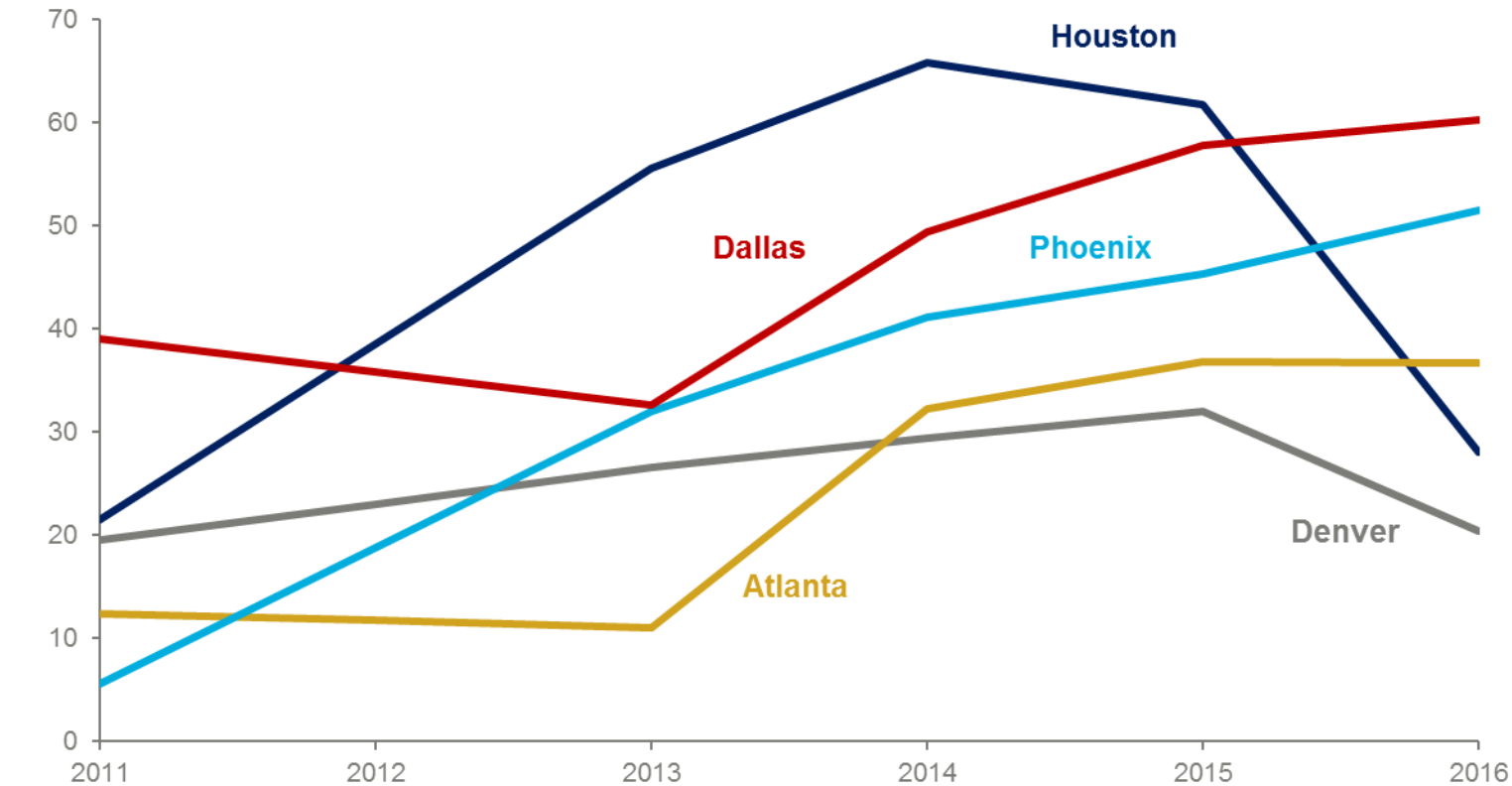


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WHERE ARE PEOPLE GOING TO?

Net domestic migration (000s)



Source : Oxford Economics, US Census

Migration to Houston and Denver is cyclical (softer energy sector and declining affordability - especially in Denver)

