

Clear price signals in the NZ ETS

Briefing to accompany Motu Note #27

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31 May 2017



Summary of key messages

New Zealand's purchase of international emission reductions needs to be managed by government.

Our aim is to create a stable, non-political architecture for managing ETS supply and price under uncertainty.

This aim can be achieved with practical changes to the NZ ETS.



Outline

1. Context: Climate change challenge
2. Context: Motu's ETS Dialogue
3. Managing international emission reductions
4. Predictable policy and clear price signals in the NZ ETS
 - a) Managing domestic unit supply
 - b) Price safeguards
 - c) Making it happen

Special thanks to the Aotearoa Foundation for funding this work.

Disclaimer: This presentation does not necessarily reflect the views of or endorsement by ETS Dialogue participants, their organisations, or the programme funder.

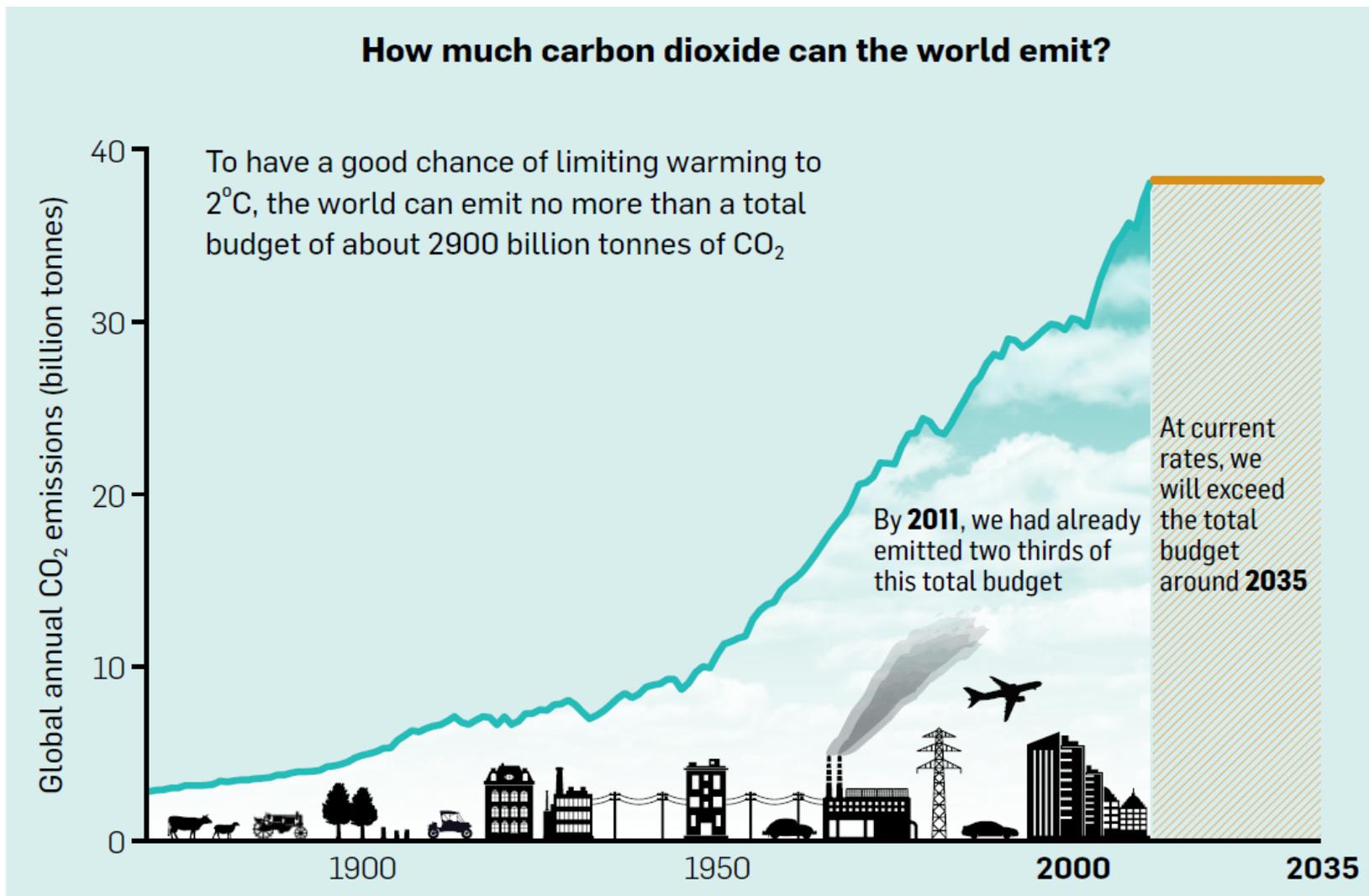


Context: Climate change challenge

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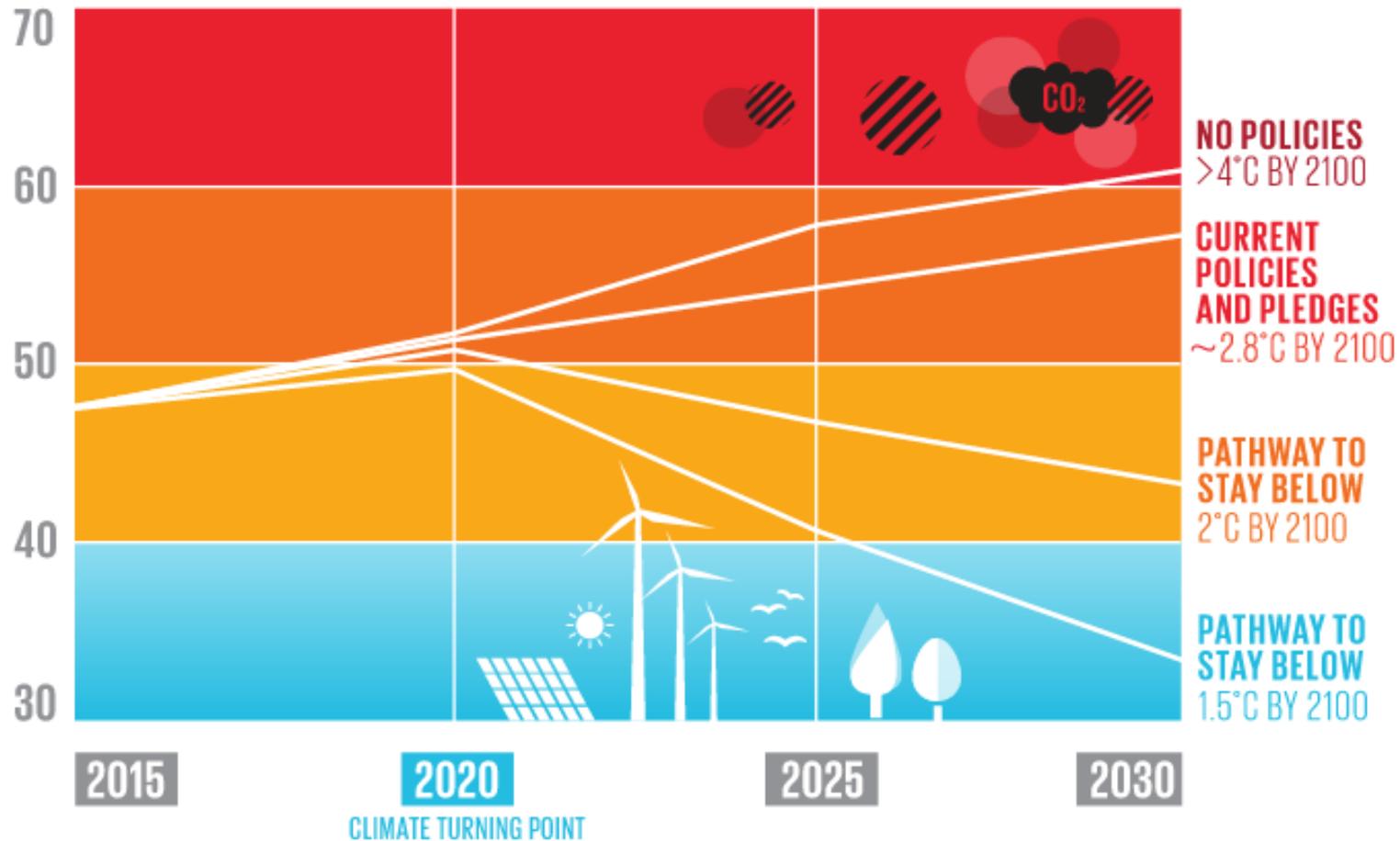
We face limits on greenhouse gases



