Trade, FDI & Regional Value Chains Workshop

Kampala, Uganda

12th December 2016

Session II

Understanding Constraints to Value Addition in Agricultural Exports:
Insights from the Coffee Sector

Ameet Morjaria

Assistant Professor of Managerial Economics & Decision Sciences

Kellogg School of Management

Northwestern University

Outline

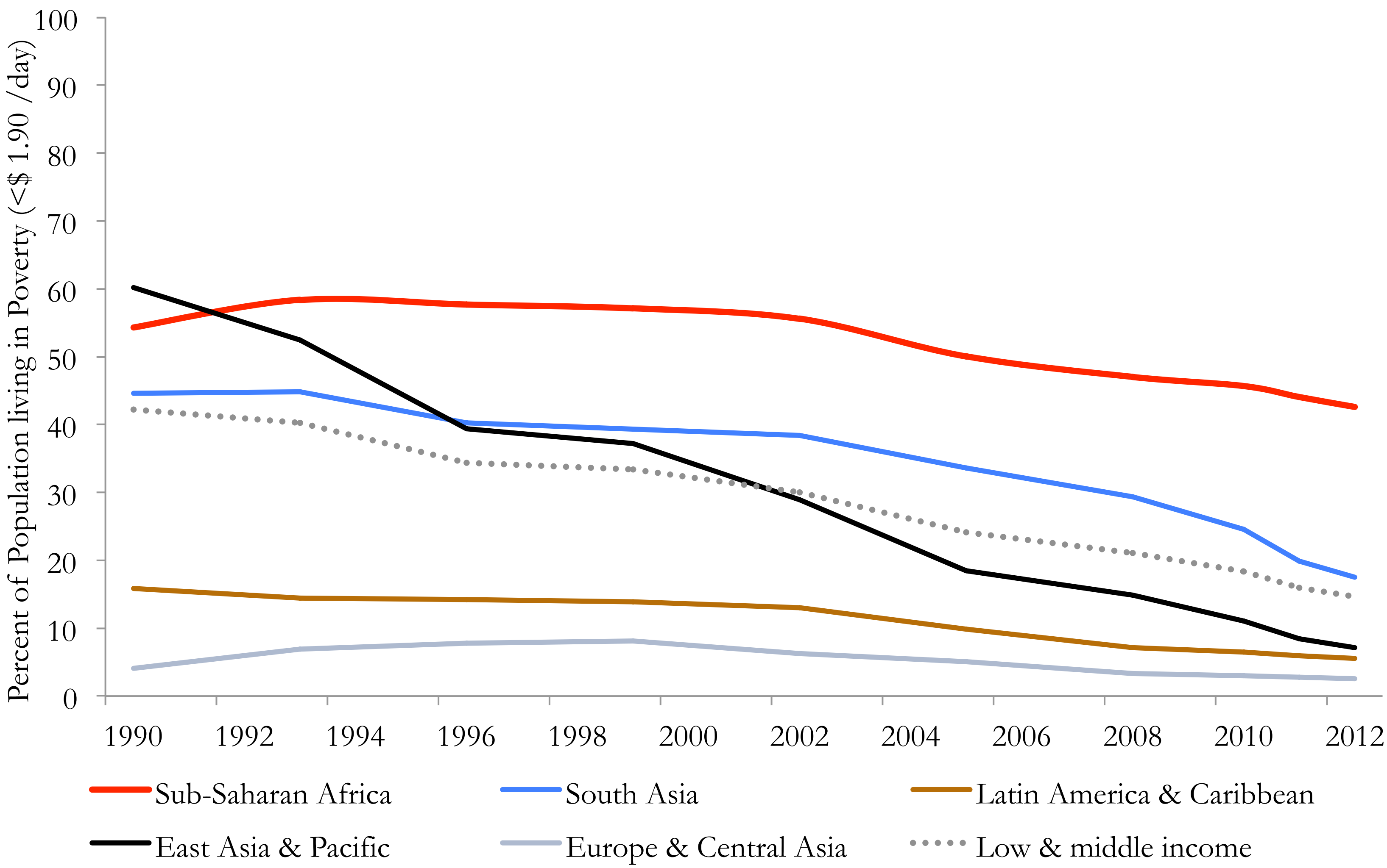
1. **Big picture:** why should we care?

2. **Uganda's Coffee Sector:** diagnostic on challenges & opportunities – with insights from experience in Rwanda

3. **Rwanda's Coffee Sector:** lessons from an IGC project

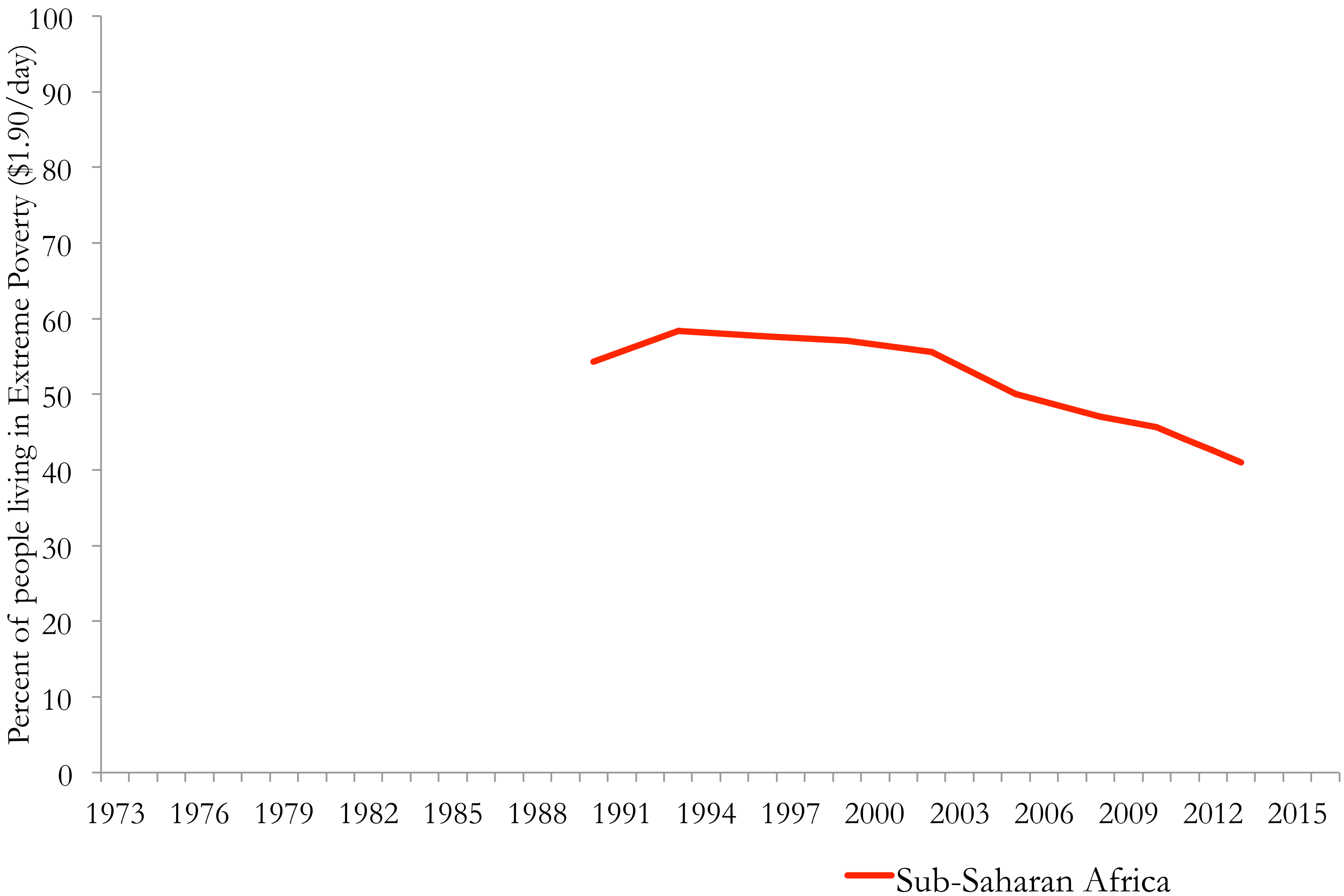
4. **Ethiopia's Coffee Sector:** new project, early observations

