2018 Cotton Market Outlook: At What Price Should I Get Back Into Cotton?

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Overview

- Current and recent past market situation
- Supply, Demand, and Stocks
  - U.S.
  - Global
- 2018 Price Outlook
- Should I Get Back into Cotton?

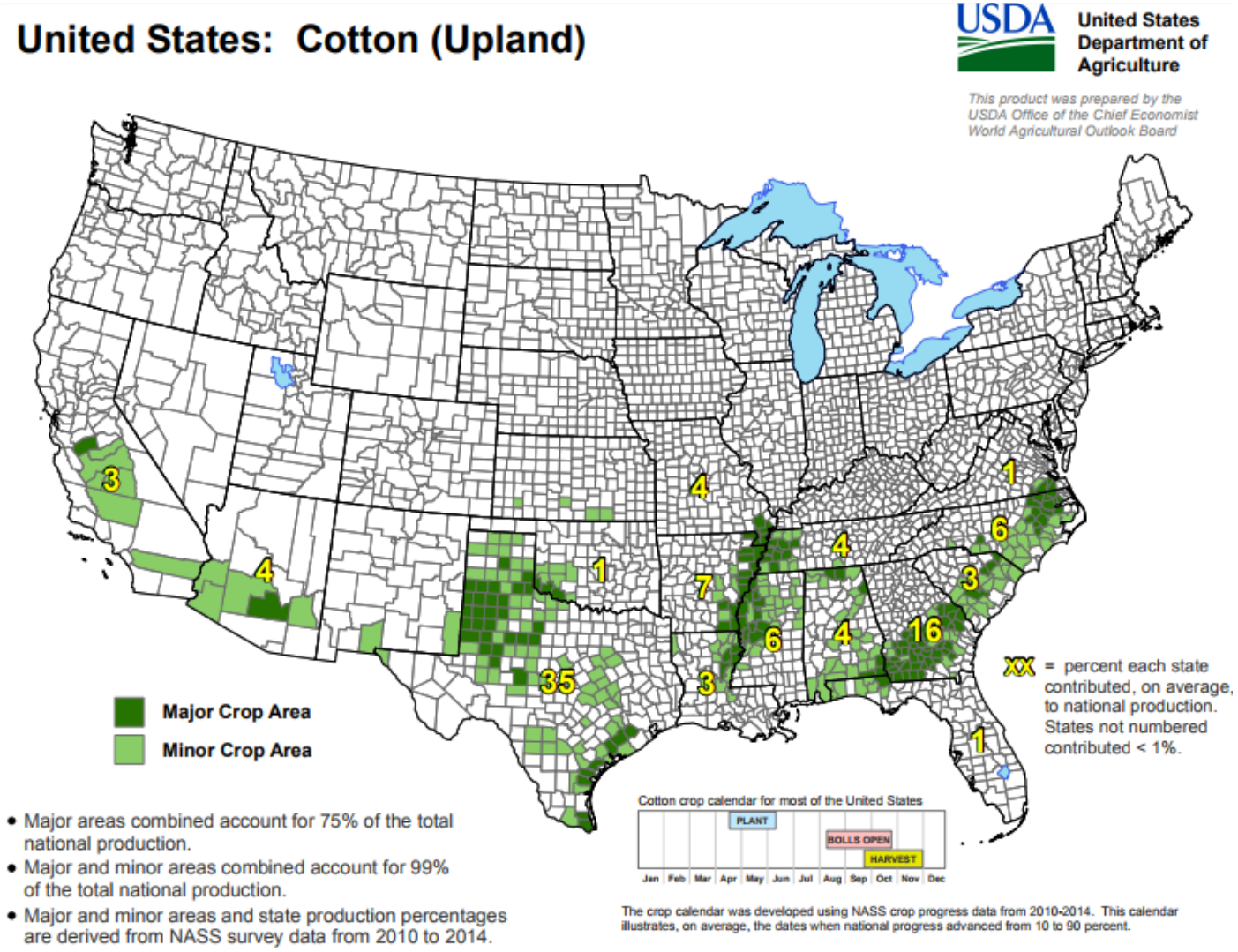
Recent Past Cotton Economic Factors

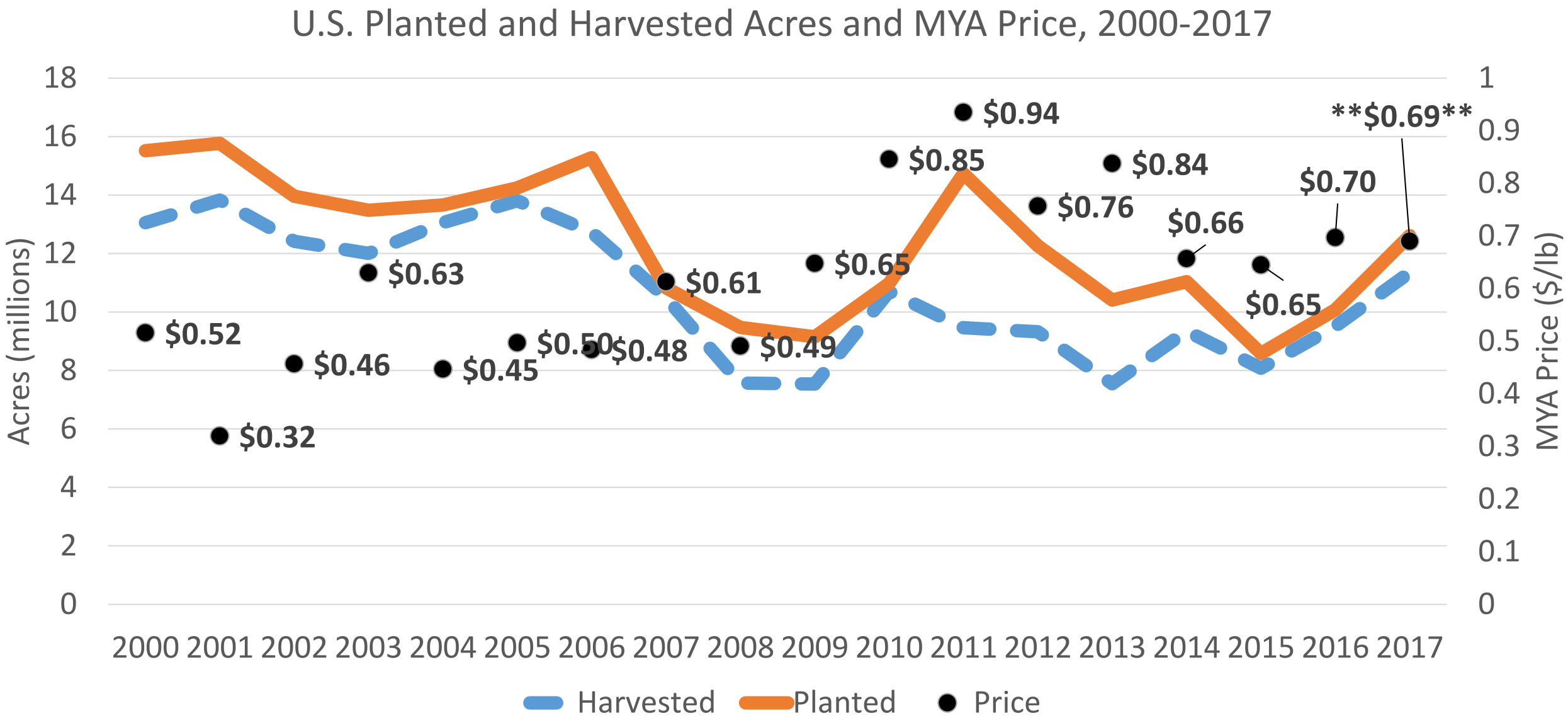
- Declining Demand
- High Stocks – World and China
  - High stocks were not as influential on price because the majority was held in China and the market knew that most of that was not going into the world pipeline. It was China's stocks & import policy that was important, not the actual stocks number.
- Declining US Acreage and Production
- U.S. Prices 50-70 cents