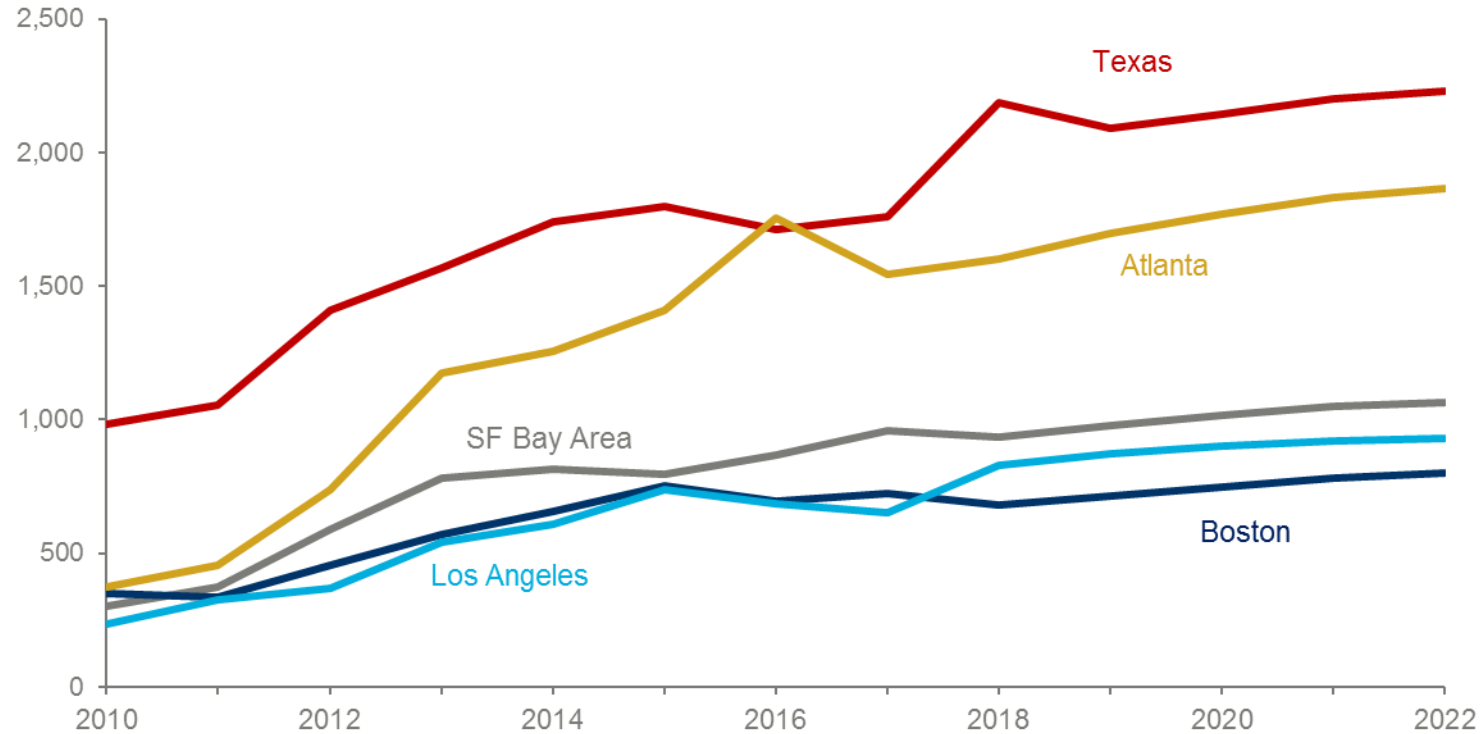


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'NIMBY'ISM IS DRIVING PEOPLE OUT

Housing starts per 100,000 households



Source : Oxford Economics, Haver Analytics

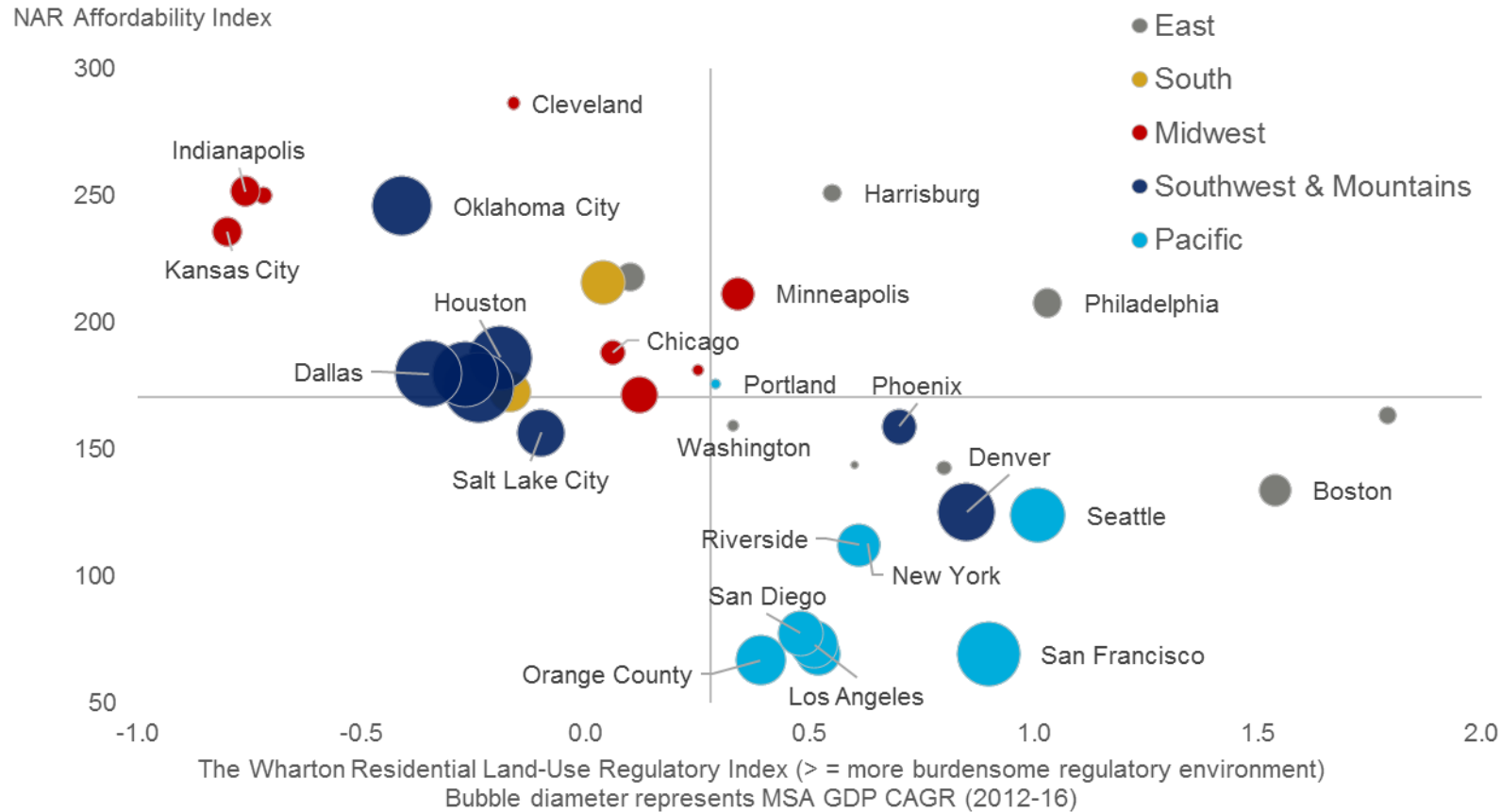
Despite upbeat economic growth, the SF Bay and Boston haven't materially expanded their housing stock



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A BIG PROBLEM - SUCCESSFUL CITIES HAVE HOUSING SHORTAGES



Source: Oxford Economics, The Wharton School, National Association of Realtors, BEA