Poverty reduction in Africa lags other regions



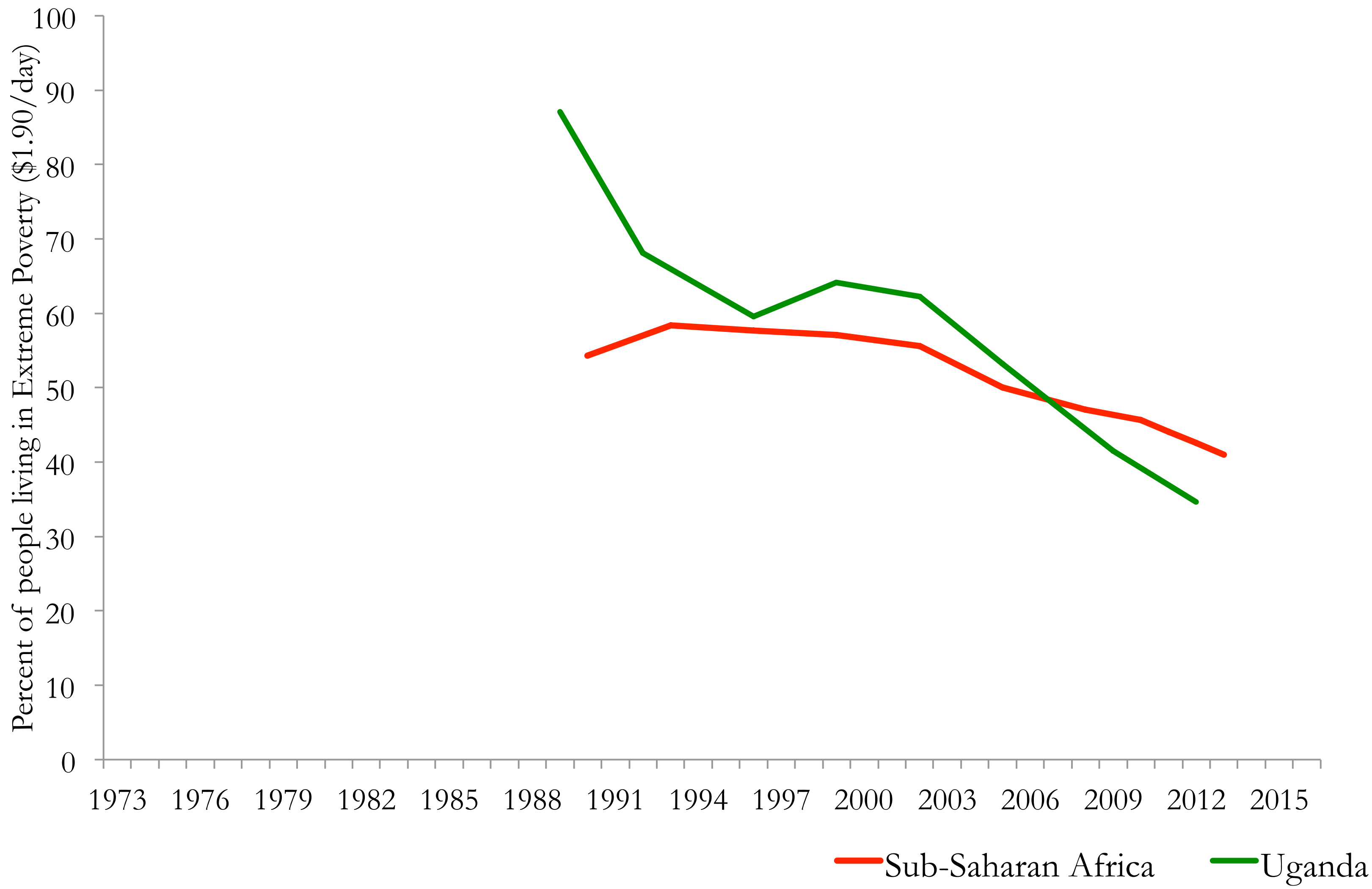
Source: WDI 2016

Within Africa



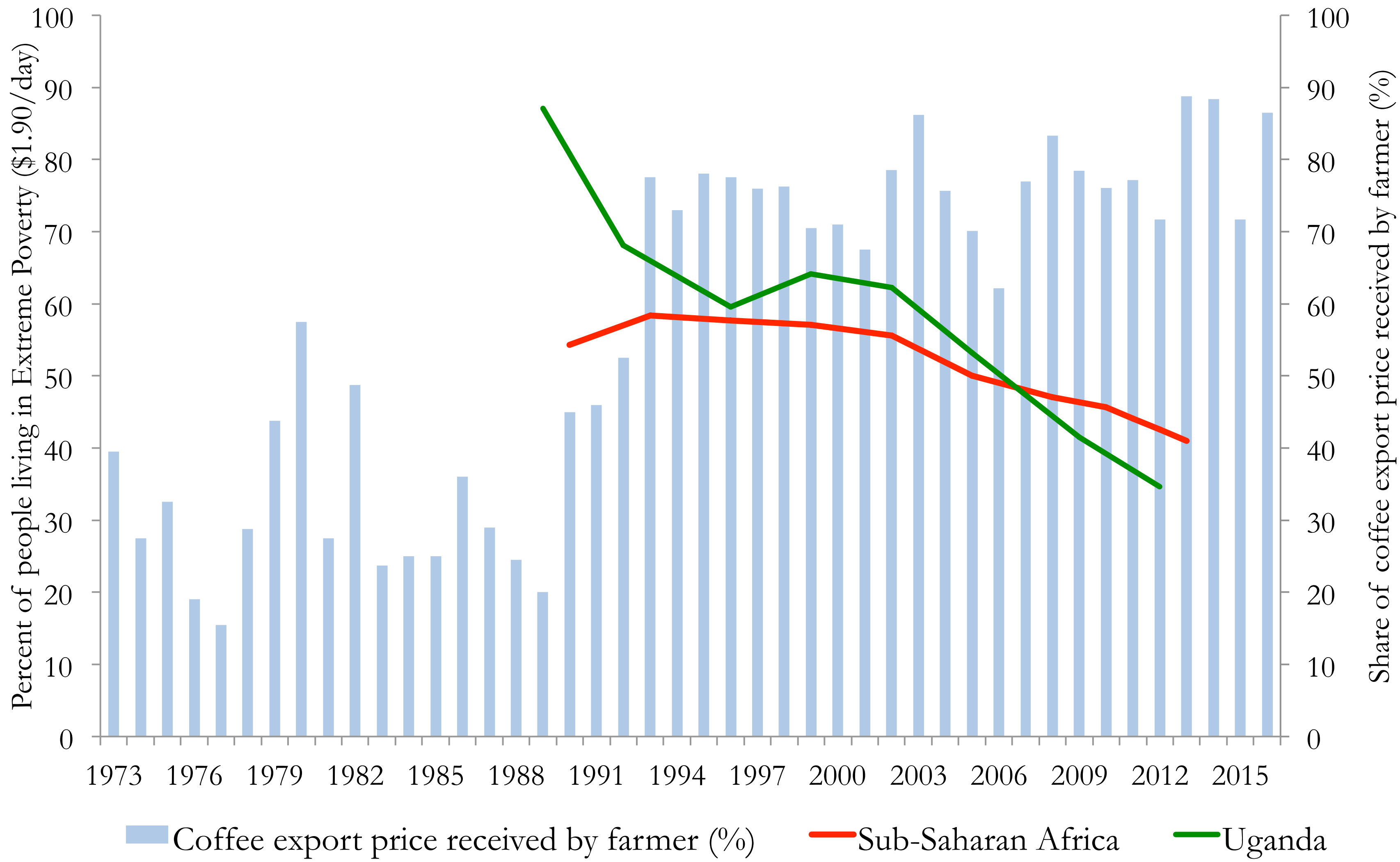
Source: WDI 2016

Within Africa: Uganda impressive progress



Source: WDI 2016

Within Africa: Uganda impressive progress, benefits of 1990s agricultural reform

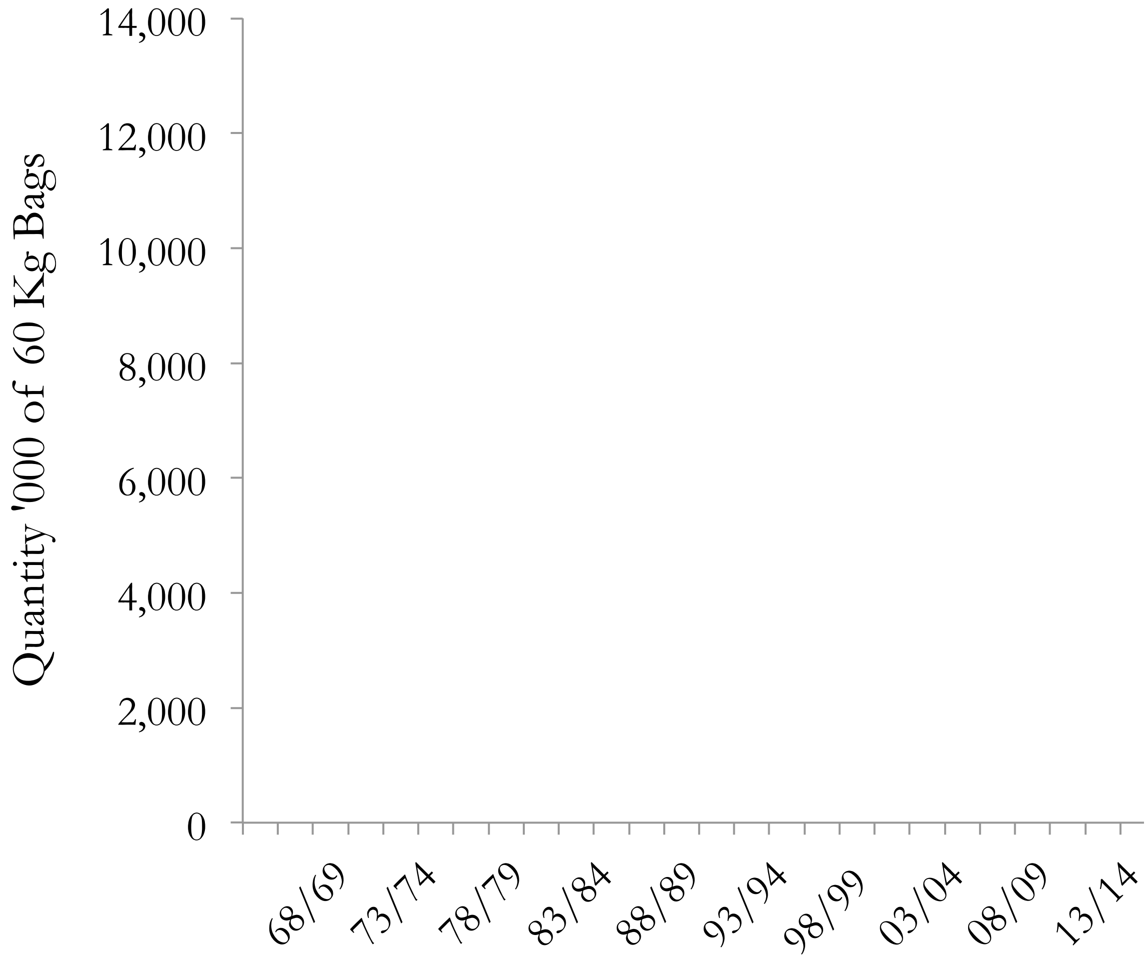


Source: WDI 2016, Bibangambah (1996), Akiyama (2001), authors calculations on UCDA reports (various), Bank of Uganda

Uganda: coffee sector

- **1.7 million** coffee households, **18%** of the world's coffee farmers in Uganda
- Average small holder **small** (<0.25 ha), and getting **smaller**
- **20%** contributor to export earnings, after tourism and remittances
- Number of exporters:
  - Pre-reform: 1, Board
  - Post-reform: 55
  - Current active: 29 (circa)

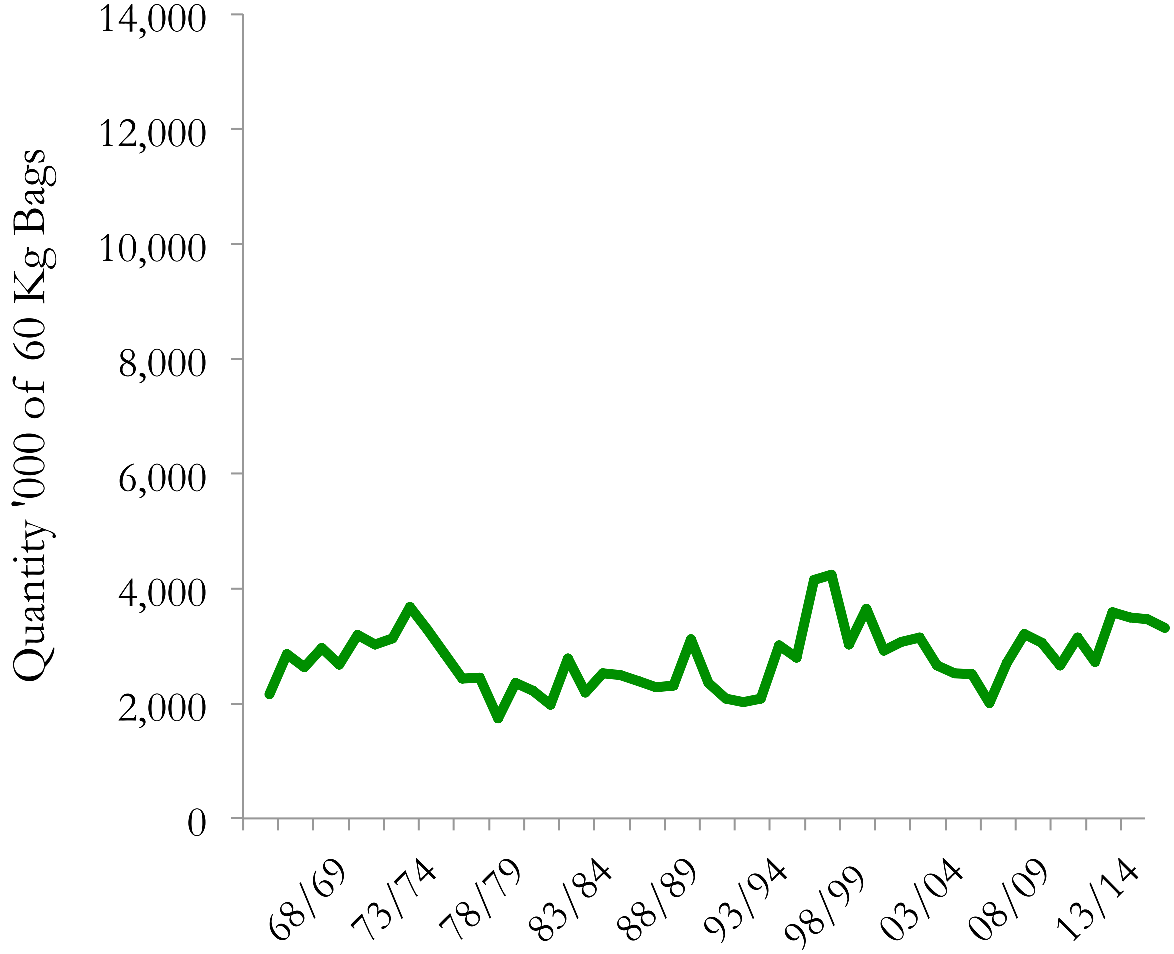
Uganda: coffee export statistics



Source: UCDA Statistics

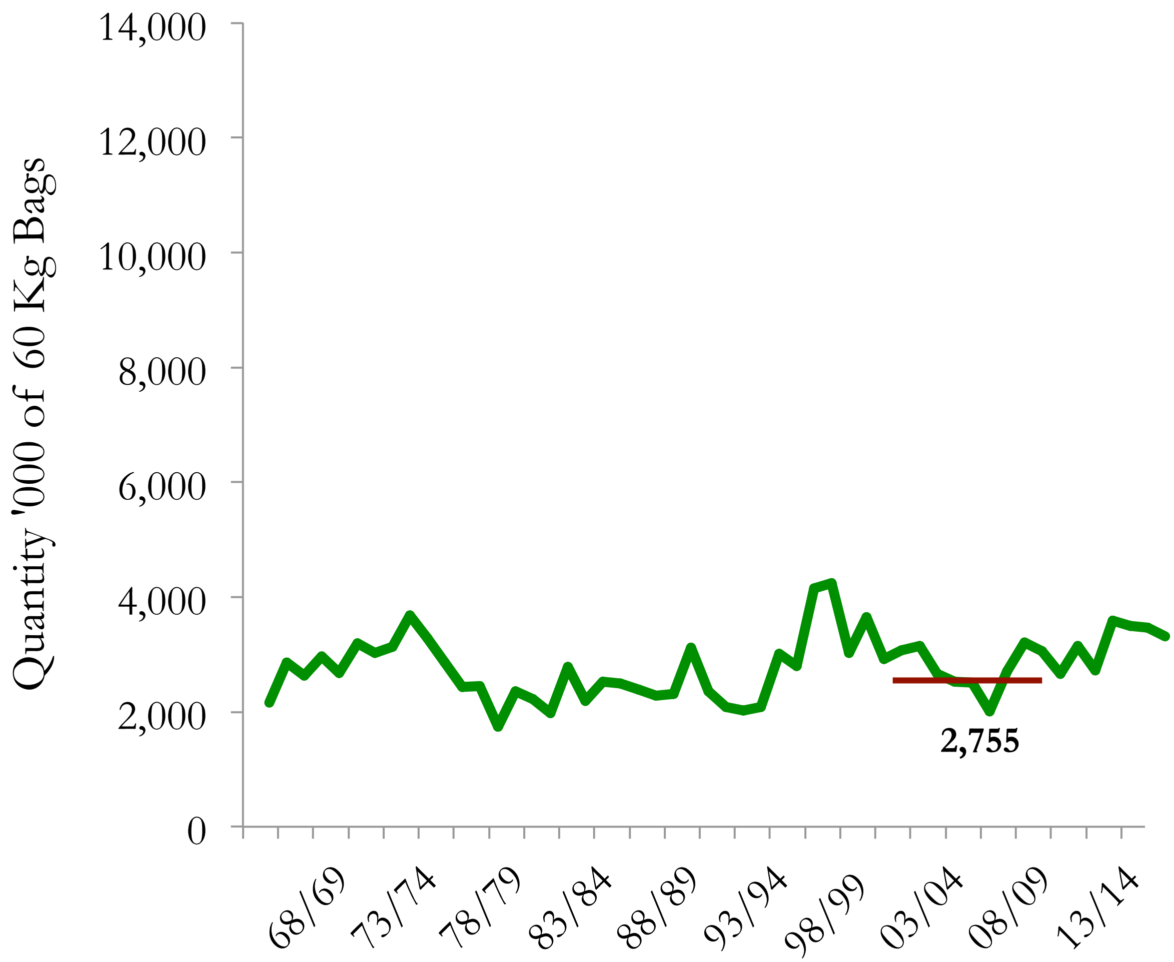
Uganda: coffee export statistics

last 50 years



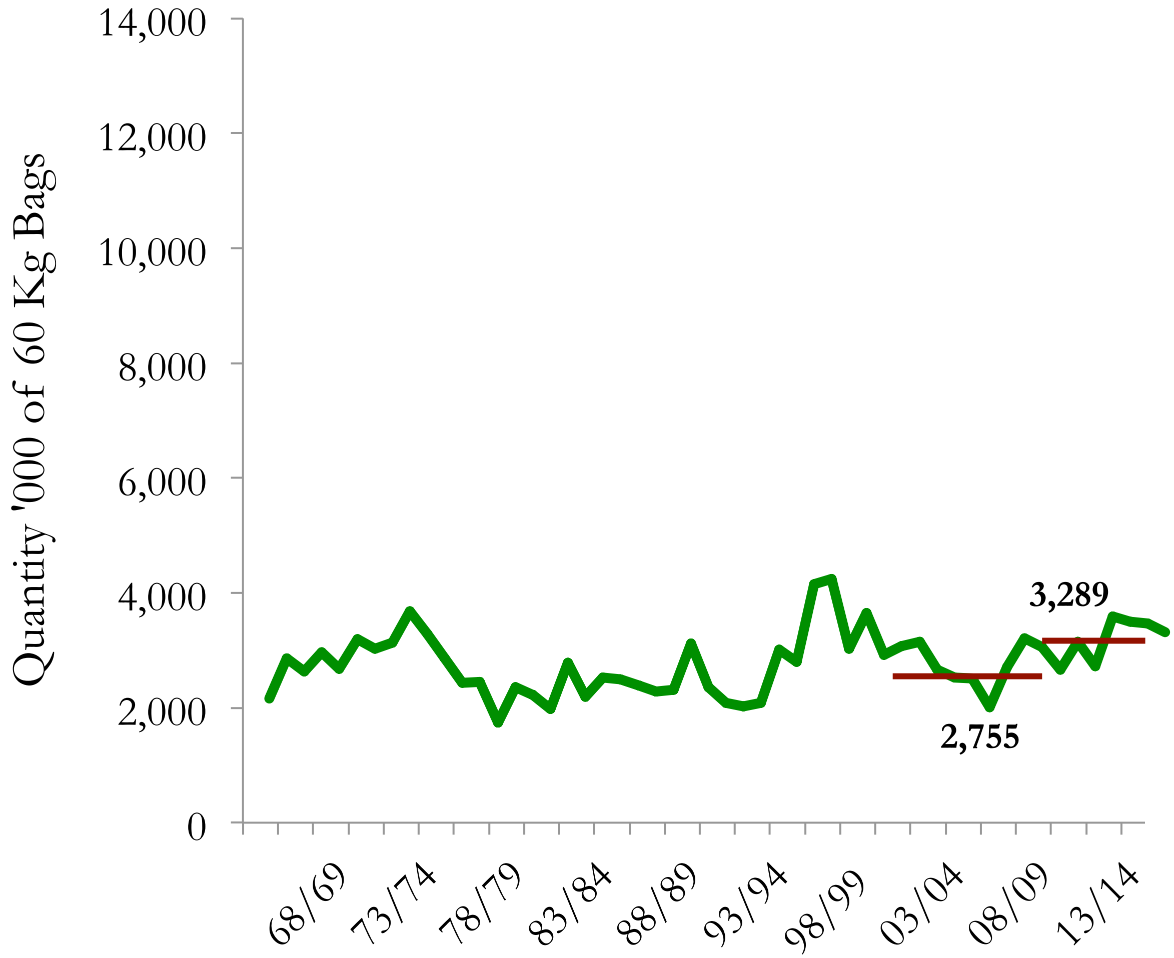
Source: UCDA Statistics

Uganda: coffee export statistics
last 50 years



Source: UCDA Statistics

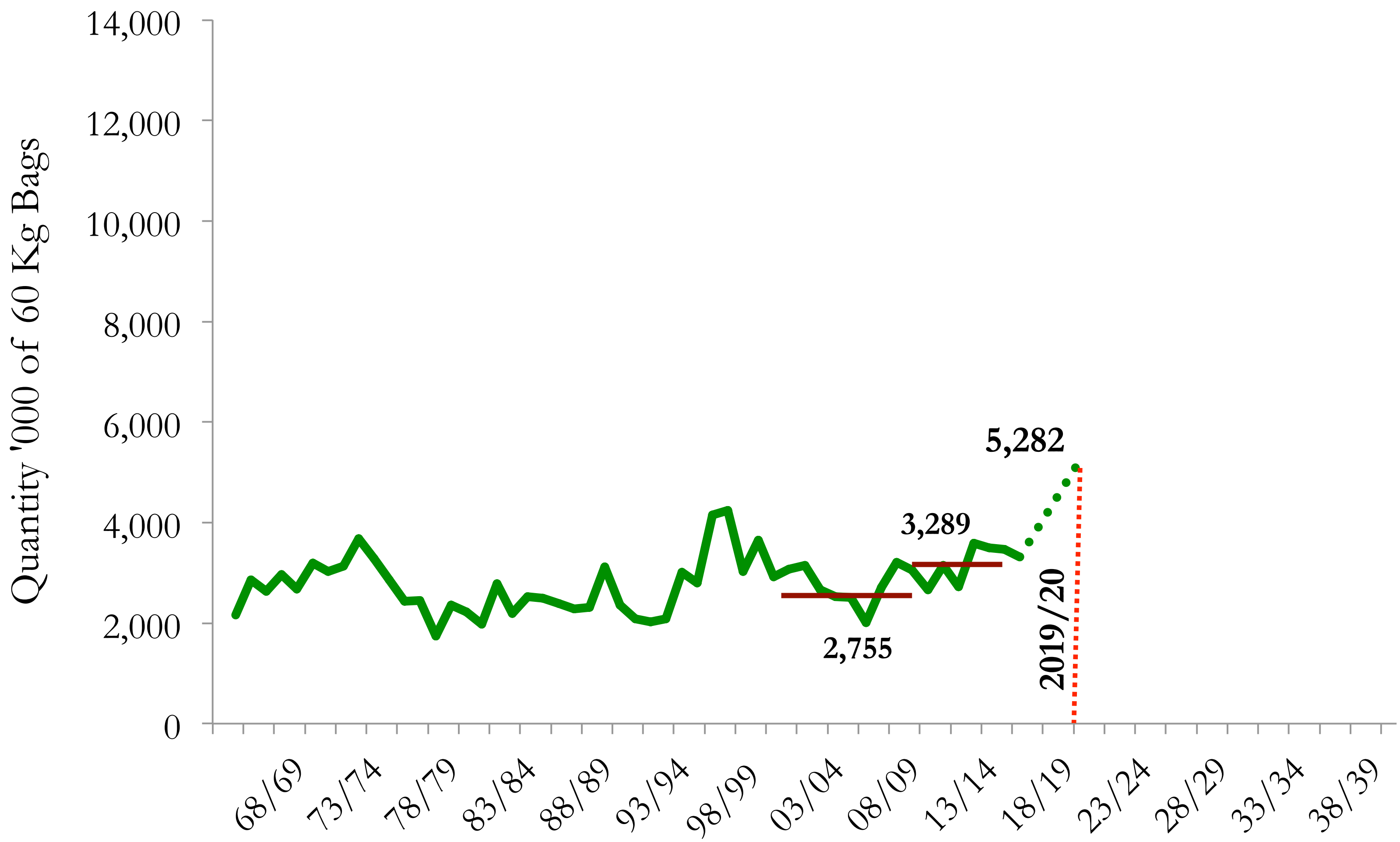
Uganda: coffee export statistics
last 50 years