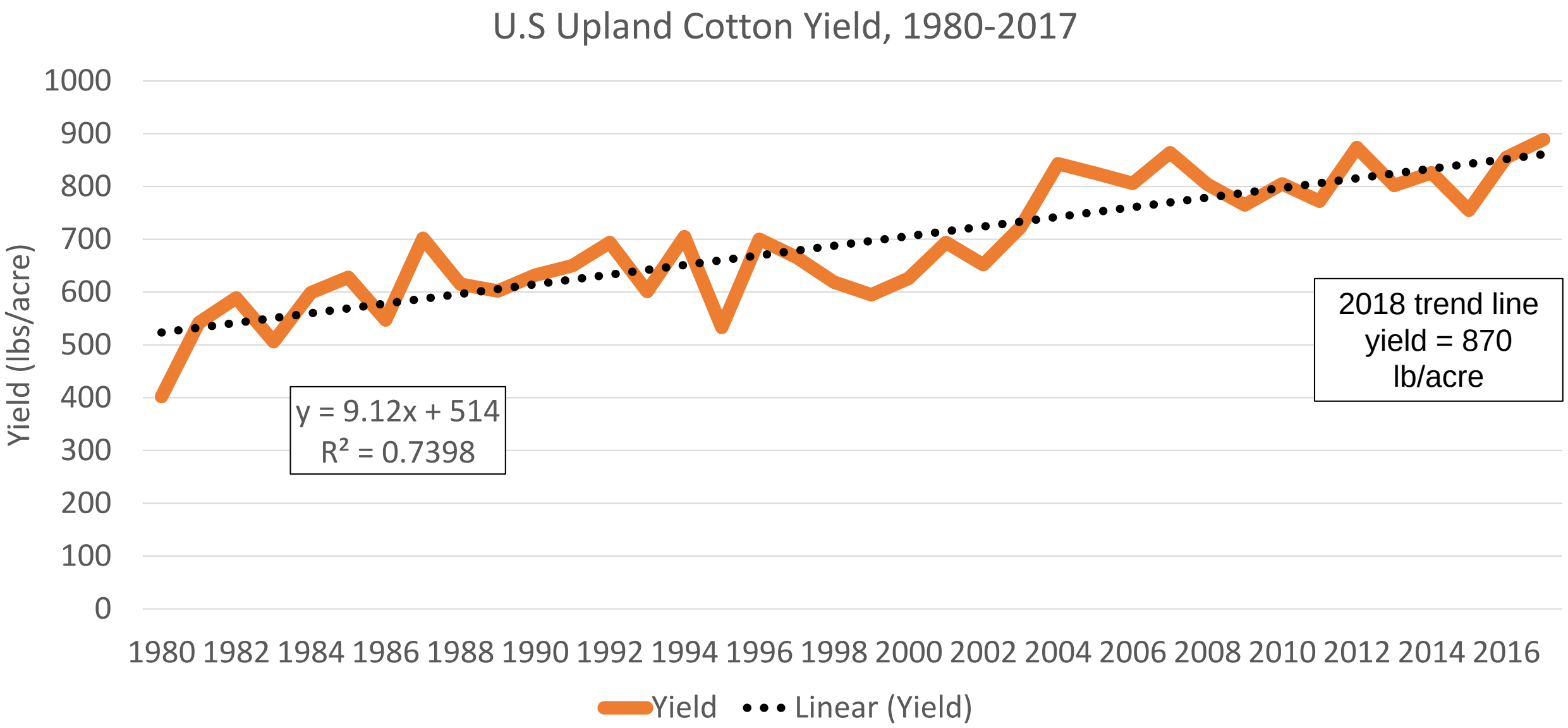
The Current Dynamics of the Cotton Market

- Demand is Improving
- **Competition with synthetic fibers has improved dramatically**
  - China polyester production/environmental concerns
- China stocks have been reduced
  - 2 years of very good government reserve sales
  - Global stocks are down
- Emergence of additional export markets
- US has gained market share

U.S. SUPPLY AND DEMAND




U.S. Planted and Harvested Acres and MYA Price, 2000-2017
Acres (millions)
MYA Price ($/lb)
18
16
14
12
10
8
6
4
2
0
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
$0.52
$0.32
$0.46
$0.63
$0.45
$0.50
$0.48
$0.61
$0.49
$0.65
$0.85
$0.94
$0.76
$0.84
$0.66
$0.65
$0.70
$0.69
Harvested
Planted
Price

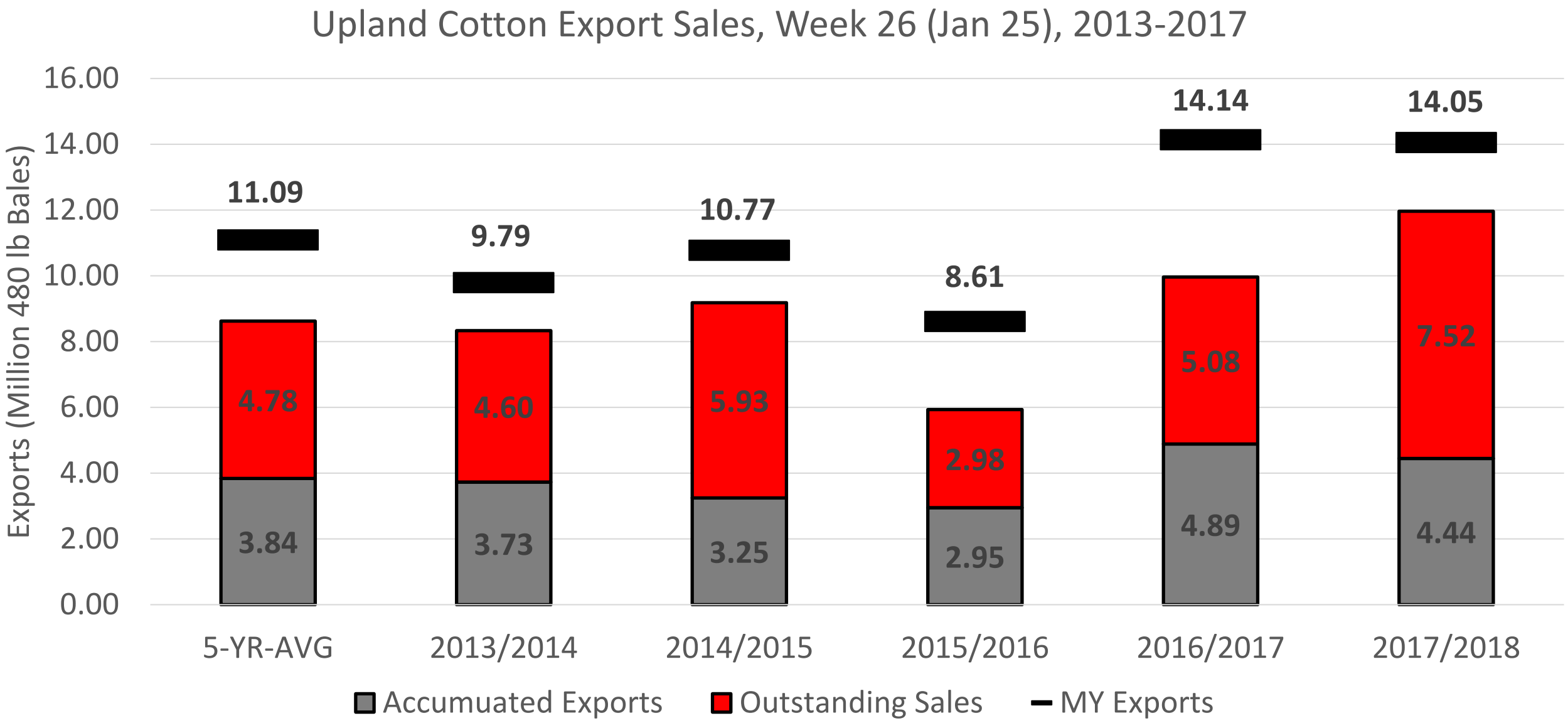

U.S Upland Cotton Yield, 1980-2017
Yield (lbs/acre)
1000
900
800
700
600
500
400
300
200
100
0
1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016
y = 9.12x + 514
R² = 0.7398
2018 trend line
yield = 870
lb/acre
Yield
Linear (Yield)

2018 Acreage

- Cotton prices are more attractive relative to corn and soybeans in the recent past ….. but
  - Is there sufficient harvest capacity?
    - Machinery compliment has changed over the past five years.
      - New = high capital recovery cost
      - Used = lower harvest efficiency? Higher variable costs?
  - Ginning capacity?
    - Is transportation and infrastructure sufficient regionally?
- 2018 planted acreage 12.5 -13.5 million acres?
  - 91% harvested to planted and 870 lbs/acre
  - 20.6 to 22.3 million bales?