Onerous building regulations have weighed on affordability in CA
Labor from struggling regions can't easily migrate to the growing West Coast economy

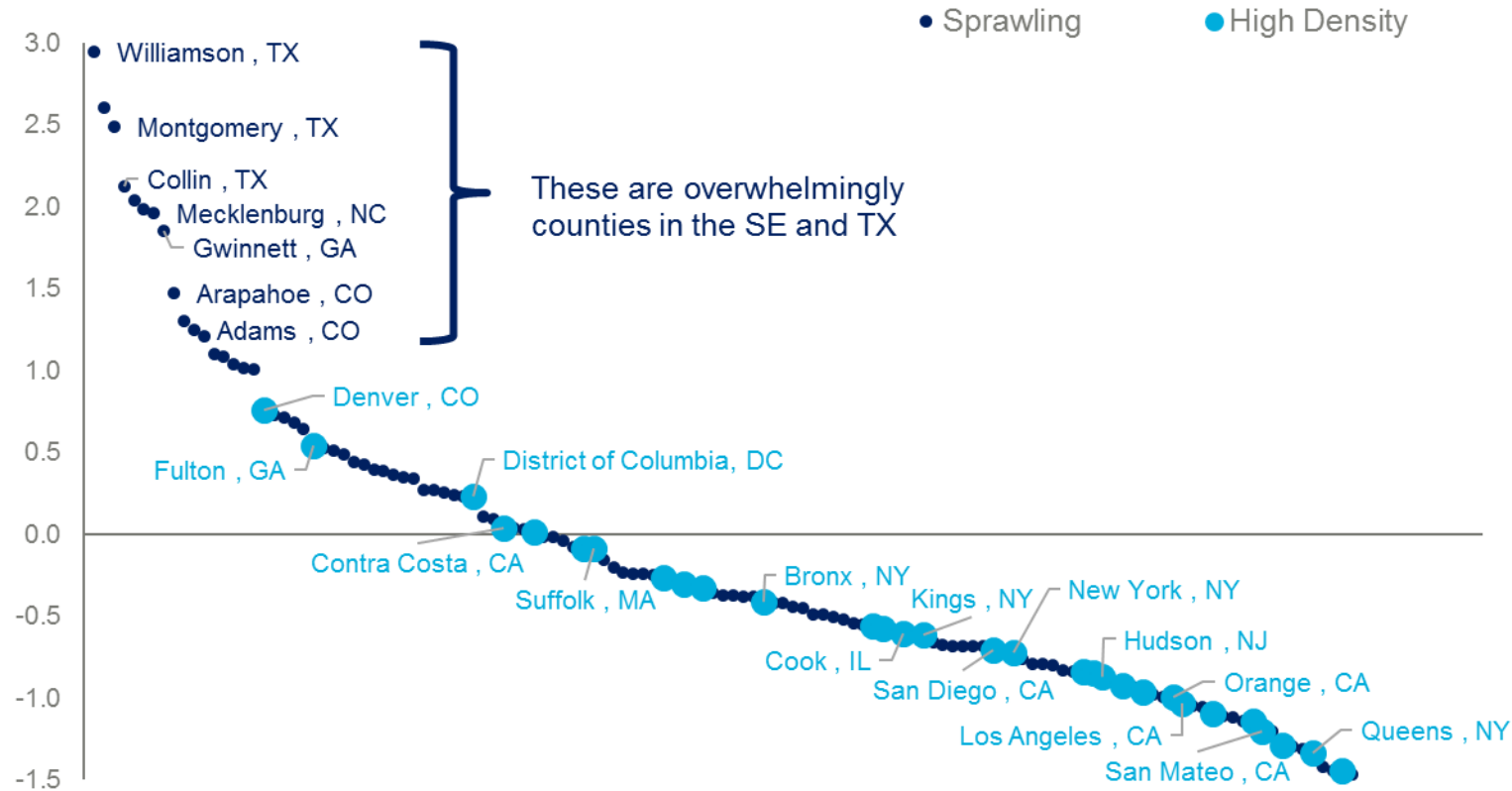


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DON'T EXPECT AN INFLUX OF WORKERS TO HIGH-COST CITIES

CAGR of twenty-somethings, 2018-22 (%)



Source : Oxford Economics

‘Young adults’ are going to places they can afford!