Source: Information is sourced from the IPCC's Fifth Assessment Report, Working Group 1 (emissions data, Figure 6.8; carbon budget, SPM E.8)

Source: MfE (2015). *New Zealand's Climate Change Target*. Wellington: Ministry for the Environment.

Bending the curve



BASED ON ANNUAL GLOBAL TOTAL GREENHOUSE GAS EMISSIONS (GtCO₂e)

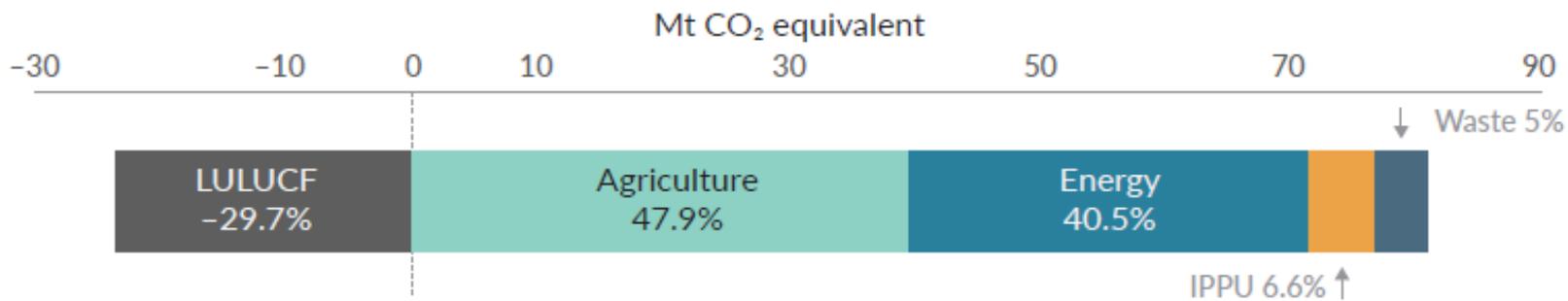
Source: Adapted from UNEP Emissions Gap Report 2016, Climate Action Tracker and Climate Central

Source: Carbon Tracker Initiative et al. (2017). 2020: *The Climate Turning Point*. Mission 2020.



NZ's GHG emission profile

Figure 2: New Zealand's greenhouse gas emissions by sector in 2015⁵.

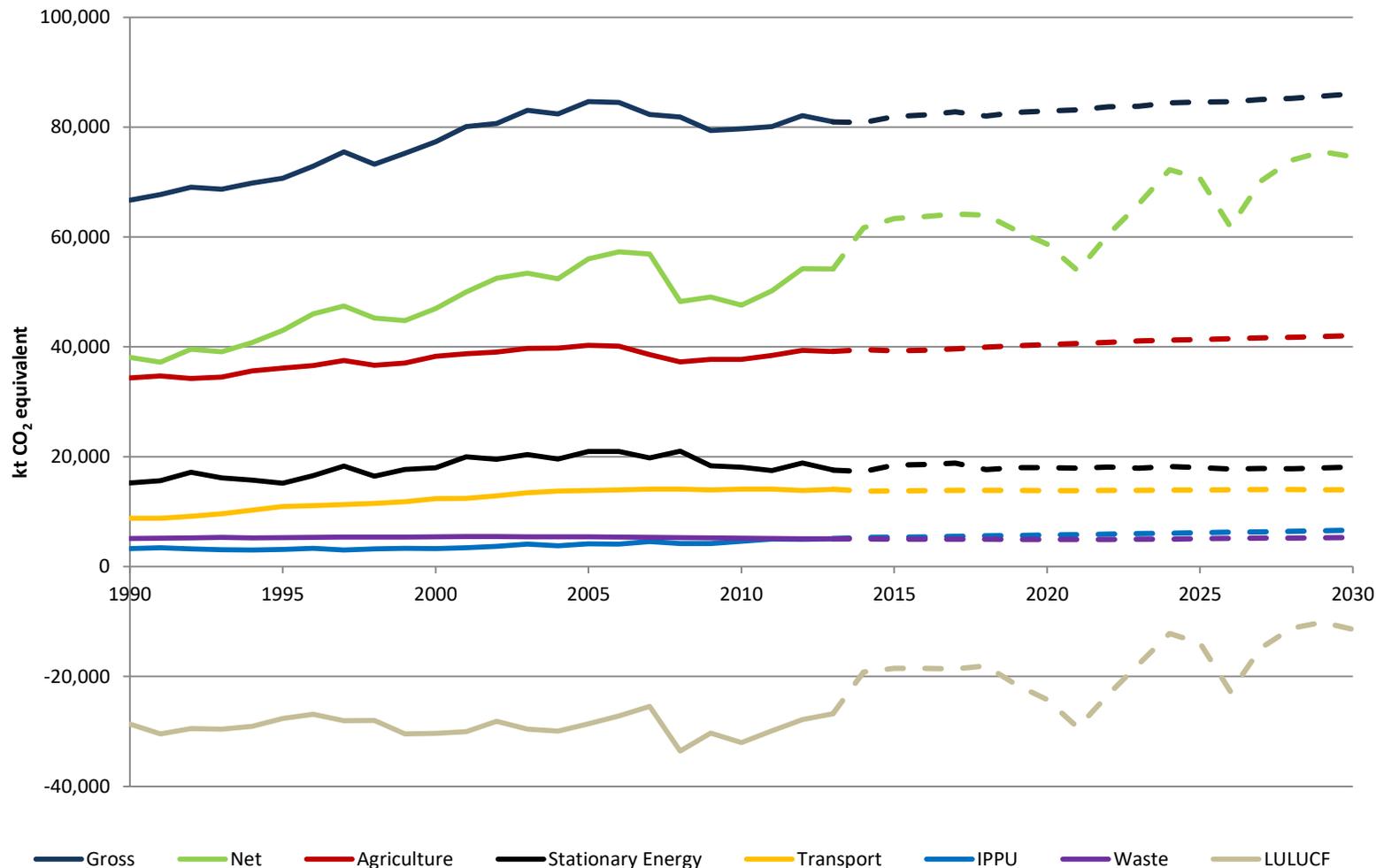


Over 1990 – 2015:

Gross emissions (excl forestry) increased 24.1%

Net emissions (incl forestry) increased 63.6%

NZ actual and projected emissions: 1990-2030



Source: MfE (2015). *New Zealand's Second Biennial Report under the UNFCCC*. Wellington: Ministry for the Environment.