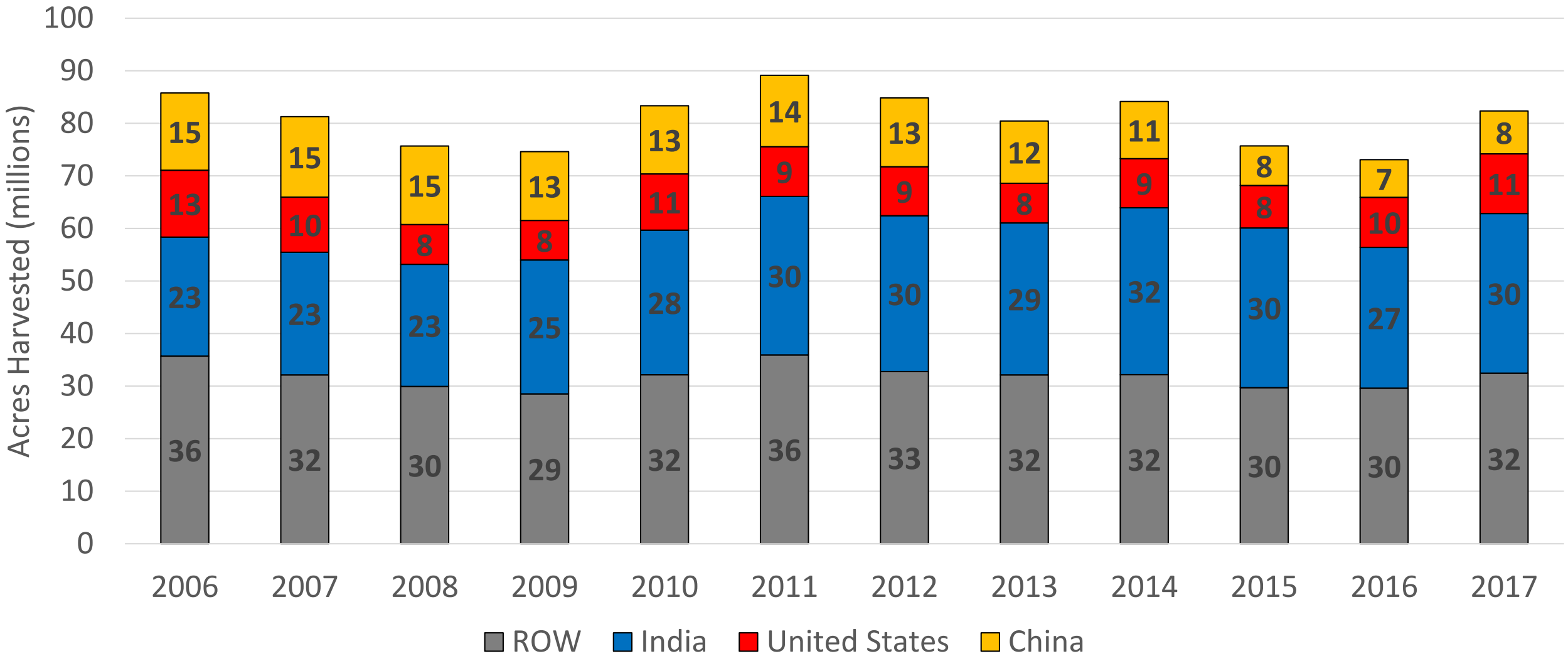
USDA WASDE

	2014	2015	2016	2017 Jan	Change 16-17
			Planted and Harvested Acres & Yield		
Planted (Million Acres)	11.04	8.58	10.07	12.61	2.54
Harvested (Million Acres)	9.35	8.07	9.51	11.35	1.84
U.S. Yield (lbs/acre)	838	766	867	899	32
			Supply (Million Bales)		
Beg. Stocks	2.35	3.65	3.8	2.75	-1.05
Production	**16.32**	**12.89**	**17.17**	**21.26**	**4.09**
Total Supply	18.68	16.57	20.98	24.02	3.04
			Use & Ending Stocks (Million Bales)		
Domestic	3.58	3.45	3.25	3.35	0.1
Exports	**11.25**	**9.15**	**14.92**	**14.8**	**-0.12**
Total Use	14.82	12.6	18.17	18.15	-0.02
U.S. Ending Stocks	**3.65**	**3.8**	**2.75**	**5.7**	**2.95**
Foreign Stocks	**108.09**	**91.55**	**84.89**	**82.09**	**-2.8**
Chinese Stocks	**66.92**	**58.2**	**48.42**	**39.77**	**-8.65**
			Price and Stocks to Use Ratio		
U.S. Avg. Price ($/lb)	$0.613	$0.612	$0.68	$0.67-$0.71	$0.010
U.S. Stocks/Use	**25%**	**30%**	**15%**	**31%**	**16.27%**
Chinese Stocks/Use	**197%**	**166%**	**129%**	**99%**	**-29.70%**


Upland Cotton Export Sales, Week 26 (Jan 25), 2013-2017
Exports (Million 480 lb Bales)
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
11.09
9.79
10.77
8.61
14.14
14.05
4.78
4.60
5.93
2.98
5.08
7.52
3.84
3.73
3.25
2.95
4.89
4.44
5-YR-AVG
2013/2014
2014/2015
2015/2016
2016/2017
2017/2018
Accumuated Exports
Outstanding Sales
MY Exports

GLOBAL SUPPLY AND DEMAND

Global Cotton Acres Harvested, 2006-2017



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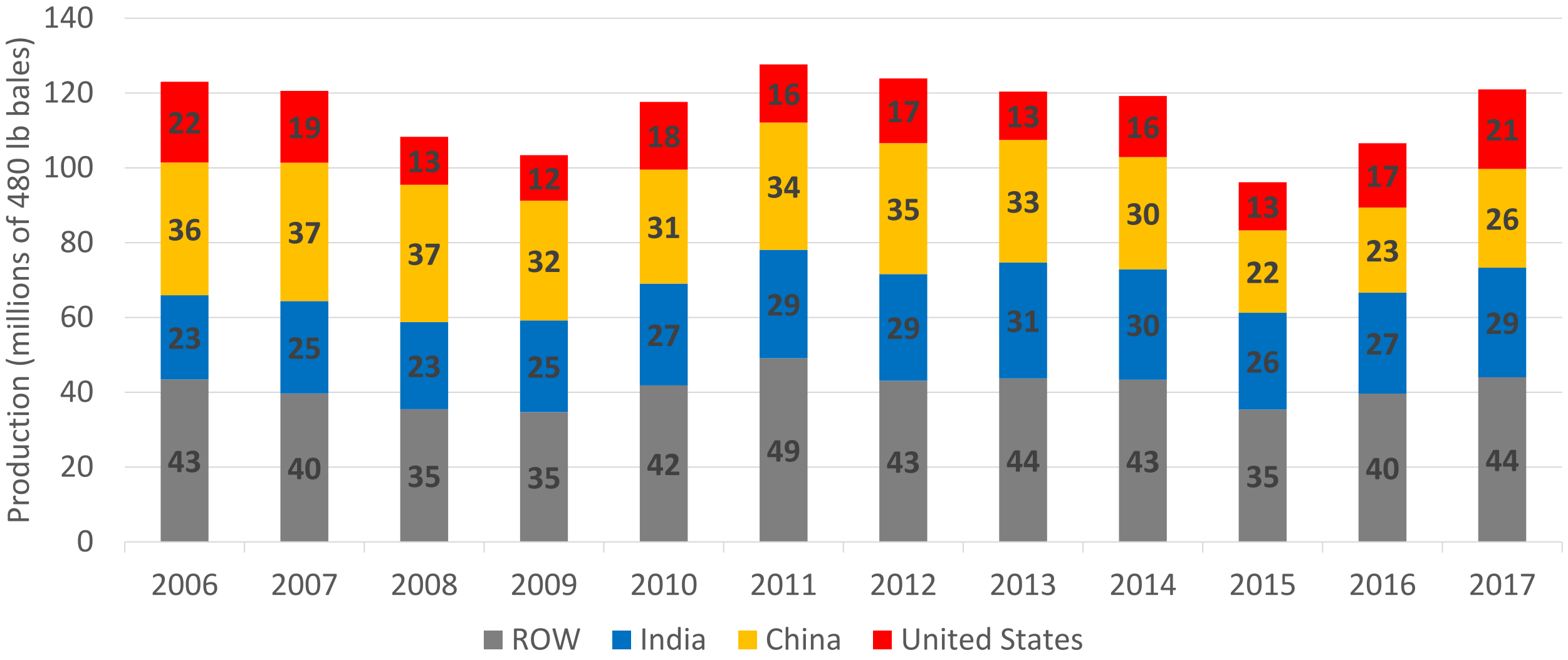
World Cotton Yields by Country(lbs/acre)