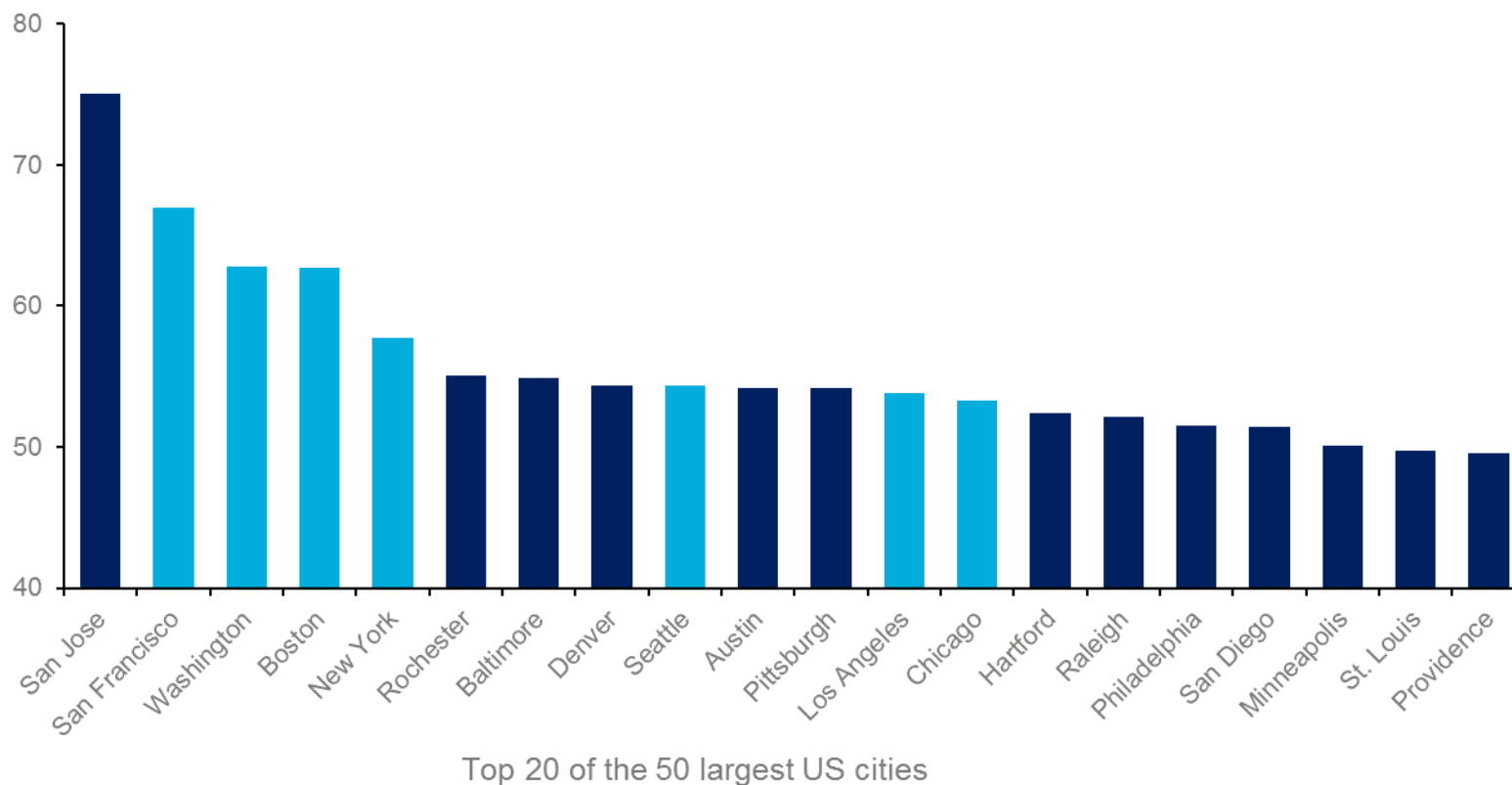


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THE 'URBAN STORY' IS ABOUT A CERTAIN TYPE OF 'YOUNG ADULT'...

% of foreign and out-of-state migrants with \geq Bachelor's degree, 2011-16 (000s)



Source : Oxford Economics, US Census

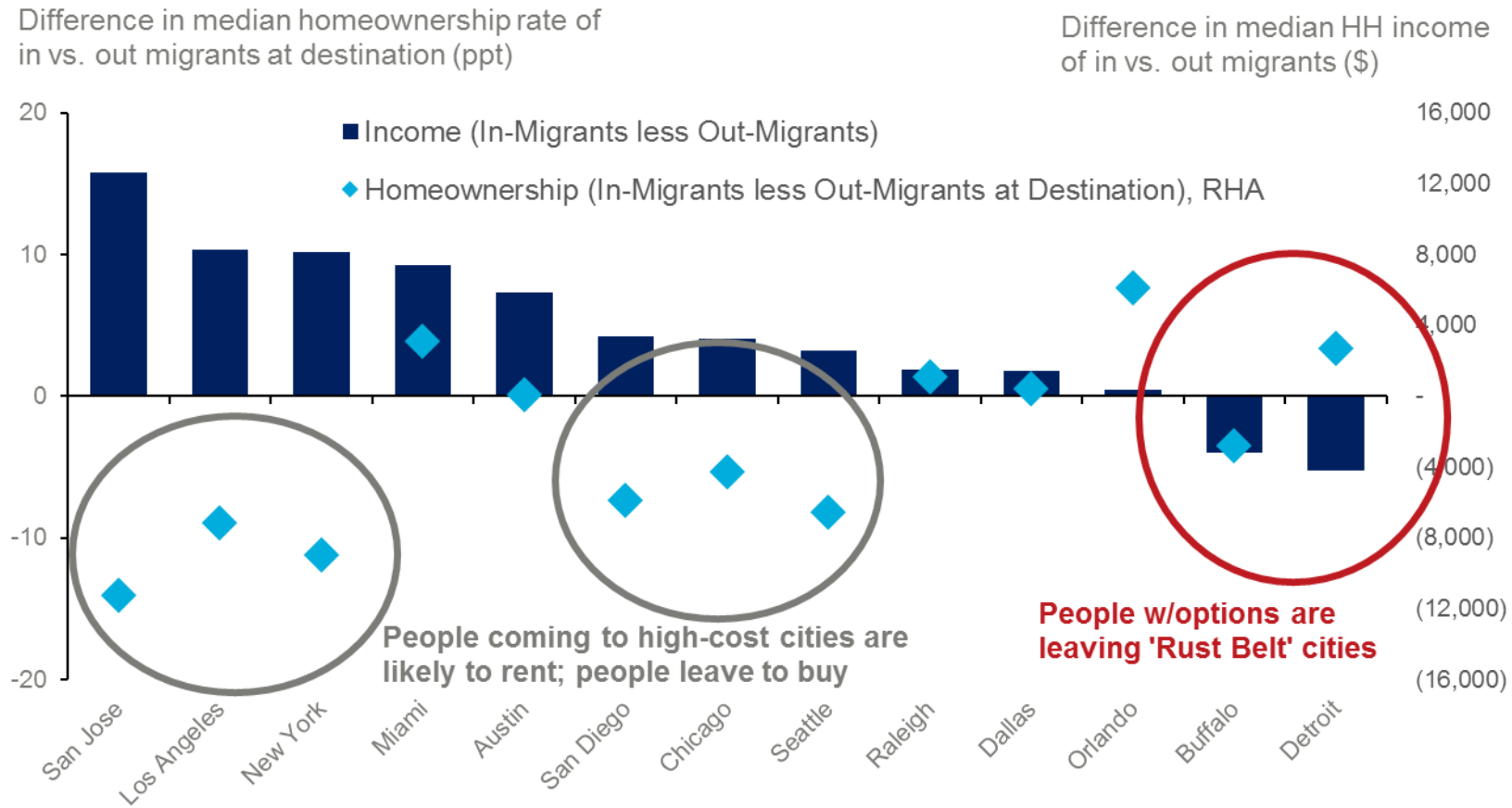
H1-B visa restrictions could weigh on this trend



