

# Timber Trade and the EUTR

Holger Weimar, Georg Becher

Thünen Institute of International Forestry and Forest Economics

*Timber trade and the conservation of forests  
- Five years EUTR*

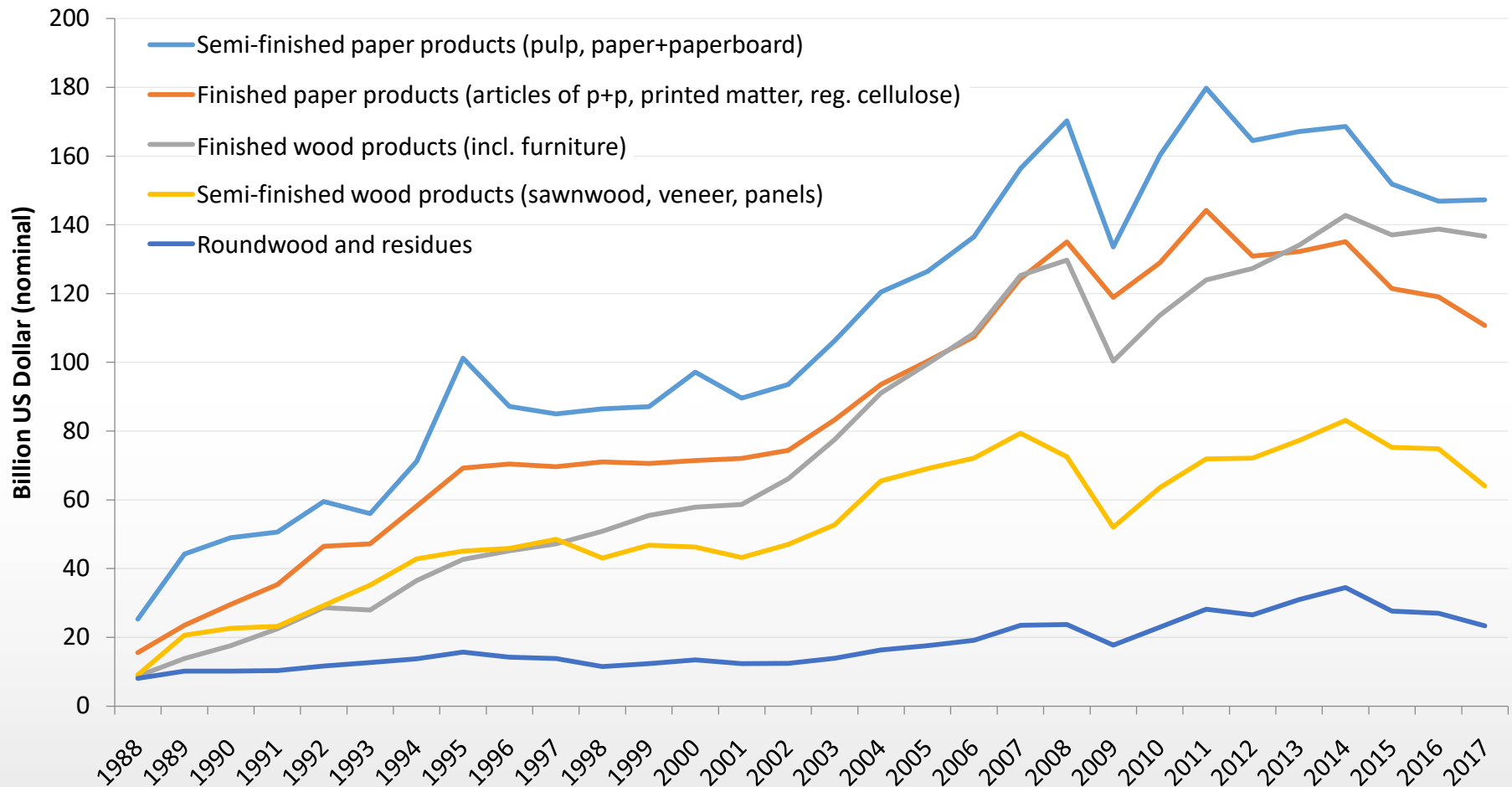
Hamburg,  
