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BUILD A
BETTER WORLD.**

Annual Economic Symposium Heavy Machinery Outlook

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Nov 30, 2018

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Certain statements in this presentation relate to future events and expectations and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as “believe,” “estimate,” “will be,” “will,” “would,” “expect,” “anticipate,” “plan,” “project,” “intend,” “could,” “should” or other similar words or expressions often identify forward-looking statements. All statements other than statements of historical fact are forward-looking statements, including, without limitation, statements regarding our outlook, projections, forecasts or trend descriptions. These statements do not guarantee future performance and speak only as of the date they are made, and we do not undertake to update our forward-looking statements.

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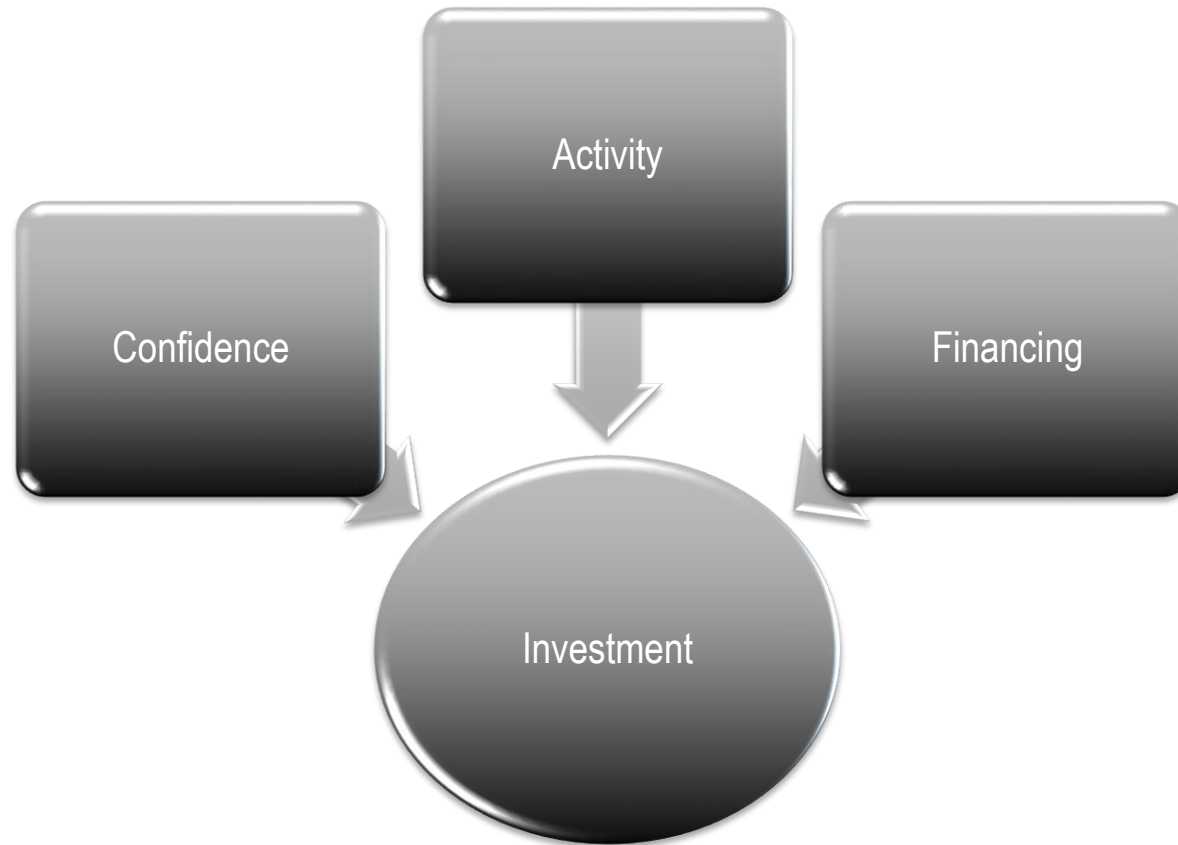
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Key Points for the Economy

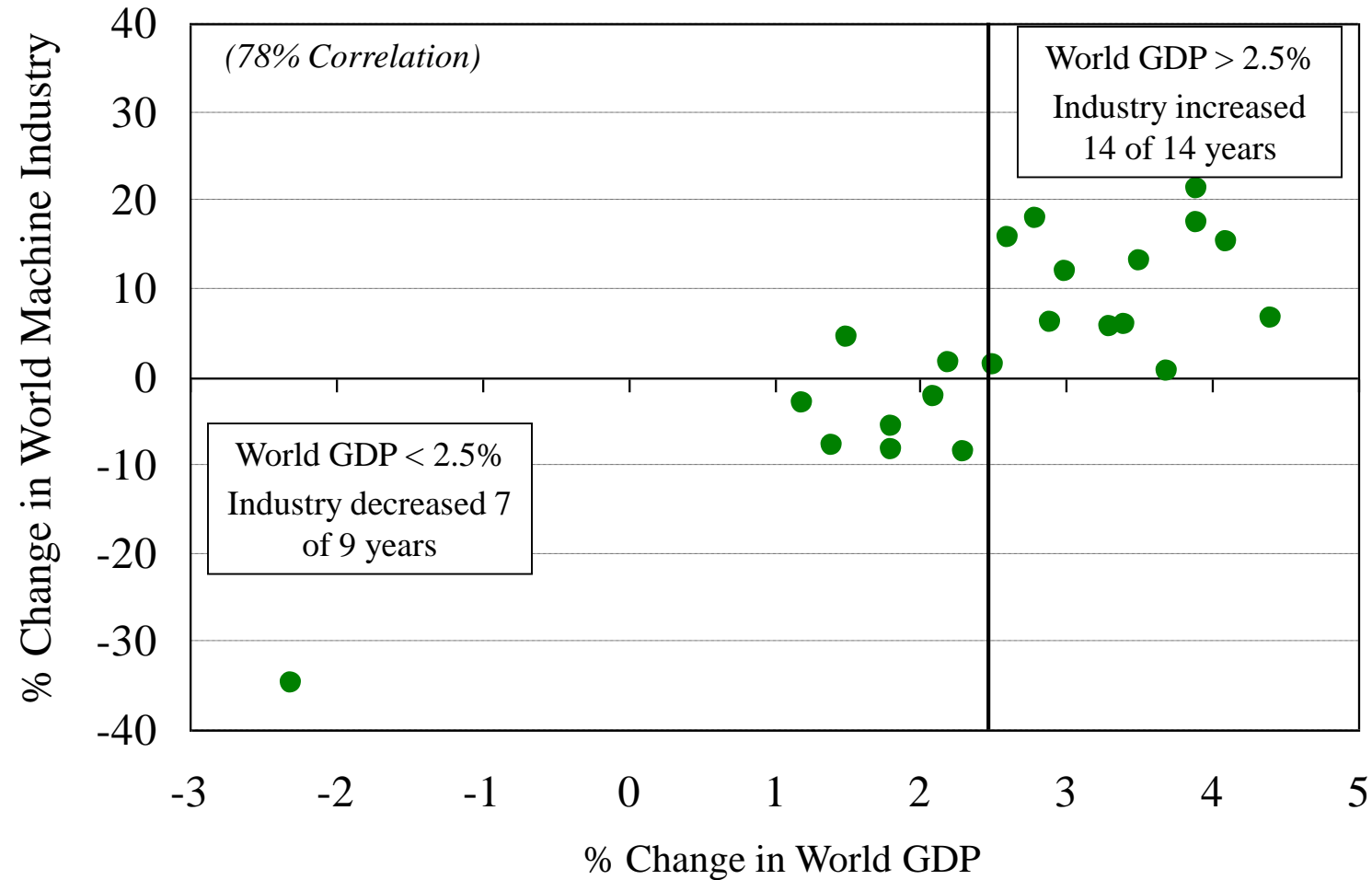
- Long cycle but relatively slow recovery from the Great Recession
- World expected to **expand** at slower rate in 2019
- Growing regional discrepancies
- U.S. economic fundamentals sound and supportive
- U.S. construction activity robust
- Need to invest more to promote U.S. competitiveness

A Broad Map of Investment Drivers



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World GDP Growth and Machine Industry