Source: UCDA Statistics

Uganda: coffee export statistics

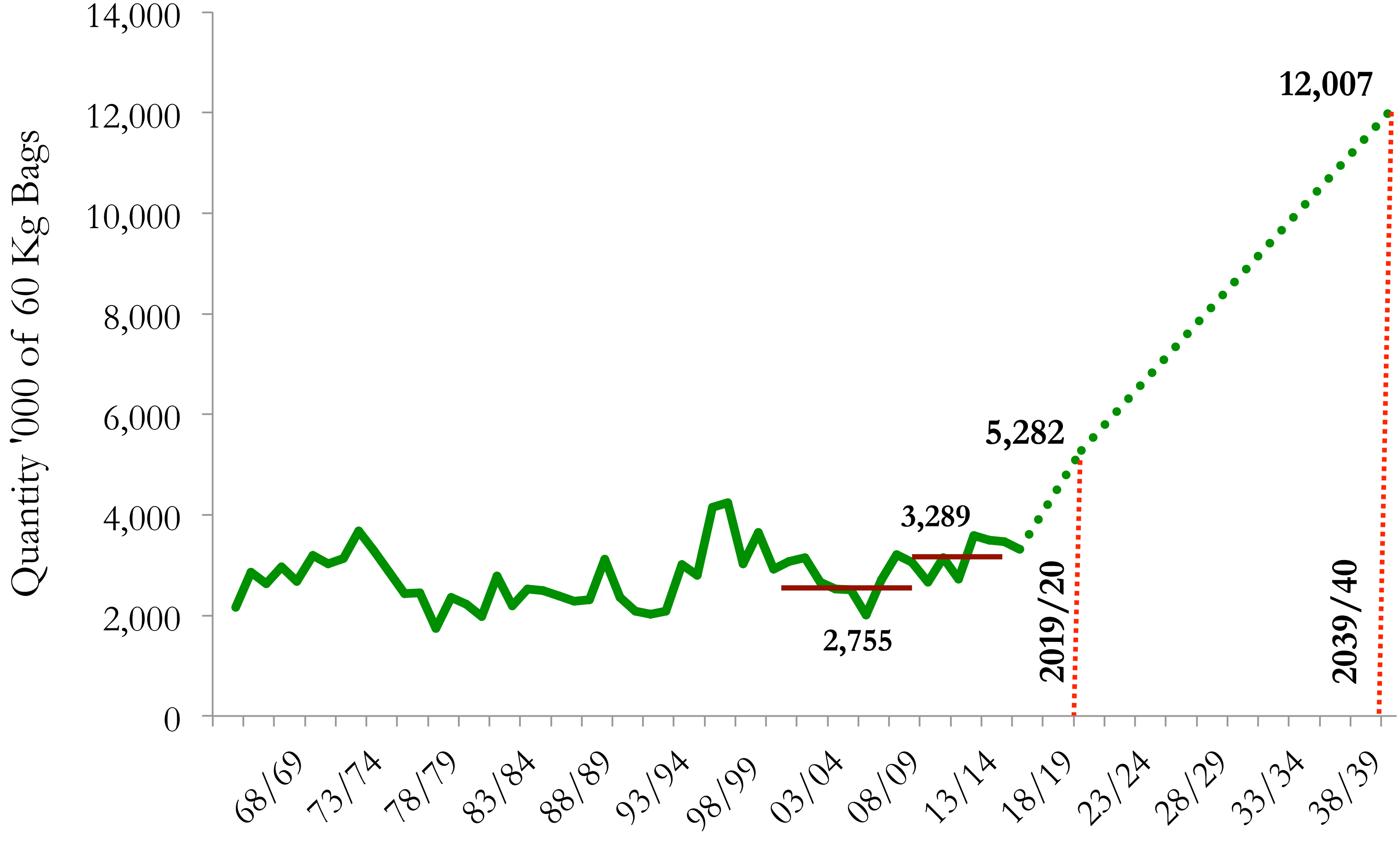
5 year plan



Source: UCDA Statistics, Uganda National Coffee Strategy 2040 – Plan for 2015/16 – 2019/20, June 2015

Uganda: coffee export statistics

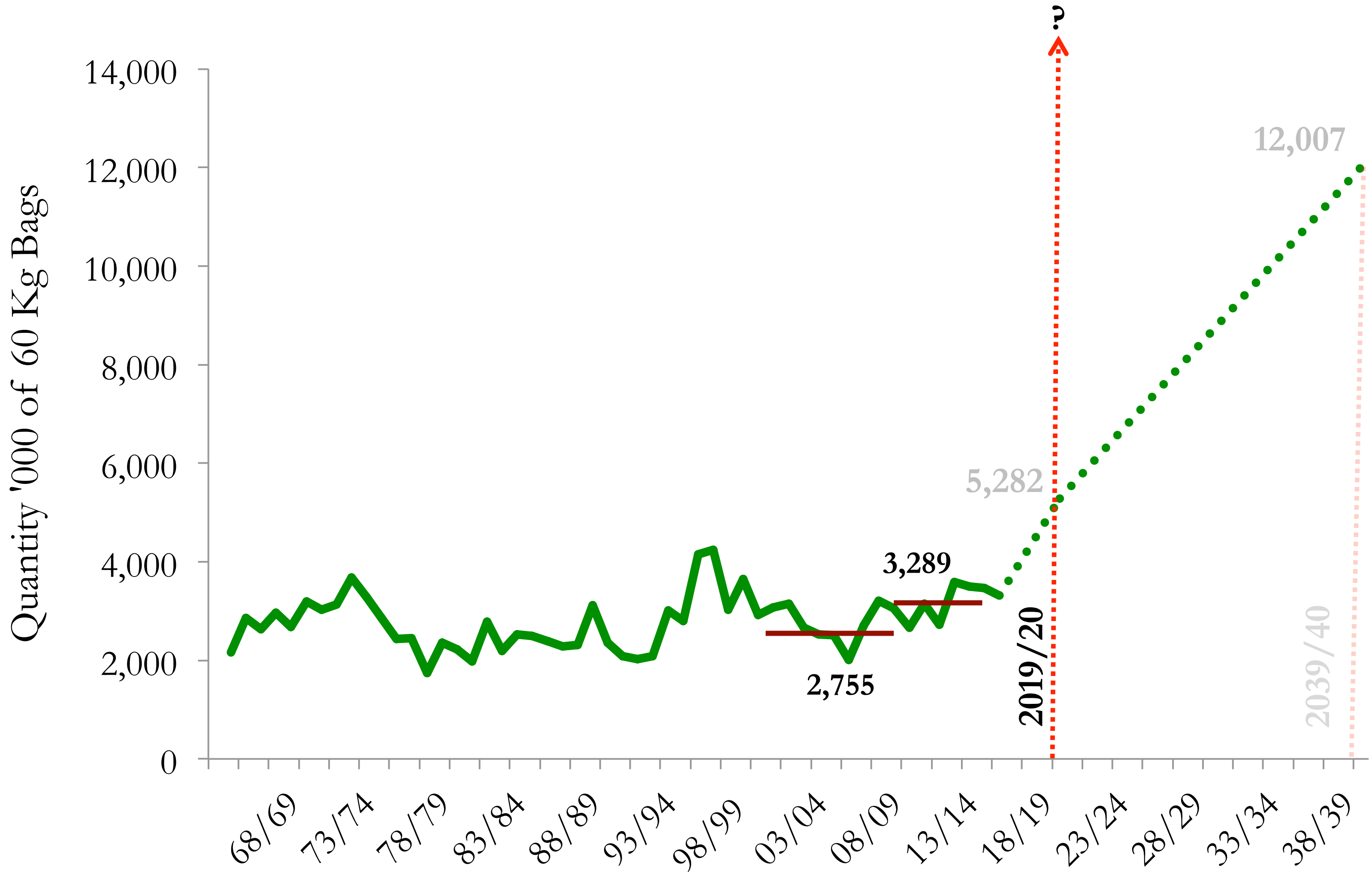
25 year plan



Source: UCDA Statistics, Uganda National Coffee Strategy 2040 – Plan for 2015/16 – 2019/20, June 2015

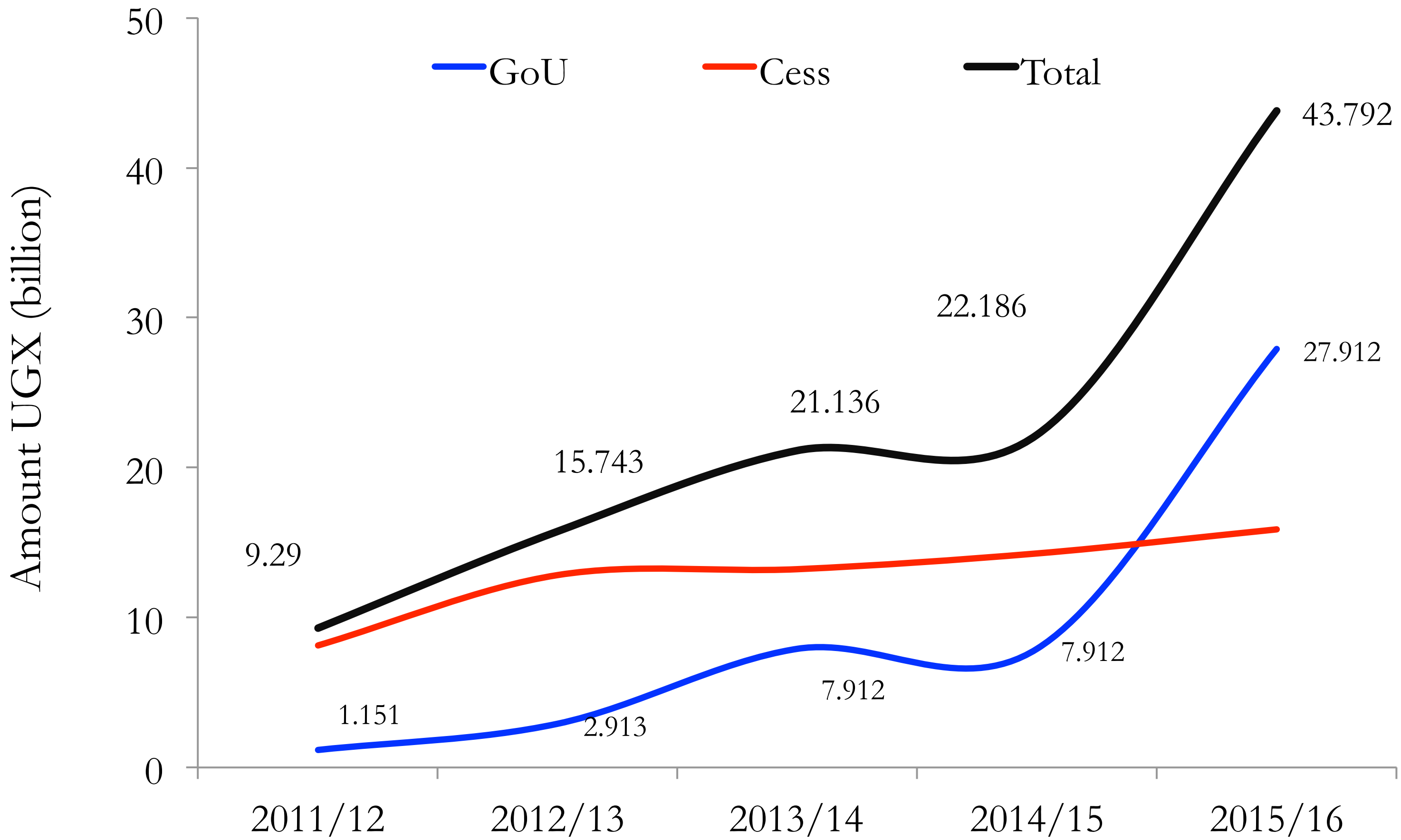
Uganda: coffee export statistics

Vision 2020 – Kisanja Hakuna Mchezo



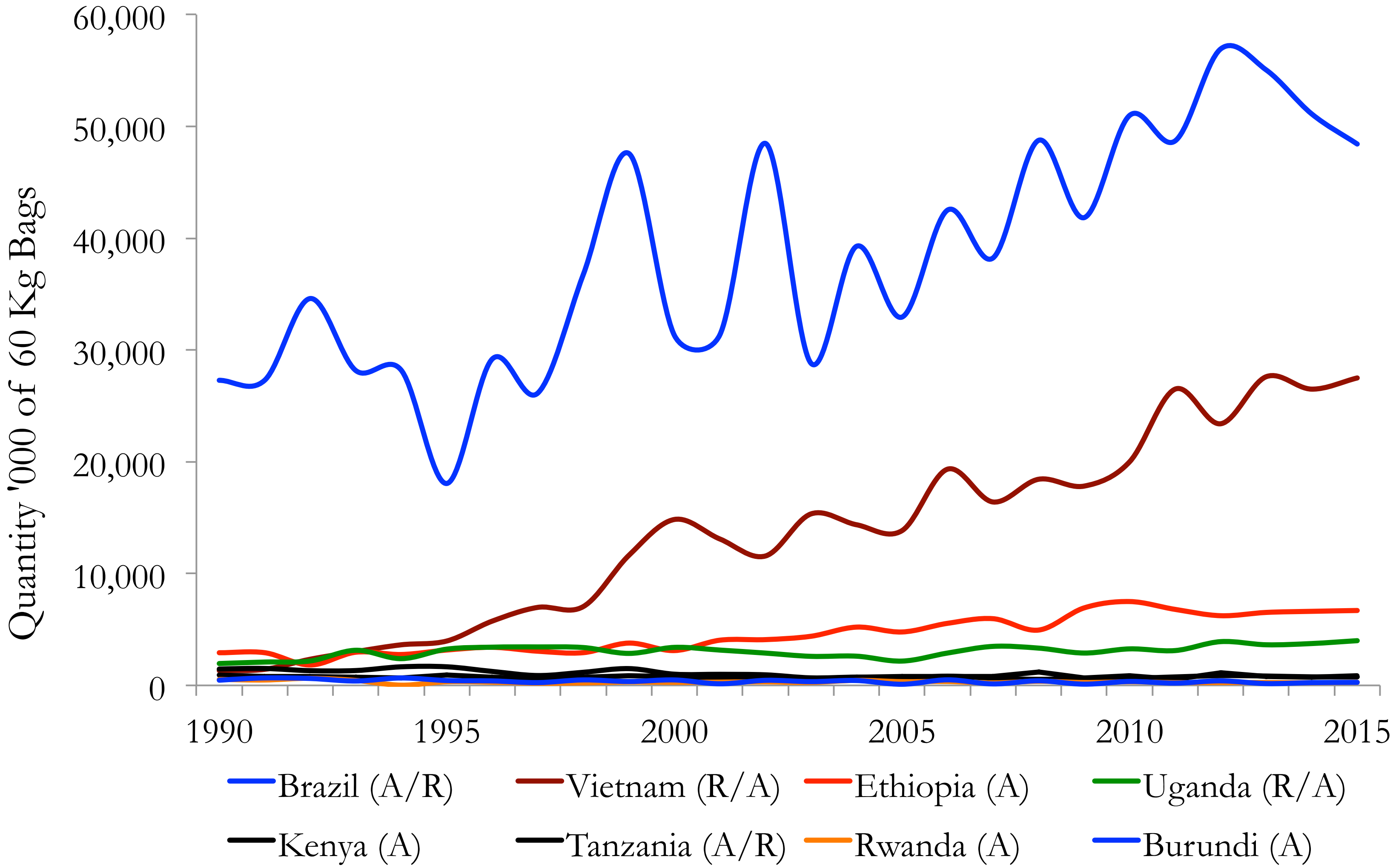
Source: UCDA Statistics, Uganda National Coffee Strategy 2040 – Plan for 2015/16 – 2019/20, June 2015

