

A **T**ariff **A**nalytical and **S**imulation **T**ool for **E**conomists

Data updates and applications of **TASTE**

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Problem statement

219 million data at the HS6 tariff line level



Tariff line: 040510
*Fat content by weight
not exceeding 85%*

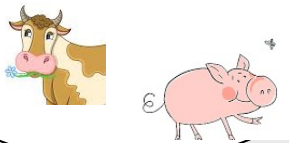
Problem statement

219 million data at the HS6 tariff line level



Model level

Agricultural primary products



Agricultural processed products



Other primary sectors



Manufactures



Problem statement

- 219 million data at the HS6 tariff line level
- Trade policies are implemented at the tariff line level (HS6, HS8, HS10 or HS12)
- Modells like GTAP run at a more aggregated level



Additional tools are needed

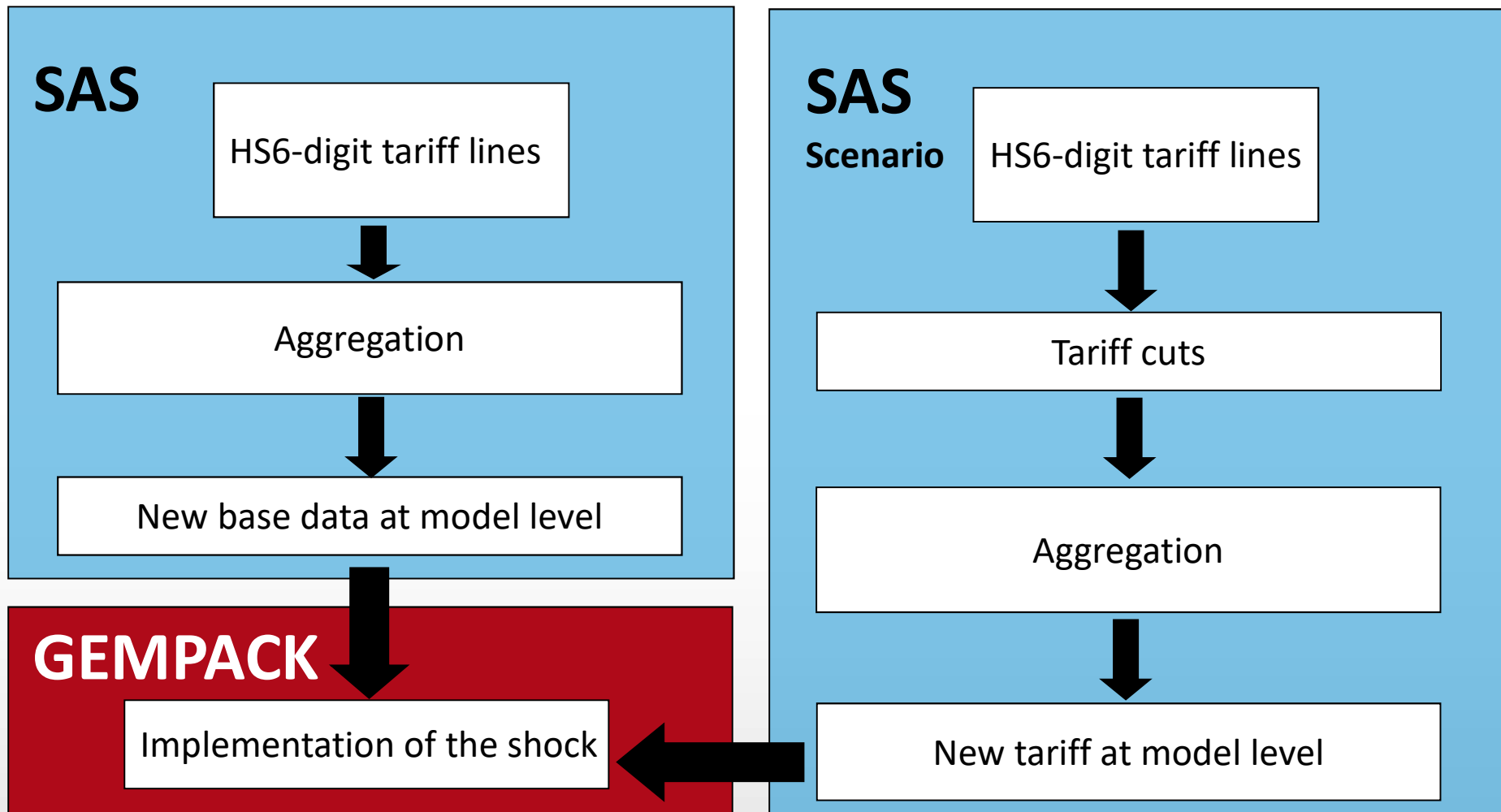
Outline

- Back ... to the future
- Updates of TASTE
- Applications
- Limitations
- Ideas for future developments

20 years back ...