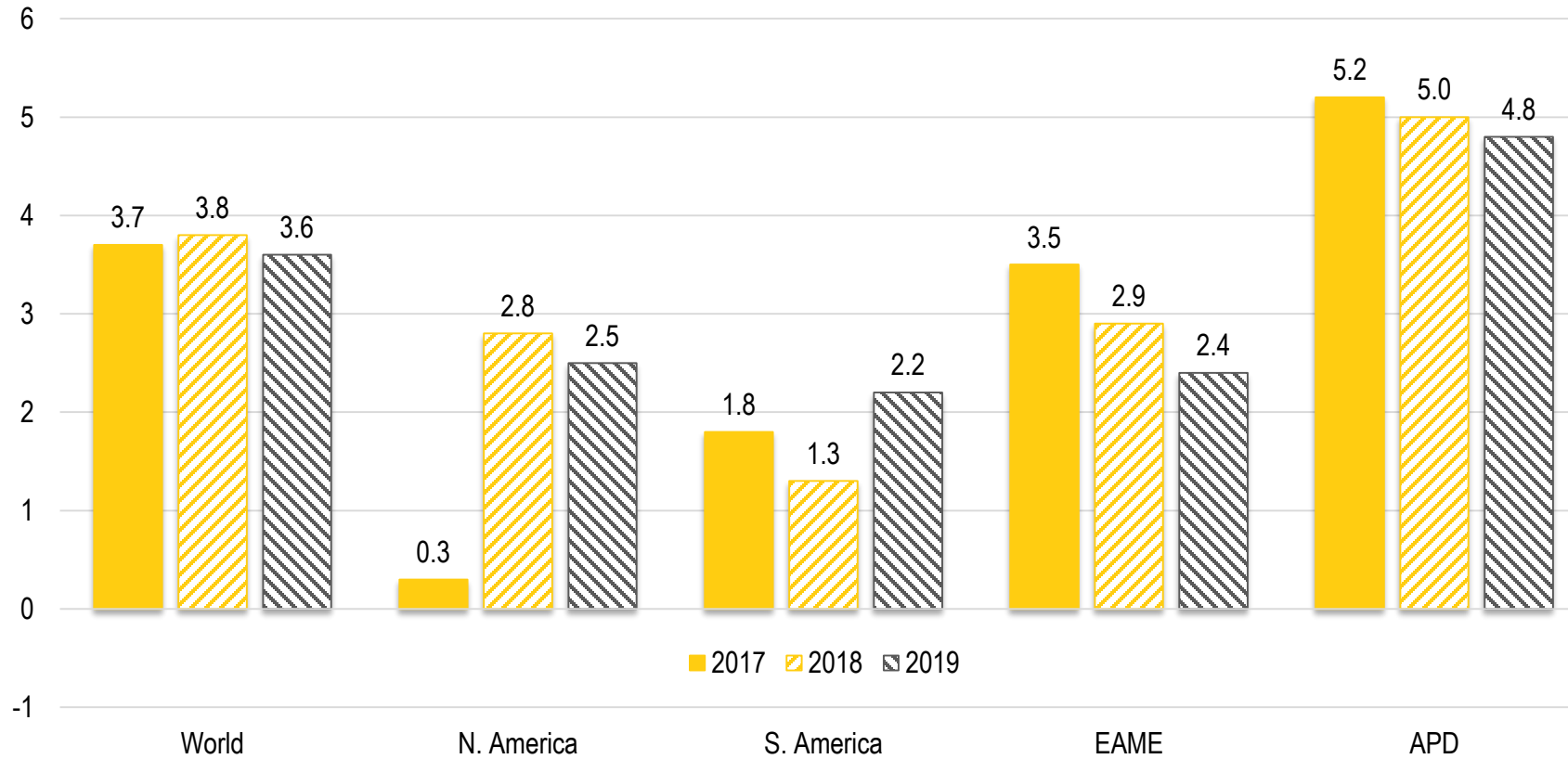
Source: Computed using data from Association of Equipment Manufacturers/Chinese Construction Machinery Manufacturers, Haver, Caterpillar Business Economics

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GDP Growth

Percent Changes in Real GDP



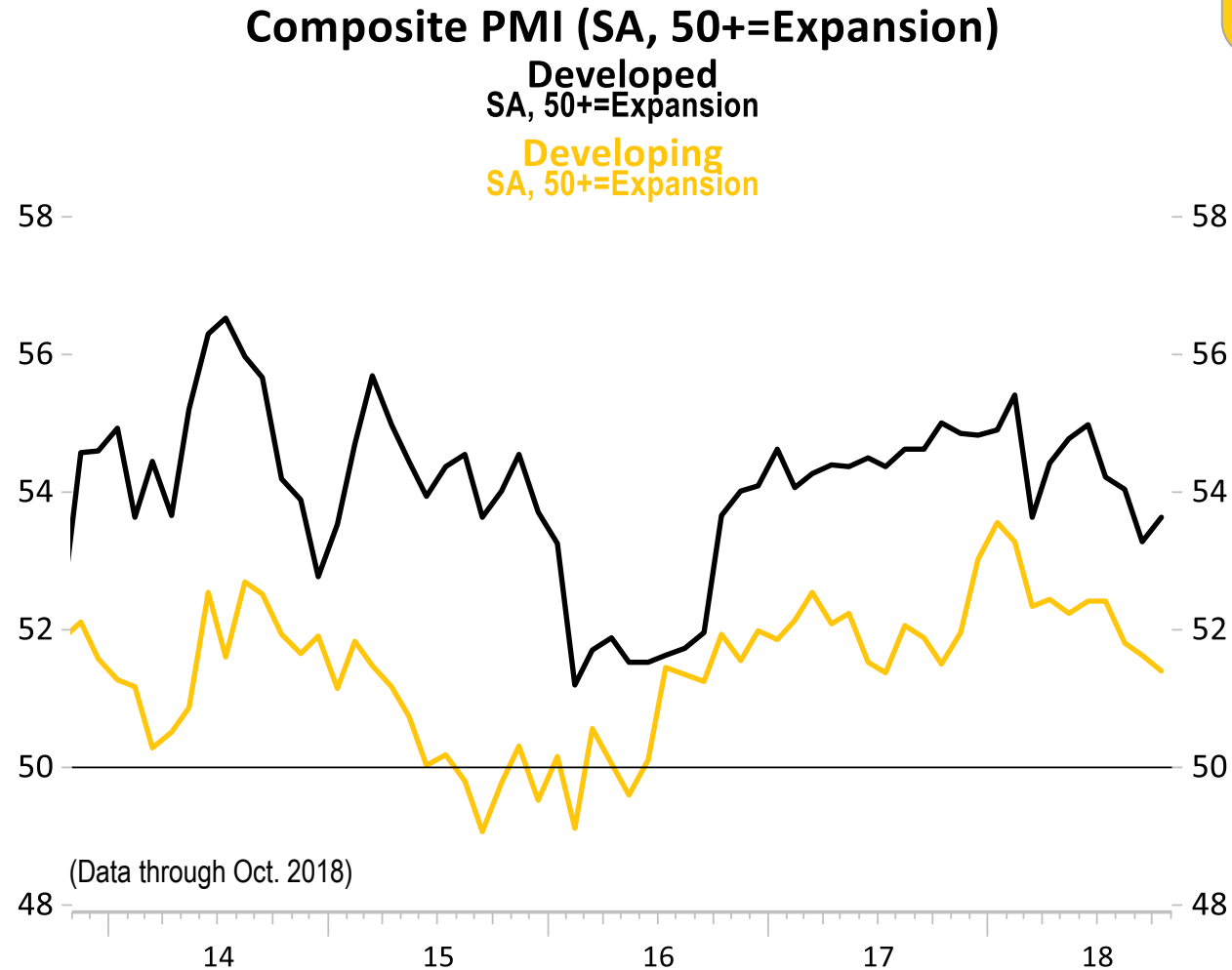
Source: Bloomberg Terminal forecasts and history - 11/27/2018

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Global Composite Purchasing Manager Indices (PMI)

Greater volatility
Readings remain
above 50



Source: IHSM/Haver

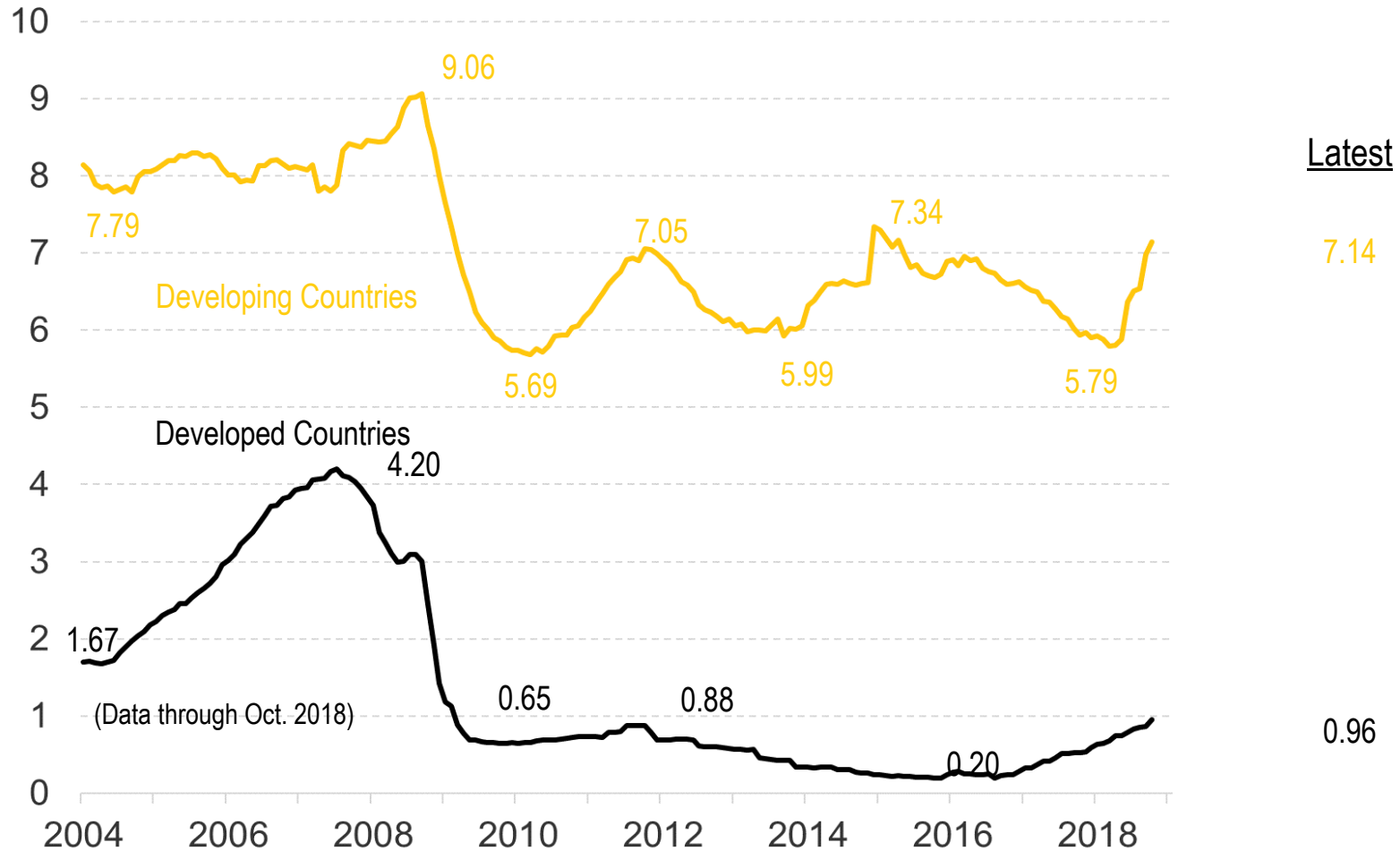
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Monetary Policy