Uganda: recent acceleration in government support



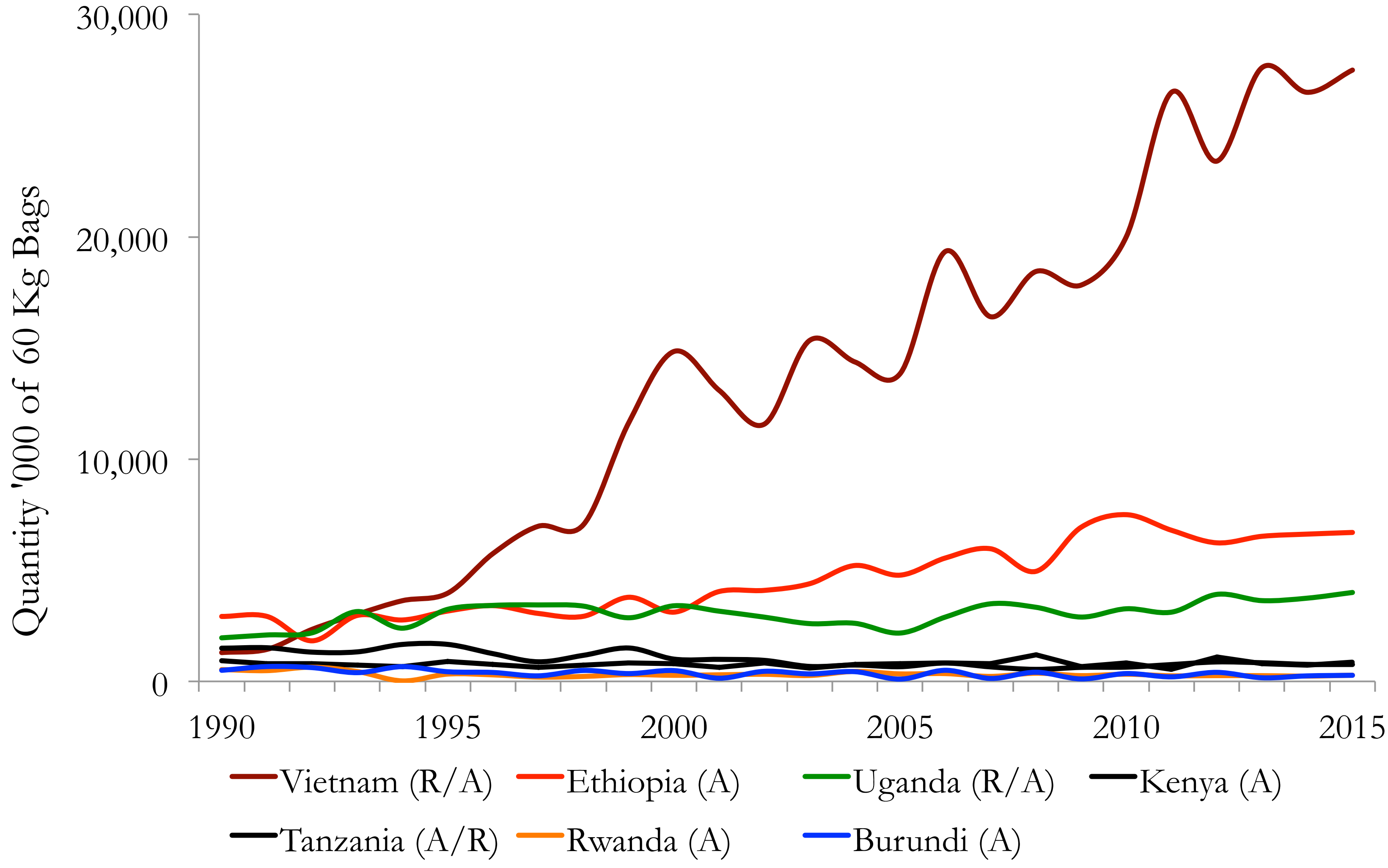
Source: Coffee 2020 Strategy, Revised 2016

It has happened before…



Source: International Coffee Organization, 2016

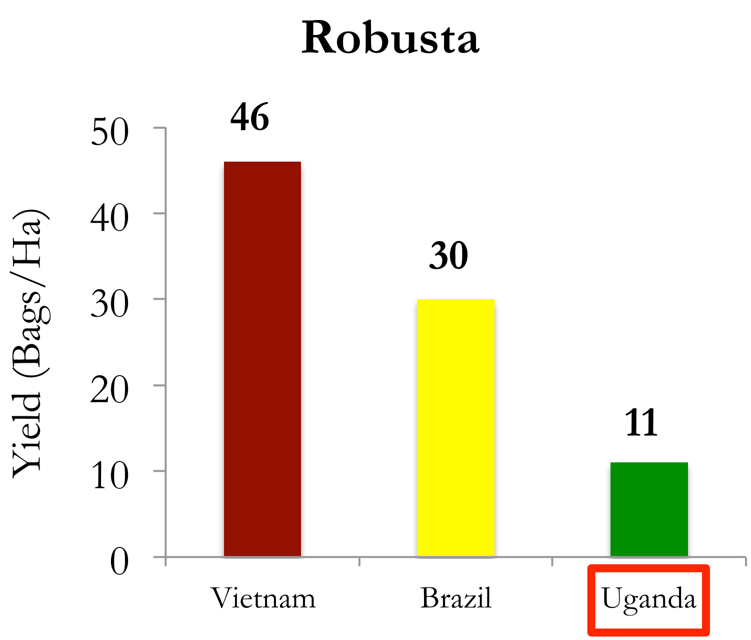
It has happened before…



Source: International Coffee Organization, 2016

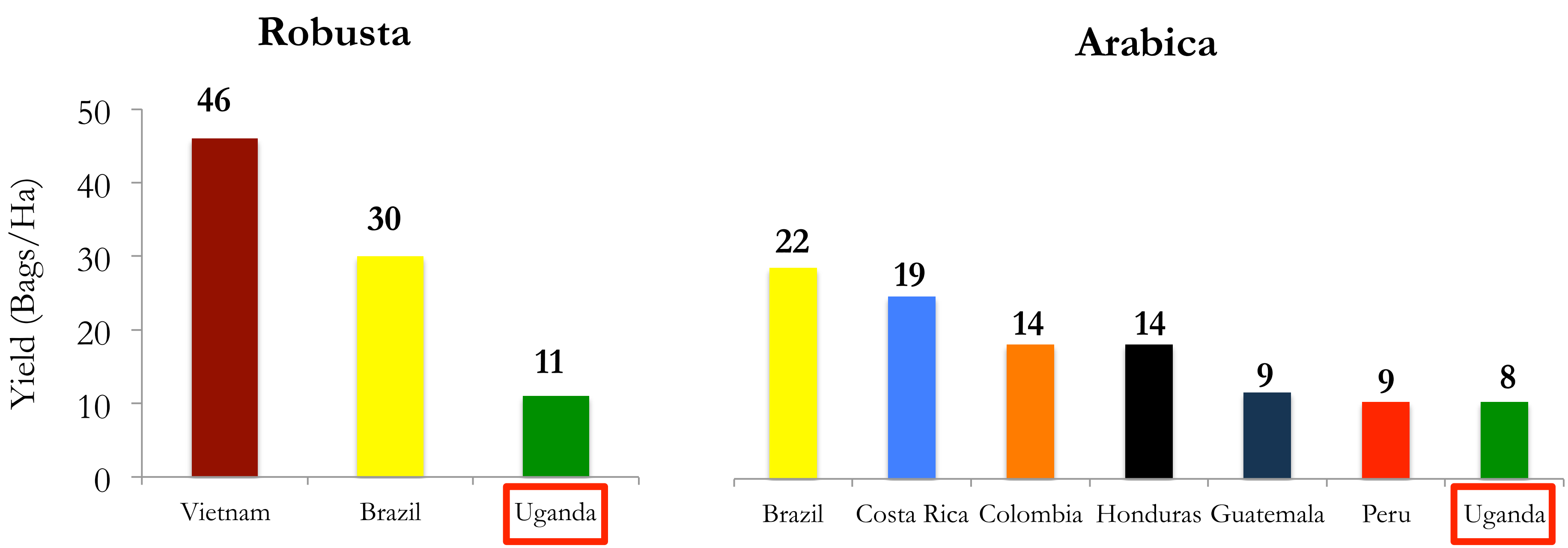
Uganda production has remained stagnant, why?

Uganda production has remained stagnant, why?



Source: discussions with stakeholders

Uganda production has remained stagnant, why?



Source: discussions with stakeholders

Uganda production has remained stagnant, why?

① Wilt disease

- destroys *robusta* trees
- diagnosis took some time
- however not as intense as the potato taste defect e.g. in Rwanda, Burundi…

② Urbanization

- Good coffee growing areas encroached by urban sprawl e.g. Jinja, Mukono, Kampala…

Uganda production has remained stagnant, why?

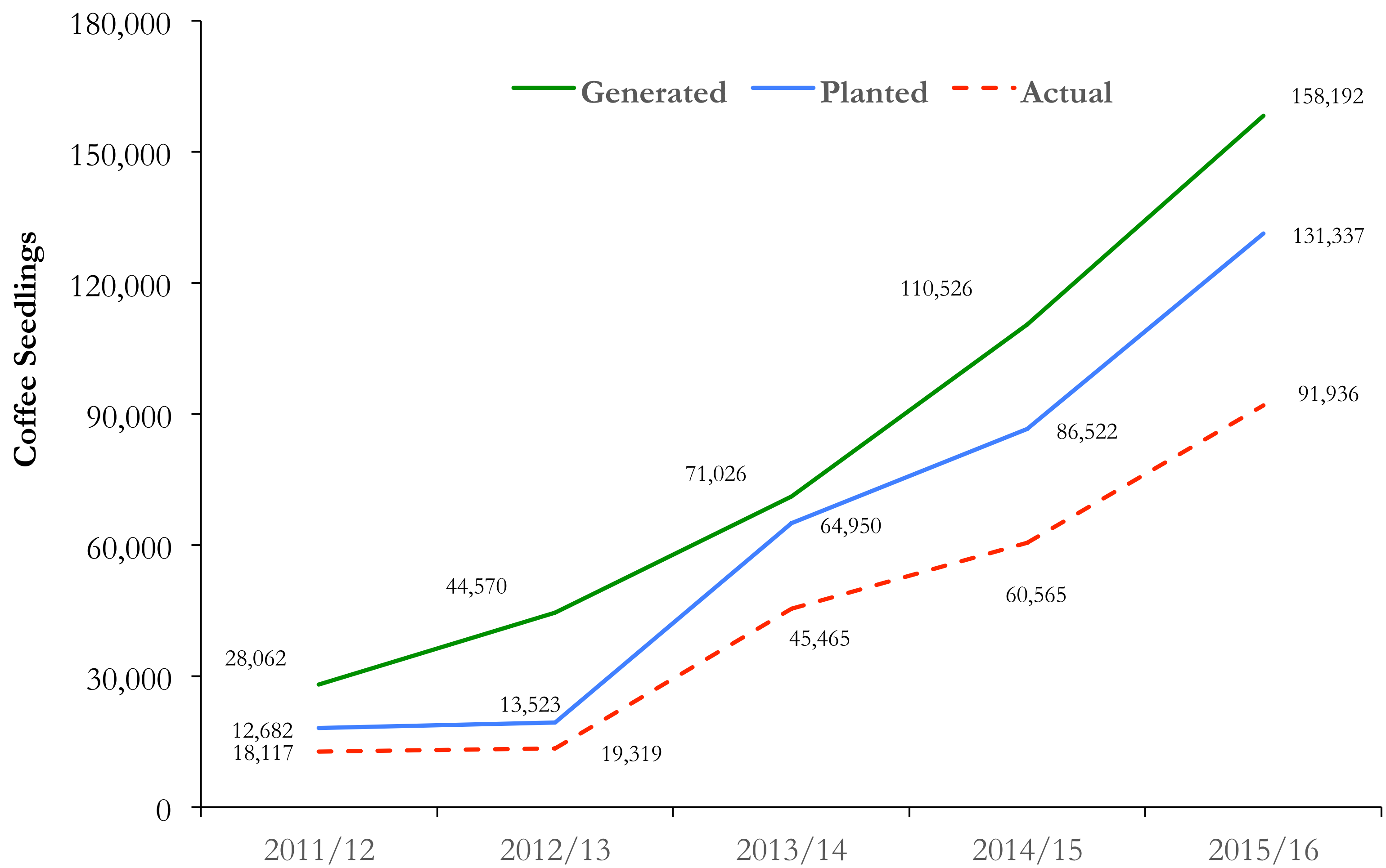
③ Challenges in maintaining and investing in coffee trees

- Operation Wealth Creation (OWC) has helped with scaling up…

- but even under OWC limited success in distribution and survival of seedlings
  - e.g. between Sept 2015 – May 2016: 64.5 million seedlings generated, 54.59 million were "received" however only 23.19 million seedlings survived
  - survival rate of 36%; cost of this loss at least UShs 12 billion (≈ US$ 3.4 million)

Uganda production has remained stagnant, why?

③ Challenges in maintaining and investing in coffee trees



Uganda production has remained stagnant, why?

③ Challenges in maintaining and investing in coffee trees

- why low survival rate?
  - recall aim to generate 300 million coffee seedlings, distribute and plant and at the same time apply inputs to 190,000 ha

- investment in sector largely focused on seedling distribution

- seedlings distributed *might* not be disease resistant

Uganda production has remained stagnant, why?

④ Access and knowledge of input usage

- low usage of fertilizers and pesticides
- learnt recently that OWC is also procuring fertilizer,
  - need to be careful to obtain the *appropriate* fertilizer,
  - is this a long term viable solution? (recall Malawi's maize fertilizer experience)

- in neighboring Rwanda, yield is also low, 10 bags/ha
  - 2014: fertilizer & distribution via Coffee Board (1% levy on exports)
  - 2015: procurement & distribution fund moved to CEPAR under an MOU
  - application rate improved: 35% in 2015, 59% in 2016
  - challenges remain: reports of leakage, adequate warehouse facility, adequate reporting from districts, quantity of fertilizer procurement remains sub-optimal

Uganda production has remained stagnant, why?

⑤ Farmers incentives

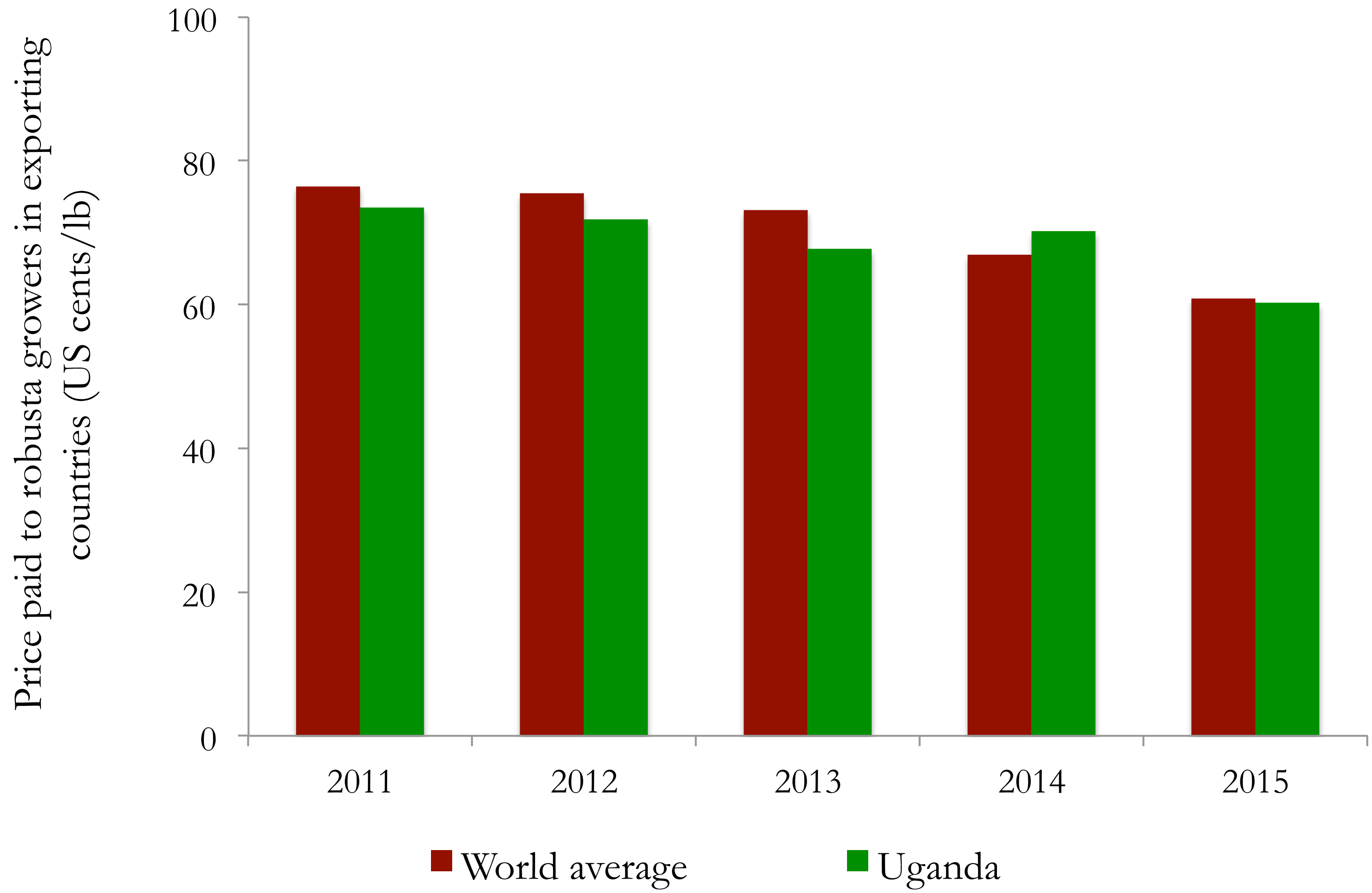
- substantial FOB share, what about actual level of FOB, competitive?