09.10.2018



# Global trade with wood products\*

## Trade by commodity groups

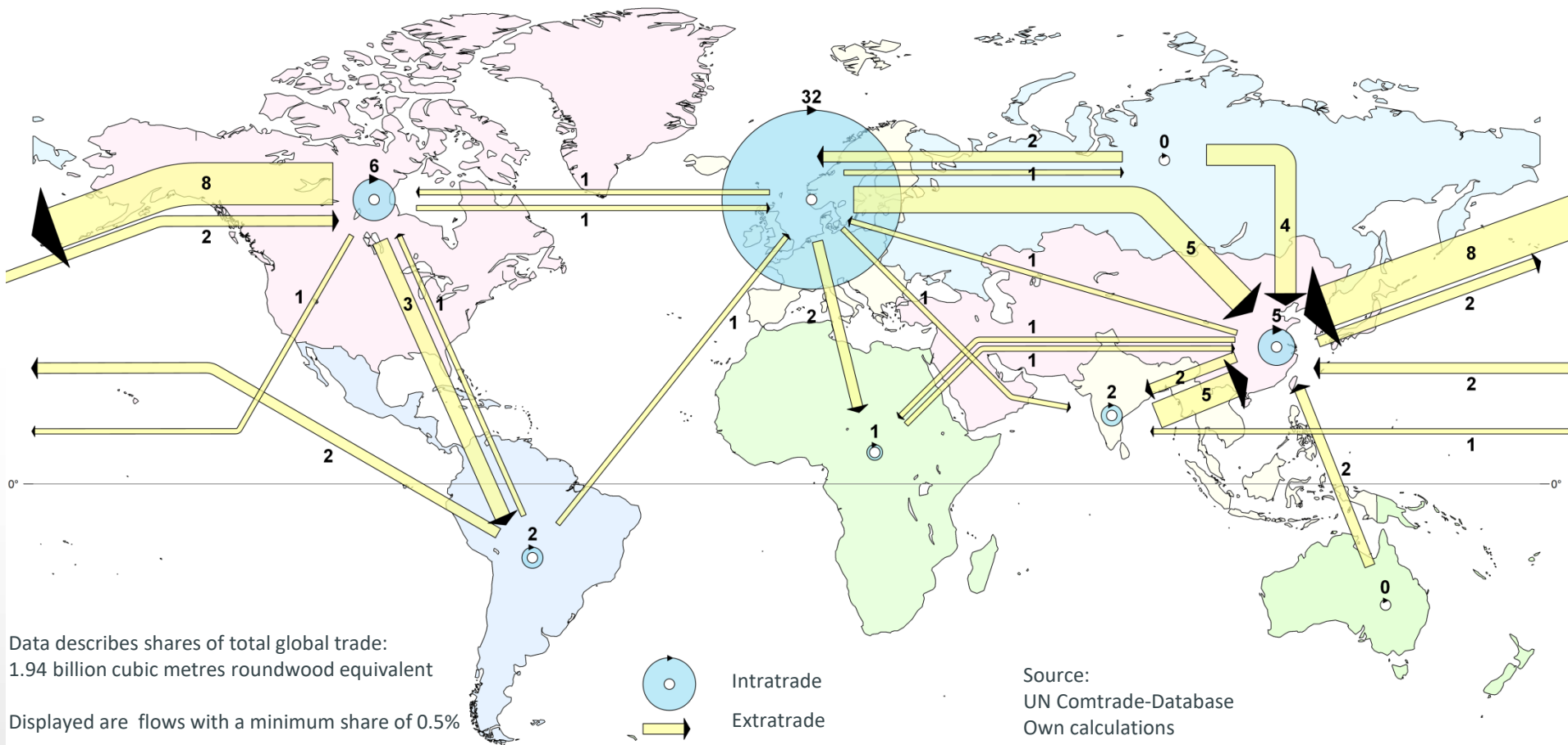
\*) Wood and wood based products



Source: UN Comtrade, own calculations

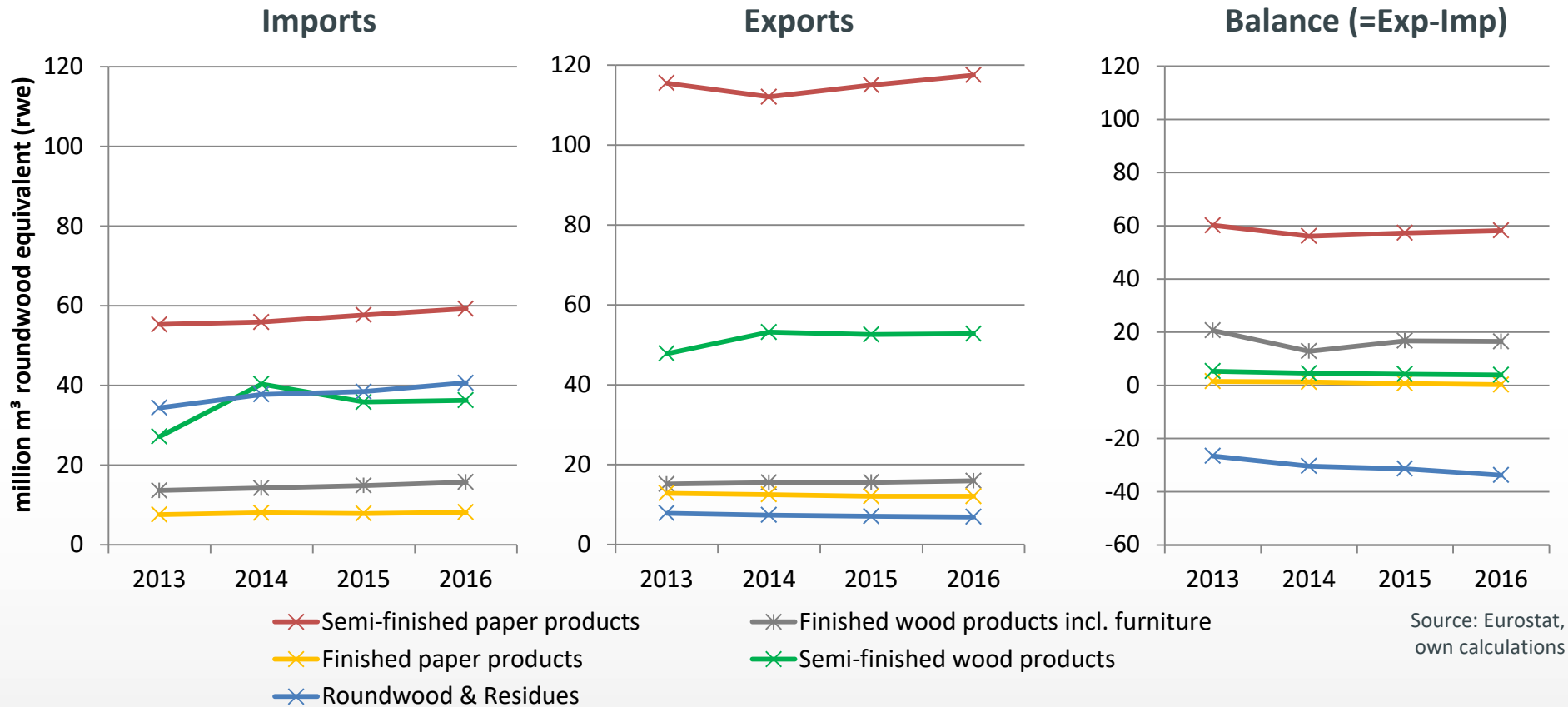