Tightening continues.
Aggregate real rates
remain low and
supportive

Interest Rates in Percent Weighted by GDP

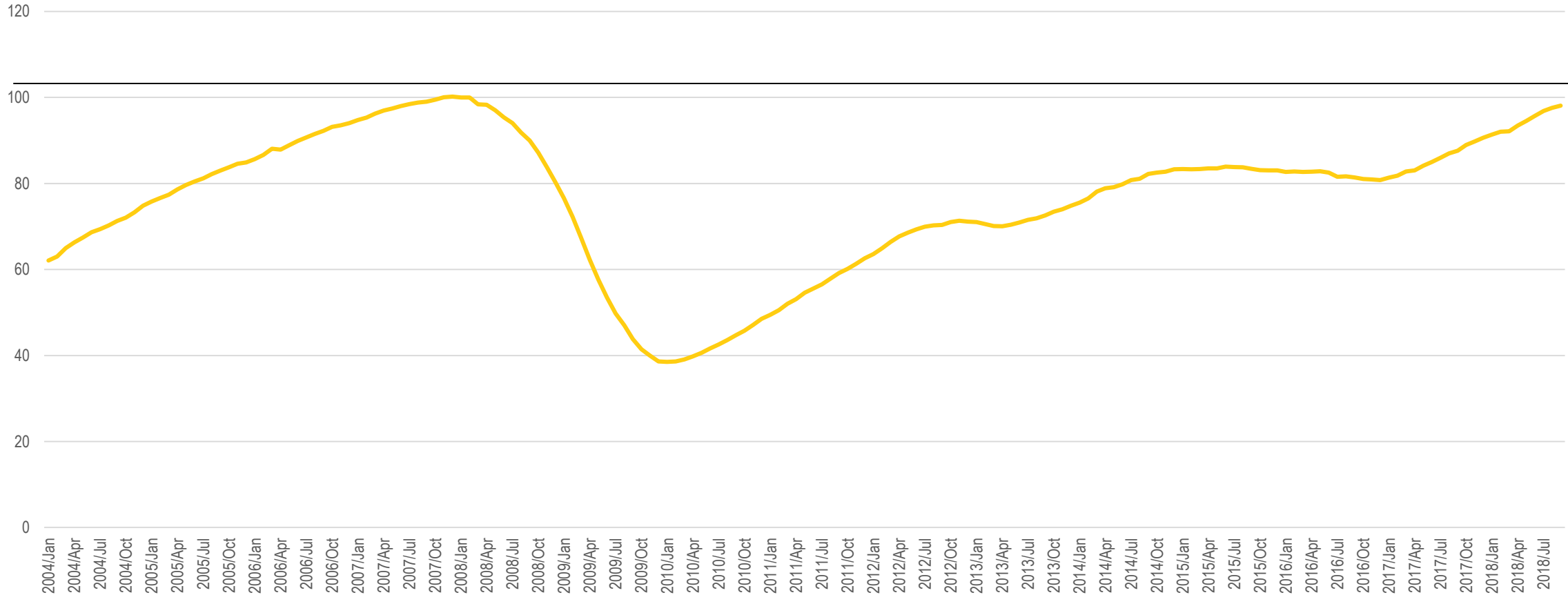


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Developed Countries Machine Industry

Jan 2008 Units =100
(Rolling 12 months)



Data through September 2018

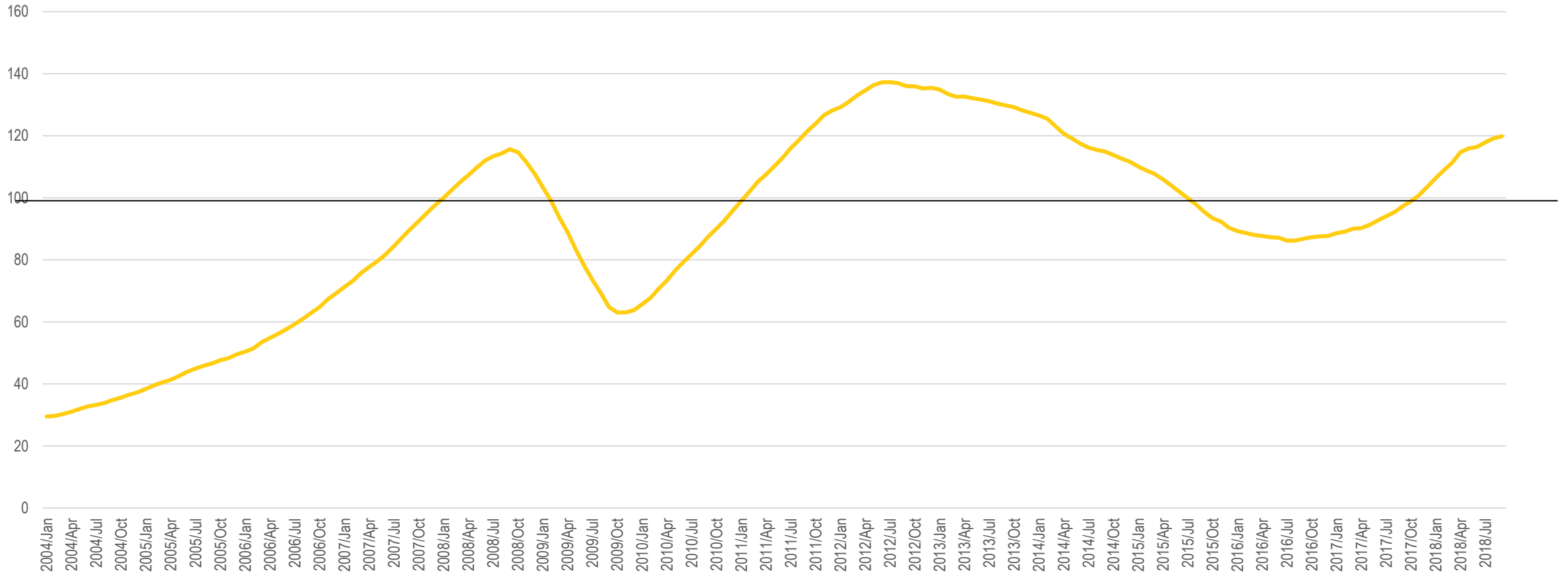
Source: Association of Equipment Manufacturers/ Chinese Construction Machinery Manufacturers

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Developing Countries Machine Industry xChina

Jan 2008 Units =100
(Rolling 12 months)



Data through September 2018

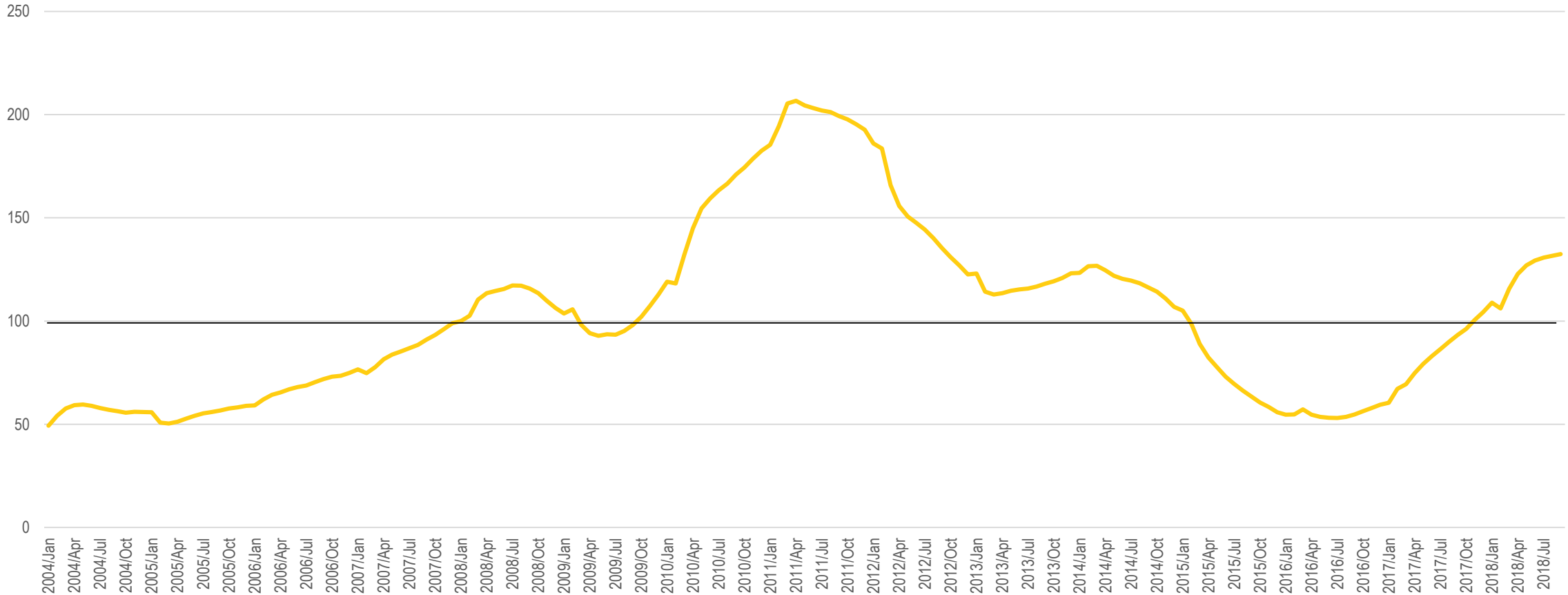
Source: Association of Equipment Manufacturers/ Chinese Construction Machinery Manufacturers