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...THEY'RE LIKELY WELL PAID AND RENTING



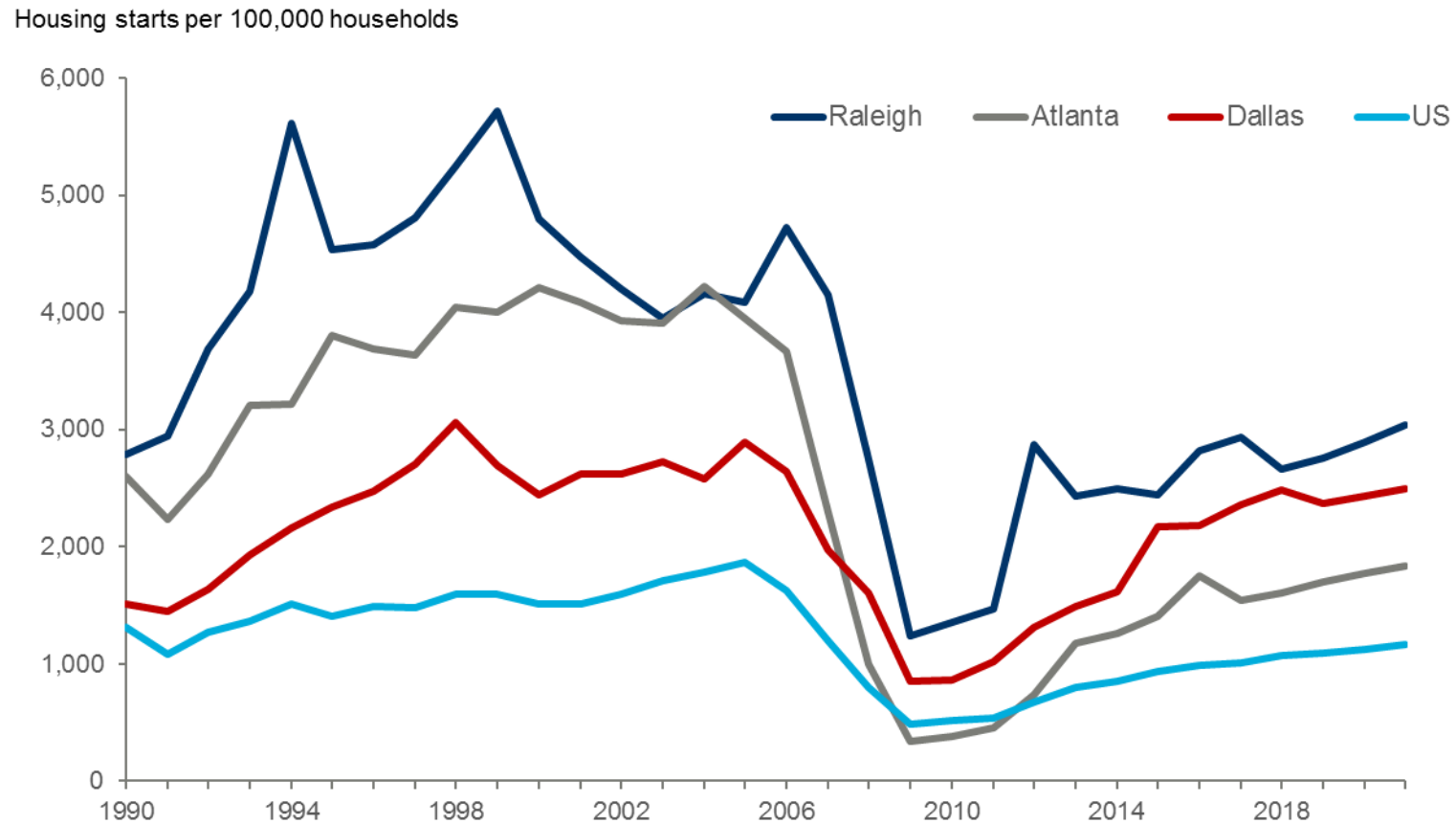
Source : Dr. Issi Romem at Buildzoom, US Census, Oxford Economics



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EVEN 'LOW BARRIER' METROS ARE STRUGGLING TO BUILD



Source : Oxford Economics, US Census, Haver Analytics

Stricter financial regulations and higher land costs have made it more difficult to build 'starter' homes



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TOMORROW'S SUBURBS WILL LOOK NOTHING LIKE 'STEPFORD'