# Global trade with wood products\*

Trade of world regions 2014 (all wood products, in roundwood equivalent)



# EU-trade with wood products

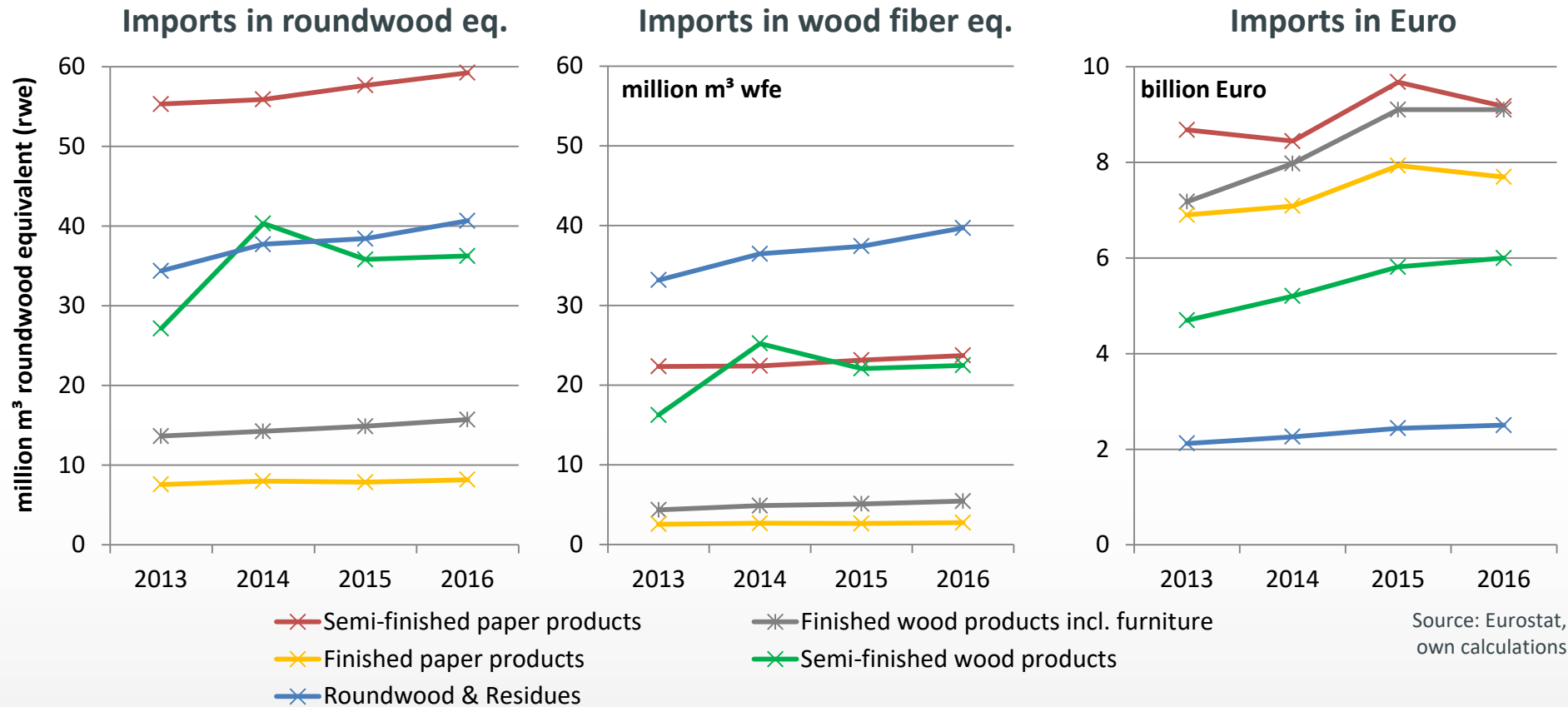
European trade balance 2013-2016 (in roundwood equivalents, rwe)