- WTO-Negotiations
 - Bound and applied tariffs
 - Tiered tariff reduction formulas
 - Need to make tariff cuts in the database
- 8 - 11 GB of data
 - Not harmonized (conversion in AVEs)
 - Too large to load into Excel or a text editor
 - Need for additional programs
 - Institutions built their own programs to process the data
 - One run lasted several hours

15 years back ...



TASTE advantages (Horridge and Laborde, 2006)

Easy to use

- Lowers entry barriers to run tariff scenarios
- Format of tariff changes can be directly used by the GTAP-model
- Includes pre-defined formulas

Fast

- Takes max. 5 minutes to apply tariff rules for 200 million data

Flexible

- Two methods of tariff aggregation: Trade weighted or reference group weighted
- Consideration of bound and applied tariff rates (MFN & Preferential)

TASTE advantages (Horridge and Laborde, 2006)

Additional uses of the MAcMap-ITC data

- Data of a GTAP sector can be viewed/extracted in more detail
- Sector splits
- Building of detailed models where trade is modelled at the HS6 or HS4 level for one or a few GTAP-sectors

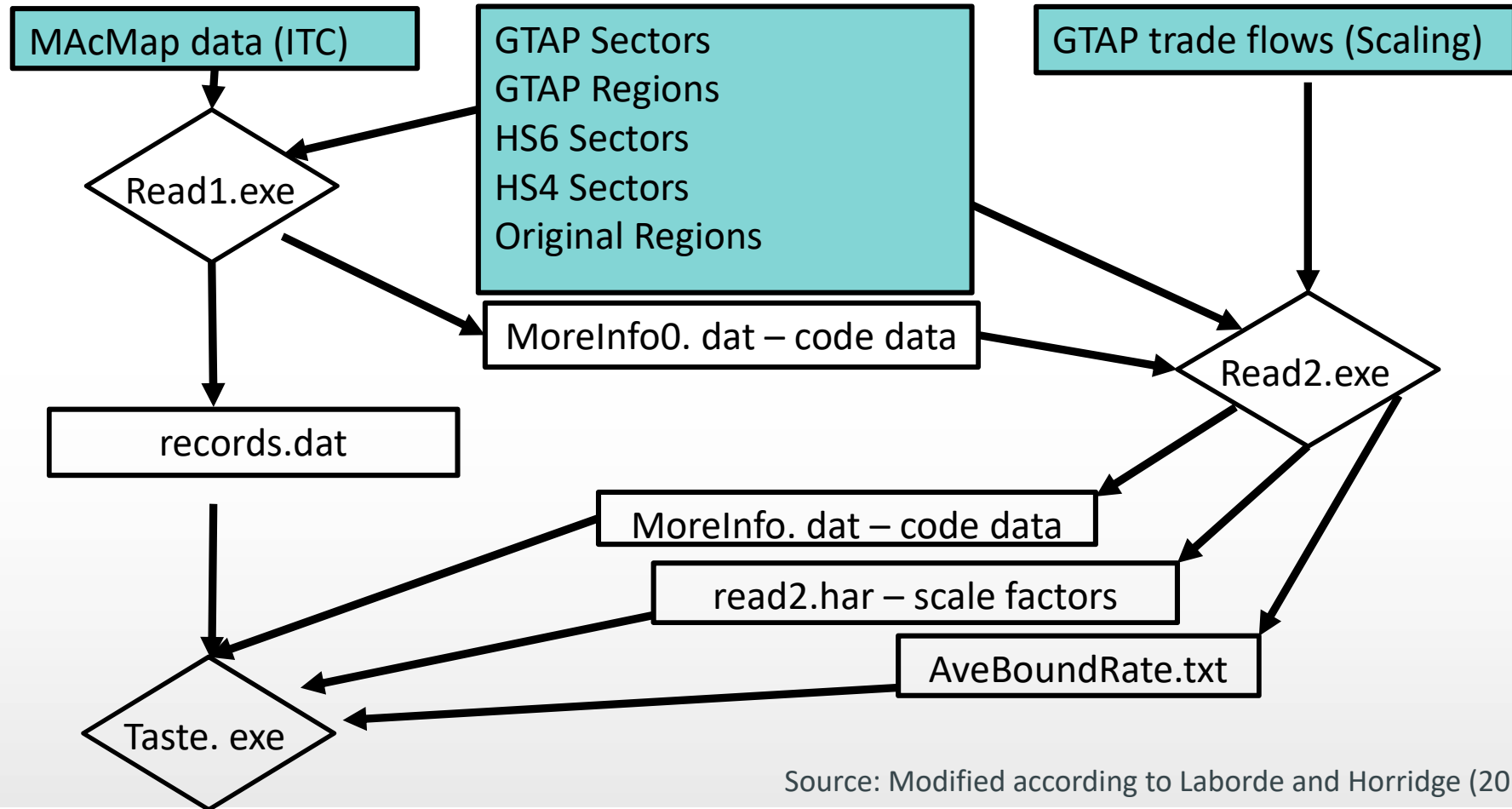
Since 2008 ... many applications in the literature