Country	2006 Yield	10 Year Average Yield	2017/18 Yield	Difference from 10 Year Average
Australia	1,749	1,762	2,023	261
Brazil	1,243	1,297	1,378	80
China	1,159	1,270	1,523	253
India	**476**	**470**	**477**	**7**
Pakistan	573	606	634	29
United States	**814**	**826**	**899**	**73**
World	688	684	709	25

Global Cotton Production, 2006-2017



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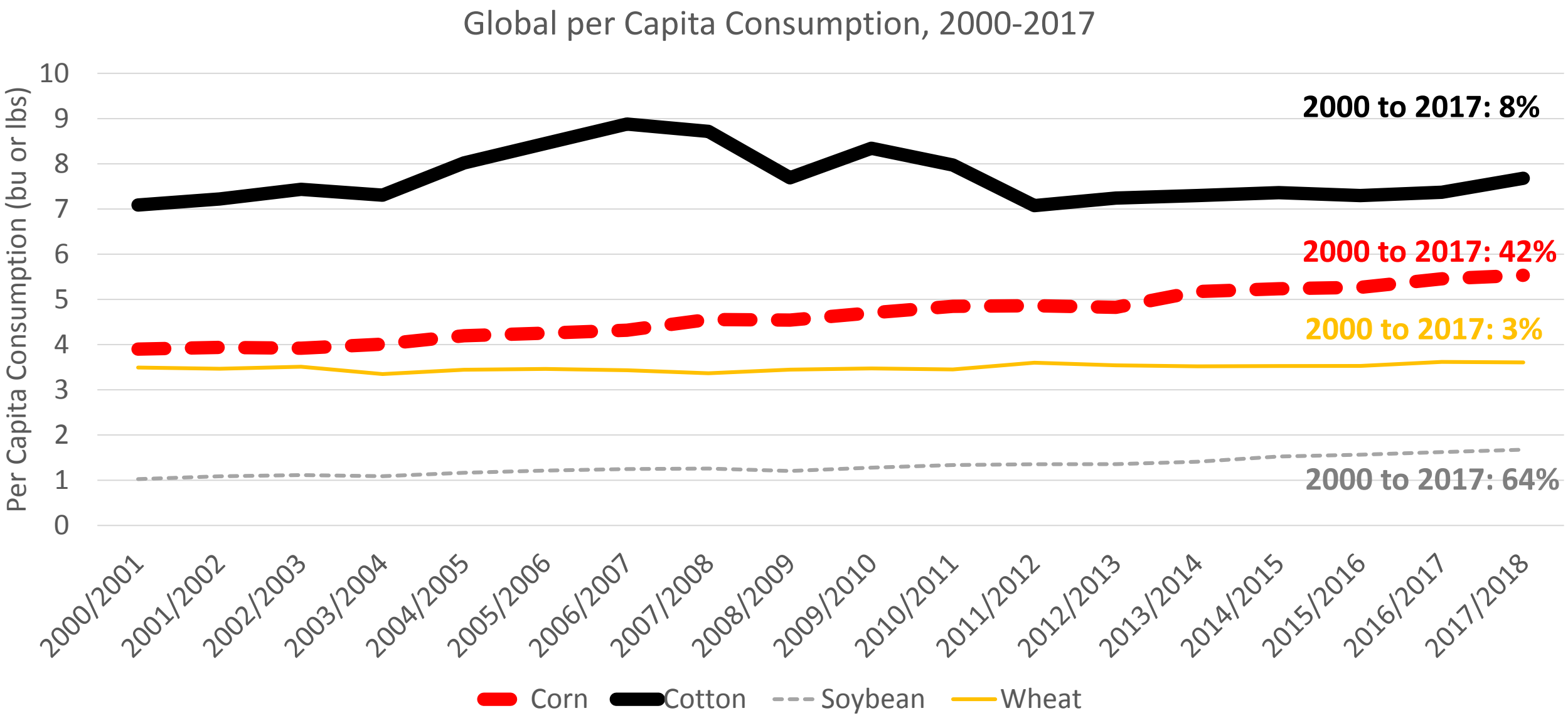
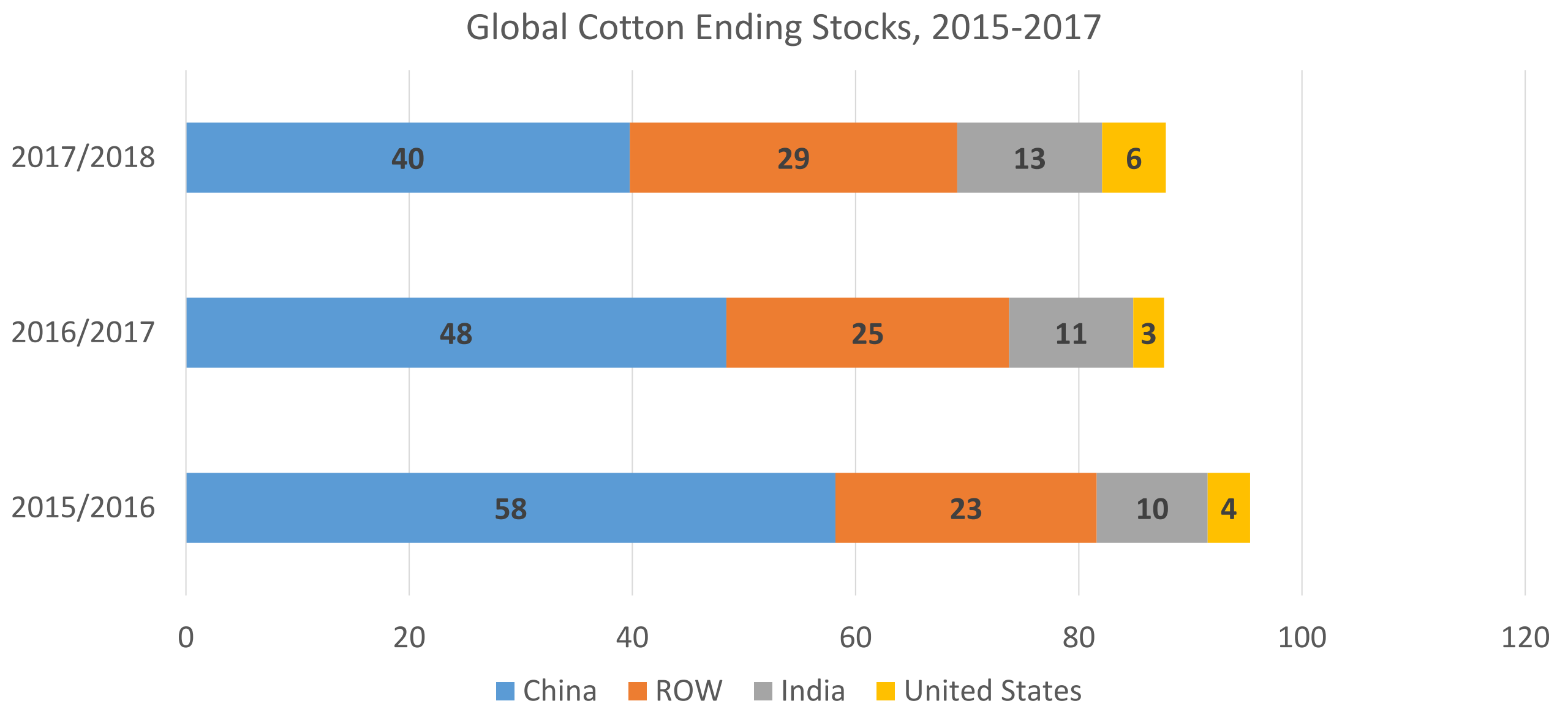
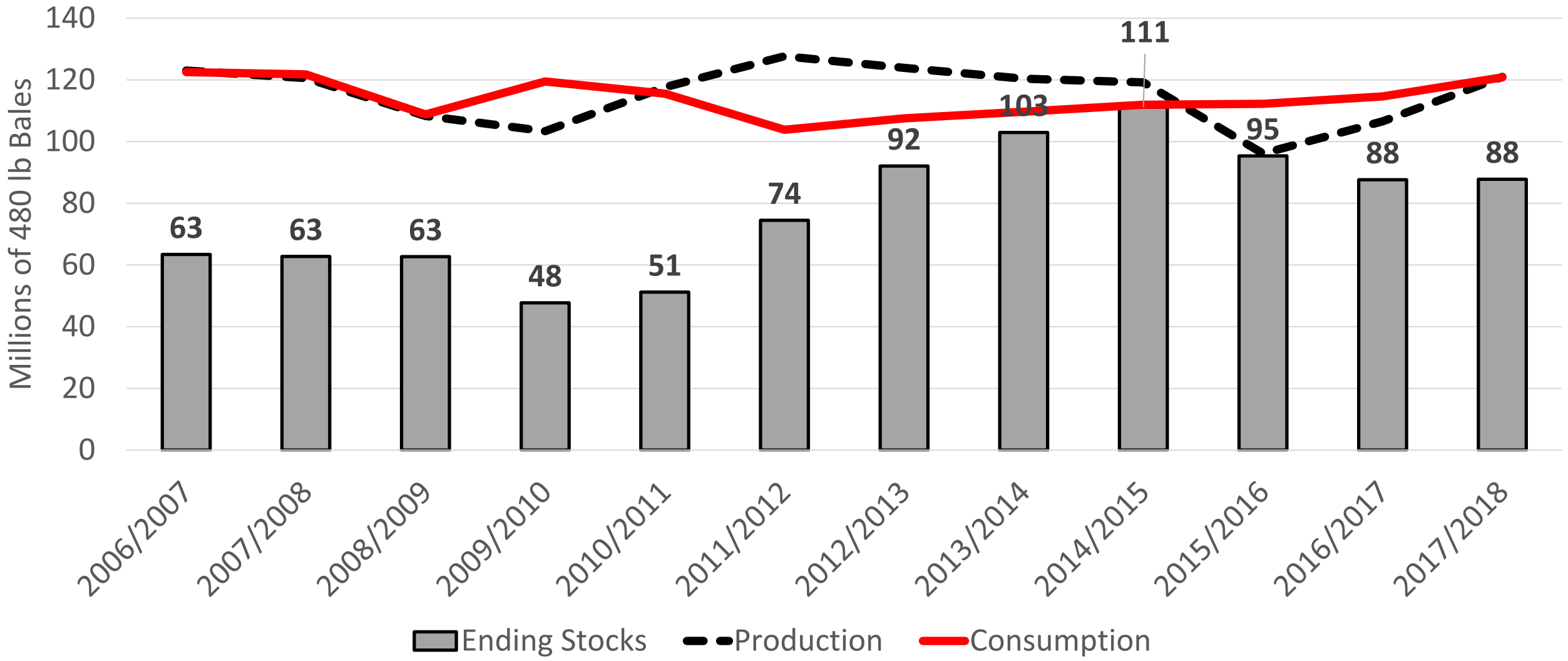
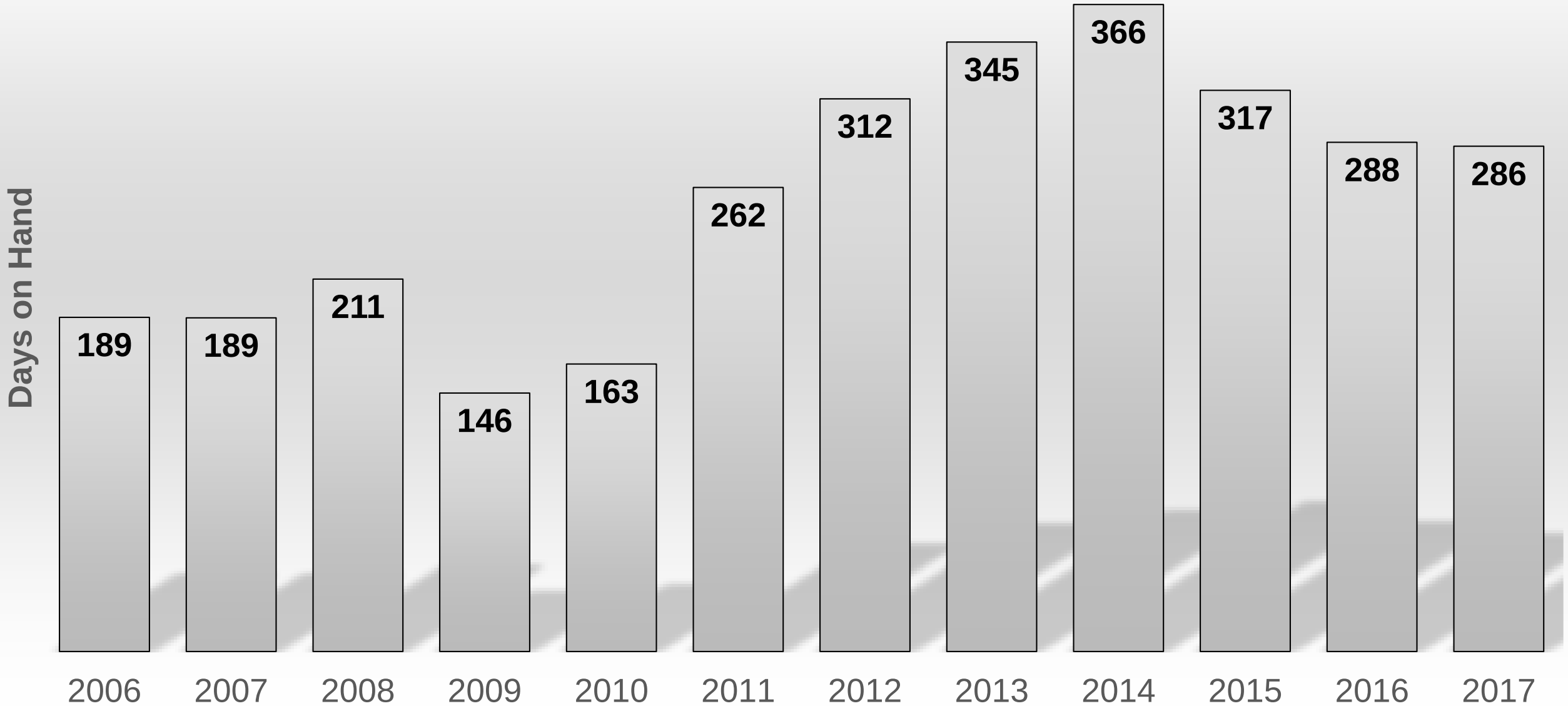