- Total trade balance in 2016 (in mill. rwe): Imports 160, Exports 205, Net Exp. 45
- Imports into EU increased, total exports are on constant level

# EU-trade with wood products

European imports 2013-2016 (in quantity and value: rwe, wfe, Euro)

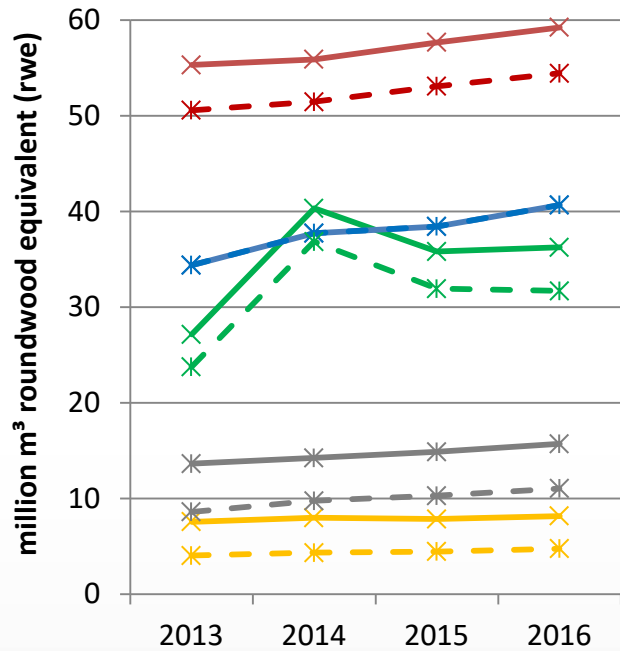


- Measured in rwe semi-finished prod. play major role, in wfe its roundwood & res.
- If looking at values, finished products are of highest importance