- other cash crops might be more rewarding (e.g. previous vanilla boom, maize)

Uganda production has remained stagnant, why?

Is Robusta competitively priced?

⑤ Farmers incentives

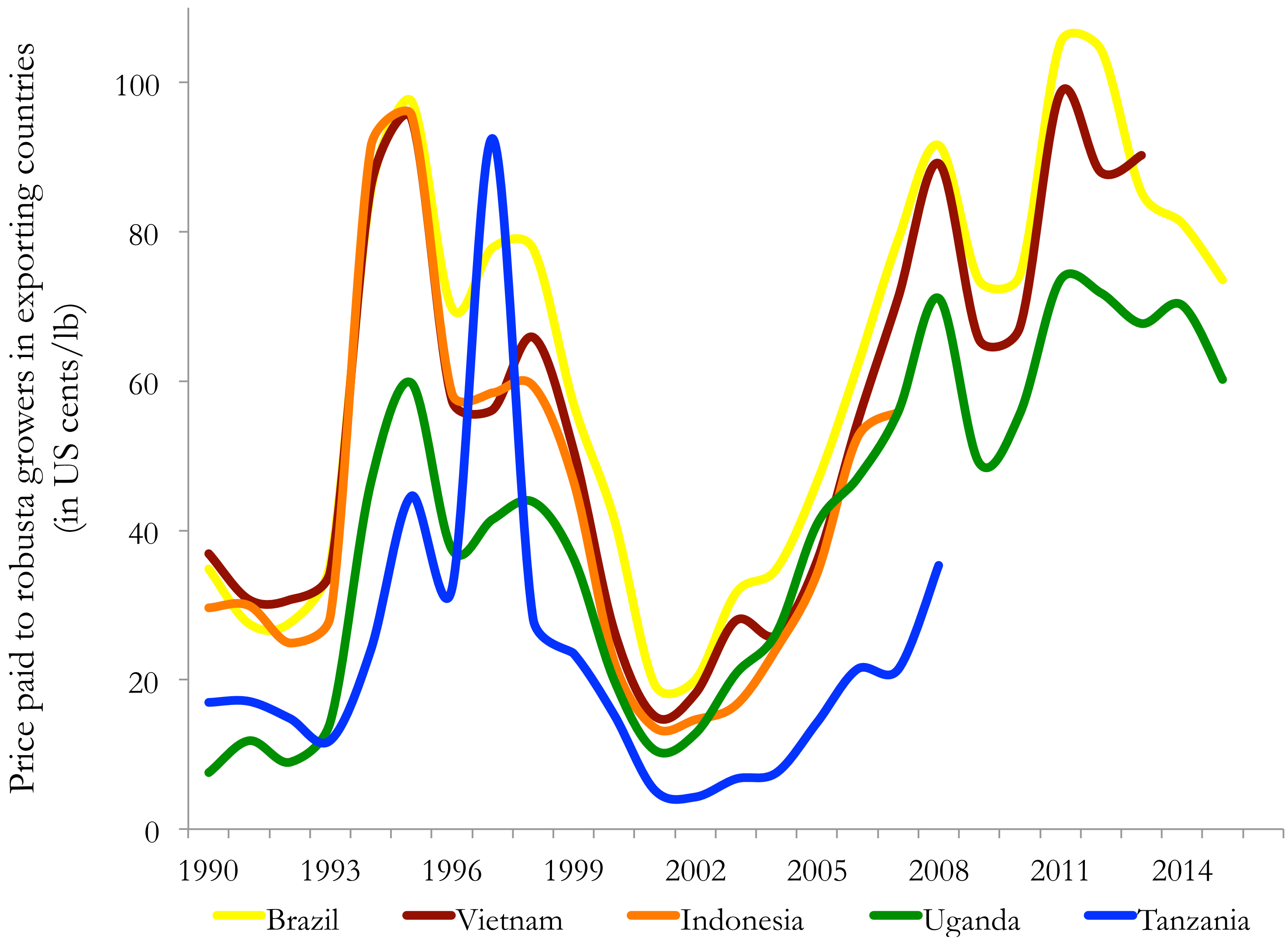


Source: International Coffee Organization 2016

Uganda production has remained stagnant, why?

Farmers are getting a discounted price

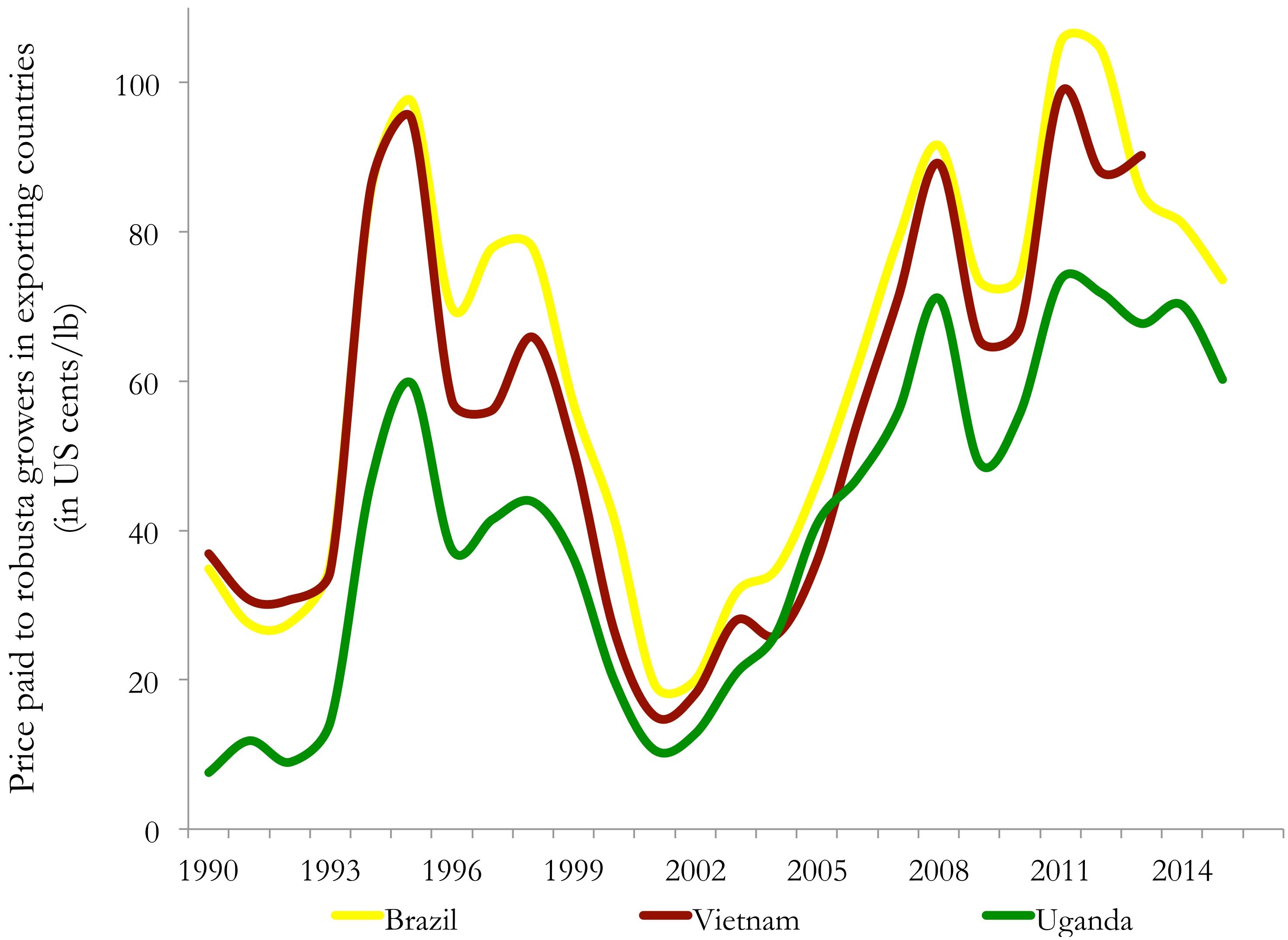
⑤ Farmers incentives



Uganda production has remained stagnant, why?

Farmers are getting a discounted price

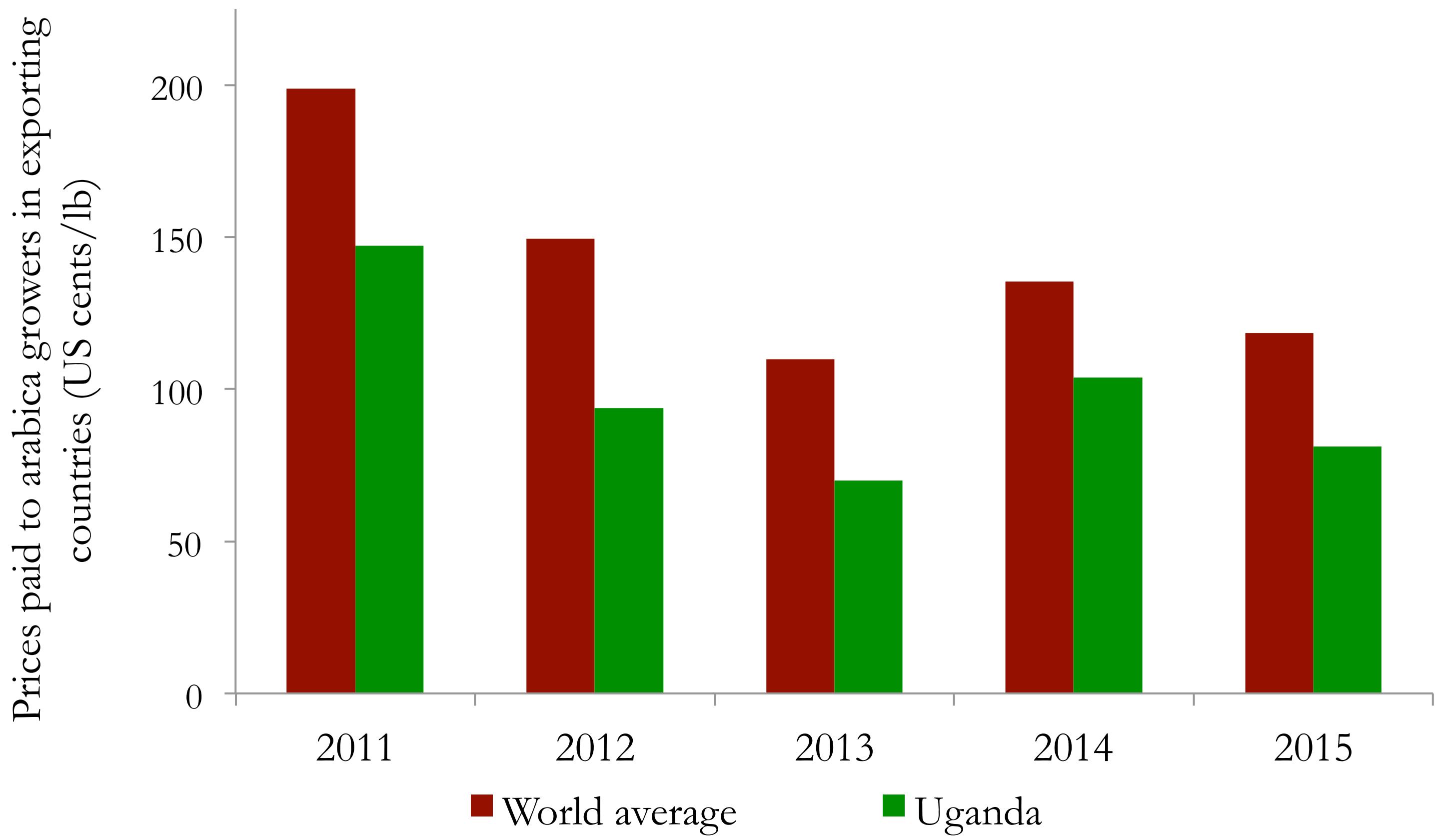
⑤ Farmers incentives



Uganda production has remained stagnant, why?

Is Arabica competitively priced?

⑤ Farmers incentives

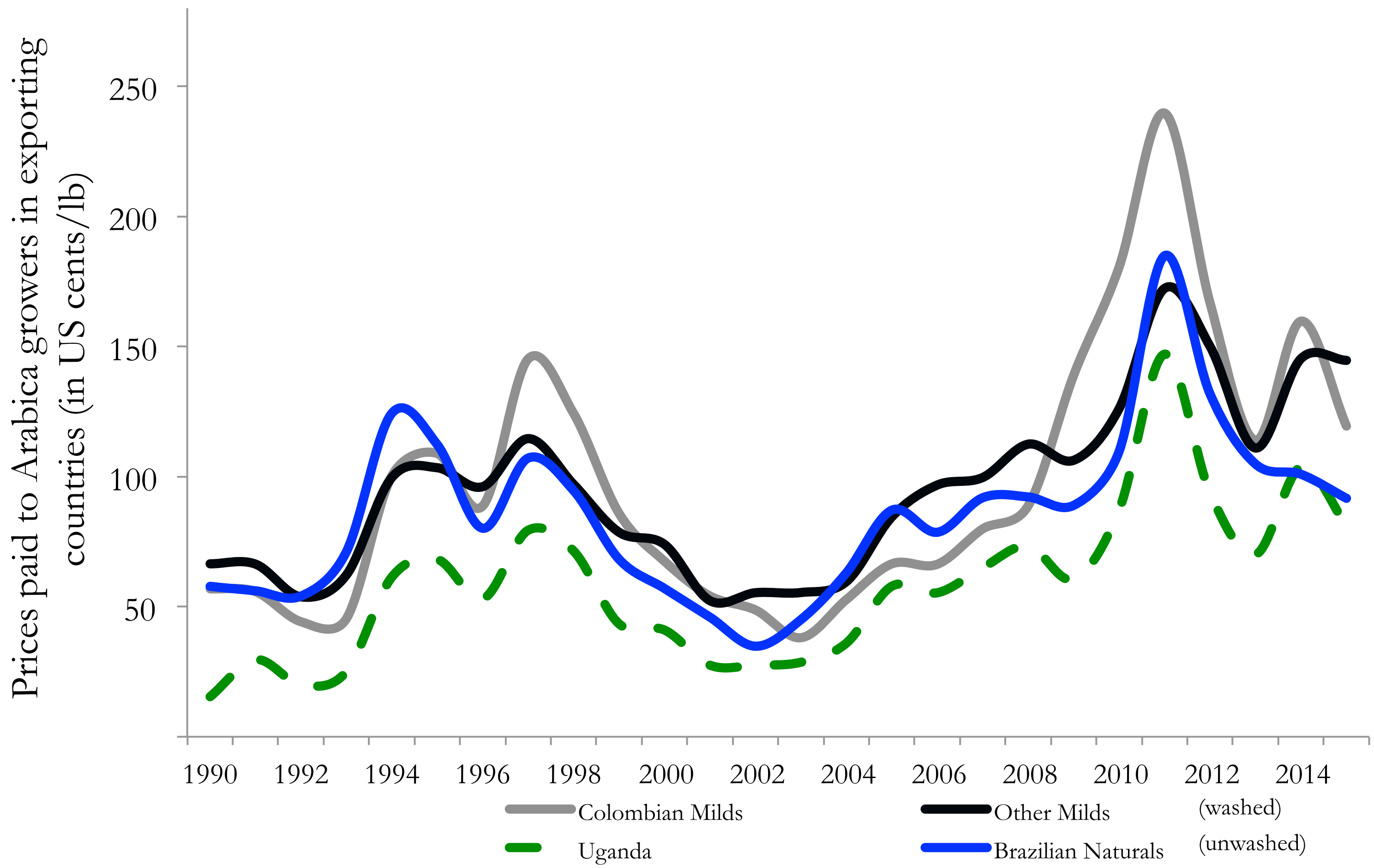


Source: International Coffee Organization 2016

Uganda production has remained stagnant, why?