Global per Capita Consumption, 2000-2017
Per Capita Consumption (bu or lbs)
10
9
8
7
6
5
4
3
2
1
0
2000 to 2017: 8%
2000 to 2017: 42%
2000 to 2017: 3%
2000 to 2017: 64%
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
2014/2015
2015/2016
2016/2017
2017/2018
Corn
Cotton
Soybean
Wheat


Global Cotton Ending Stocks, 2015-2017
2017/2018
40
29
13
6
2016/2017
48
25
11
3
2015/2016
58
23
10
4
0
20
40
60
80
100
120
China
ROW
India
United States

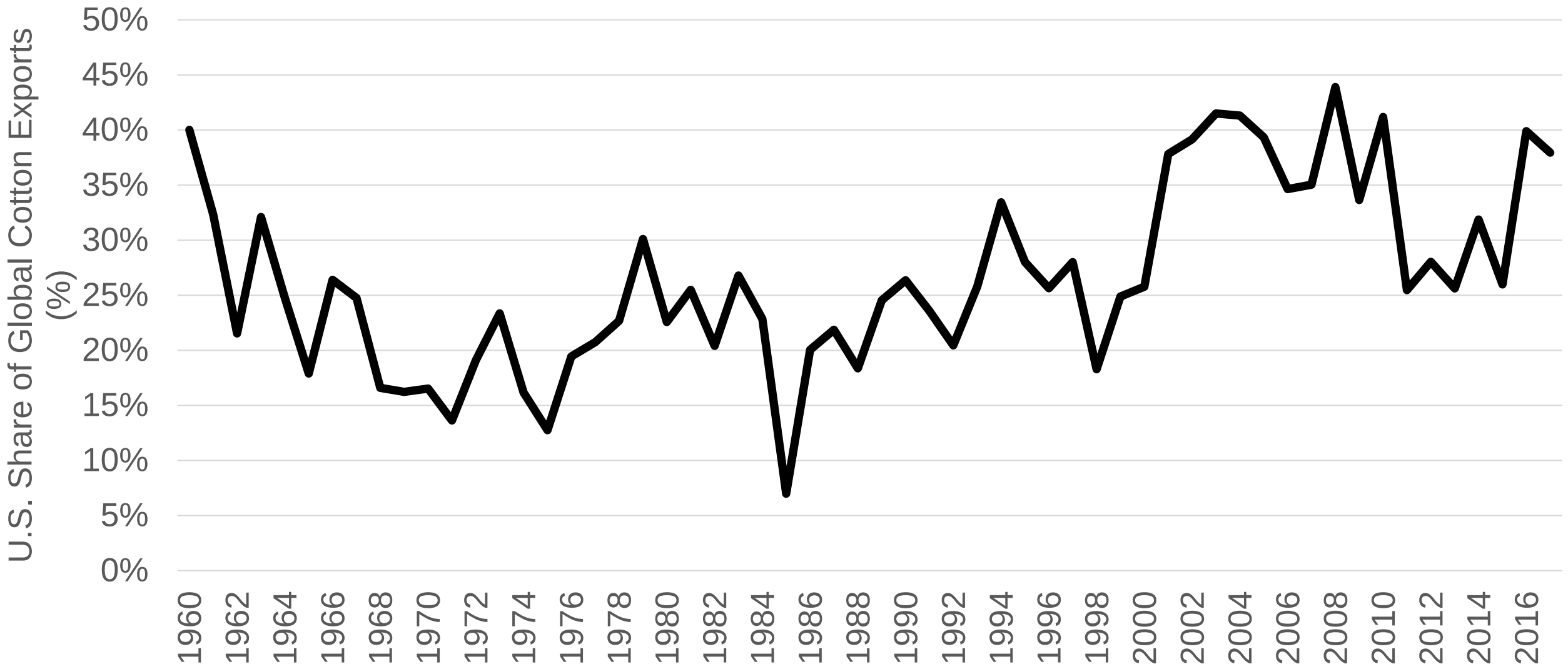
World Cotton Production, Consumption, and Ending Stocks, 2006-2017

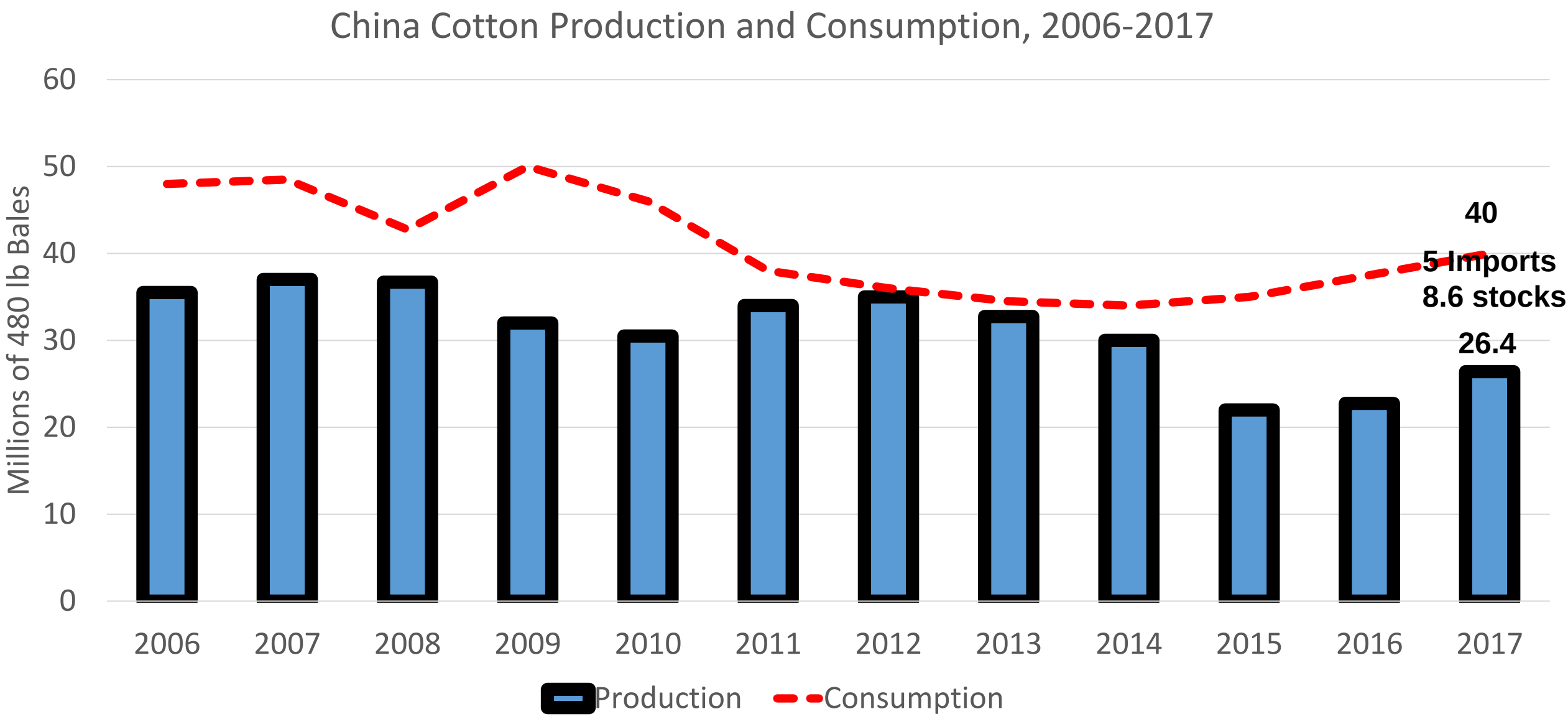


Cotton Global Days on Hand [Ending Stocks/(Consumption/365)], 2006-2017

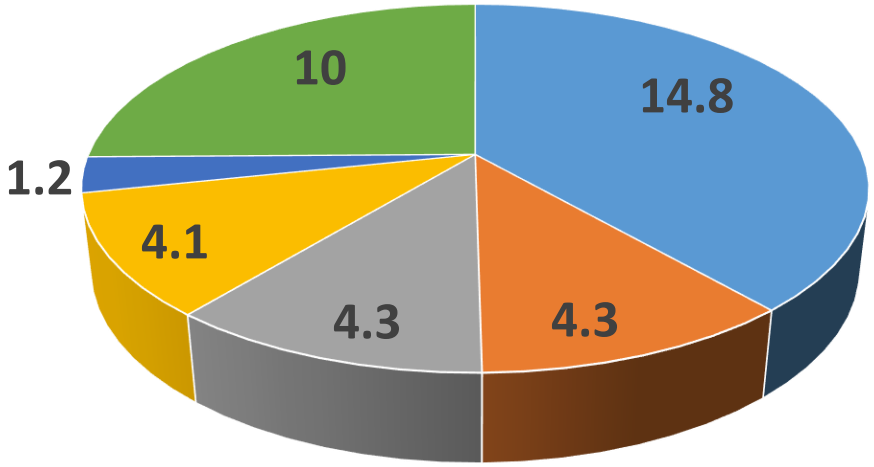


U.S. Share of Global Cotton Exports, 1960-2017



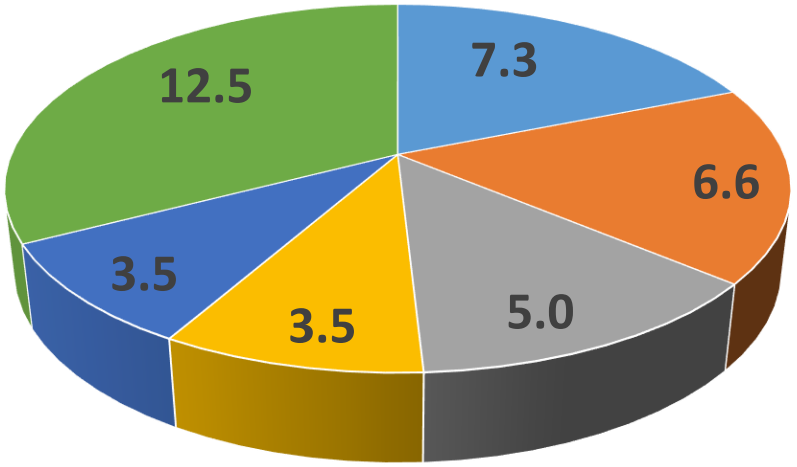

China Cotton Production and Consumption, 2006-2017
Millions of 480 lb Bales
60
50
40
30
20
10
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
40
5 Imports
8.6 stocks
26.4
Production
Consumption