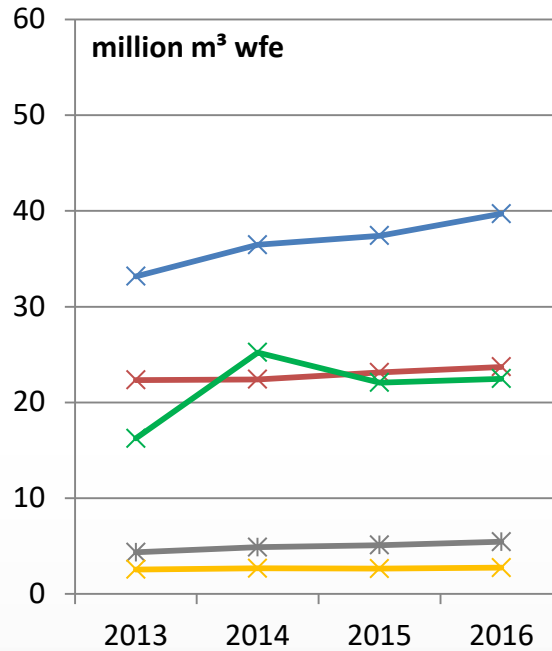
# EU-trade with wood products

## Market coverage of EU-imports by EUTR

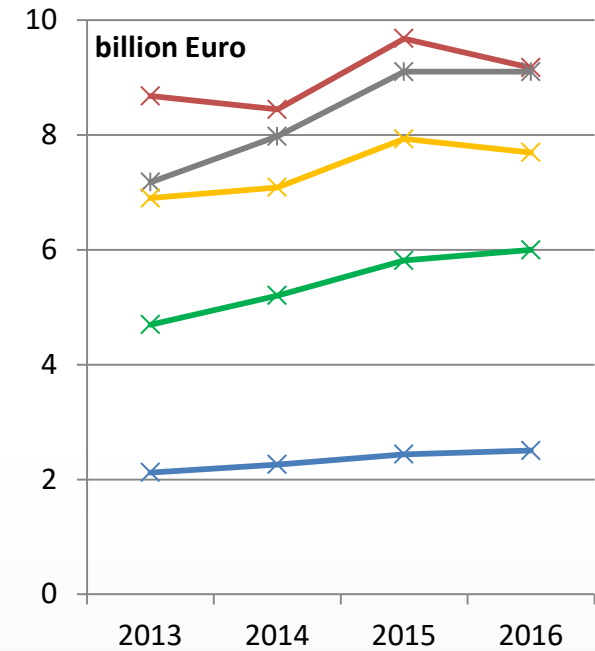
Imports in roundwood eq.



Imports in wood fiber eq.



Imports in Euro



- × Semi-finished paper products
- × Finished paper products
- × Roundwood & Residues
- × Finished wood products incl. furniture
- × Semi-finished wood products

Source: Eurostat, own calculations

! But not all wood products are covered by EUTR

- About 3/4 of all commodities codes of wood products are covered by EUTR

# EU-trade with wood products

## Market coverage of European imports by EUTR

	2013	2014	2015	2016	2013	2014	2015	2016	2013	2014	2015	2016
in %	Roundwood eq.				Wood fiber eq.				Euro			
<b>Roundwood &amp; Residues</b>	100	100	100	100	100	100	100	100	100	100	100	100
<b>Semi-finished wood products</b>	87	91	89	87	91	94	92	90	95	96	96	96
<b>Semi-finished paper products</b>	91	92	92	92	91	92	92	92	98	98	98	97
<b>Finished wood products incl. furniture</b>	63	68	69	70	65	66	67	69	58	58	58	58
<b>Finished paper products</b>	53	54	56	58	57	58	60	62	40	41	42	43
<b>Total</b>	<b>88</b>	<b>90</b>	<b>89</b>	<b>89</b>	<b>92</b>	<b>93</b>	<b>93</b>	<b>93</b>	<b>74</b>	<b>74</b>	<b>75</b>	<b>75</b>

- Coverage ratio decreases with increasing processing stage
- Interestingly, for finished products coverage ratio increased in the last years. However, this has only minor impact on total coverage rate

# Timber Trade and the EUTR

## Conclusions (1)

### Timber trade and coverage ratio

In contrast to a declining global trade, imports to the EU increased in the last years.

The market coverage of imported EUTR-products increased slightly. But basically it's stable at a level of ~90% in quantity units or ~75% in monetary units. Especially imports of finished EUTR-products increased compared to finished non-EUTR-products.

→ Despite these descriptive findings a more thorough analysis is necessary to detect possible impacts of the implementation of the EUTR on the (import) market.



# Timber Trade and the EUTR

## Analysis of time series

### Research question

Can the enforcement of EUTR in March 2013 be considered as a legislative intervention event in the time series i.e. are the time series before and after EUTR the 'same' or did the enforcement of EUTR generate 'different' time series ?

### Data used

Monthly EUROSTAT Data on EU imports ranging from January 1988 to August 2016  
→ 344 months ( $t = 344$ )

### Separate analyses of time series for

- non-tropical wood products listed in EUTR
- wood products listed in EUTR and classified as tropical