Context: Motu's ETS Dialogue

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Overview of the NZ ETS

Operational since 2008

Designed to cover all sectors/gases

- Biological emissions from agriculture have been exempted indefinitely from unit obligations but are still reported

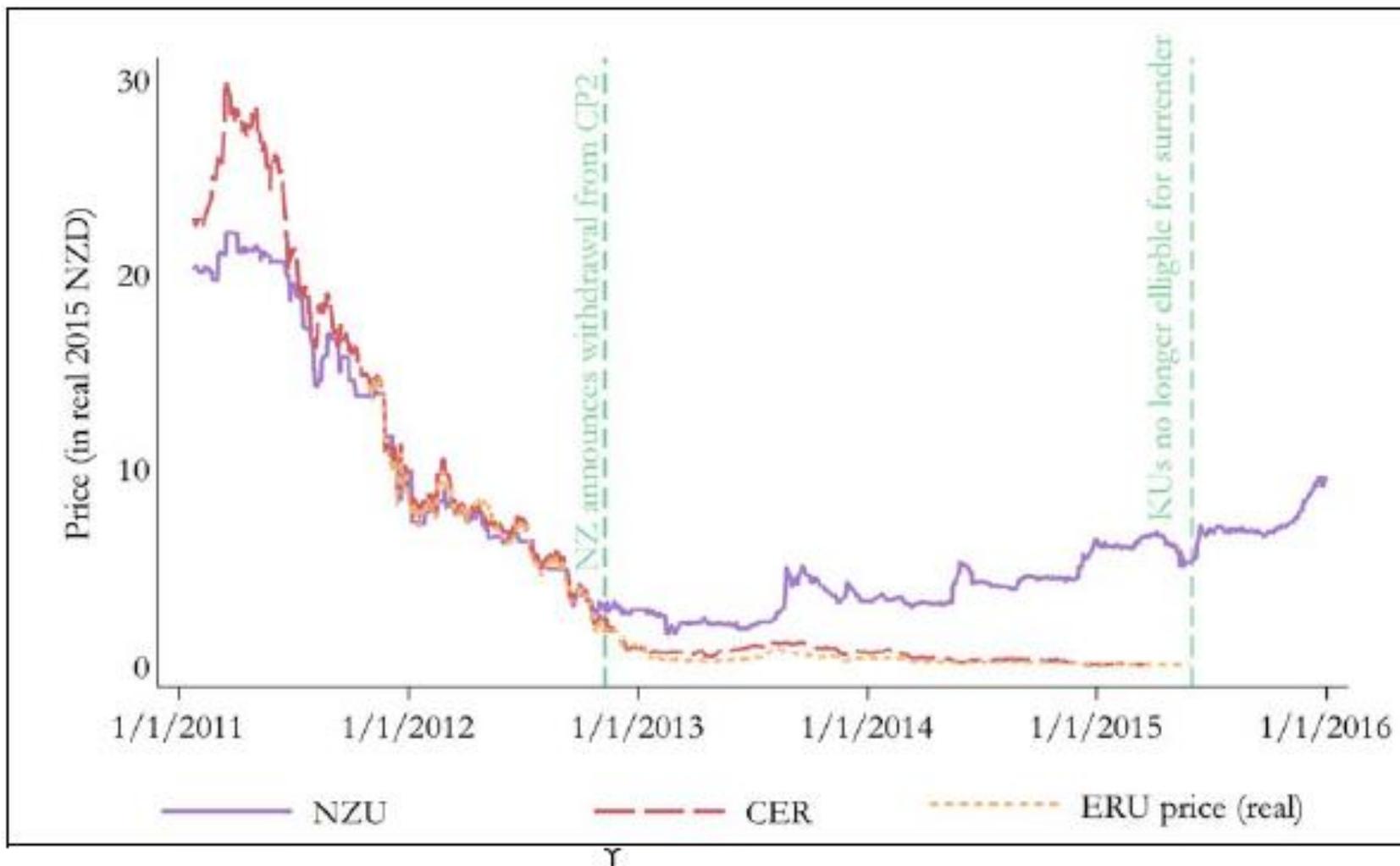
Prices driven by the international market until de-linking in mid-2015

Now operating as a domestic-only system

No significant impact on domestic emissions to date



Emission prices in the NZ ETS



ETS Dialogue (1)

20+ experts across sectors

Active from March 2016 – March 2017

Focused on issues of unit supply, prices, investment risk and international linking

- Did not look at other key issues: forestry rules, free allocation, market oversight, agriculture – or level of ambition



ETS Dialogue (2)

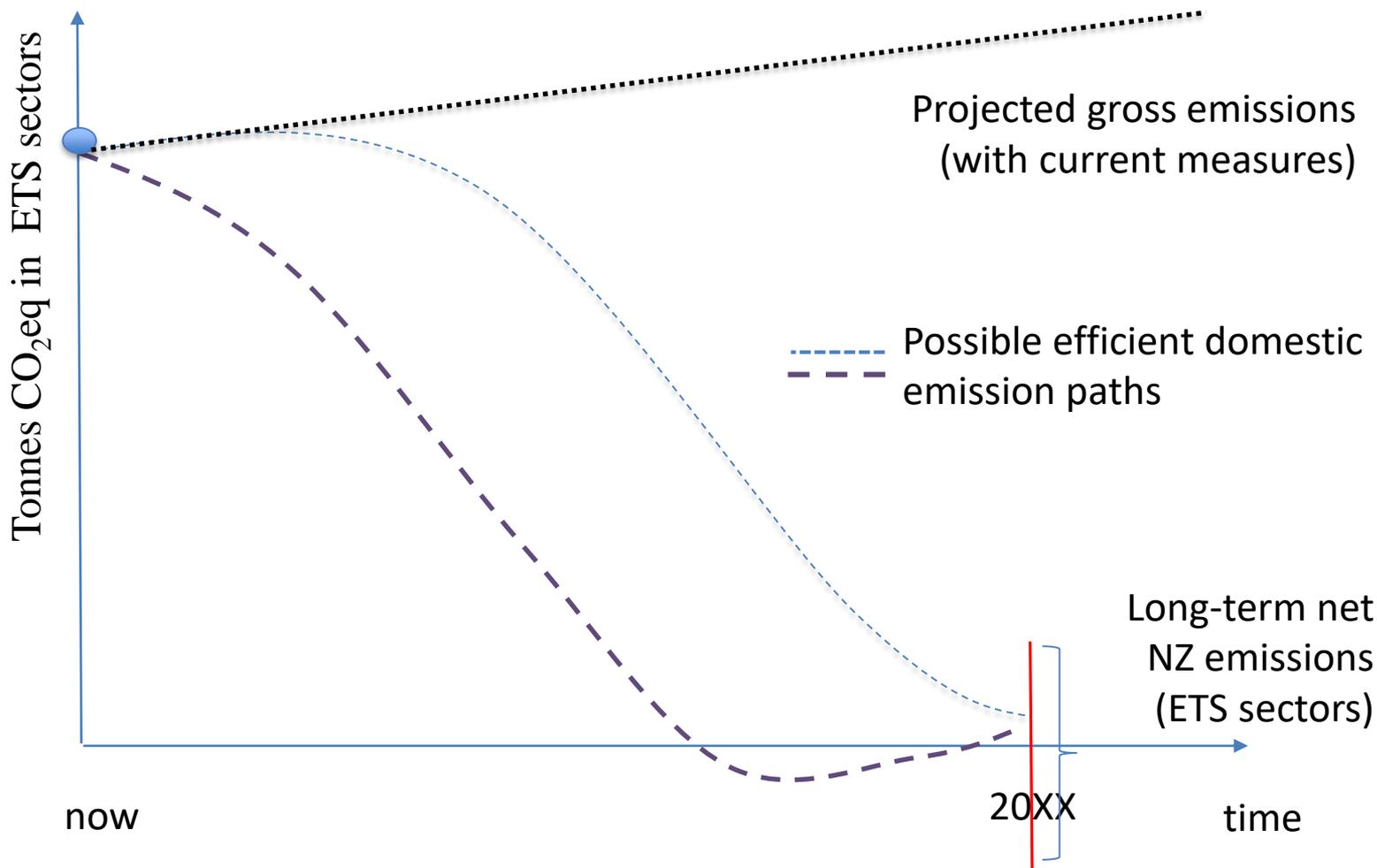
An ETS market relies on supply constraints to set prices