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China Machine Industry

Jan 2008 Units =100
(Rolling 12 months)



Data through September 2018

Source: Association of Equipment Manufacturers/ Chinese Construction Machinery Manufacturers

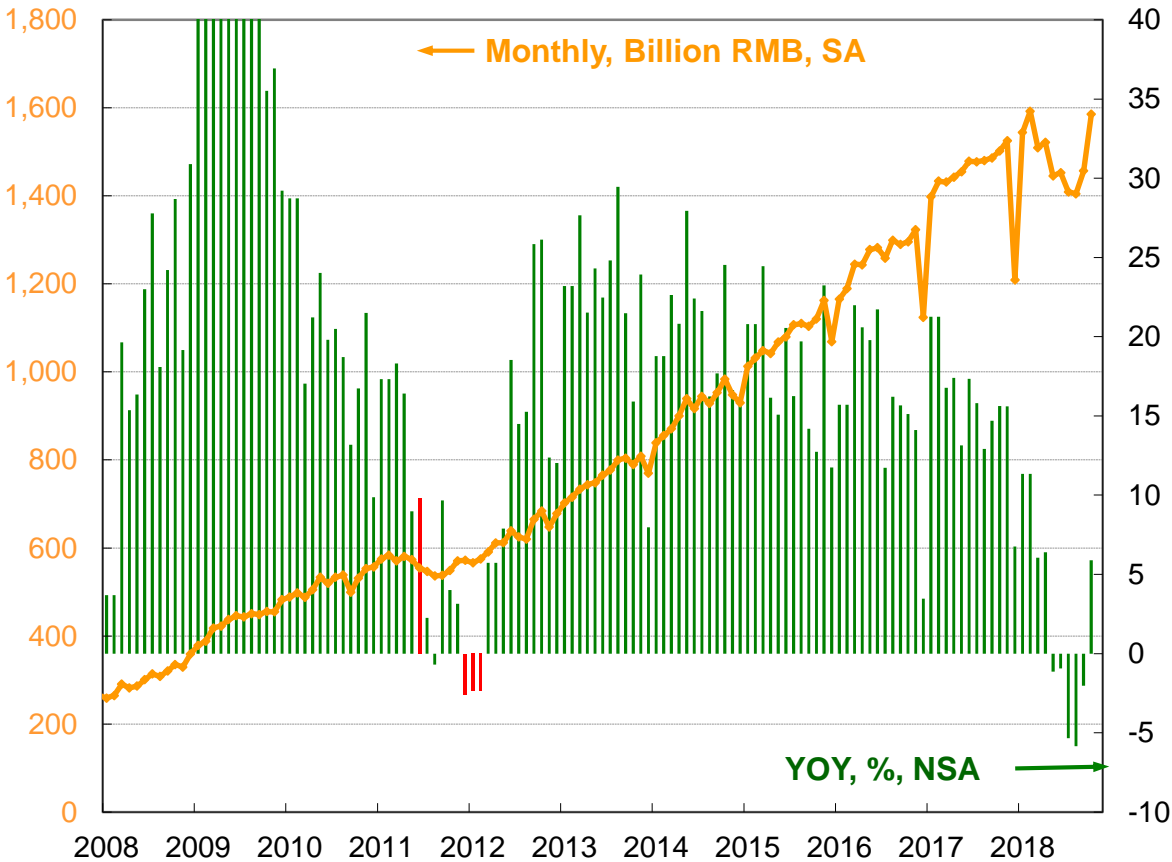
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China Construction

China Fixed Asset Investment: Infrastructure

(Transport, storage & postal service + Electricity, gas & water production and supply + Water conservancy, environment & public facilities management)



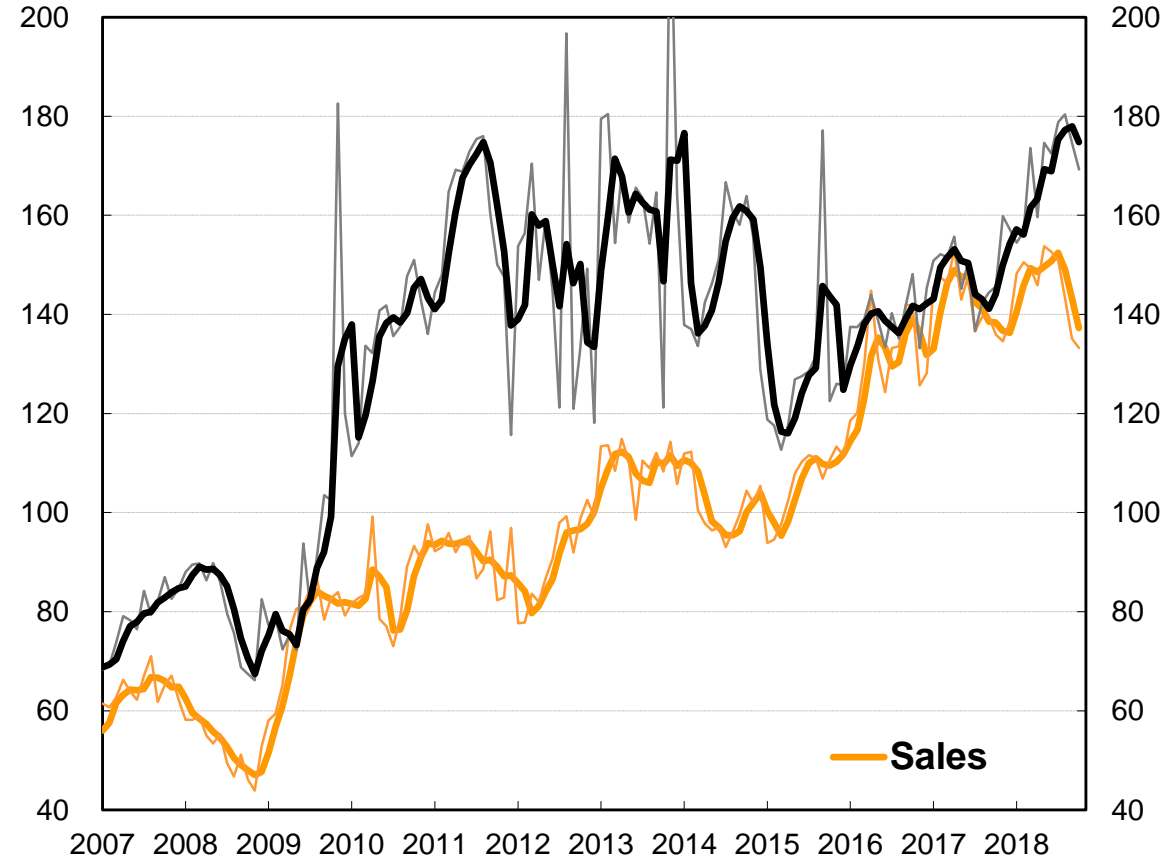
Source: CNBS, Haver Analytics, Business Economics

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Infrastructure rebound in Oct on policy support; Starts still strong, but early signs of easing

New Building Sales & Starts

(Million sq meters, SA, 3mma)



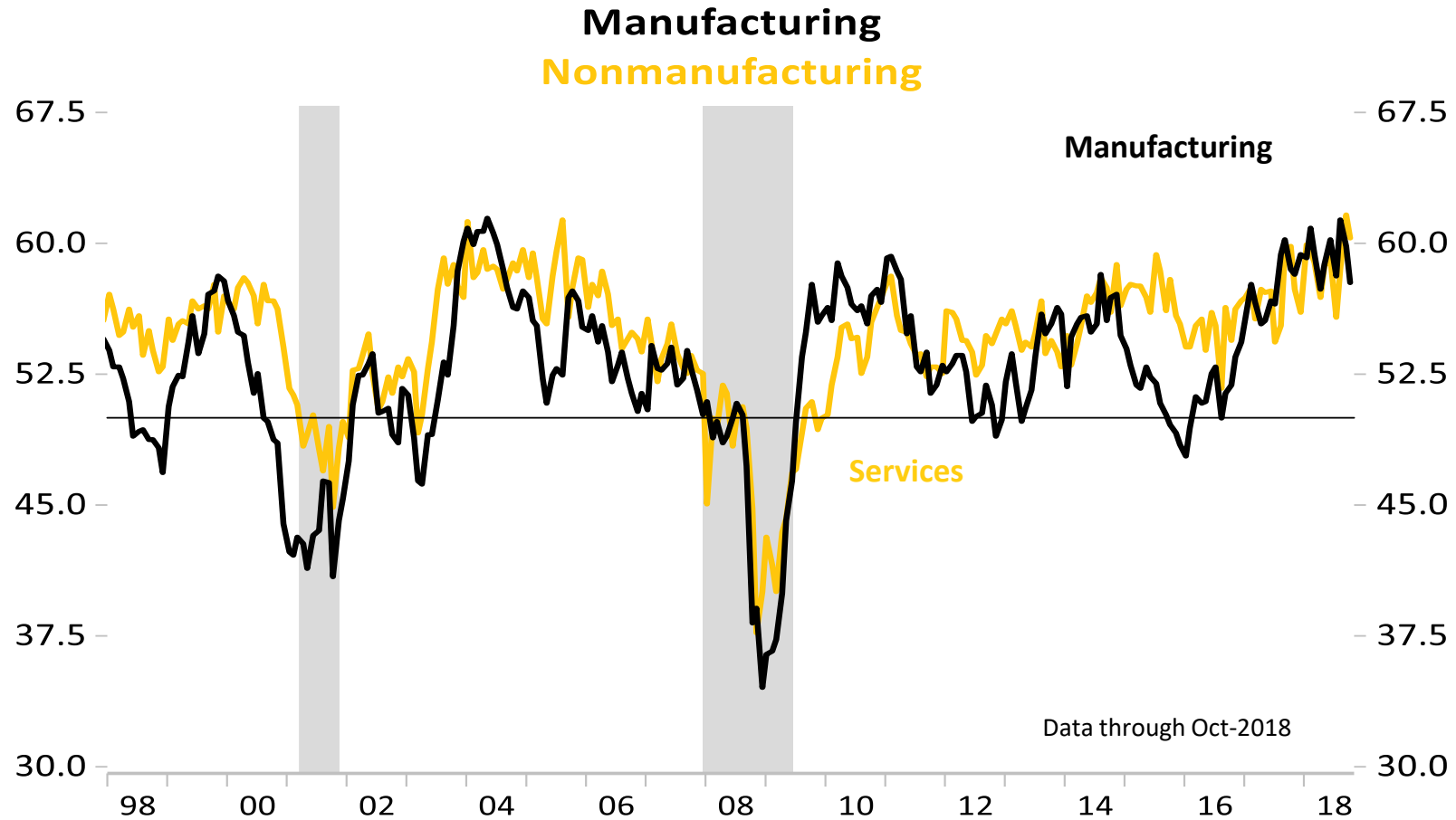
Source: CNBS, Haver Analytics, Business Economics