# Timber Trade and the EUTR

## Analysis of time series

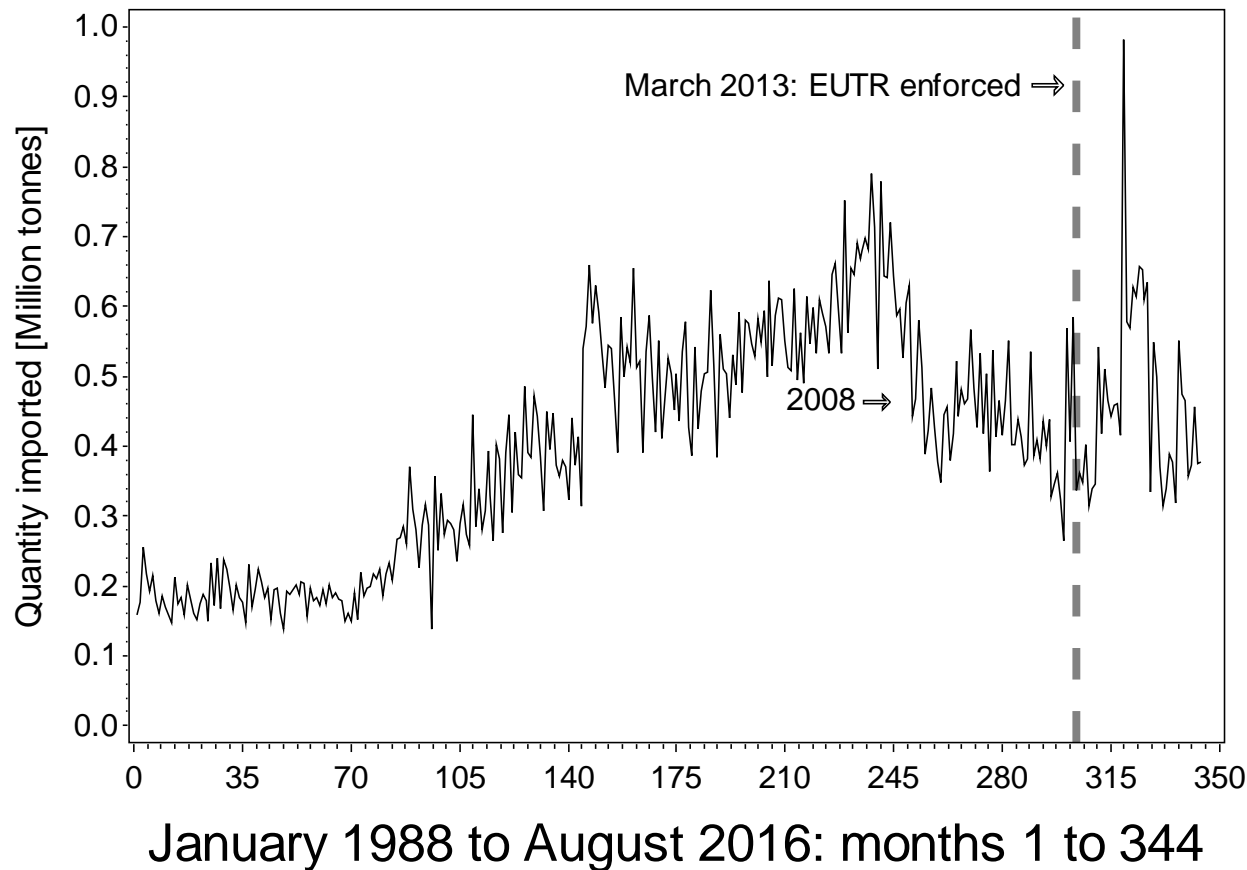
### Methods: applied time series analysis

- Time domain: modelling the long term variation (trend)
- Frequency domain: detecting the periodic behaviour of time series
- Intervention analysis: examining quantitative impact possibly caused by a (legislative) measure

# Analysis of time series

## Results (1): time domain, tropical wood products imported by EU

### Imports EU - World: only EUTR products (tropical woods)



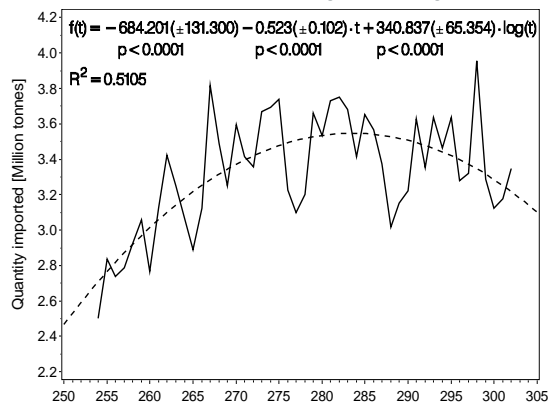
### Peculiarities:

- initially stagnant imports
- different trends und amplitudes (oscillations)
- ‘hidden’ Periods
- negative trend in 2008/2009
- ‘restlessness’ after enforcement of EUTR

# Analysis of time series

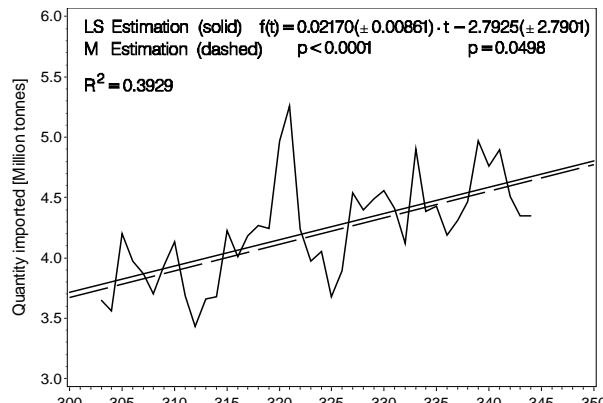
## Results (2): EUTR effects with non-tropical wood products