2017/18 Exports by Country (million bales)



United States, Australia, India, Brazil, Uzbekistan, ROW

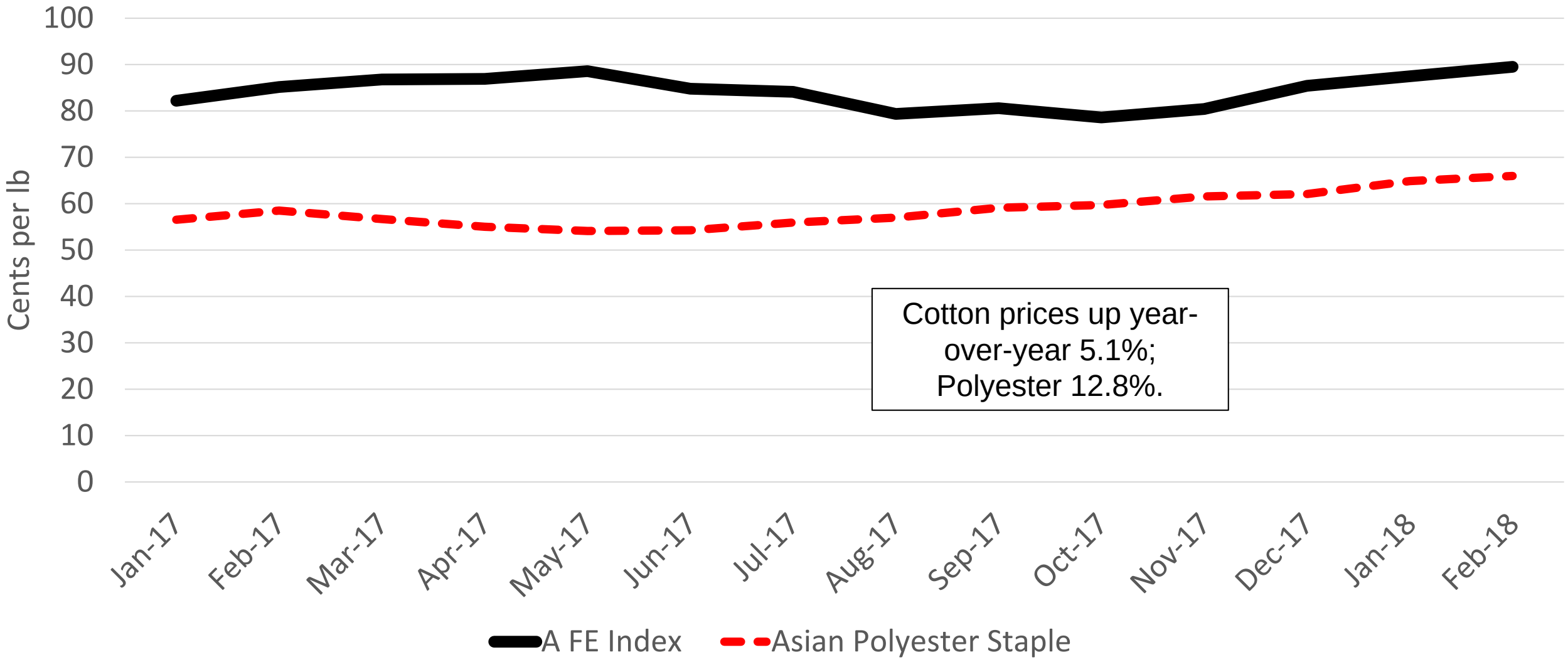
2017/18 Imports by Country (million bales)