U.S. Business Indicators

No signs of cycle end

ISM Purchasing Managers Index (+50=Expanding)



Source: ISM/Haver

Data through Oct-2018

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US Leading Indicators

Indicating continued growth

	<u>Threshold *</u>	<u>Sept. 2007 *</u>	<u>Latest</u>
Yield Curve (bps)	75	-42	96
TED Spread (bps)	50	150	27
Money Growth (% Change)	4.9	0.7	4.2
Light Vehicle Sales (% Change)	0	-3.0	-2.0
Housing Starts (% Change)	0	-32.4	-2.1
Freight Movements (% Change)	0	-3.1	4.7

* Notes:

- Thresholds: Economy is typically expanding when above the thresholds for the yield curve (10-year Treasury less Fed funds rate), money growth, light vehicle sales, housing starts, and freight movements. Liquidity in the banking system is typically healthy when TED spread (3-month LIBOR less 3-month Treasury) is below the threshold.
- September 2007 benchmark: one year before Lehman Brothers filed for bankruptcy.

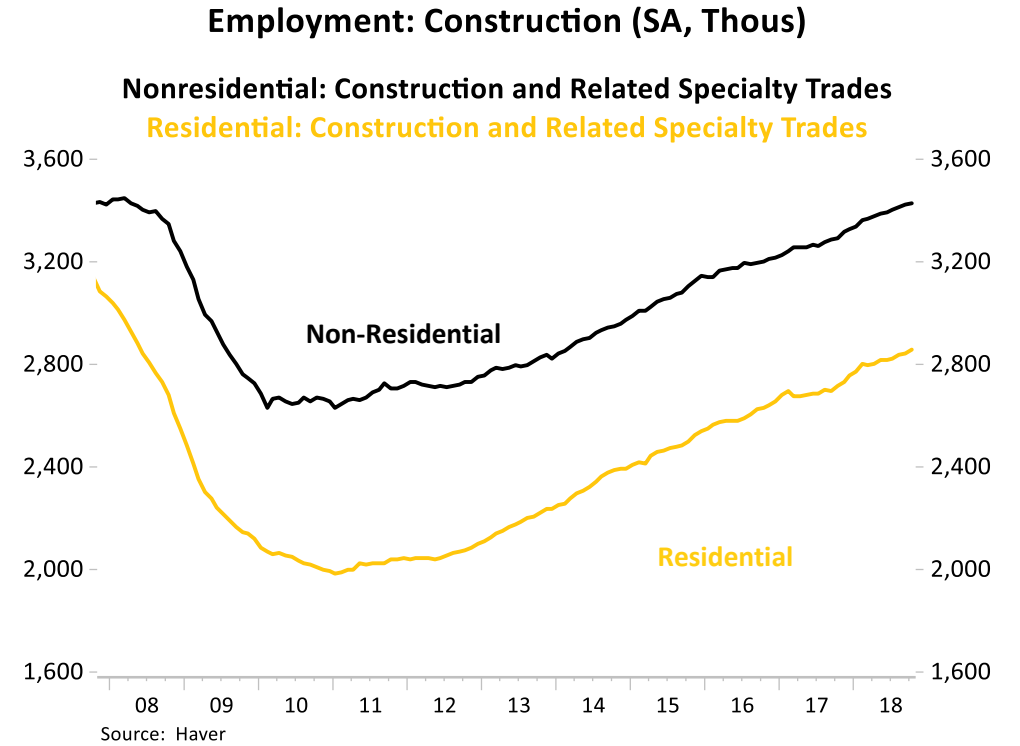
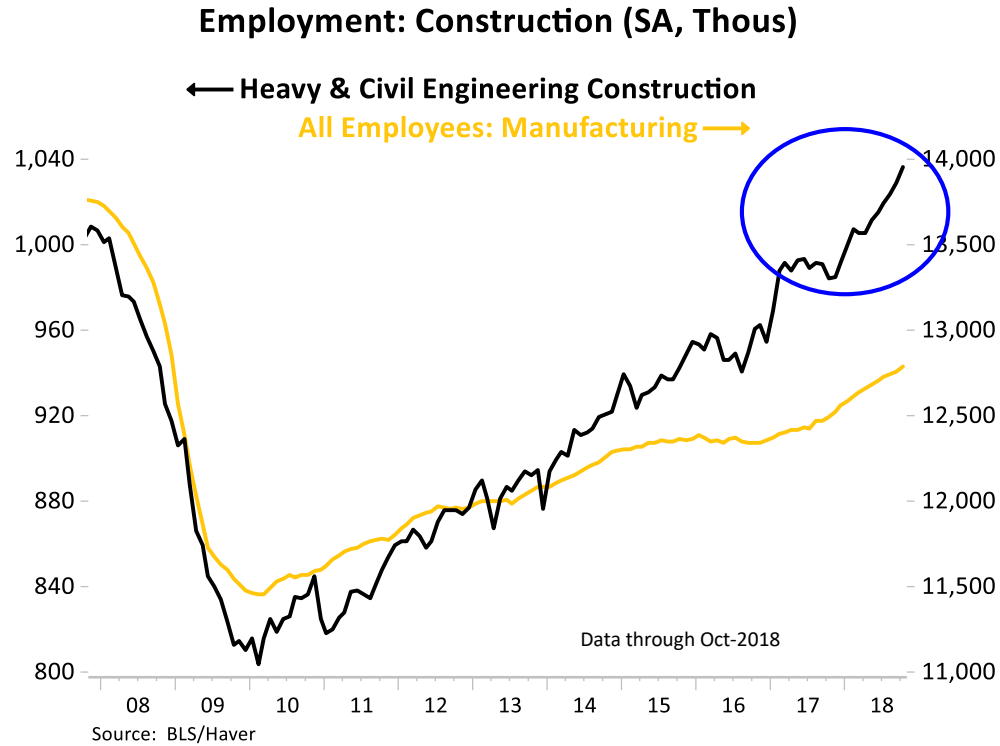
Source: Haver Analytics

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U.S. Construction Employment