Arabica trading at a discount

⑤ Farmers incentives



Source: International Coffee Organization 2016

Uganda production has remained stagnant, why?

① Wilt disease

② Urbanization

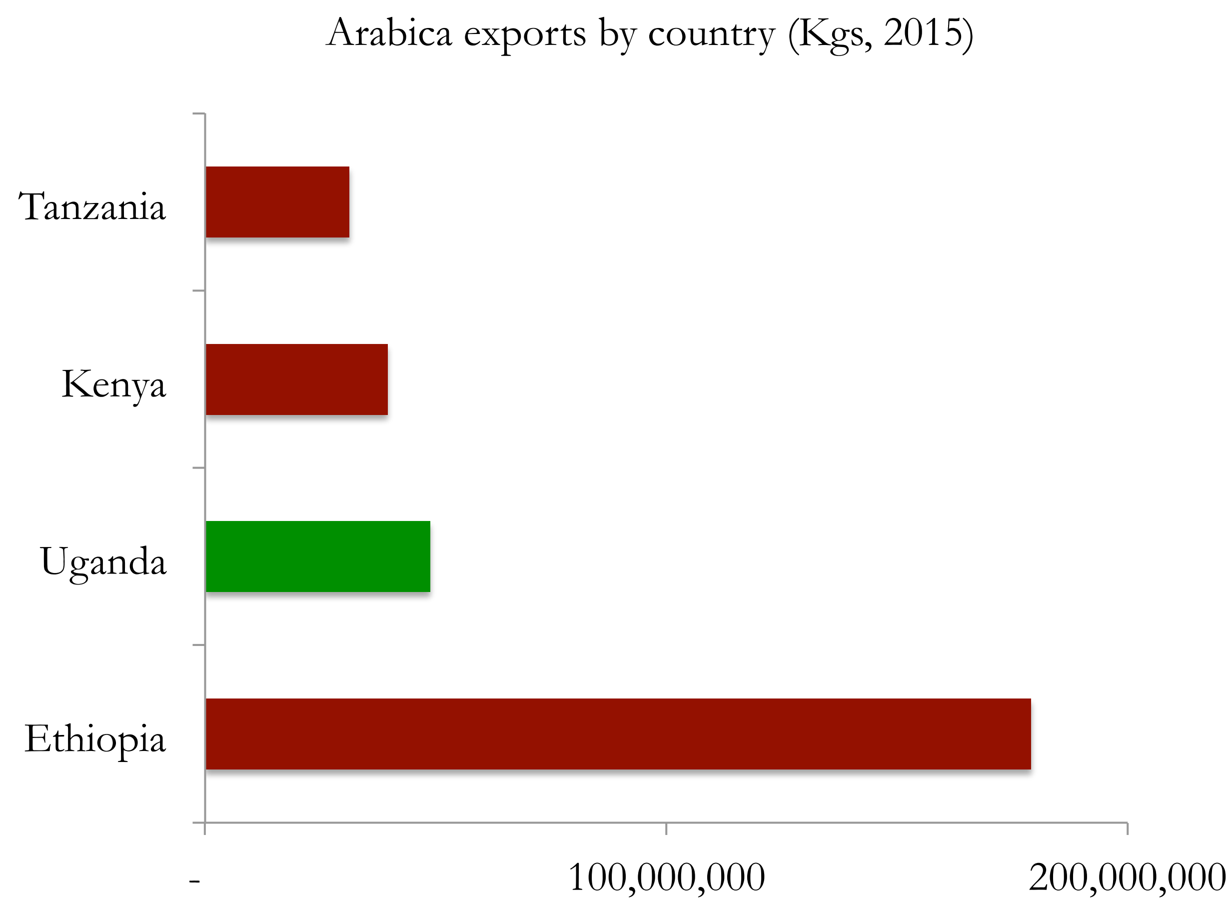
③ Challenges in maintaining and investing in coffee trees

④ Access and knowledge of input usage

⑤ Farmers incentives

Ugandan Arabica an opportunity?

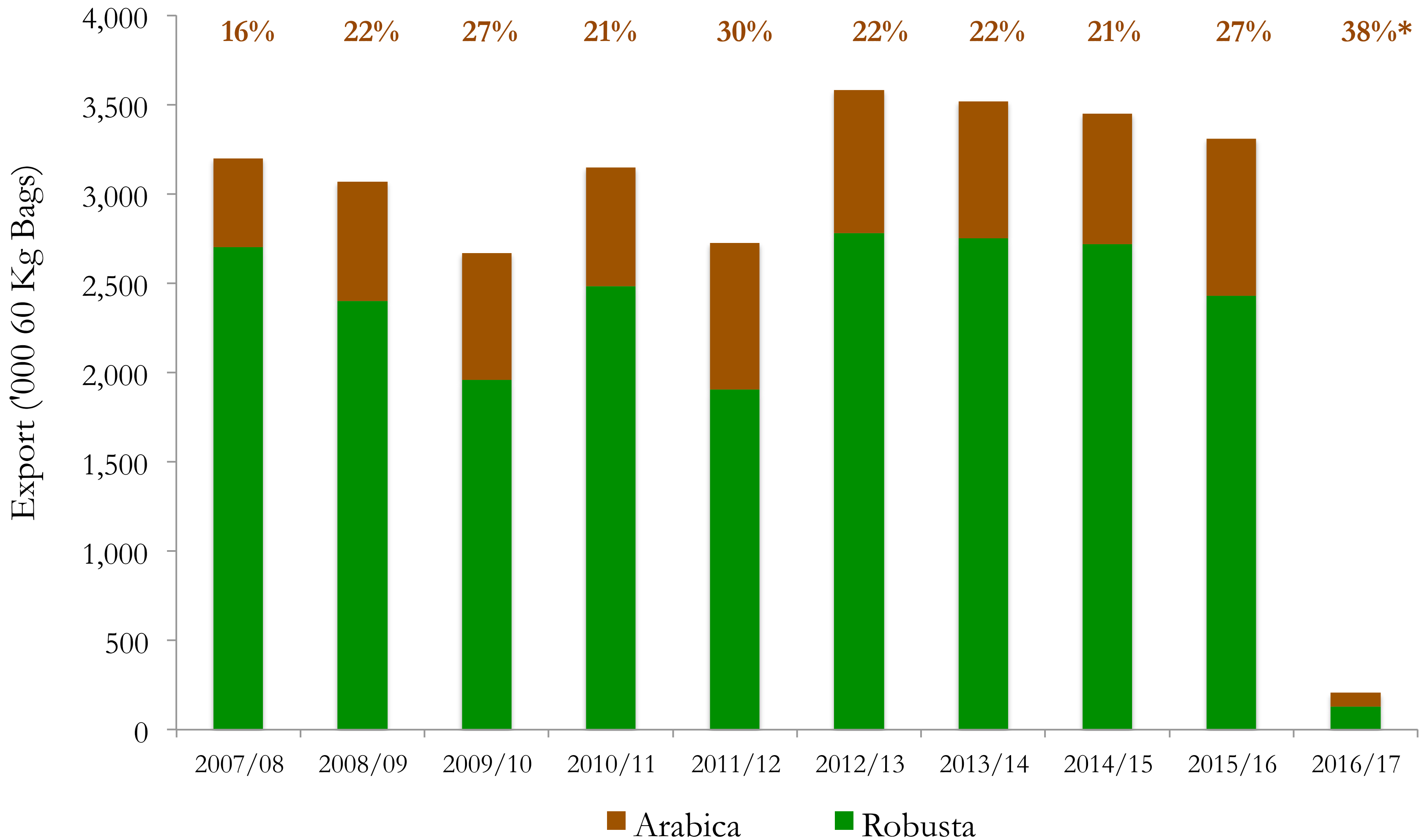
Volumes are larger than you think



Source: Reuters

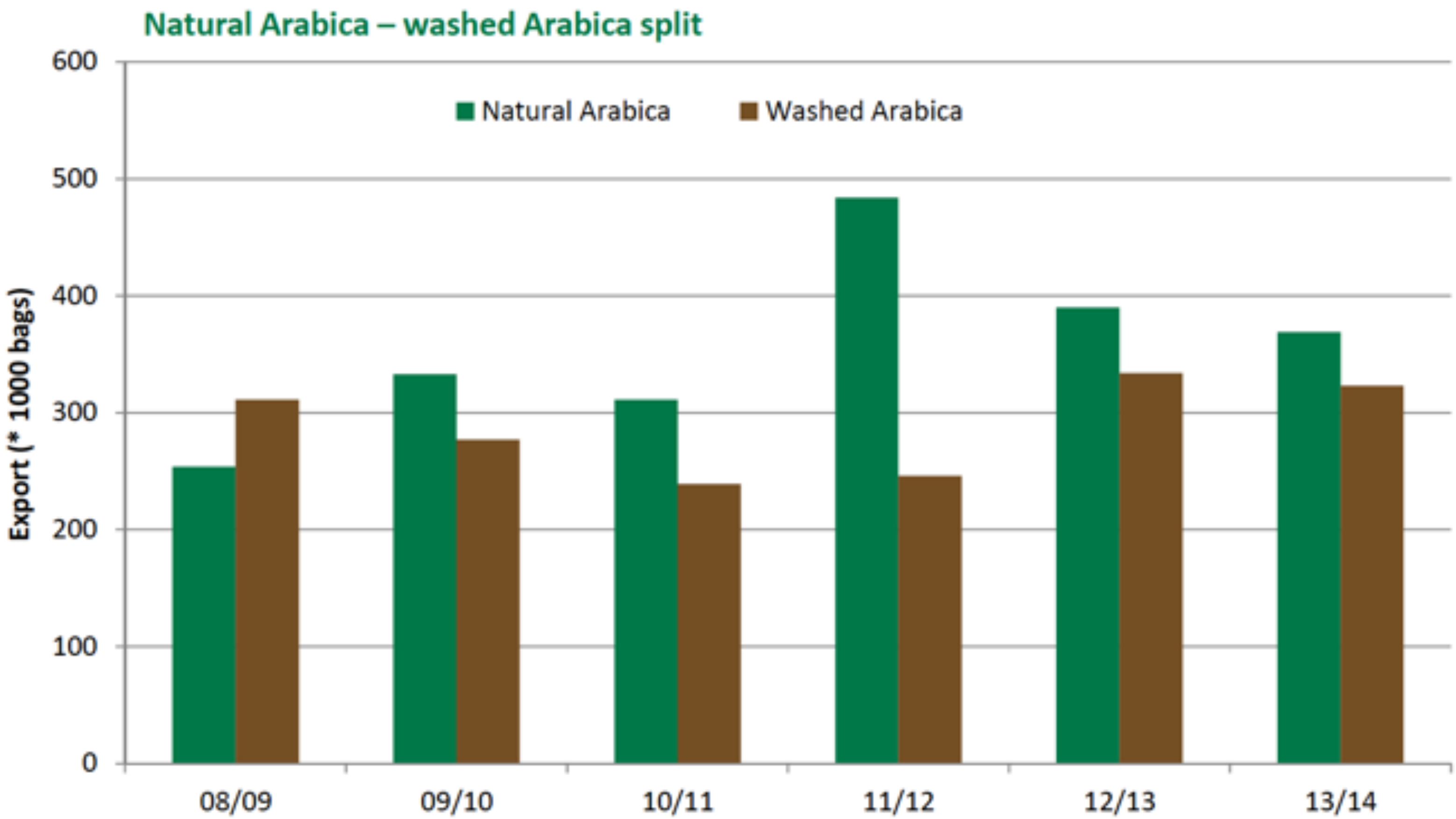
Ugandan Arabica an opportunity?

Over 20% of exports Arabica, and growing



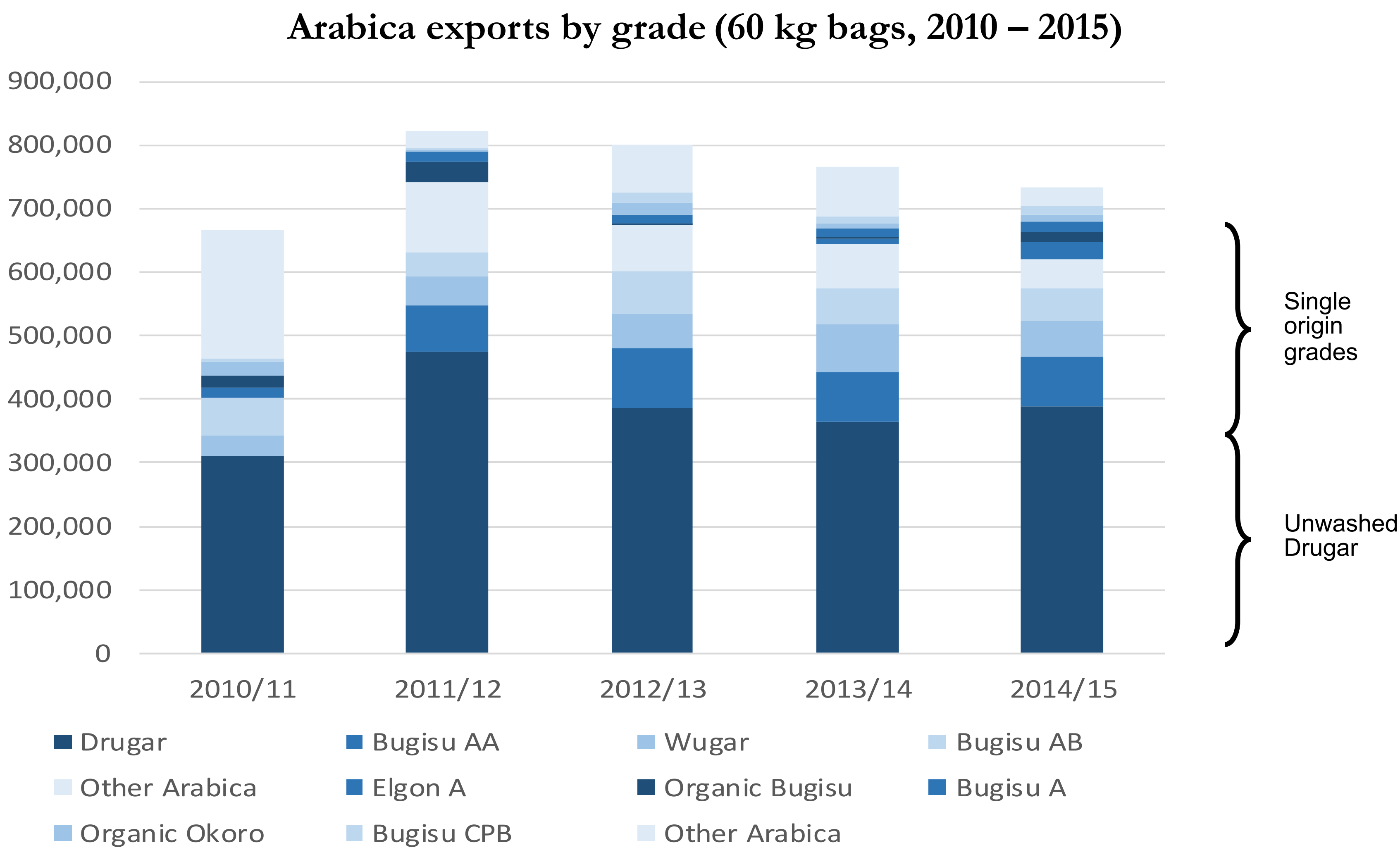
Ugandan Arabica an opportunity?

45% washed Arabica, 55% natural Arabica (unwashed)



Ugandan Arabica an opportunity?