Suburbs remain relevant but they are changing

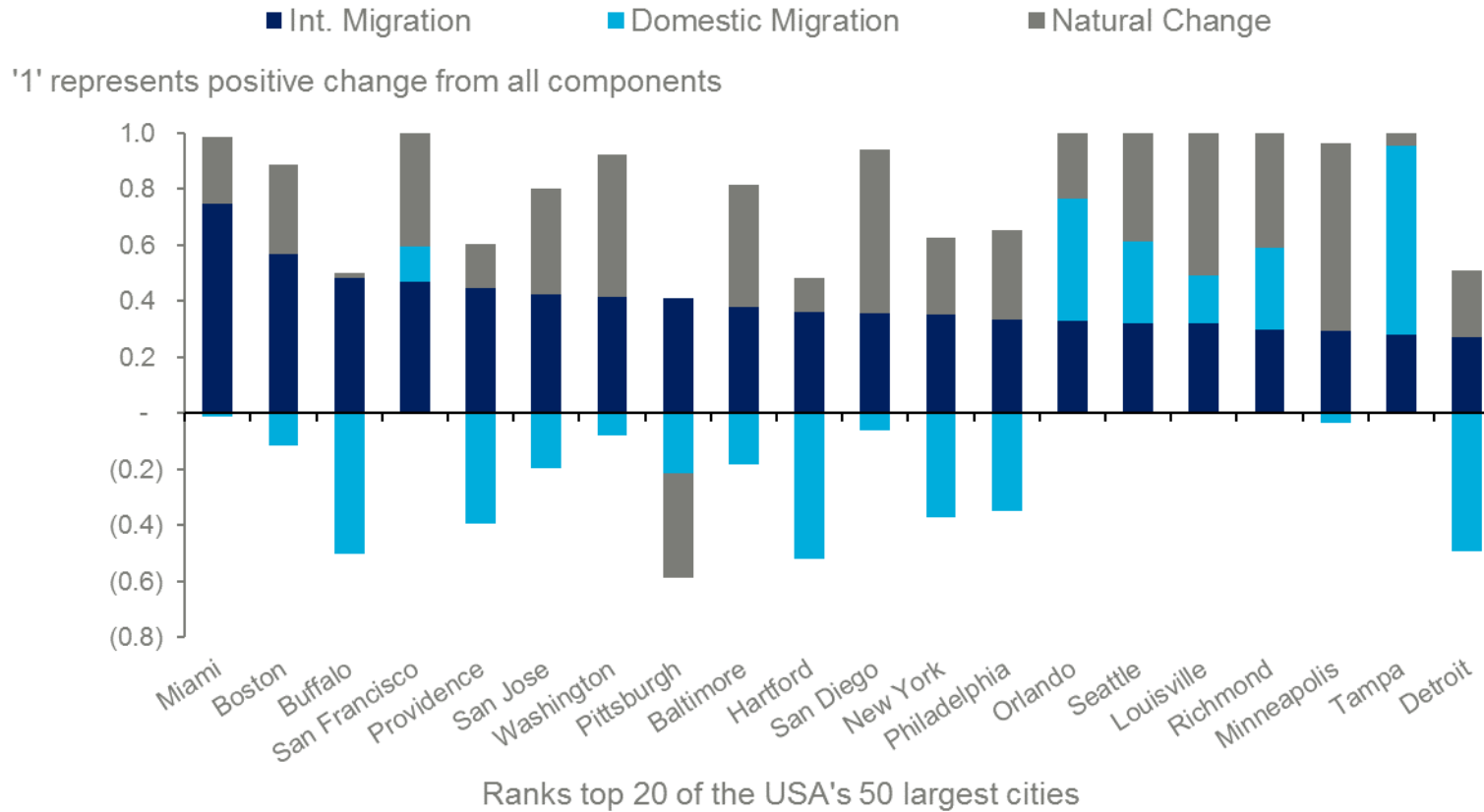


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RISKS TO CONSIDER: CHANGES TO IMMIGRATION POLICY

Contribution to MSA pop. change (2010-2016)



Source : Oxford Economics, US Census

Immigration accounts for a commanding share of pop. growth in key cities

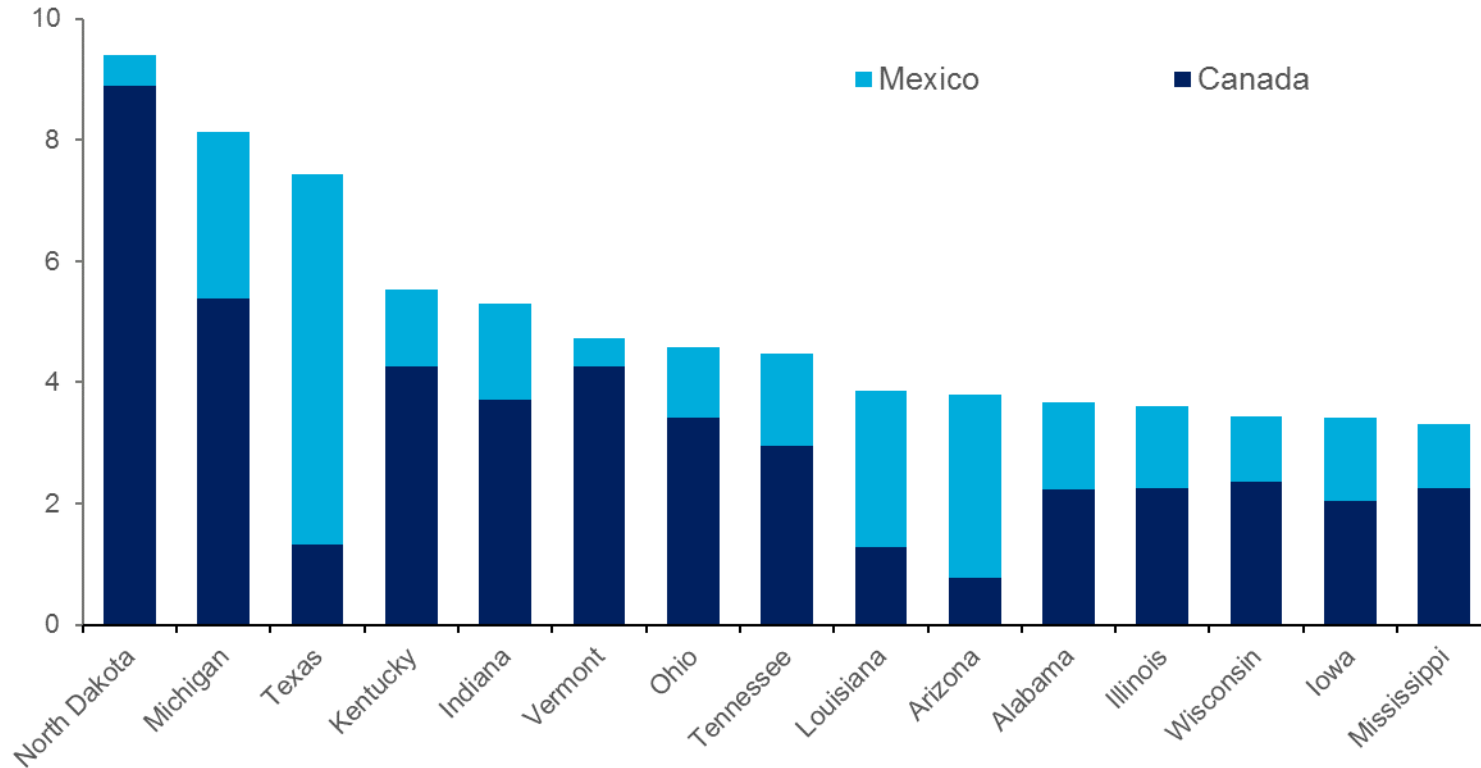


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RISKS TO CONSIDER: NAFTA RENEGOTIATIONS