**Before EUTR (t = 49)**



February 2009 to February 2013: months 254 to 302

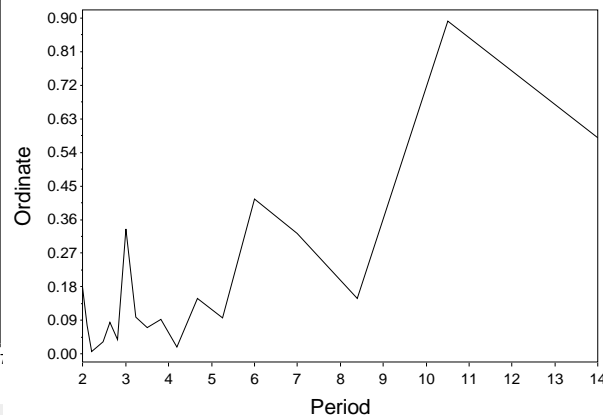
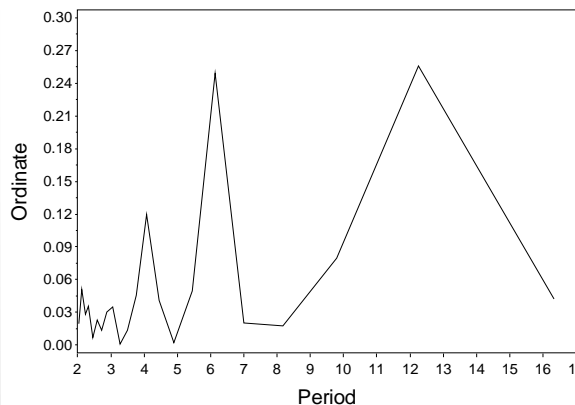
**After EUTR (t = 42)**



March 2013 to August 2016: months 303 to 344

In time domain visible and significant: trend with linear and logarithmic term → linear trend

In frequency domain the half-yearly periodic behaviour of imports occur in both segments but the annual period existing before EUTR remains afterwards only roughly : 6/12 → 6/10/11

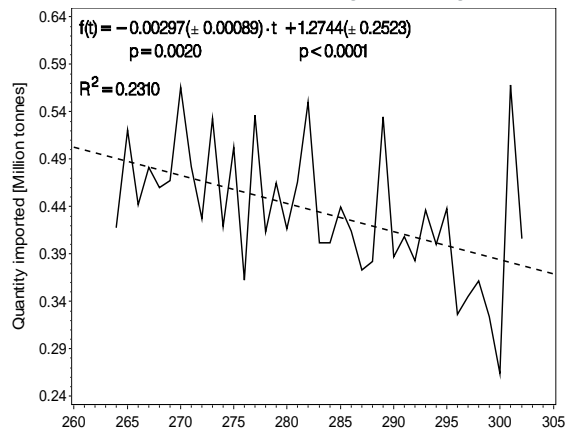


The Intervention model shows a significant increase of imports after EUTR

# Analysis of time series

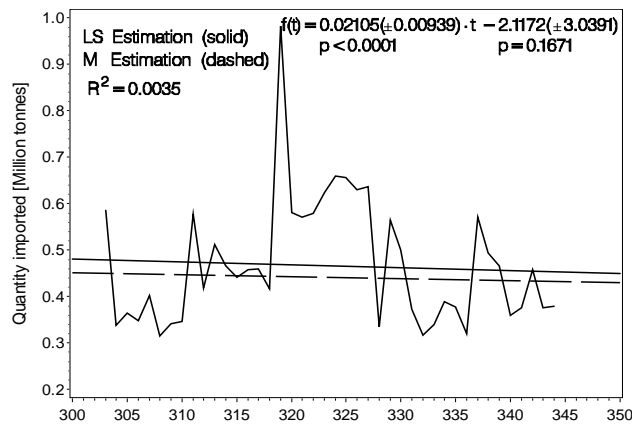
## Results (3): EUTR effects with tropical wood products