Uncertainty on unit supply and price has hindered low-emission investment in NZ

The Paris Agreement creates a new context for both domestic action and global carbon markets



What is an efficient emissions path for NZ?



Conceptual - Not drawn to scale



International emission reductions

Suzi Kerr



International emission reductions

1. We need them – and they are part of our global contribution
2. We can't buy them from the UN mechanism or through ETS linkage – yet – and may not want to even if we can
3. Government should control the amount of international emission reductions used by NZ; unlimited linkage implies
 - loss of control of price; and
 - loss of control over domestic decarbonisation
4. Taxpayers should get the benefit from lower-cost international emission reductions
5. Government may be able to access lower-cost international emission reductions than other domestic actors
6. **Conclusion: Purchasing should be led by government (the only option now), and any future purchase-and-surrender by ETS participants should be limited and not affect total supply**



Government-led purchasing

Purchase from UN mechanism

Tender for private actors to purchase from UN mechanism

Purchase from government with strong ETS and overall compliance

‘Climate team’ with weaker government and low-cost reduction opportunities



The problem

Globally need to get to net-zero long-lived gases

Mismatch between mitigation opportunities and resources/commitments to mitigate

e.g. Colombia

New Zealand, Republic of Korea...



What 'sellers' need

1. Guarantee of income flow if they make large costly (economically or politically) systemic changes
e.g. large investment in clean public transport;
full pricing for fossil fuels – emission pricing
2. Expertise
3. Access to capital



What 'buyers' need

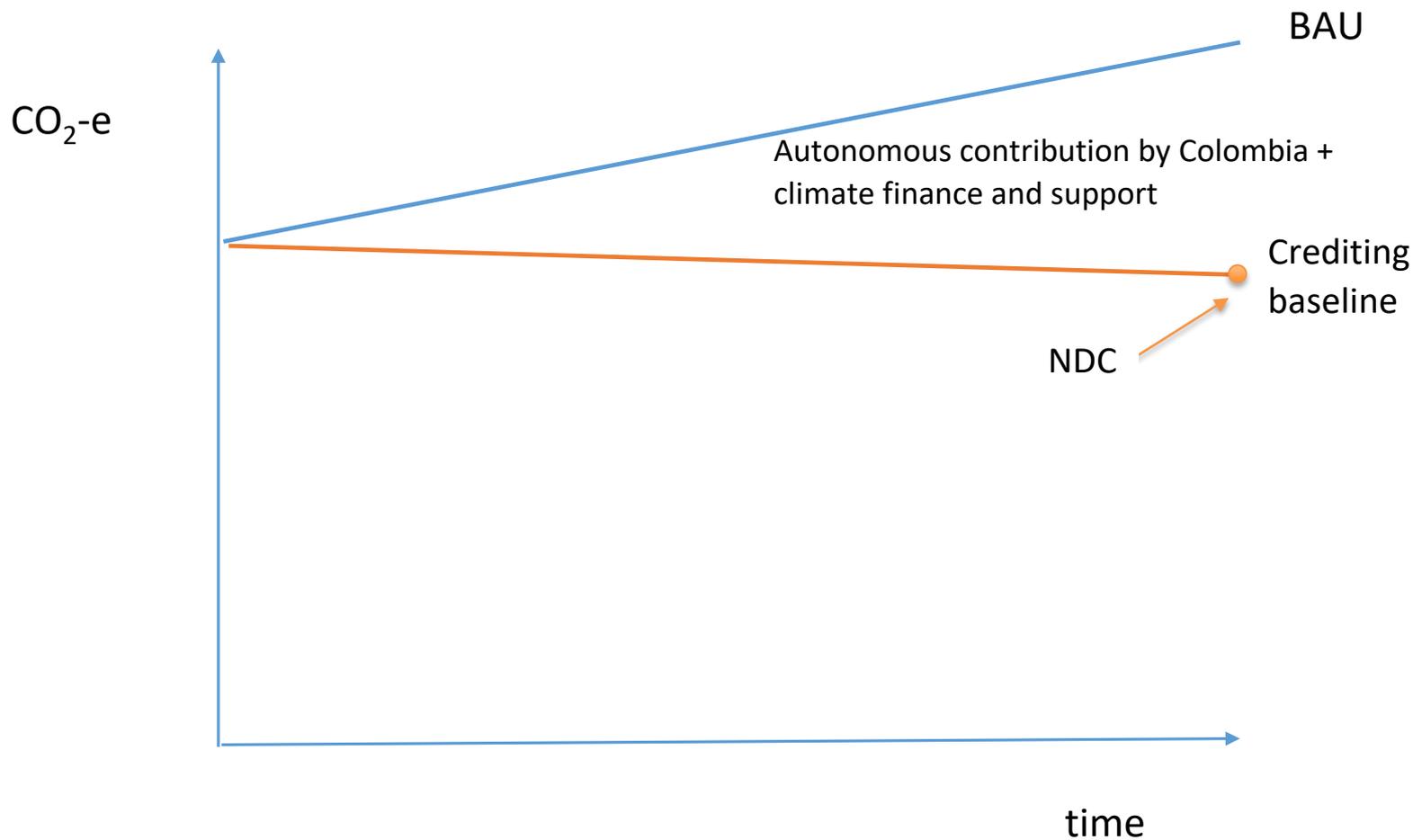
1. 'International units' to meet ambitious international targets during period of domestic transition to low emissions

....and beyond – can continue to contribute to others' mitigation

2. Credible units in eyes of domestic taxpayers and voters,
and in eyes of other countries – to encourage reciprocal cooperation