Total construction emp. up 4.7% versus total economy up 1.7% YoY

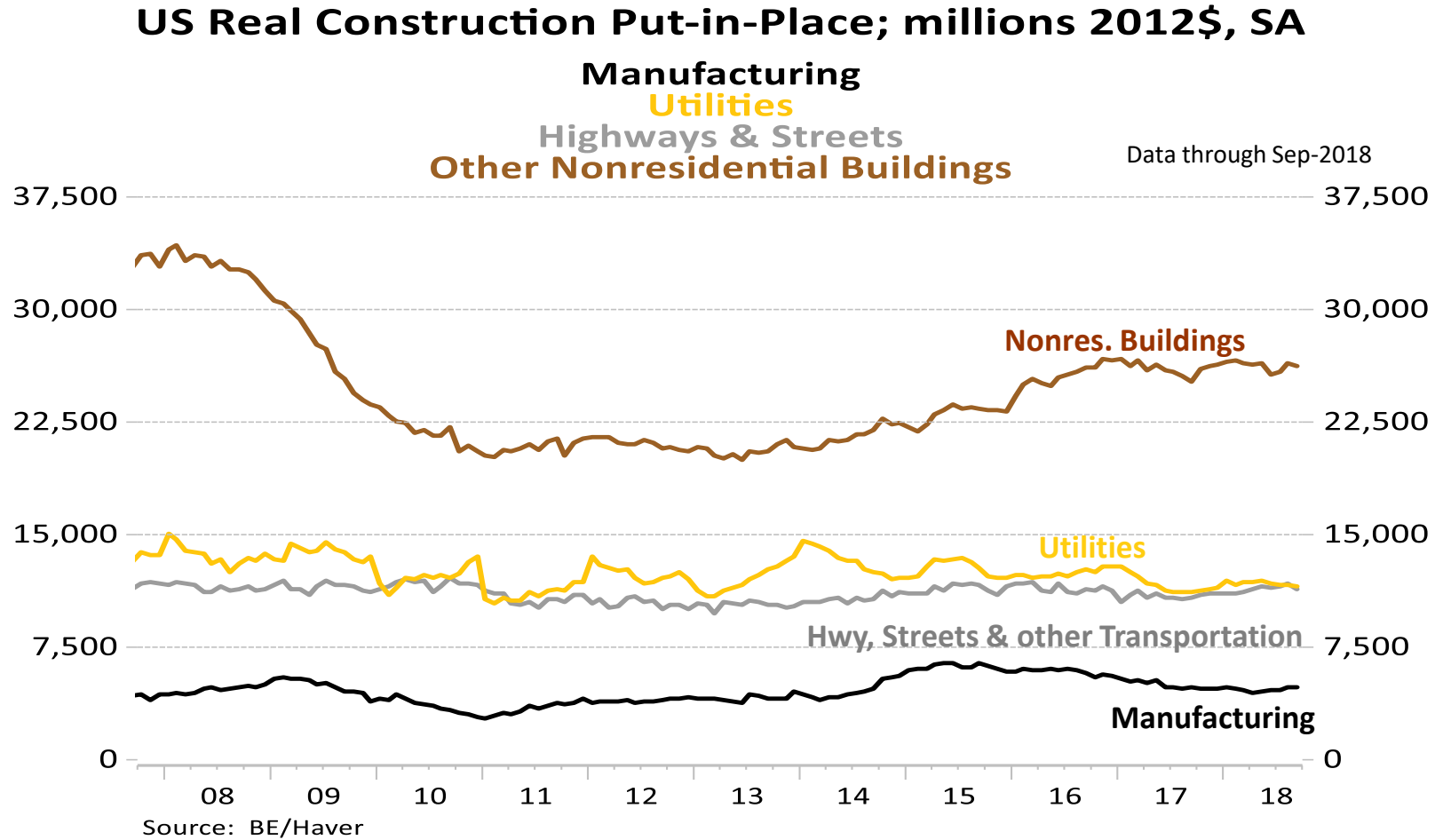


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U.S. Nonresidential Construction

Infrastructure growing
Nonres Buildings
moving sideways

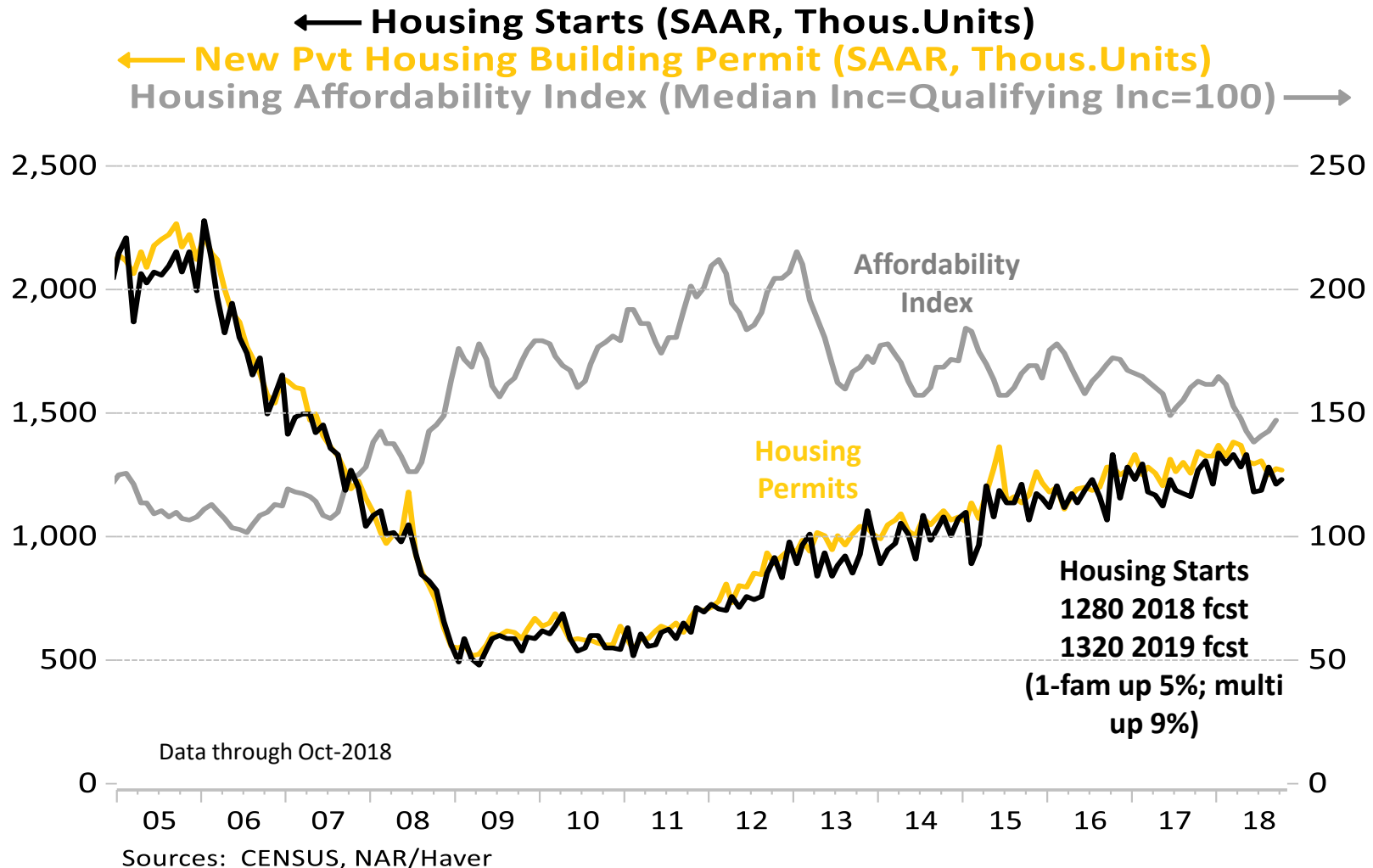


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Employment and wage growth still supportive of home buying
Weakness largely in West

U.S. Housing Permits and Starts

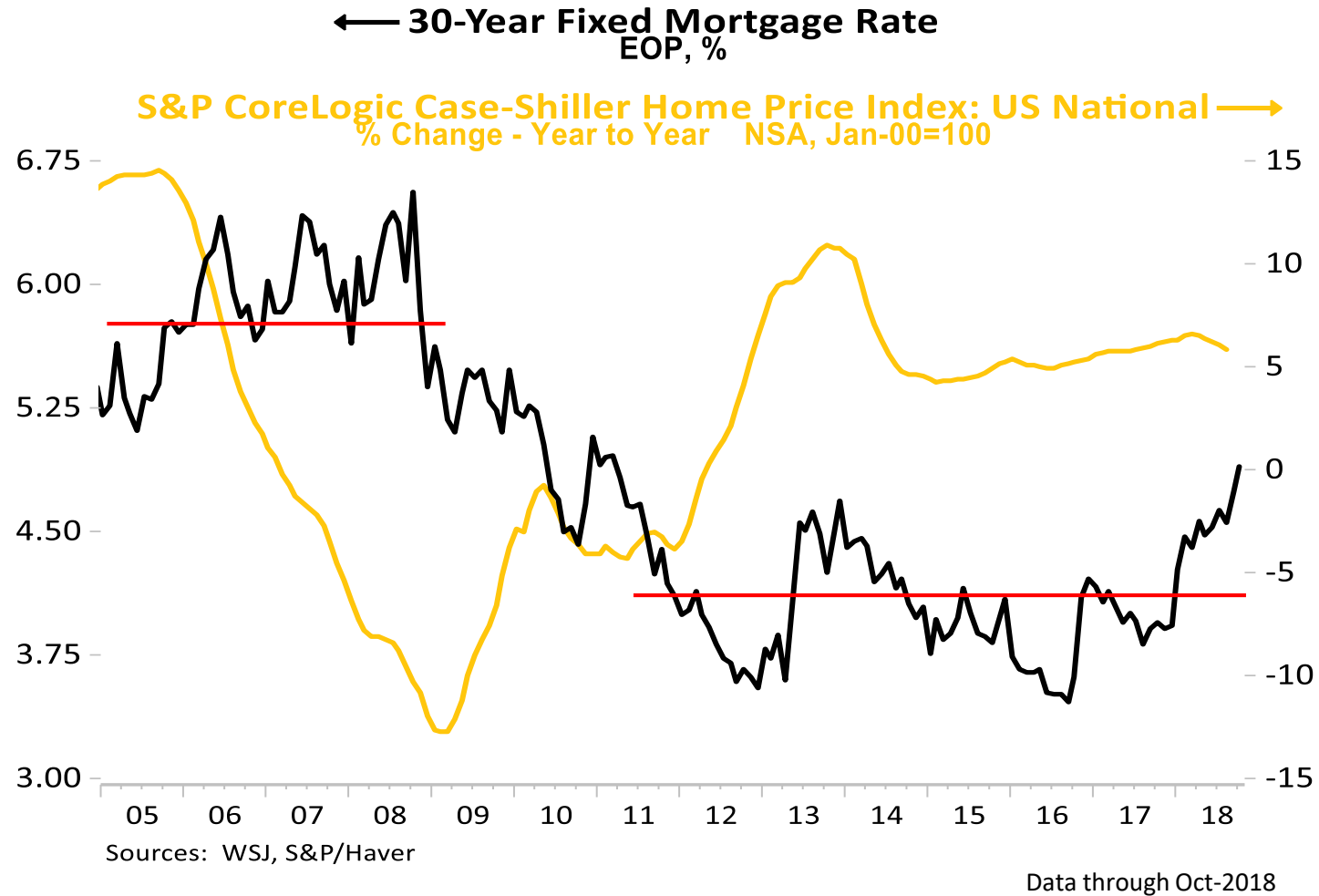


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U.S. Mortgage rates and Home Prices