**Before EUTR (t = 39)**



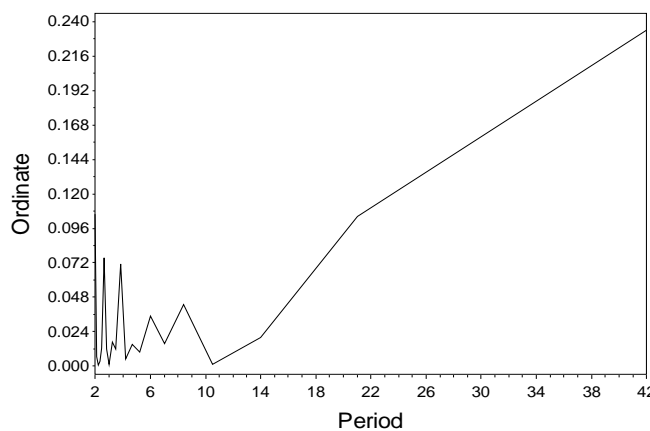
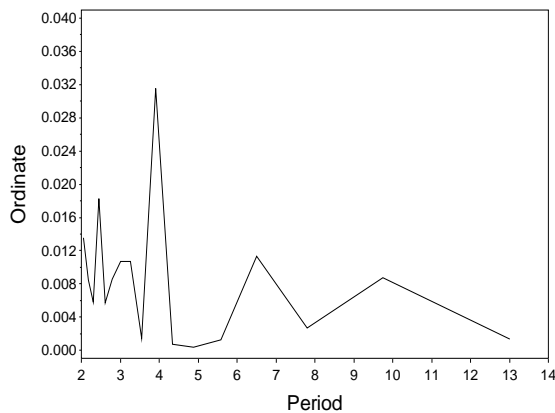
December 2009 to February 2013: months 264 to 302

**After EUTR (t = 42)**



March 2013 to August 2016: months 303 to 344

In time domain  
recognizable and  
significant: falling  
trend → no trend



In frequency domain  
the EUTR ,destroyed  
the periodicity of  
imports:  
four monthly periods  
→ no periods

The intervention model that ,works' quantitatively does not show any significance of EUTR

# Timber Trade and the EUTR

## Conclusions (2)

### Non-tropical wood products

The time series of imports of non tropical wood products have shown a cyclical behaviour with half-yearly and yearly periods. It occurs in both segments of time series i.e. before and after EUTR.

From theoretical point of view (pattern of the autocorrelation function) the segments of the time series before and after EUTR are the ,same‘.

However, new is the significant linear increase of imports. Whether it is related to EUTR is not certain. Altogether the time series of EU imports of non- tropical wood products has not (so far) been disturbed by EUTR.

# Timber Trade and the EUTR

## Conclusions (3)

### Tropical wood products

There is no evidence that EUTR caused the imports of tropical wood products by the EU from non-EU countries to decrease. However, the EUTR generated a different time series as that before: it does not show any trend and there are no cycles existing before.

Cautiously interpreted this may mean that caused by EUTR the trade with tropical wood products changed qualitatively: it left the previous pattern of the time series and became ‚restless‘ .

It may be an indication of a ‘wait-and-see’ attitude of importers caused by lack of implementing provisions to obey EUTR, uncertainty about possible fines etc.

*Thank you for your attention!*



Dr. Holger Weimar, Dr. Georg Becher  
Tel: +49 (0)40 73962-314; -142  
Mail: [holger.weimar@thuenen.de](mailto:holger.weimar@thuenen.de); [georg.becher@thuenen.de](mailto:georg.becher@thuenen.de)

Thünen Institute of International Forestry and Forest Economics  
Leuschnerstr. 91  
21031 Hamburg, Germany  
Web: [www.thuenen.de](http://www.thuenen.de)

The Johann Heinrich von Thünen Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries – Thünen Institute in brief – consists of 14 specialized institutes that carry out research and provide policy advice in the fields of economy, ecology and technology.

**Hamburg,  
09.10.2018**



## Sources:

Eurostat: Internationaler Trade, annual data

([http://epp.eurostat.ec.europa.eu/NavTree\\_prod/everybody/BulkDownloadListing?sort=1&dir=comext%2F2014S2%2Fdata](http://epp.eurostat.ec.europa.eu/NavTree_prod/everybody/BulkDownloadListing?sort=1&dir=comext%2F2014S2%2Fdata))

Eurostat: Monthly trade data (<http://ec.europa.eu/eurostat/data/database>)

UNComtrade, United Nations Commodity Trade Statistics Database: (<http://comtrade.un.org>).

Weimar H, Janzen N, Dieter M (2015): Market coverage of wood imports by the EU Timber Regulation.

Hamburg: Johann Heinrich von Thünen-Institut, 63 p, Thünen Working Paper 45,

DOI:10.3220/WP1440577266000

([https://www.thuenen.de/media/publikationen/thuenen-workingpaper/ThuenenWorkingPaper\\_45.pdf](https://www.thuenen.de/media/publikationen/thuenen-workingpaper/ThuenenWorkingPaper_45.pdf))