- Analysis of the impacts of WTO negotiations
 - Analysis of regional trade agreements
 - TPP, CETA, TTIP, ACP, JEFTA, ECOWAS
 - Cumulative FTA effects
 - EU-Enlargement (Croatia), BREXIT
 - Trade war impacts
 - Linking Partial and General Equilibrium Models
 - Sector splits
- Regular data updates are necessary!

Updates of TASTE

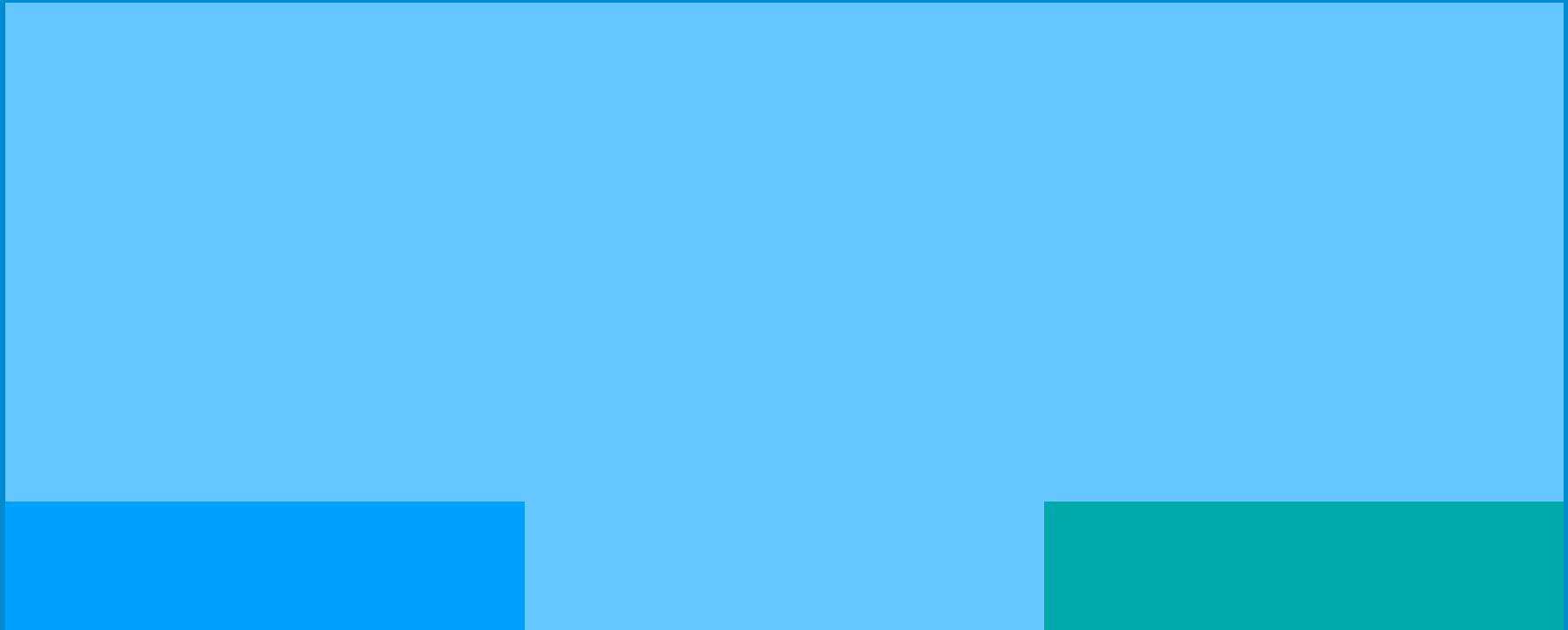
	GTAP6	GTAP7	GTAP8	GTAP9	GTAP10
Base year	2001	2004	2007	2011	2014
Data sources	MAcMapHS6	MAcMapHS6	MAcMap-ITC	MAcMap-ITC	MAcMap-ITC
Data adjustment and integration	CEPII	CEPII-IFPRI	Thünen Institute	Thünen Institute	Thünen Institute
Applied rates	✓	✓	✓	✓	✓
Bound rates	WTO-CEPII	WTO-CEPII	Dummy 10	✓	✓
HS-Classification		HS96	HS02	HS07	HS12
Records in Million	≈ 170	170	179	187	219
HS-Categories (GTAP-sectors)		5111 (57)	5113 (57)	5052 (57)	5205 (65)
Country coverage (GTAP-regions)	≈ 170 (87)	208 (113)	227 (129)	236 (140)	239 (141)
Software	32-bit	32-bit	32-bit	32-bit	64-bit