Exports to Canada and Mexico / State GDP (%)



Source : Oxford Economics, US Census

Small border states (VT, ND) will be impacted but so will larger manufacturing states, especially those with ties to auto production

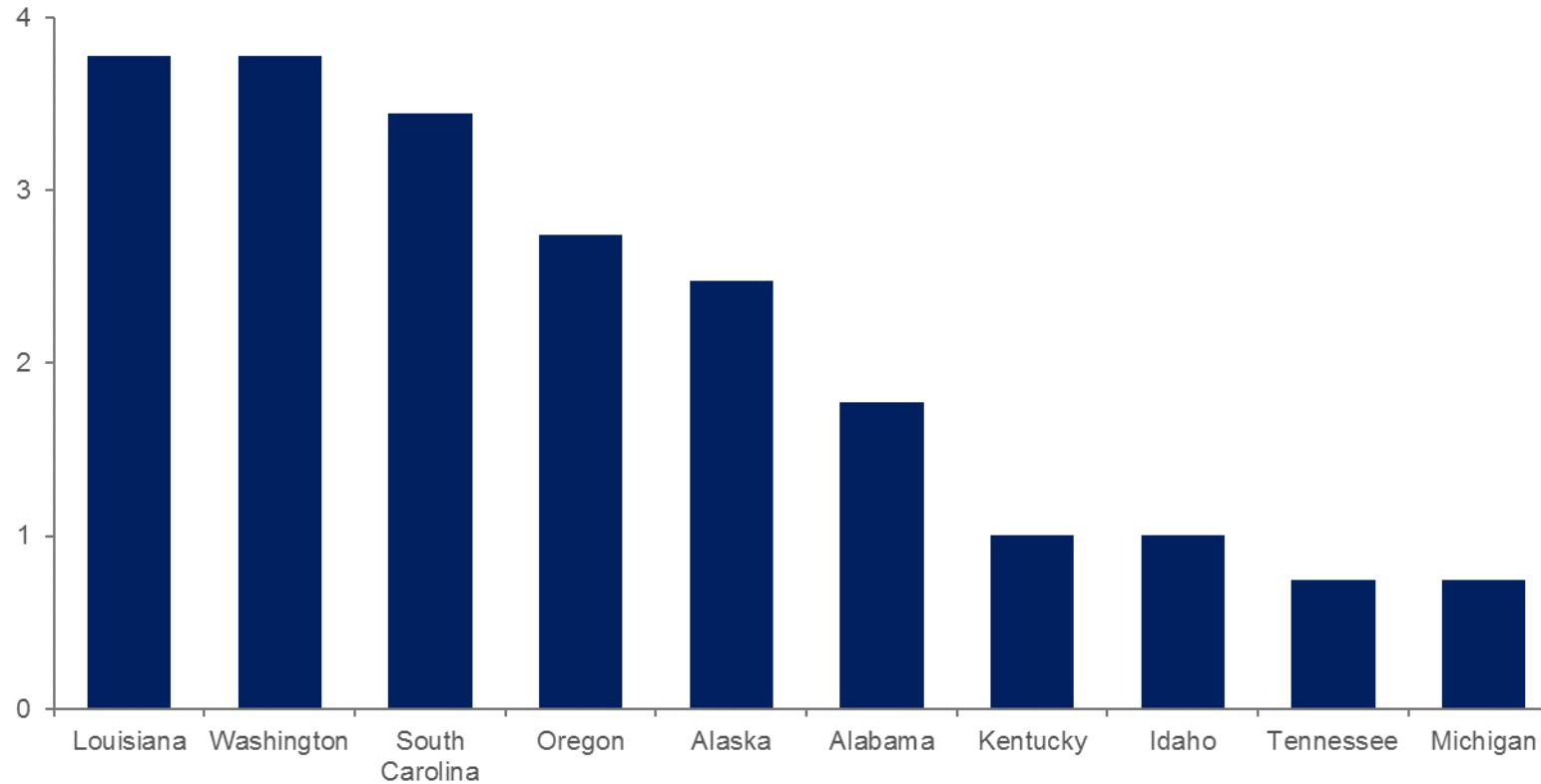


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RISKS TO CONSIDER: CHINESE TRADE CONFLICT

Exports to China / State GDP (%)



Source : Oxford Economics, US Census

Aerospace, medical devices, semiconductors, agriculture, chemicals...