Several single origin coffees to develop, constraints to developing Drugar



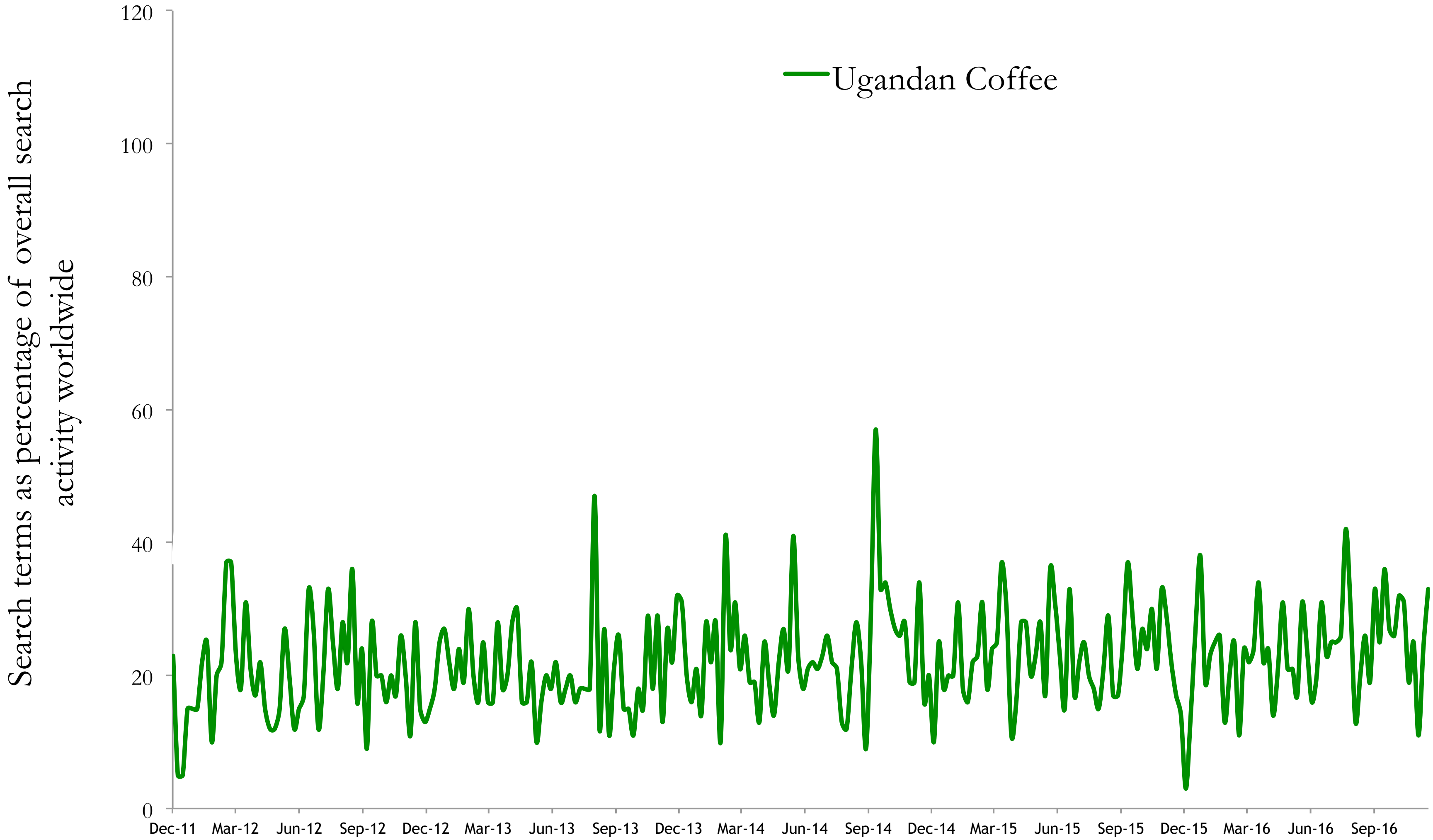
Ugandan Arabica an opportunity?

Sustainable Coffee

- EU leading off-taker ≈ 62% of exports
- under Sustainable Coffee Program: coffee roasters goal to procure sustainable sales from 8% to 25%
- challenge for UG, **only 2%** of its coffee export sales is certified
- core challenge: **certification is costly for smallholder farmers** (who are increasingly getting smaller), farmers are not getting the premiums to incentivize. Will need to think about farmers associations, not *cooperatives!*
- in fact Rwanda's early success (1999) was NGO (USAID-PEARL) support of *Abahuzamugambi Cooperative*
- Need to tread carefully, consumers are not yet fully aware of *mass balance* versus *controlled blending*. As awareness raises serious reputation risk associated with marketing

Building Ugandan Brand before sustainability?

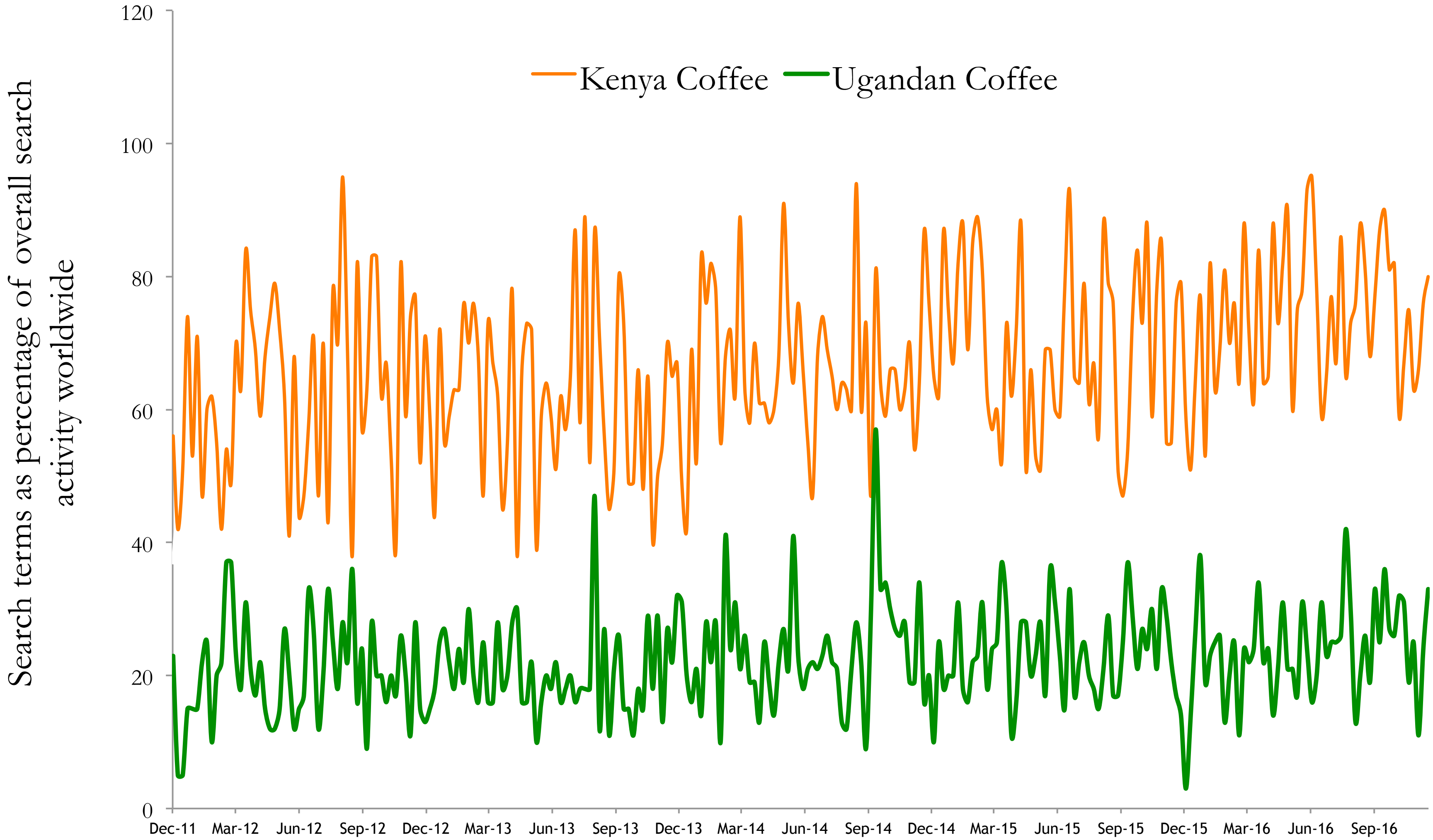
Google Searches



Source: authors calculation on Google Trends, accessed Dec 12, 2016

Building Ugandan Brand before sustainability?

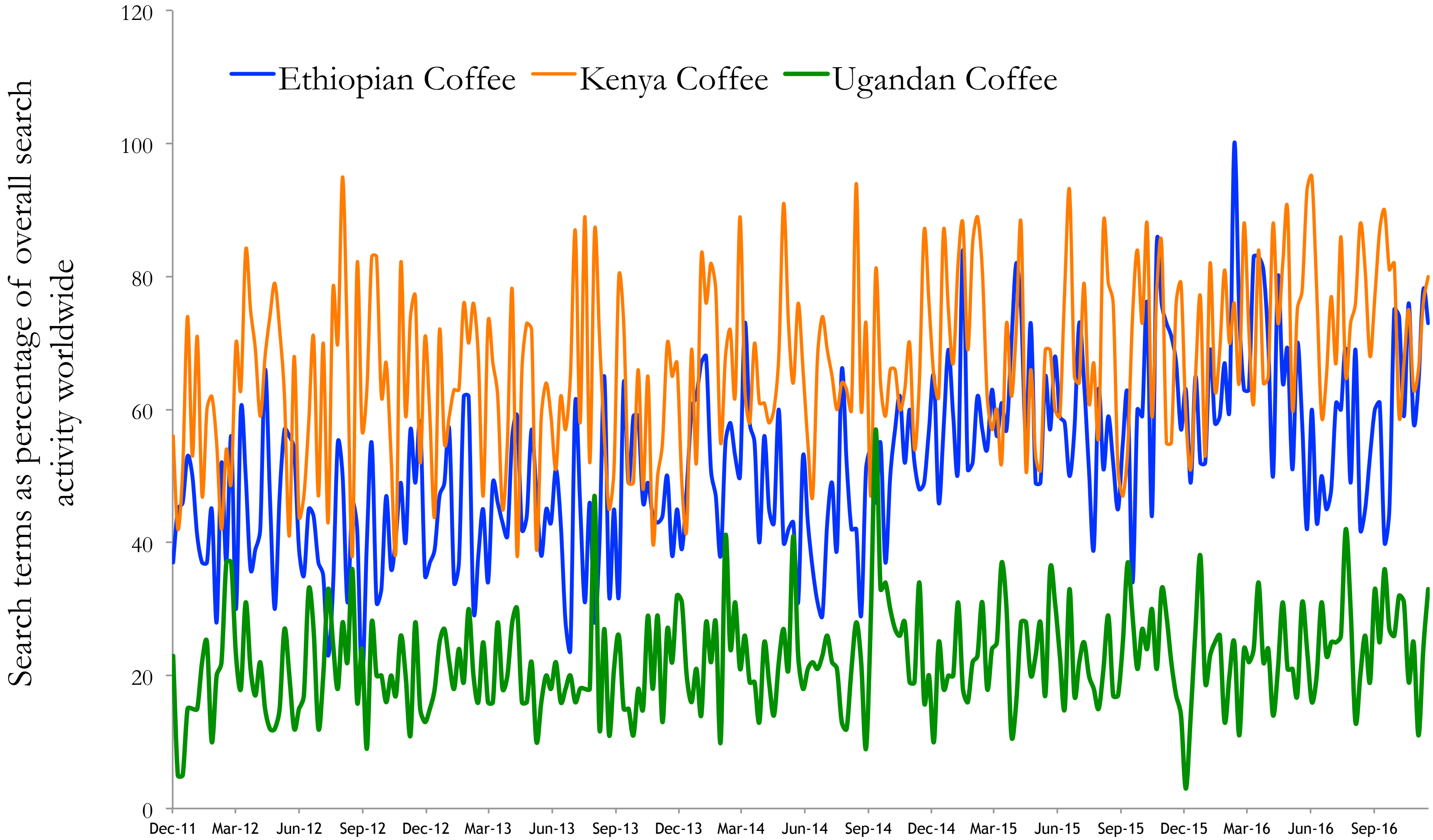
Google Searches



Source: authors calculation on Google Trends, accessed Dec 12, 2016

Building Ugandan Brand before sustainability?

Google Searches



Source: authors calculation on Google Trends, accessed Dec 12, 2016

Building Ugandan Brand before sustainability?
Marketing

- Kenya's AA

- Colombia's Juan Valdez

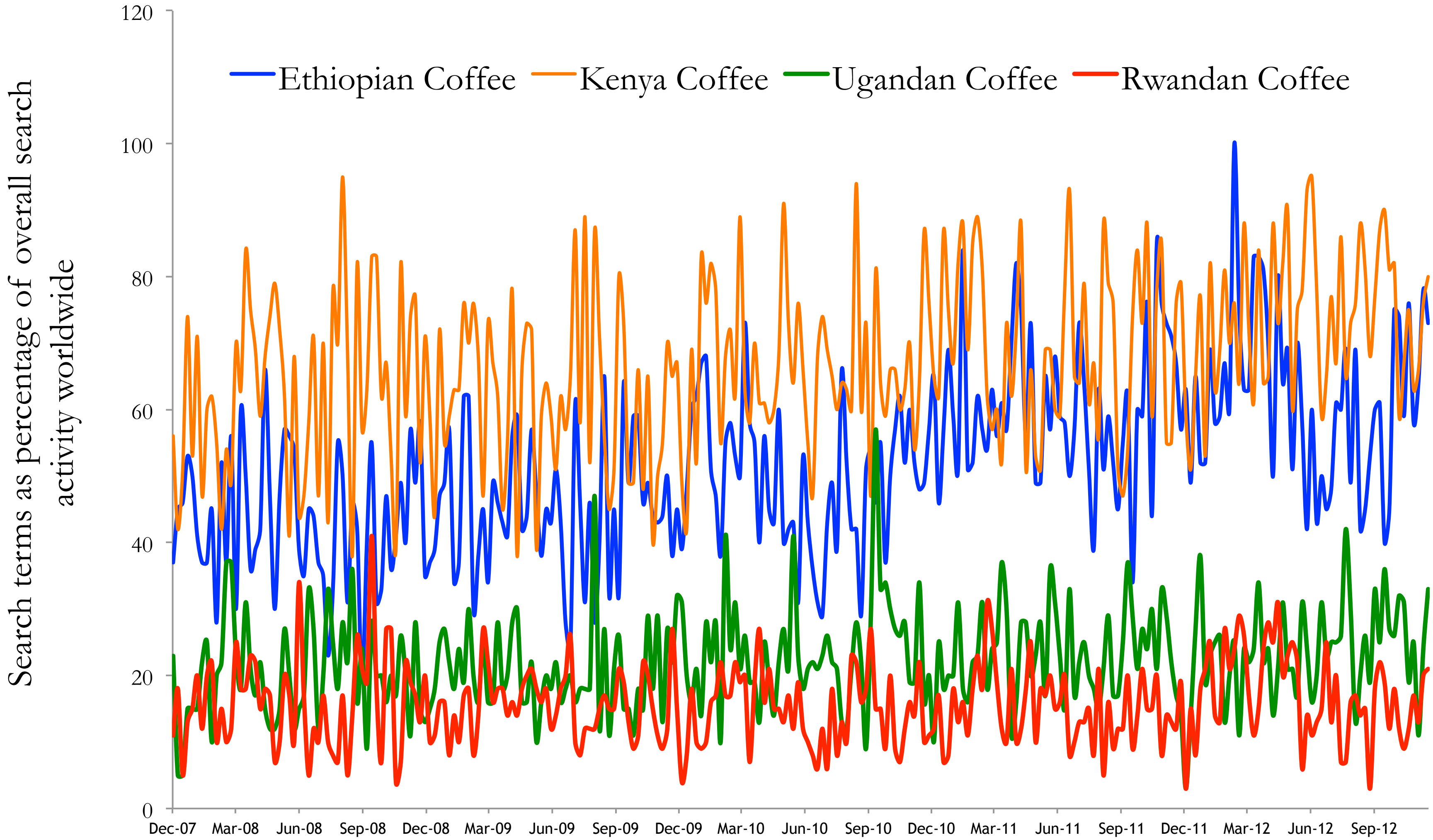
Café de Colombia®

- Rwanda has made some progress with *Second Sunrise* managed by NAEB

RWANDA COFFEE
A SECOND SUNRISE

Building Ugandan Brand before sustainability?