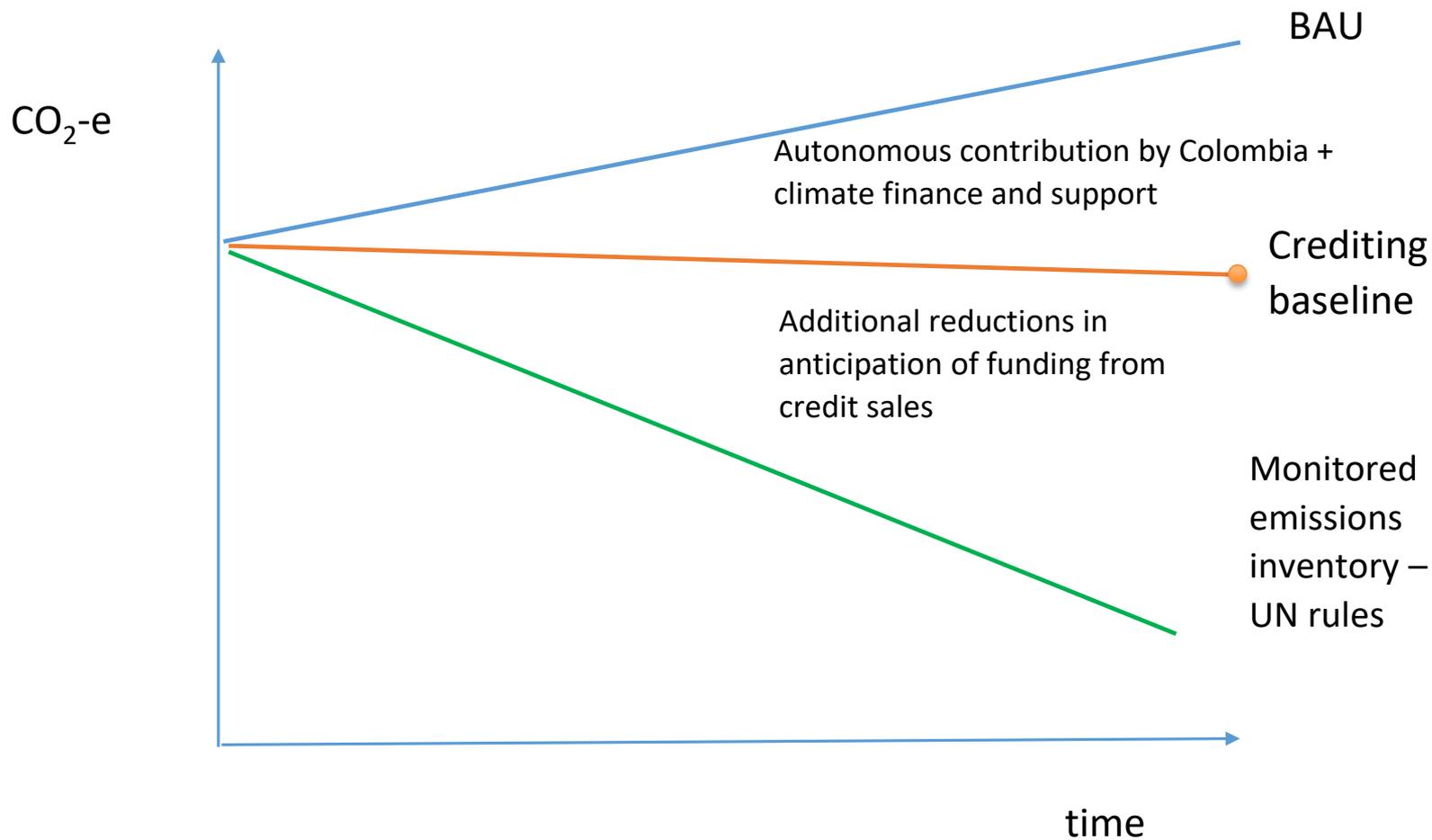
International units from Colombia



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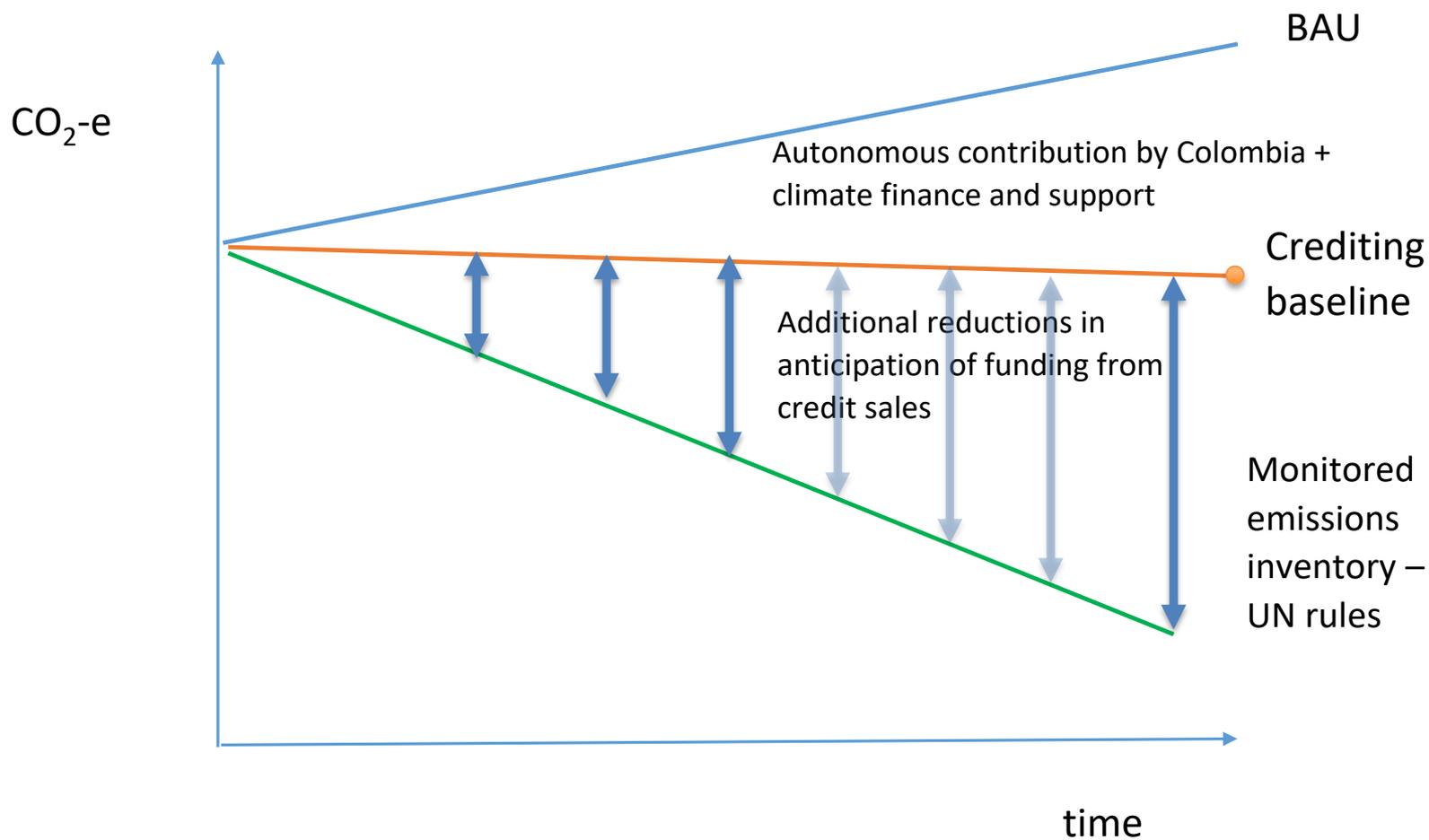
International units from Colombia