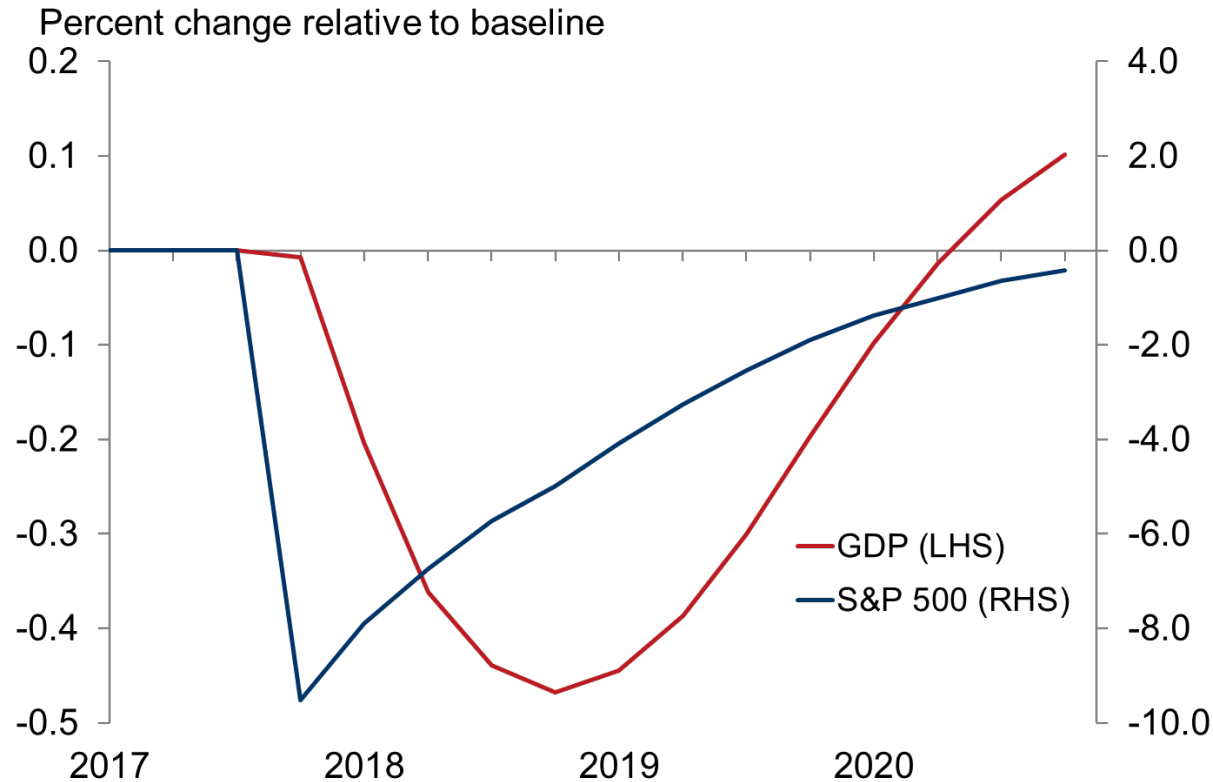


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RISKS TO CONSIDER: FINANCIAL MARKET STRESS

US: Effect of 10% equity market correction



Source : Oxford Economics

**A lasting 10% stock market decline would shave 0.5pp from GDP growth
(This is different from a correction from short term peak)**

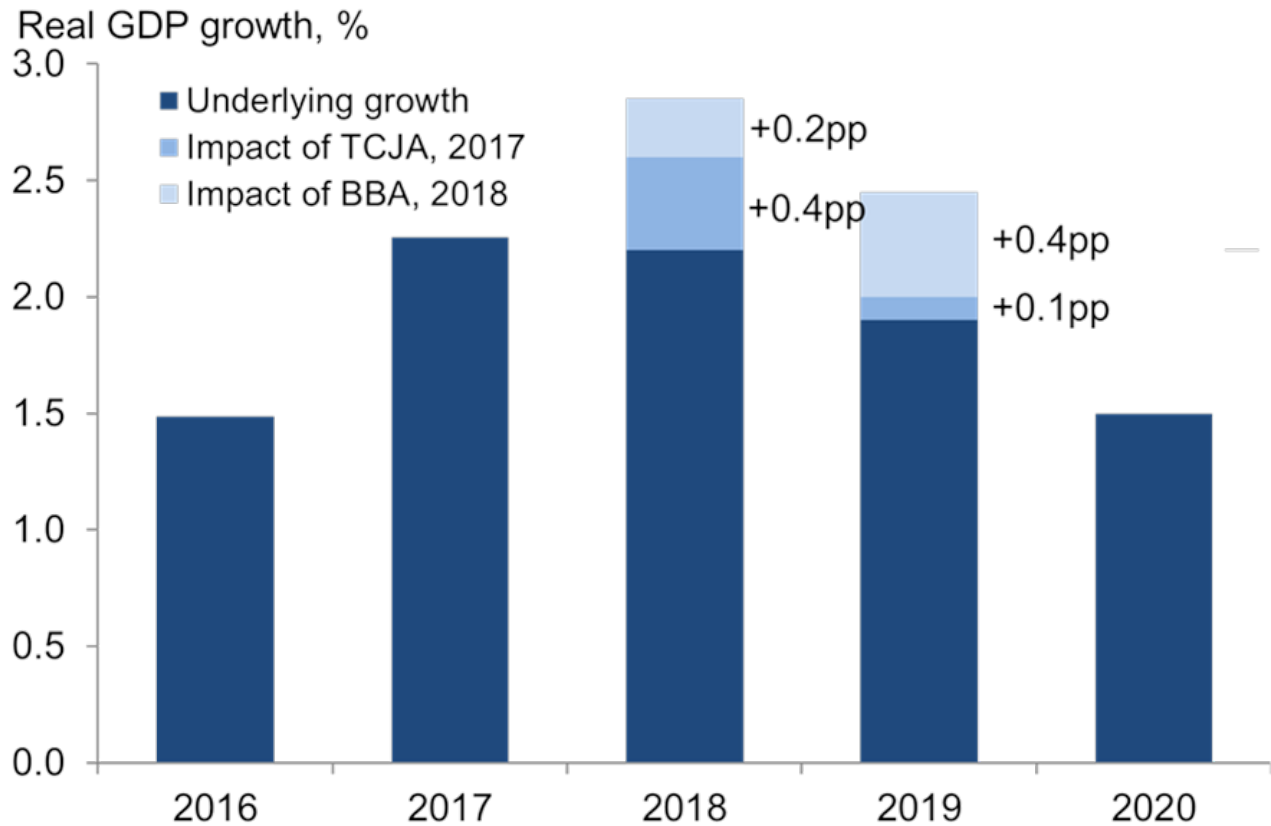


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RISKS TO CONSIDER: UPSIDE IMPACT FROM GOVT. STIMULUS

US: Fiscal stimulus set to boost growth



Source : Oxford Economics

BBA, 2018 = Bipartisan Budget Act of 2018
TCJA, 2017 = Tax Cuts and Jobs Act of 2017



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