Google Searches



Source: authors calculation on Google Trends, accessed Dec 12, 2016

Beyond marketing
Appellation

- geographical indication, whereby a product's given quality or reputation is linked to a geographical origin

- e.g. appellation in wine and cheese

- Ethiopia's experience (Sidamo, Harrar, Yiragacheffe), long road, recall the UN arbitration *(GoE* vs. *Starbucks*). Appropriate infrastructure and capacity is needed: GIS data, office of intellectual property, policy & enforcement, awareness at all levels of chain, monitoring and follow-up mechanism

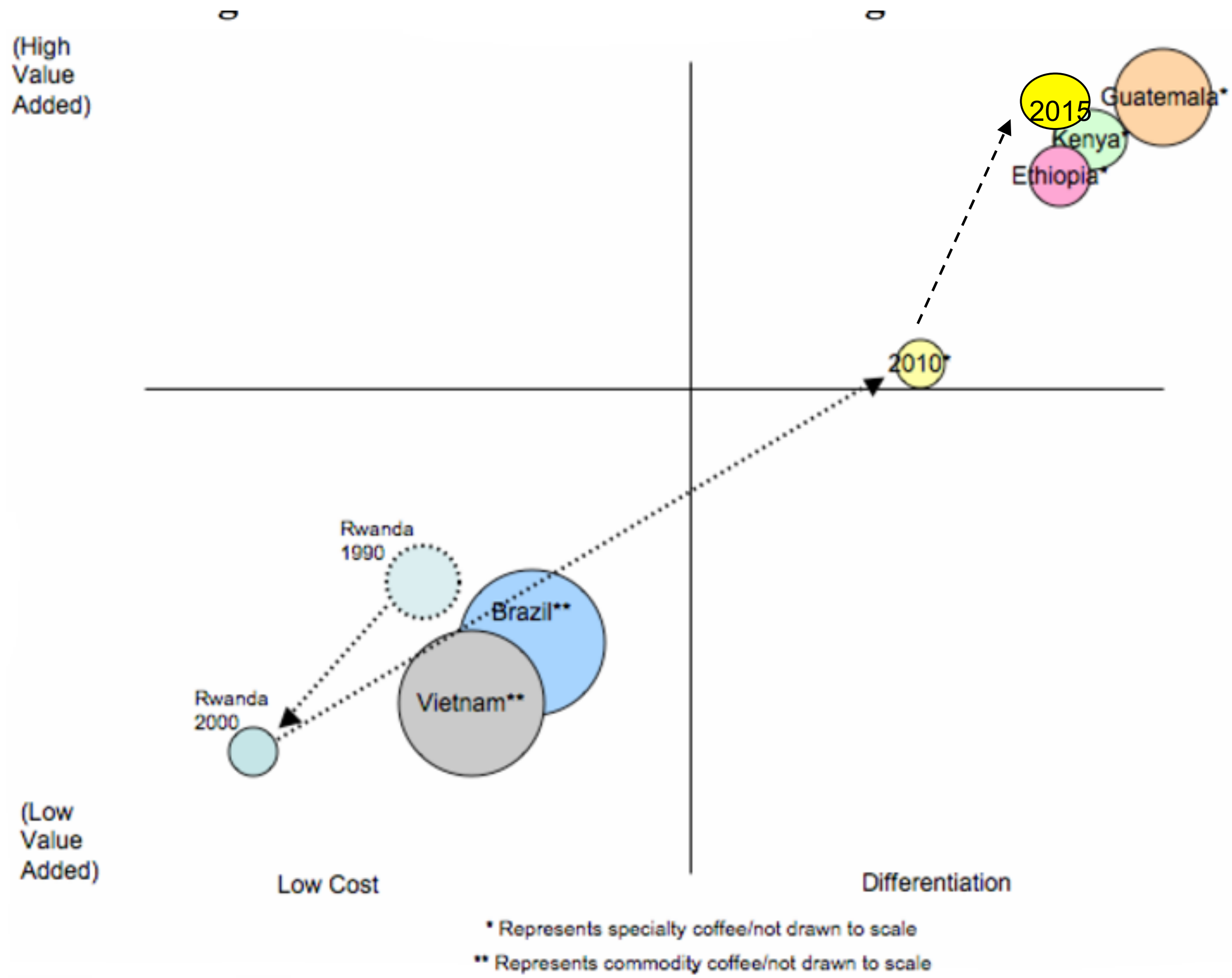
Rwanda's Coffee Sector

Successful turnaround

- In 2002 low quality-low volume cycle.
- New GoR targeted coffee as a priority sector: strategic realignment driven by detailed action guidelines and investment options developed by coffee working group and adopted by Cabinet
- Liberalization of the coffee sector. Assisted cooperative formation with support from USAID (PEARL and SPREAD projects)
- Focus on quality: Cup of Excellence competitions since 2008
- Pre-2002: quantity as only measure of performance, GoR controlled, vulnerable to price movement
- Post-2002: quality only criterion for remuneration, rise of private sector (40% of mills), potential for Rwandan coffee to become single-origin
- Fully washed (Arabica) exports: 1% in 2002; 21% in 2010 and 50% in 2015

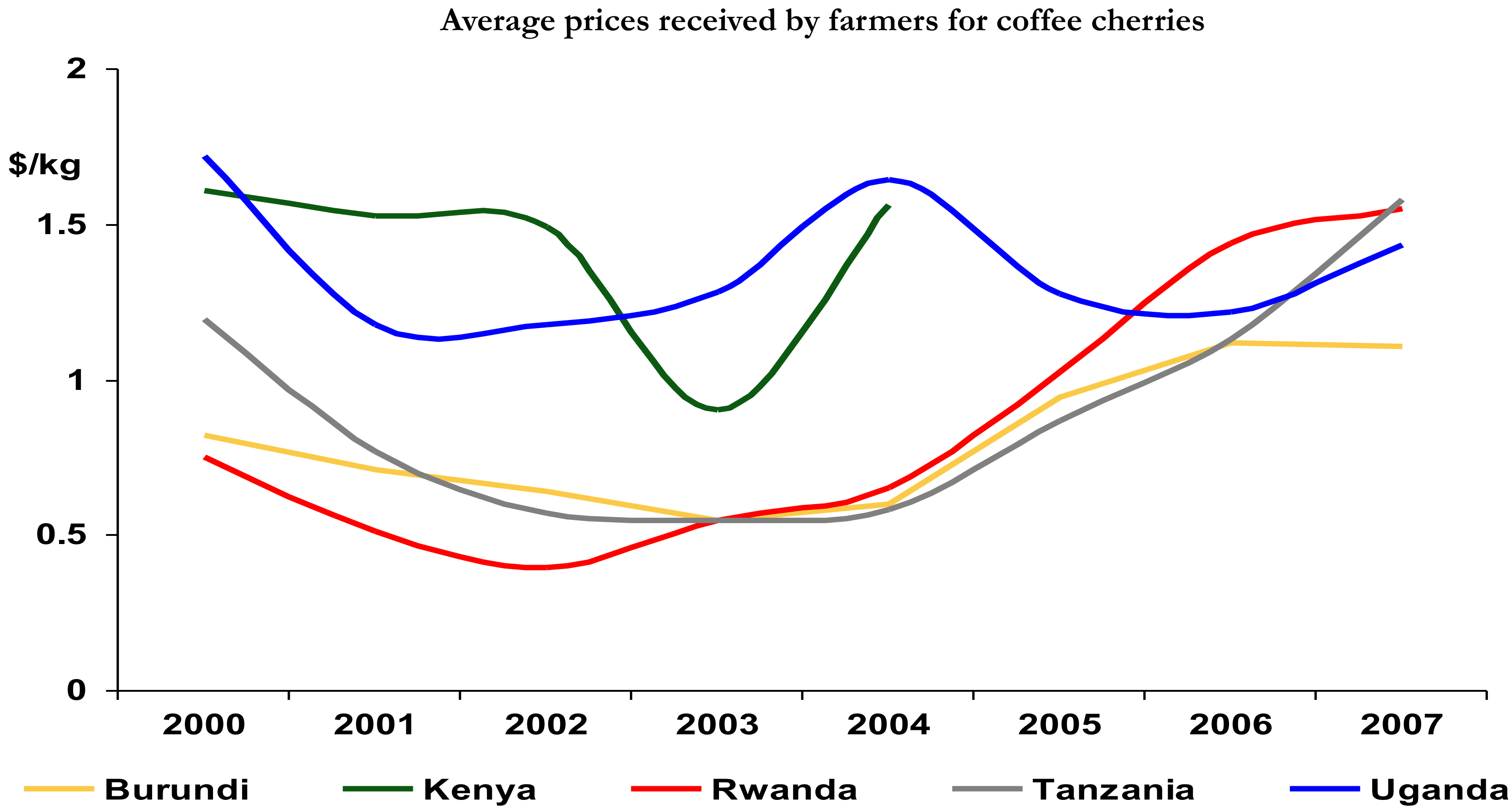
Rwanda's Coffee Sector

Transformation within a decade



Rwanda's Coffee Sector

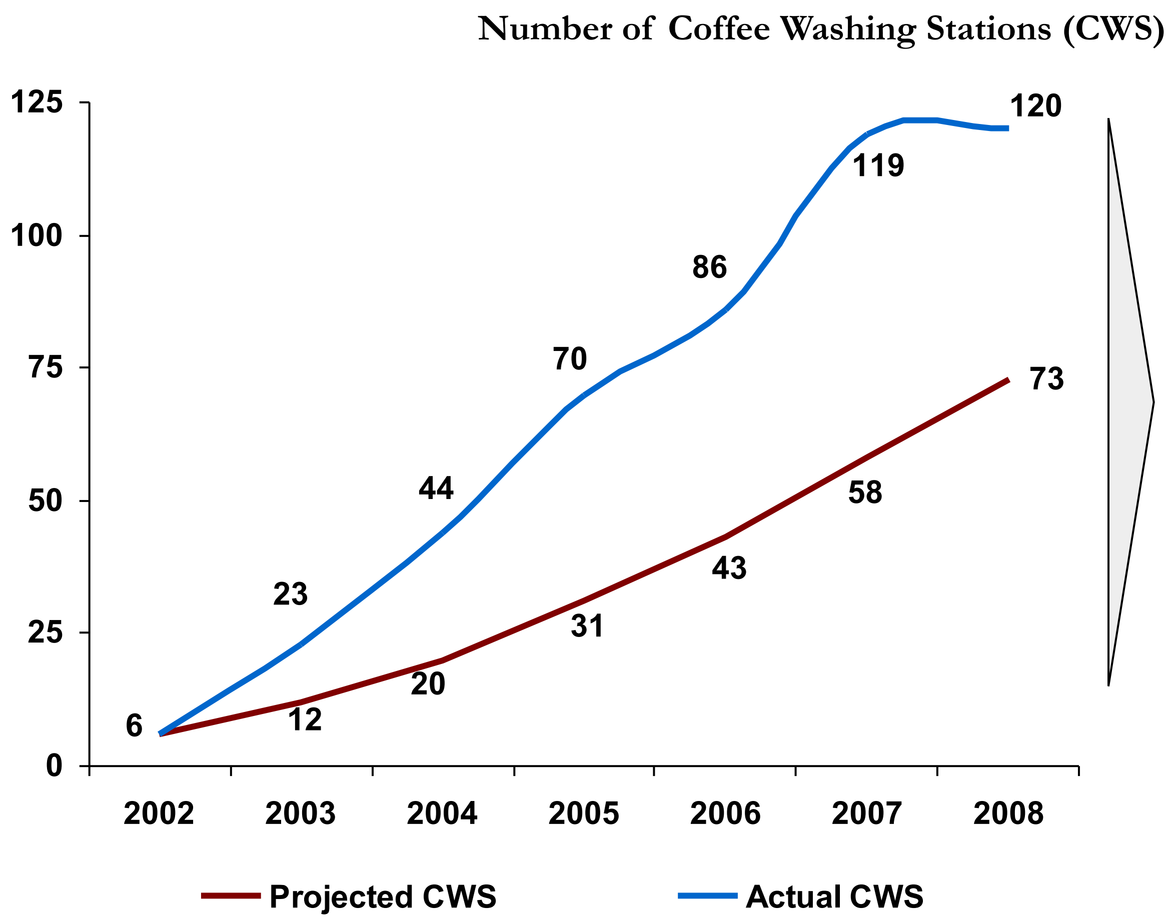
Farmers revenues



Source: Rwanda National Coffee Strategy, Impact 2003-2009, 2009

Rwanda's Coffee Sector

Explosion in entry of Coffee Washing Stations



While the 2002 strategy recommended 107 washing stations by 2010, private investors own 120 spread all across the country at the end of 2008

Source: Rwanda National Coffee Strategy, Impact 2003-2009, 2009

Rwanda's Coffee Sector

IGC supported & funded: What is the effect of competition between mills on relationships between mills and farmers? [Joint project R. Macchiavello, LSE]

Year	Constructed Mills	Operational Mills	% Coffee Exports Processed by Mill	Mean Capacity Utilization of Mills
2002	5	2	<1%	
.				
.				
2012	214	197	34.56%	55%
2013	217	194	33.83%	52%
2014	235	198	35.90%	50%

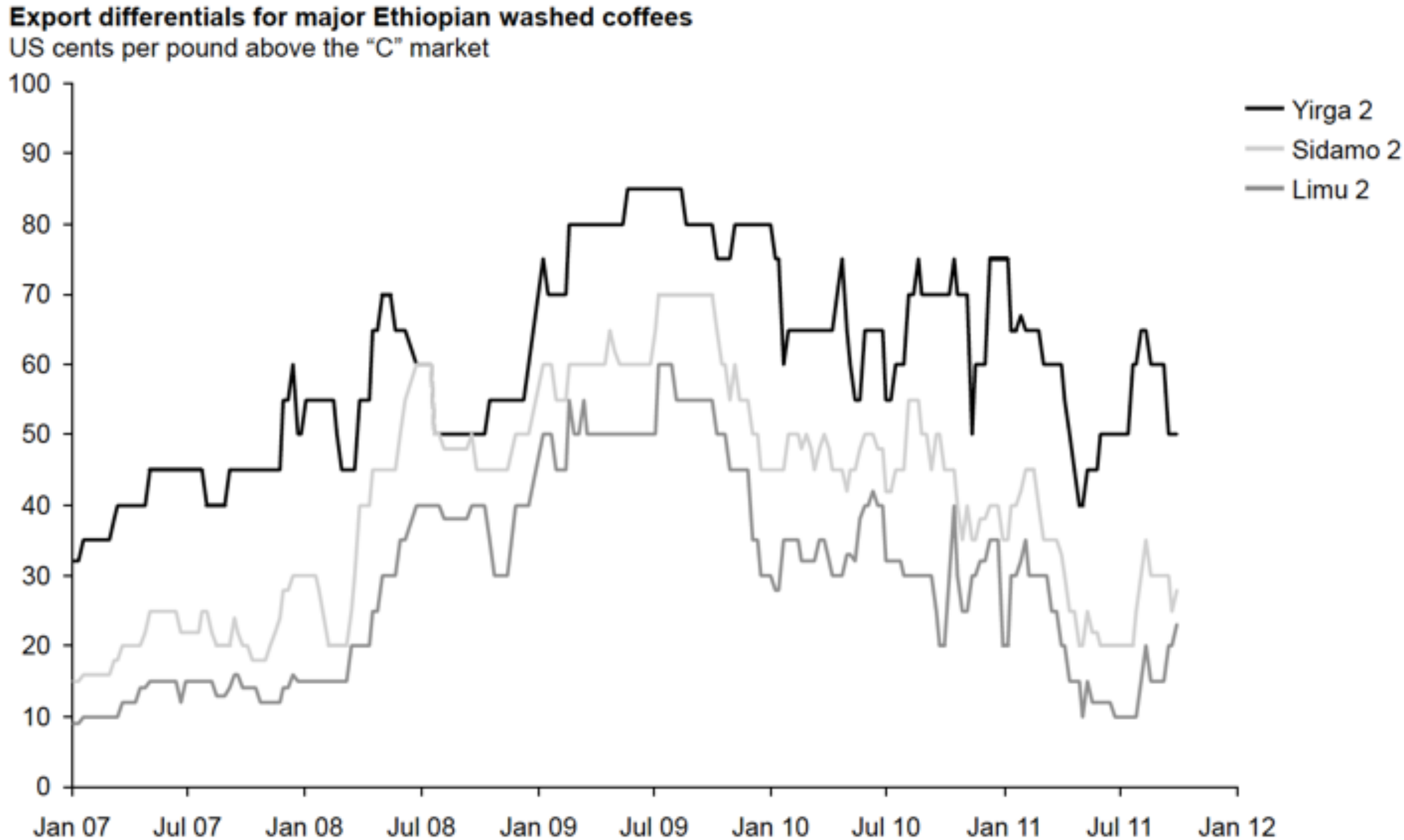
Rwanda's Coffee Sector

<u>IGC supported & funded:</u> What is the effect of Competition between mills on relationship between mills and farmers? [Joint project R. Macchiavello, LSE]

- explosion in entry of coffee washing stations, implies potentially excessive competition to purchase cherries
- this can potentially destroy ongoing working relationships that were highly efficient between washing stations and farmers
- in fact excessive competition between mills forced farmers to process coffee at home (unwashed, low value, but storable) as trust weakened and anticipated opportunistic behavior started to take place
- caution on race for quality – managing industrial policy on entry of mills is equally important
- competition in environments where there are other market imperfections can lead to other harmful effects
- policy response has been to introduce appropriate "zones" for sourcing

Ethiopia's Coffee Sector

New project, early observations



Source: Authors calculations on Ethiopia Coffee Bulletin (various)

Thank You

Ameet Morjaria
a.morjaria@kellogg.northwestern.edu