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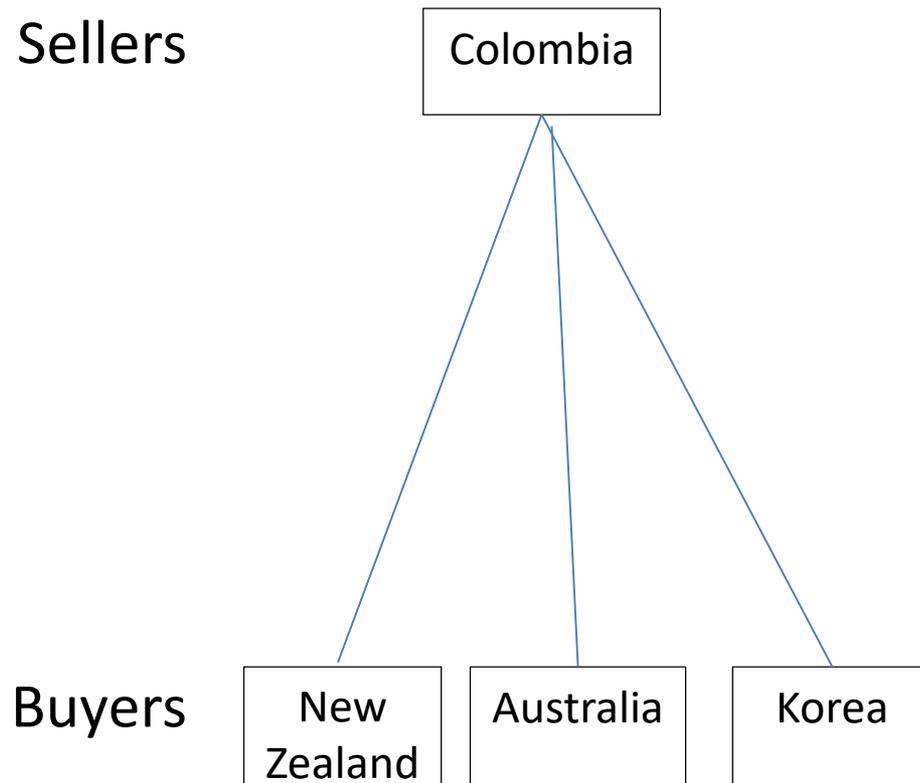
International units from Colombia



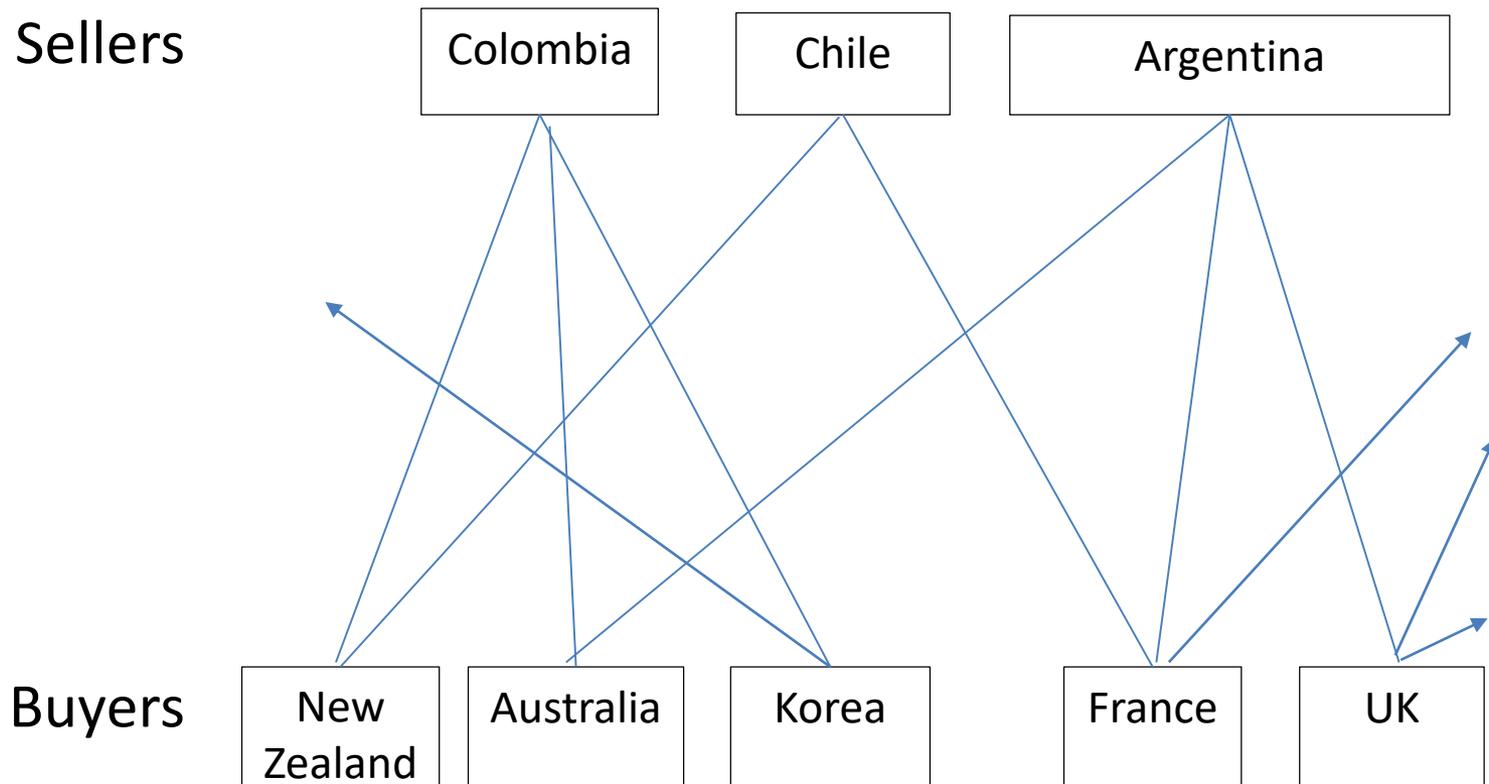
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Lack of supply: Portfolio for buyers