Updating procedure of TASTE to a new version

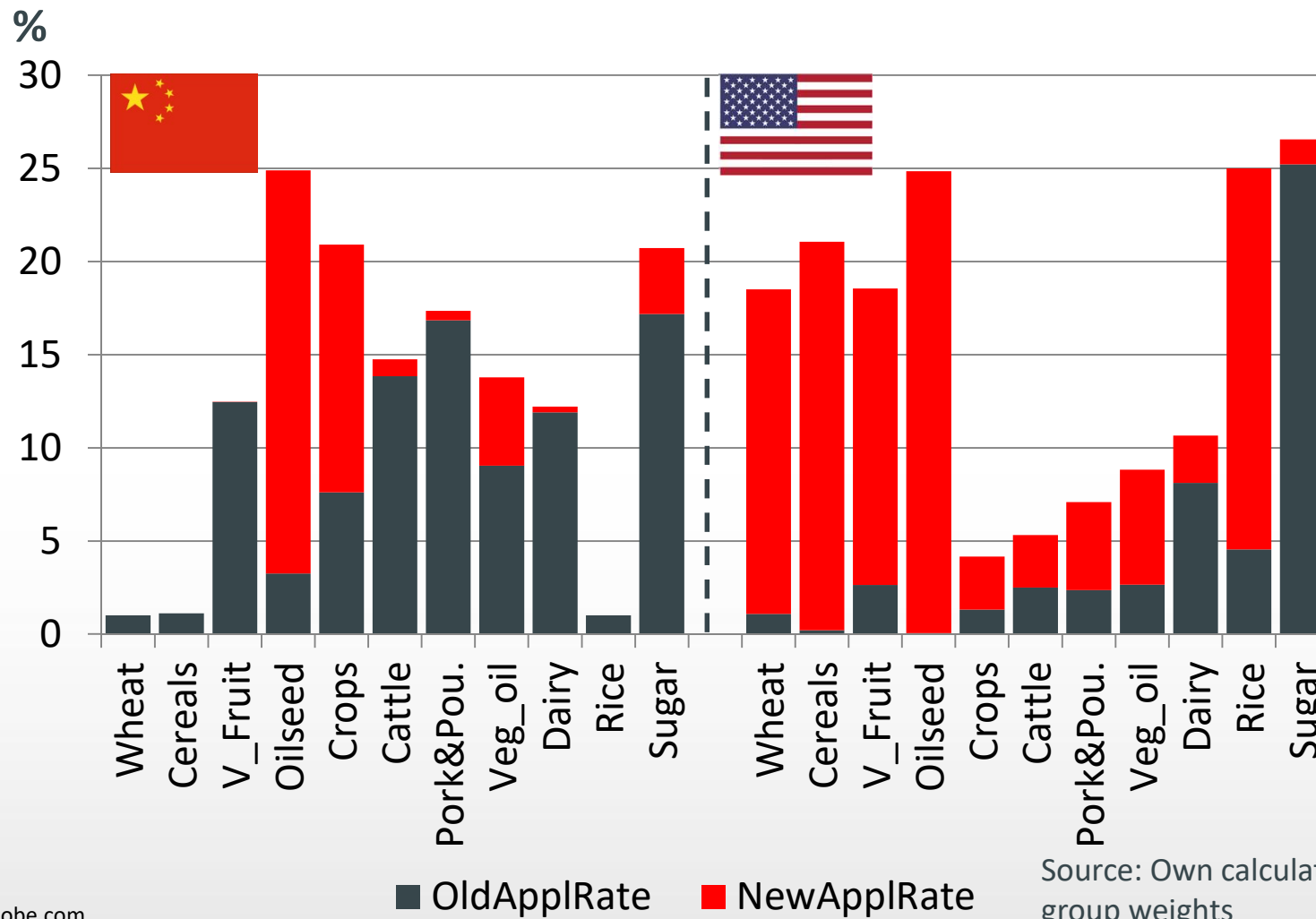


Source: Modified according to Laborde and Horridge (2010)

Applications



Example I: Import tariffs between China and the USA for selected agricultural products