Bangladesh, Vietnam, China, Indonesia, Turkey, ROW

PRICE

A FE Index versus Asian Polyester Price, 2017/18

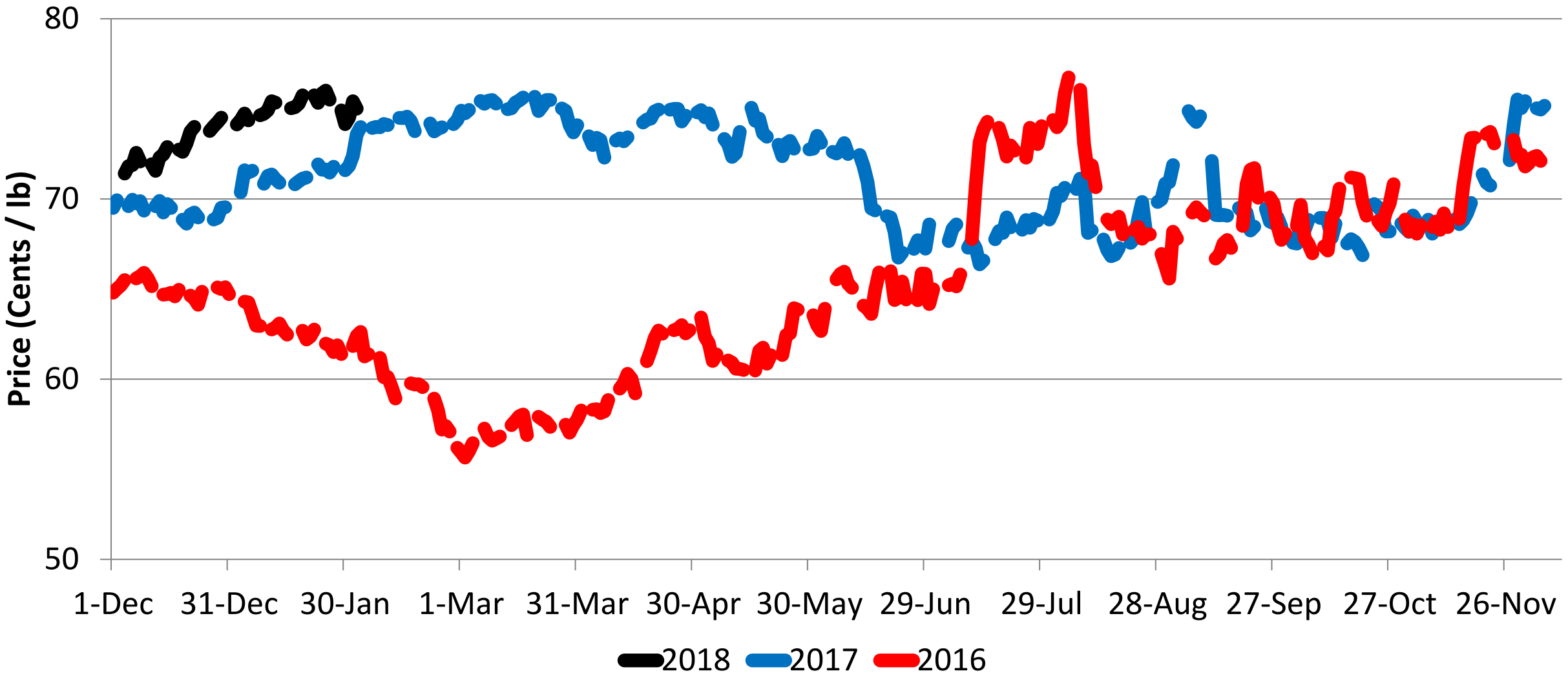


Daily Nearby Futures Close

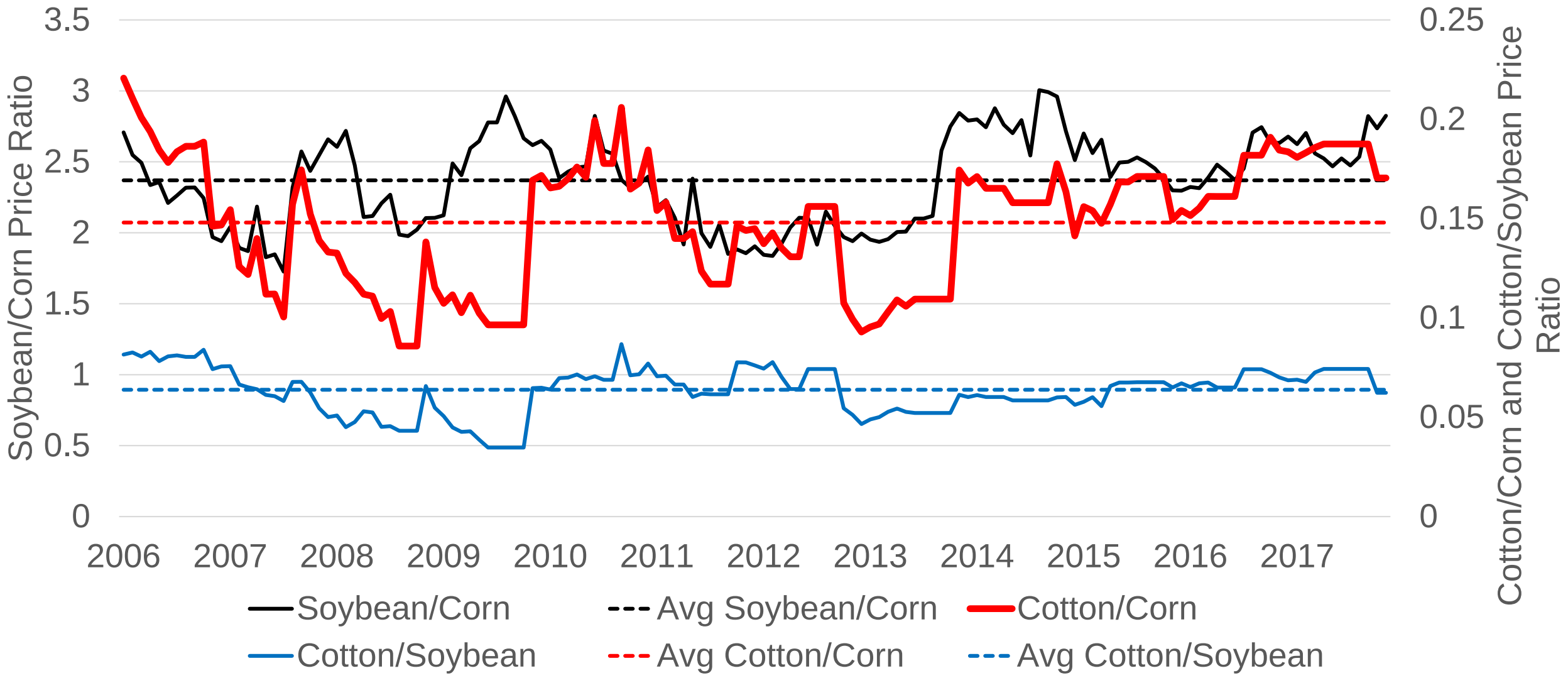
Contract	Last Price
CTY00 (Cash)	74.96s
CTH18 (Mar '18)	76.35
CTK18 (May '18)	77.71
CTN18 (Jul '18)	78.72
CTV18 (Oct '18)	75.78s
CTZ18 (Dec '18)	75.20

Nearby contract volatility is likely to continue in early 2018!

December Cotton Futures



Tennessee Price Ratios for Spring Row Crops, 2006-2017



What to Watch in 2018

Old Crop

- Export sales
  - Pace
  - Outstanding sales versus shipments
  - USDA marketing year revisions
  - USD weakness
- US ending stocks
  - Price and export sales?
- On-call sales vs. purchases
- Southern hemisphere crop

New Crop

- U.S. planted/harvested acres
- Chinese and Indian acreage/production
- Trade negotiations
  - NAFTA and Bi-lateral/Multi-lateral
- Increasing demand and global economic growth
- USD/exchange rates
- Cotton prices compared to synthetics

Capital Recovery and Other Considerations, plus Long Term Price Expectations

SHOULD I GET BACK INTO COTTON?

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Like Most Economic Answers: It Depends

- Answer these interrelated questions:
  - What is your farms current cost structure for cotton (and other crops)?
  - How many acres are you planning on planting to cotton?
  - **What is your harvest machinery plan?**
  - Are you willing to make a long term commitment to planting cotton?
  - What are your ginning arrangements?
  - What is your long term (5 year) price expectation?

Cotton - Net Return Table ($/acre) – Assumes a $661/acre Cost of Production

Price (cent/lb)	Yield (lb/acre) 700	750	800	850	900	950	1,000	1,050	1,100	1,150	1,200
60.00	(241)	(211)	(181)	(151)	(121)	(91)	(61)	(31)	(1)	29	59
61.25	(232)	(202)	(171)	(140)	(110)	(79)	(49)	(18)	13	43	74
62.50	(224)	(192)	(161)	(130)	(99)	(67)	(36)	(5)	27	58	89
63.75	(215)	(183)	(151)	(119)	(87)	(55)	(24)	8	40	72	104
65.00	(206)	(174)	(141)	(109)	(76)	(44)	(11)	22	54	87	119
66.25	(197)	(164)	(131)	(98)	(65)	(32)	2	35	68	101	134
67.50	(189)	(155)	(121)	(87)	(54)	(20)	14	48	82	115	149
68.75	(180)	(145)	(111)	(77)	(42)	(8)	27	61	95	130	164
70.00	(171)	(136)	(101)	(66)	(31)	4	39	74	109	144	179
71.25	(162)	(127)	(91)	(55)	(20)	16	52	87	123	158	194
72.50	(154)	(117)	(81)	(45)	(9)	28	64	100	137	173	209
73.75	(145)	(108)	(71)	(34)	3	40	77	113	150	187	224
75.00	(136)	(99)	(61)	(24)	14	52	89	127	164	202	239
76.25	(127)	(89)	(51)	(13)	25	63	102	140	178	216	254
77.50	(119)	(80)	(41)	(2)	37	75	114	153	192	230	269
78.75	(110)	(70)	(31)	8	48	87	127	166	205	245	284

Evaluate Annual versus Multi-year Cotton Costs

Annual

- Seed
- Fertilizer
- Chemical
- Crop Insurance
- Crop Scouting
- Rent / Return to Land (not contingent on growing cotton)

Multi-year

- Machinery Decision will Potentially Influence Several Years of Cost
  - Fuel
  - Labor
  - Repair and maintenance
  - **Capital Recovery**
    - Interest
    - Depreciation

Harvest Machinery Costs

- Harvest machinery has changed over the last ten years.
  - Round bale harvester versus module builder + boll buggy + picker.
- Round = high acreage / higher capacity / long term investment
- Three piece = lower acre option / shorter term solution / greater risk and uncertainty / harvest efficiency? / higher variable cost (labor/fuel/R&M)

Capital Recovery

- JD CP 690 self propelled cotton picker
  - Suggested list price $913,647
- Quick Scan Capital Recovery Cost (new or used)
  - Cap Recovery ($/acre) = PP x (1+0.03) / Acres / Years of Use
  - Ex. $910,000 x (1.03) / 2000 / 8 = $58.58/acre ✅
  - Ex. $910,000 x (1.03) / 750 / 8 = $156.22/acre ❌

Harvest Alternatives

- Custom Harvesting or Machinery Share
  - How is time allocated?
    - Harvest capacity and harvest window.
  - Increased quality risk.
- Can be a viable alternative …..but be careful.

Long Term Upland Cotton Price Projections

	2018/19	2019/20	2020/21	2021/22	2022/23
FAPRI	62.3	62.8	62.5	62.7	63.0
CBO	63.85	65.82	66.93	67.71	68.09
WAOB	61.5	62.2	62.0	62.9	NA
ICE	74.87	70.82	72.54	NA	NA

** Give consideration to the direction of alternative crops to cotton – corn, soybeans, and sorghum **

Questions?

THANK YOU!