Lack of supply: Portfolio for buyers



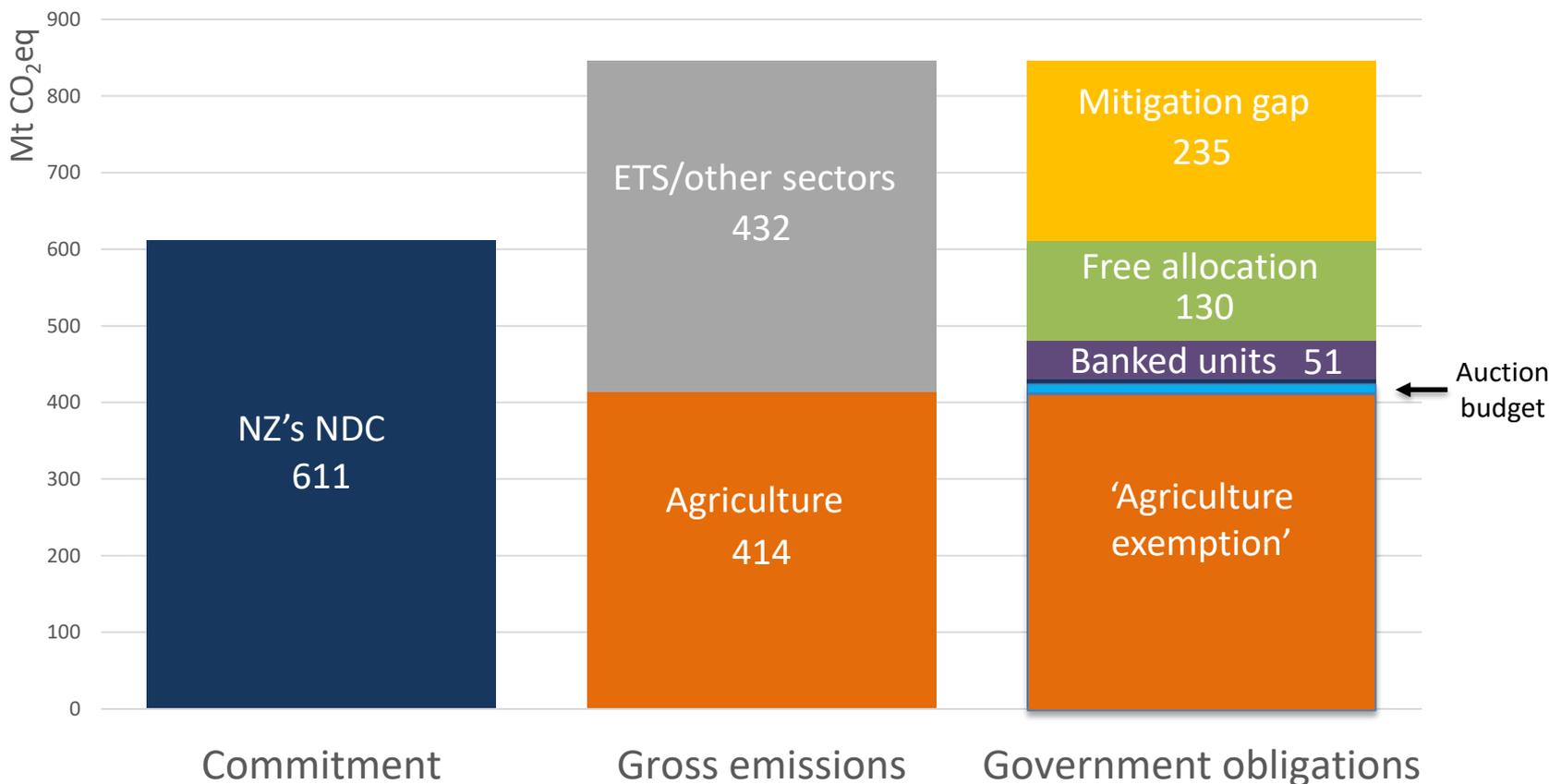
Managing supply and prices

Catherine Leining and Suzi Kerr



2030 outlook: Mind the gap

Projections: 2021-2030



Source: MfE unit supply presentation (Feb-Mar 2017); MfE RIS for NZ ETS Review changes (2016)

Objectives for managing ETS supply

Environmental effectiveness

Domestic decarbonisation

Global contribution

Policy and price predictability

Efficient and cost-effective transition

Balance between certainty and flexibility

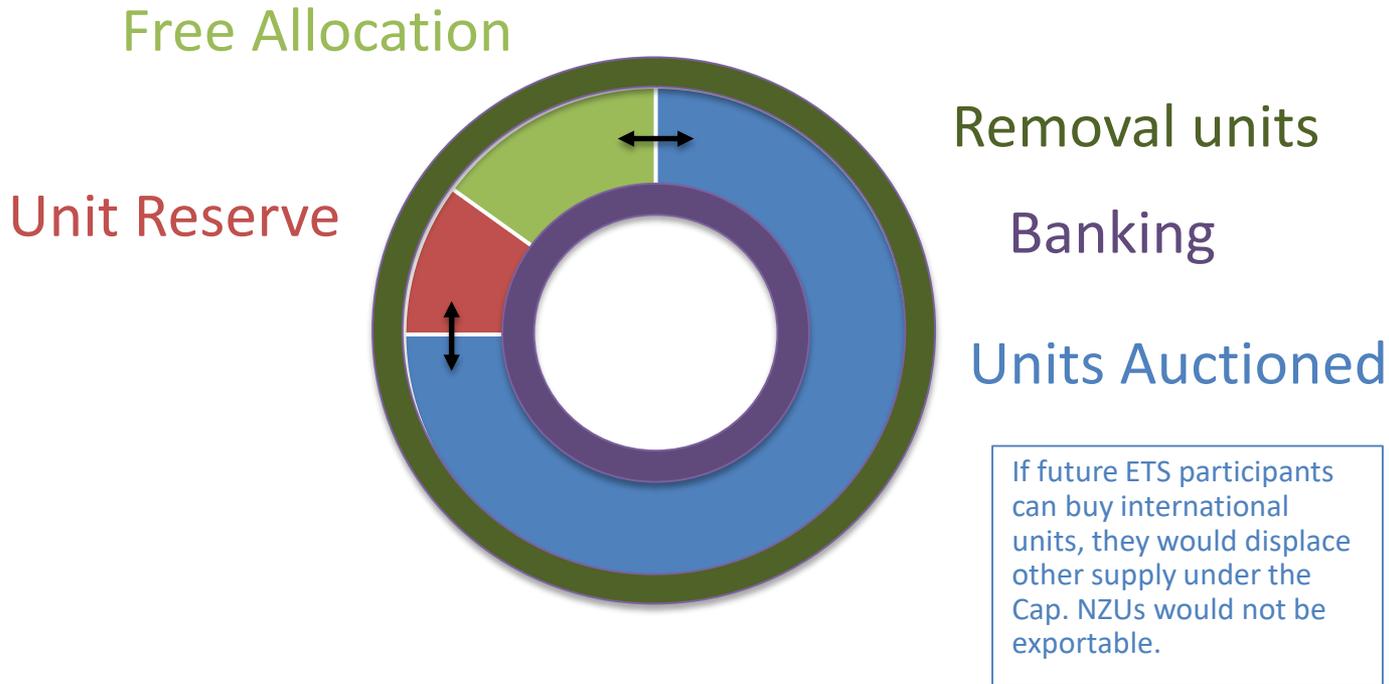


Core proposal

1. The **NZUs** enter the market through auctioning, free allocation, removals, and banking
2. Government manages ETS supply through an annual **Cap** on units auctioned and freely allocated with a **Unit Reserve**
3. The market sets the price with **Price Band** safeguards, managed through the Unit Reserve
4. The Cap and Price Band are set in advance for 5 years, extended by 1 year each year, and guided by 10-year **Cap and Price Band Trajectories**; review is triggered when the Unit Reserve nears depletion or by a *force majeure* event
5. An **independent body** provides advice to government on ETS supply and price