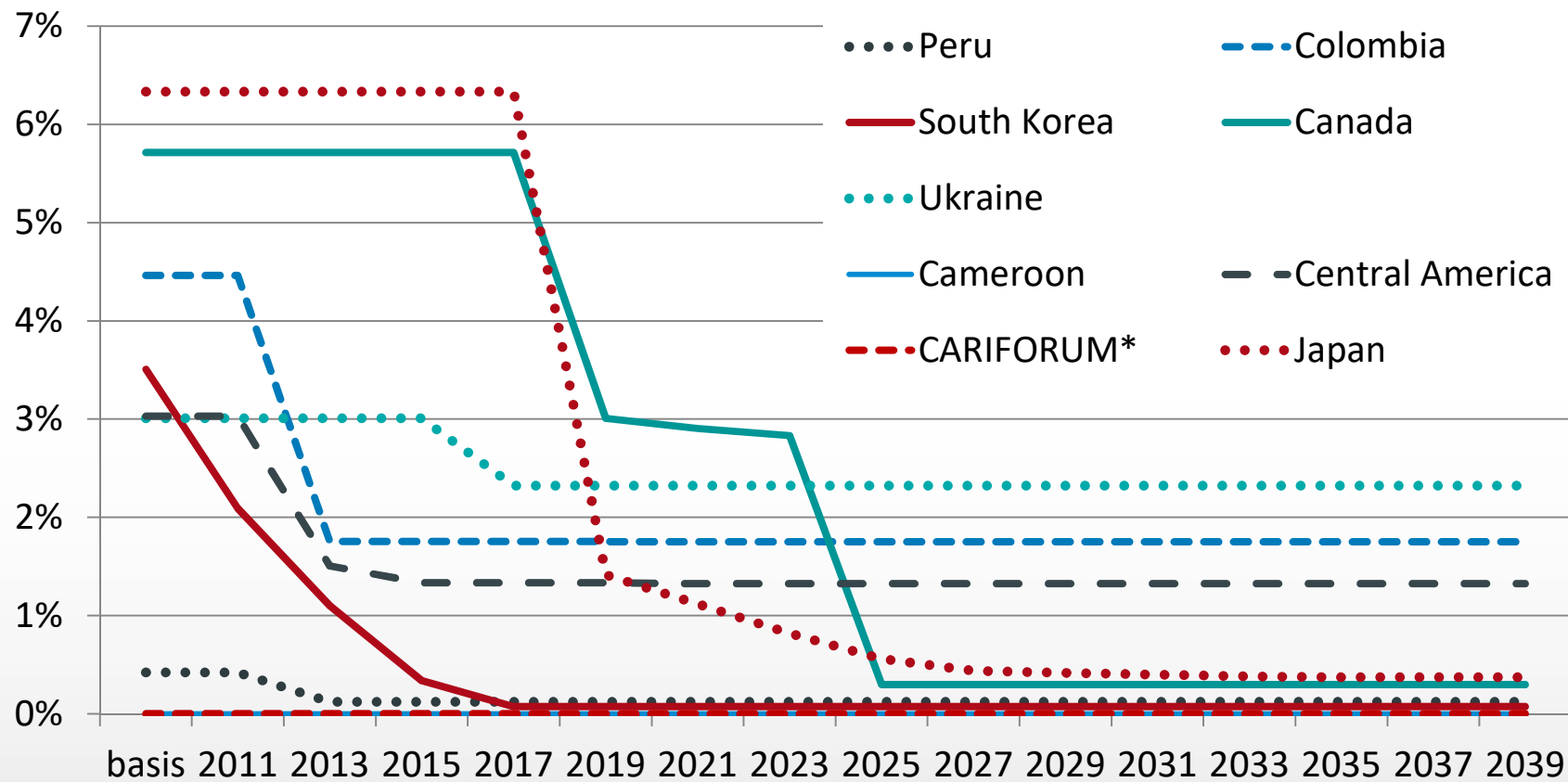


Source: Own calculation, reference group weights

Flags: ©stock.adobe.com

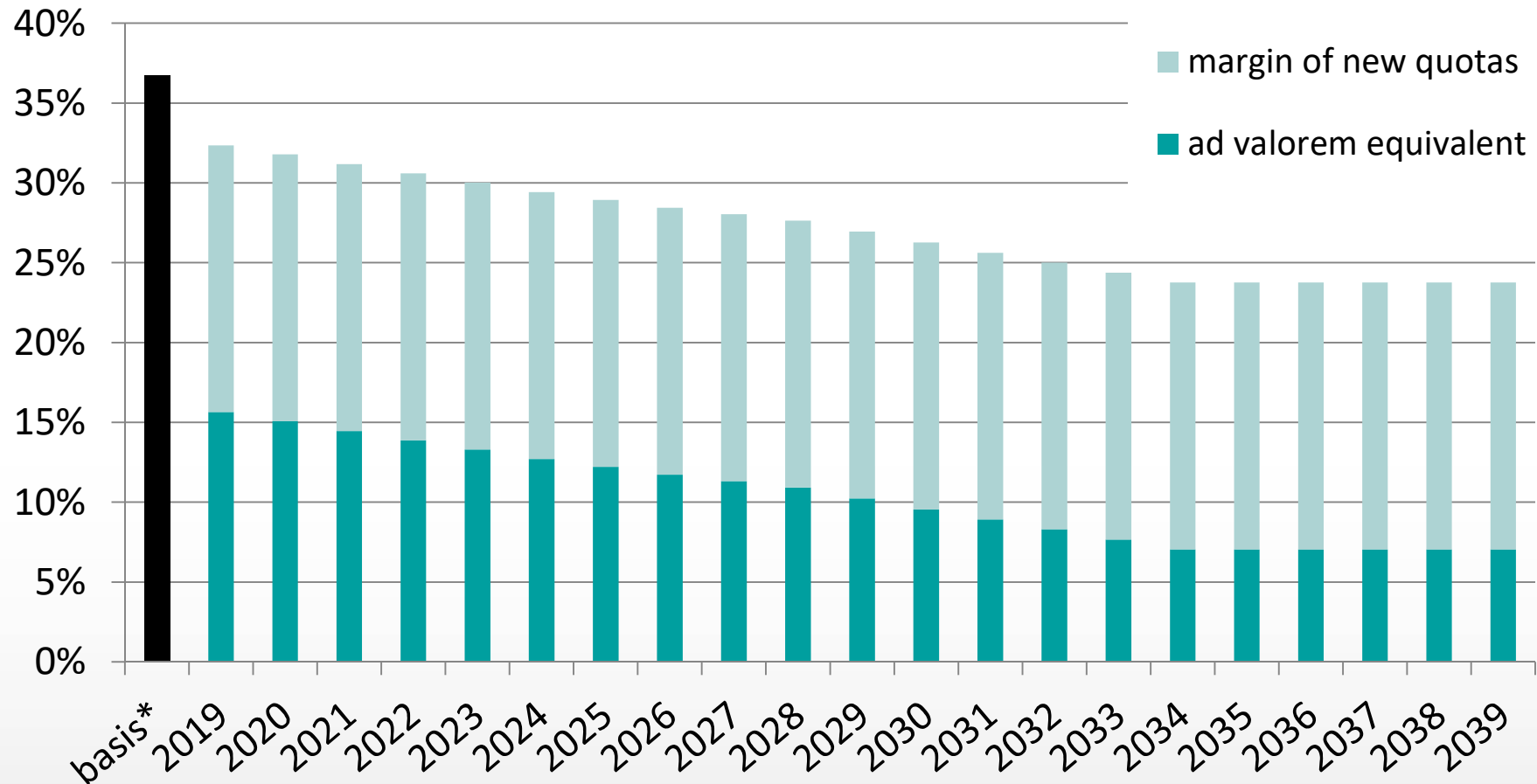
Example II: Thünen-Baseline

Agricultural tariff protection of the EU



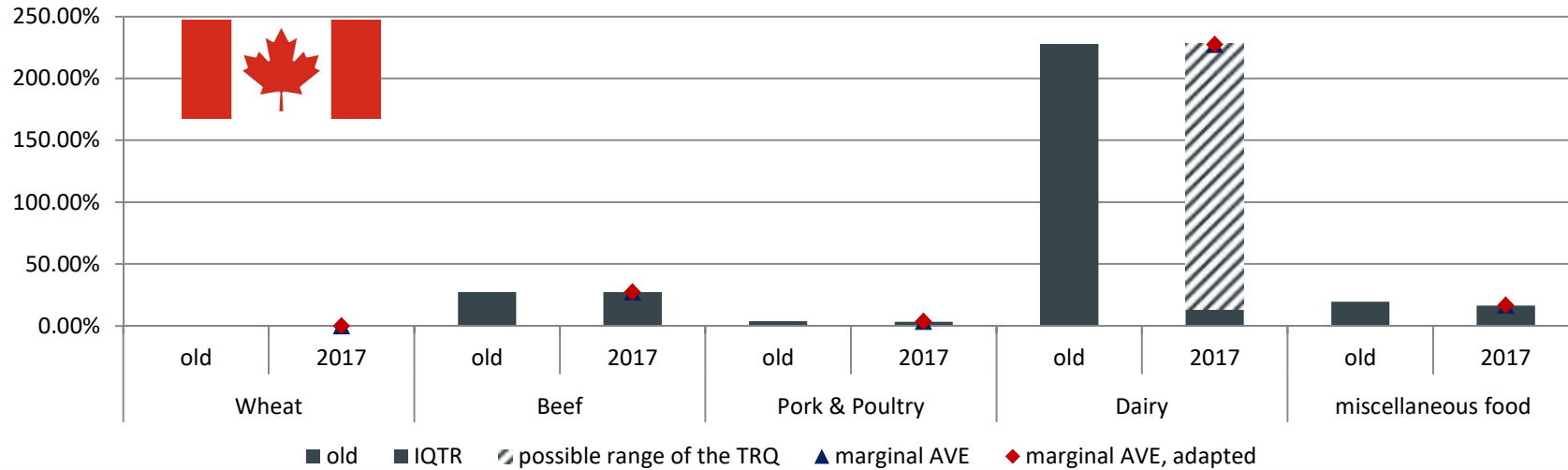
Source: Janine Pelikan, Tatjana Döbeling and Florian Freund, 2018

Example II: Trade weighted tariffs for animal products: Japan-EU-FTA: Japan's tariff to the EU in %



Source: Japan-EU-FTA Agreement (2017), Own calculations with the tariff analysis tool TASTE
 For presentation: Weighted with reference groups. In the base year, the value equivalent of all tariff restrictions (plus quotas) is shown.

Example III: Impact Analysis of CETA (trade weighted tariffs in %)



Source: Tatjana Döbeling and Janine Pelikan, 2020

Limitations of TASTE

- No analysis below the HS6 level is possible
- No facility to create own formulas
- No automatic feature that allows tariff reductions that are phased in over time

→ Limitations can be addressed by additional programs which are more complex but also more flexible.

Ideas for future developments of TASTE ...

- Integrate tariff reduction schedules of ITC into scenario files
- Integrate (some) NTBs:
 - Integrate options for tariff rate quotas
 - Quota module is currently developed at Thünen Institute
 - Differentiate between specific and ad valorem tariffs (data available)