As mortgage rates rise, home price growth moderates
Buyers likely to be more patient

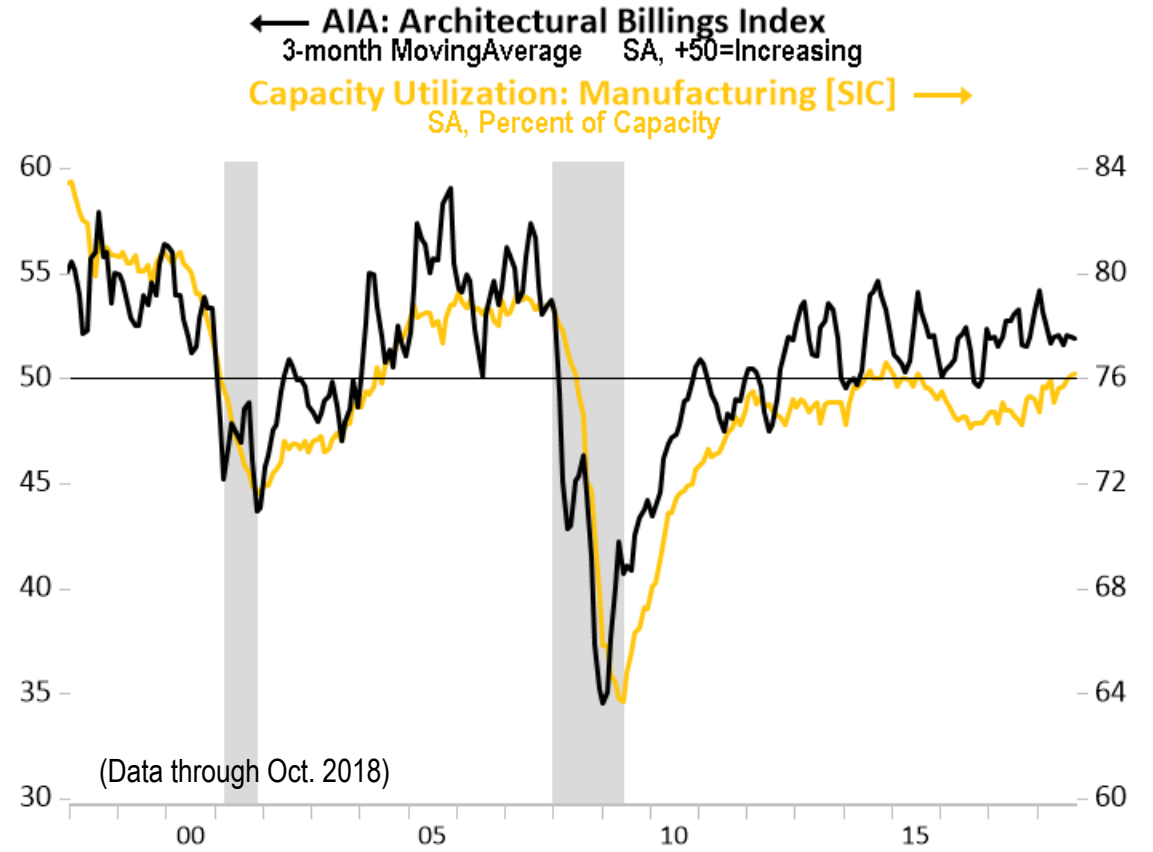
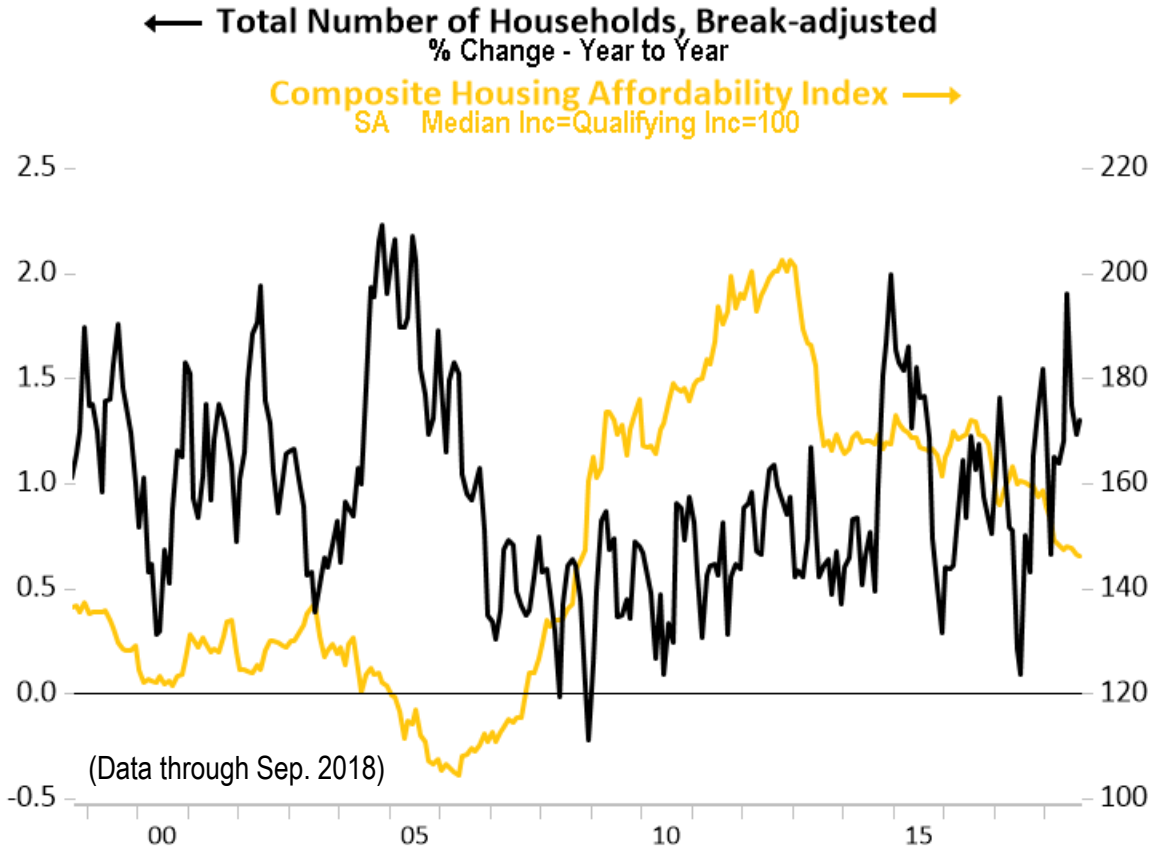


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Some U.S. Construction Drivers

Sound fundamentals



Sources: CENSUS/H, NAR/Haver

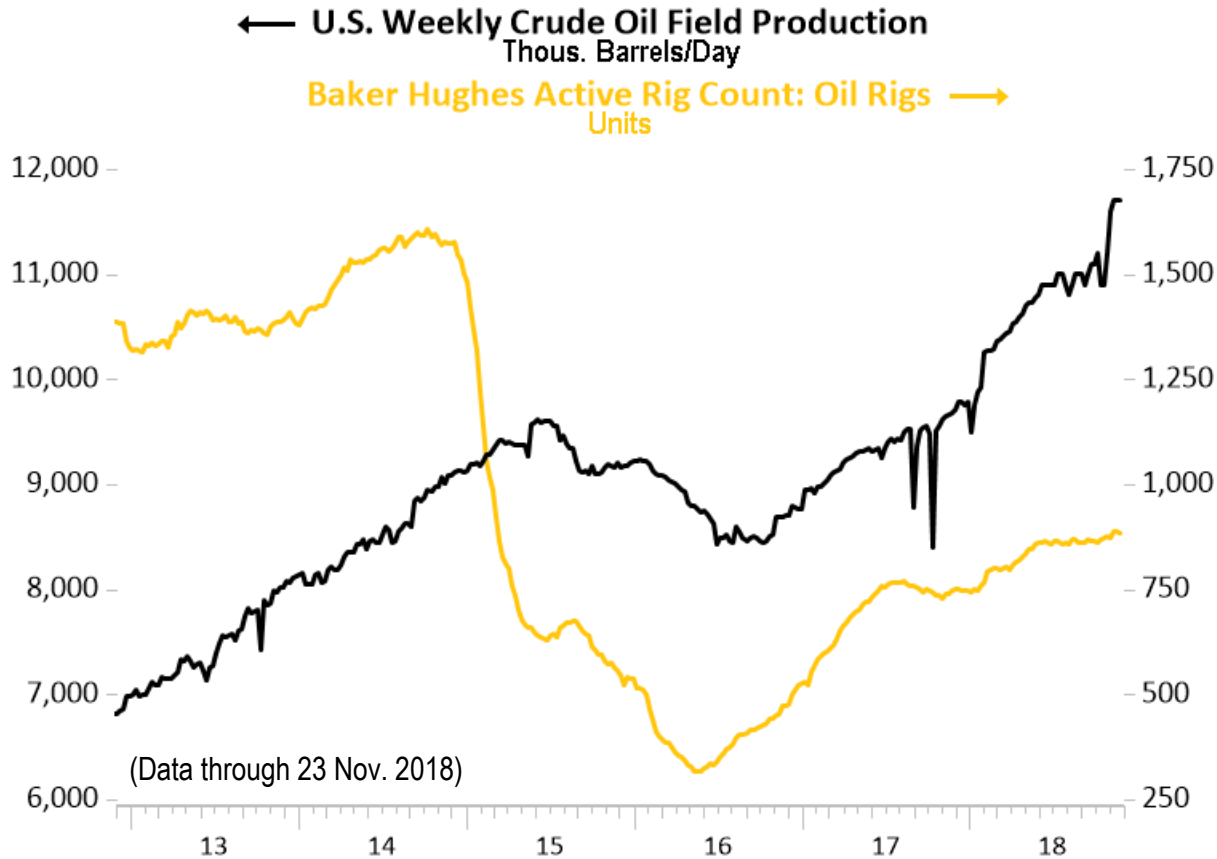
Sources: AIA, FRB/Haver

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Some U.S. Construction Drivers (Cont'd)

Increasing production meets infrastructure constraints



Sources: Energy Information Administration, Baker Hughes/Haver Analytics

Permian Crude Pipelines

Project	Developer	Timing	Total possible capacity (barrels per day)
Gray Oak	Phillips 66 and Andeavor	End-2019	700,000 - 1,000,000
EPIC NGL Conversion	EPIC Midstream	3Q 2019	400,000*
EPIC Crude	EPIC Midstream	By Jan 2020	600,000-900,000
Cactus II	Plains All American	3Q 2019 - April 2020	585,000 - 670,000
Permian-Nederland	Energy Transfer, Magellan Midstream, MPLX and Delek	Mid-2020	600,000 - 1,000,000
Permian-Gulf Coast	Exxon Mobil and Plains All American	Mid-2021	1,000,000

Source: Company announcements
Note: * denotes service will be temporary until EPIC Crude Pipeline enters service

Bloomberg

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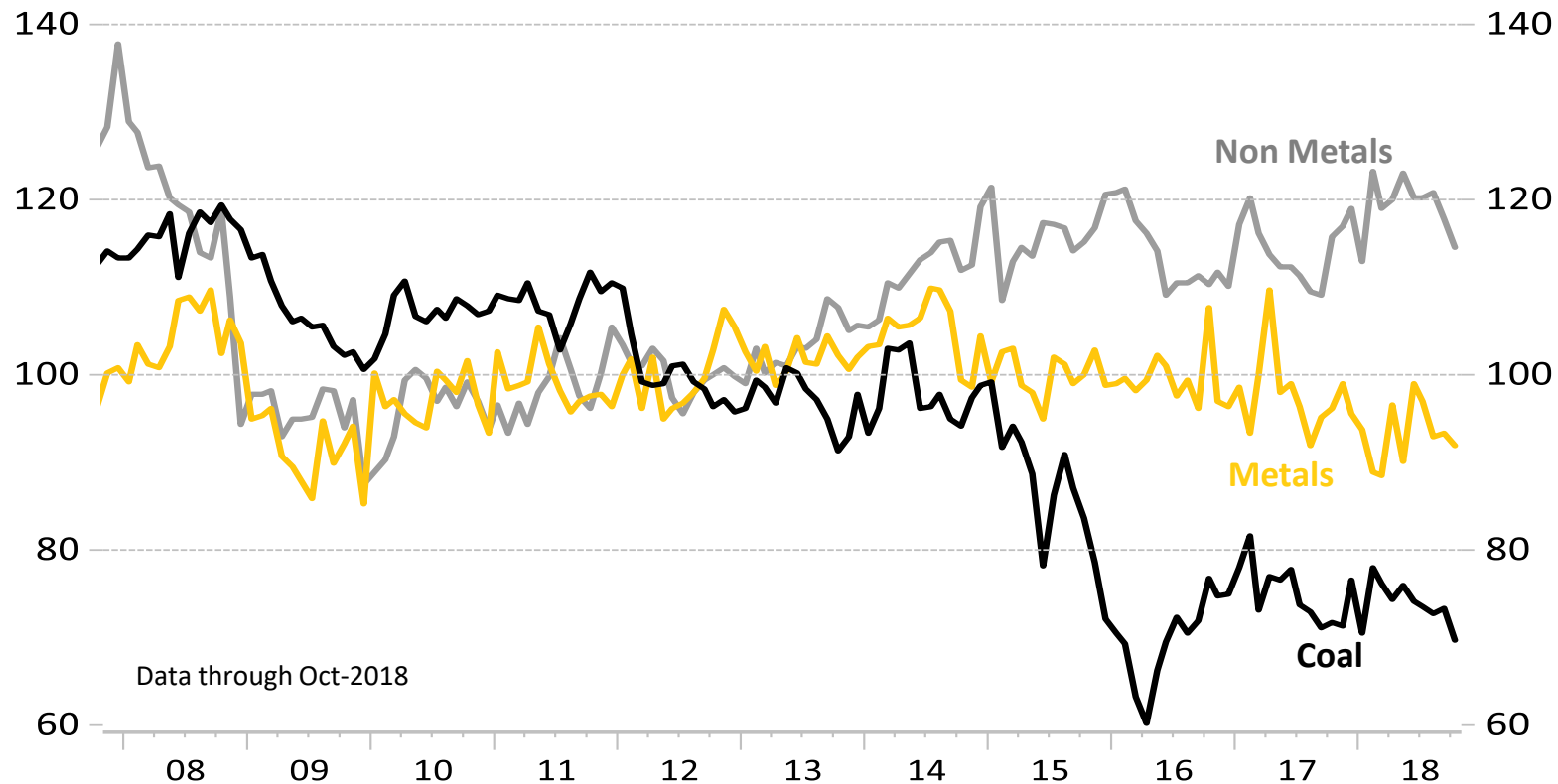


U.S. Mining Output Indexes

Production
weakening

Industrial Production Mining (SA, 2012=100)

Coal
Metal Ore
Nonmetallic Mineral Mining and Quarrying



Data through Oct-2018

Source: Haver/FRB

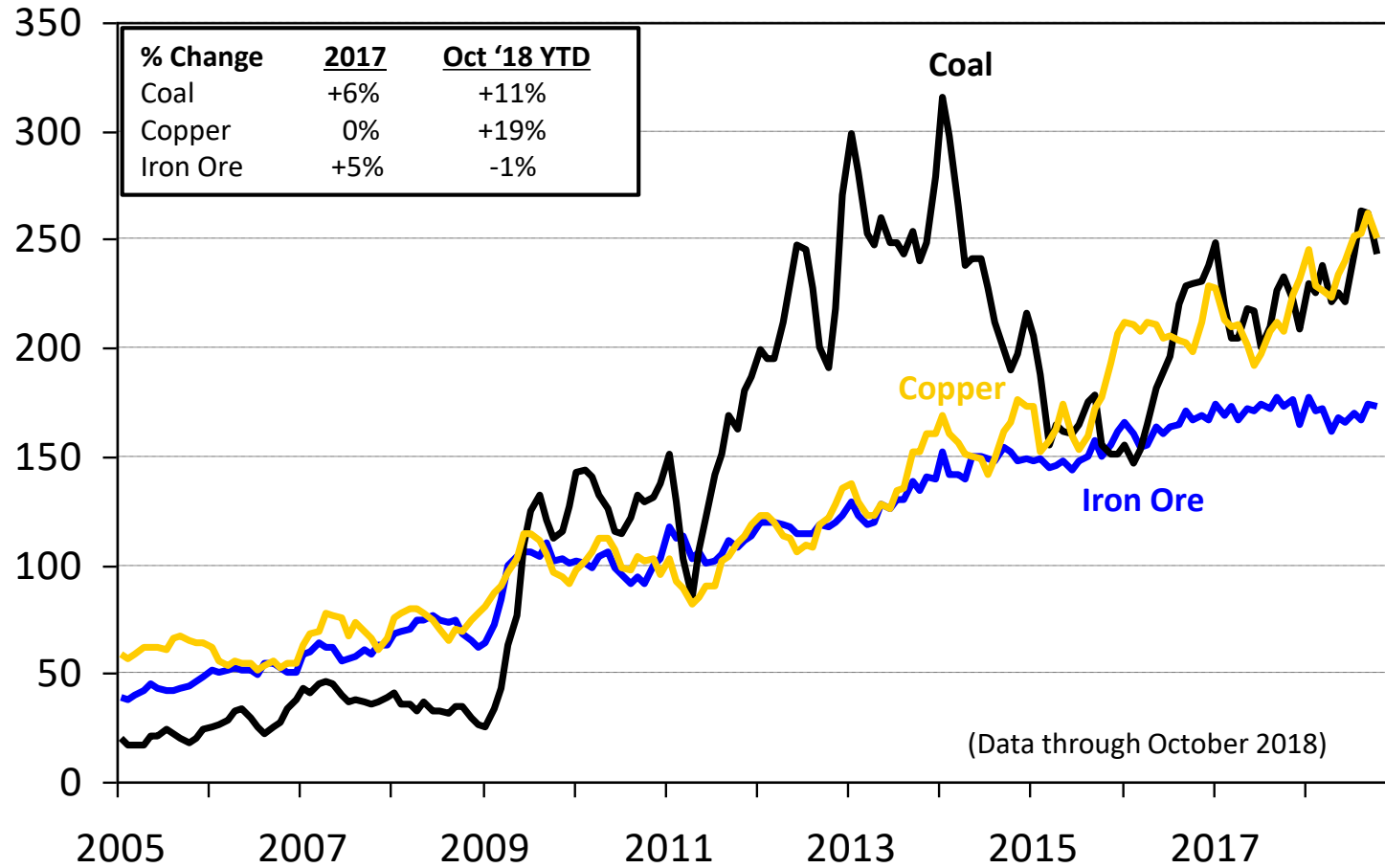
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China Commodity Imports

YoY coal and copper growth

China Commodity Imports
(Volume 3MMA, 2009=100)



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