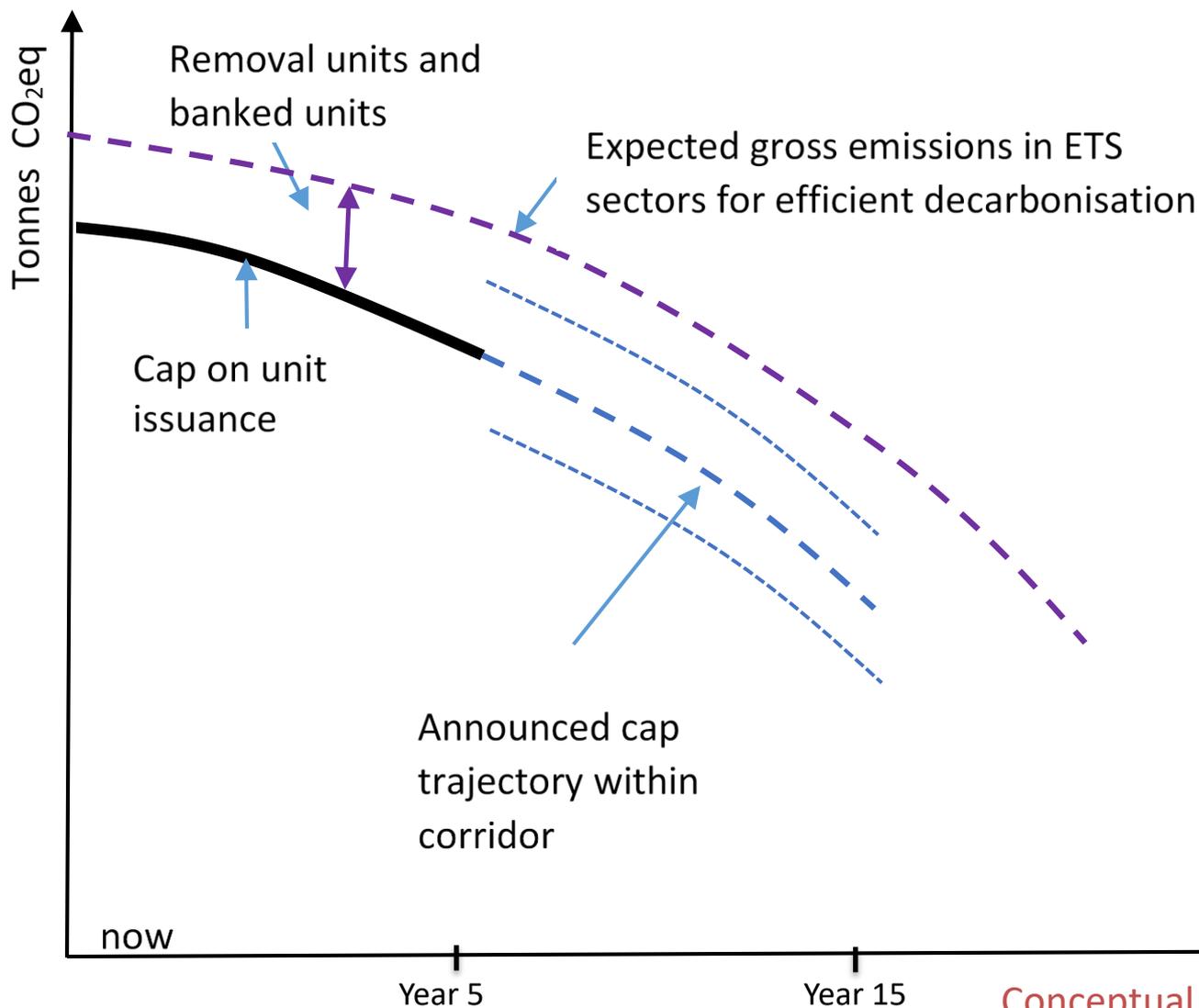


Introduce a Cap



- Limits sum of auctioning plus free allocation
- Unit Reserve used to adjust auction volume to manage prices
- Additional domestic supply from removals, banking
- Guided by 10-year Cap Trajectory

Introduce a 10-year Cap Trajectory



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Align the Cap with targets (1)

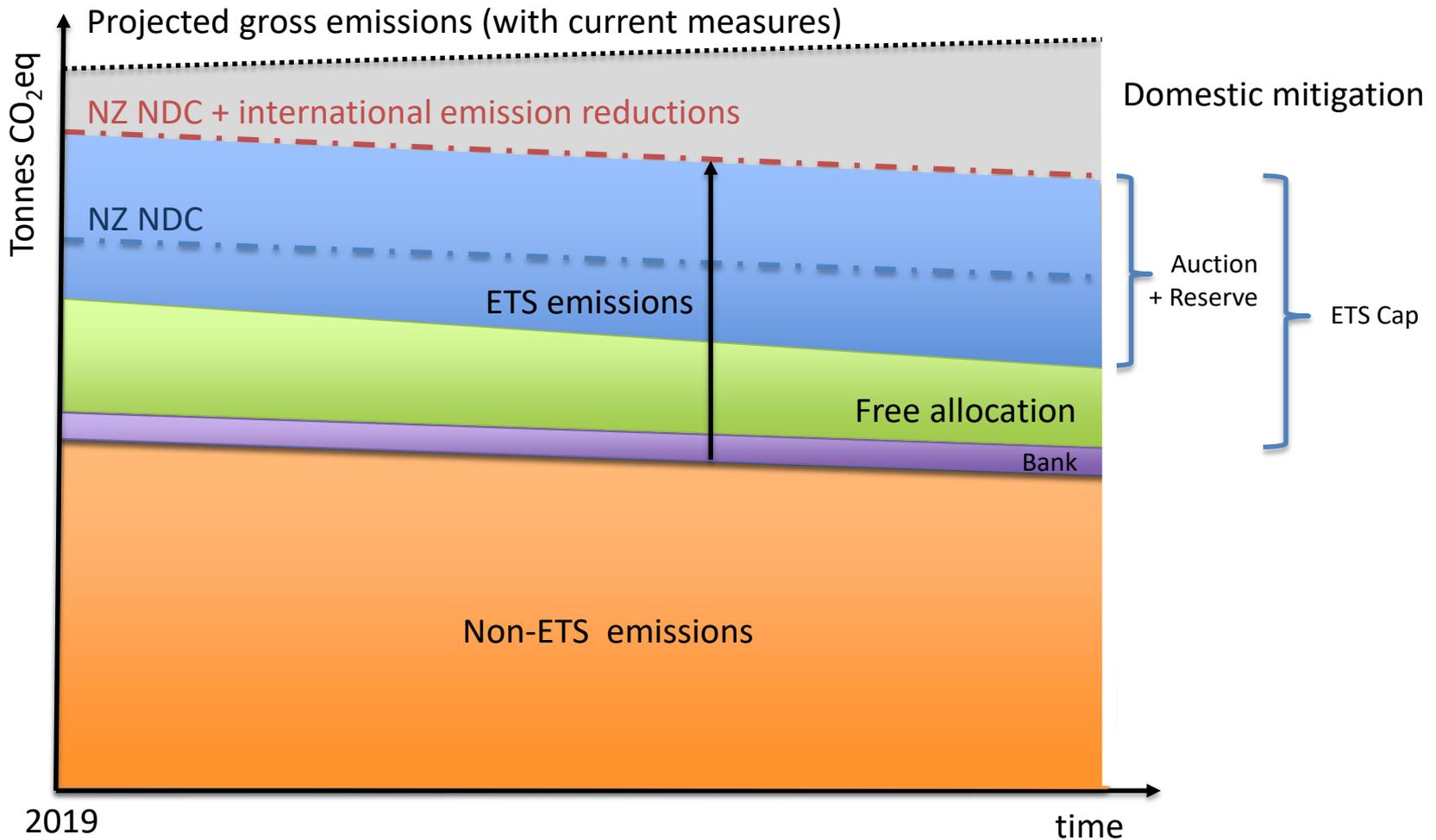
The government sets the Cap in line with:

1. NZ's global contribution to mitigation
2. Domestic decarbonisation objectives
3. International mitigation costs
4. Technical and economic mitigation potential in ETS and non-ETS sectors
5. Other policies and measures in ETS and non-ETS sectors



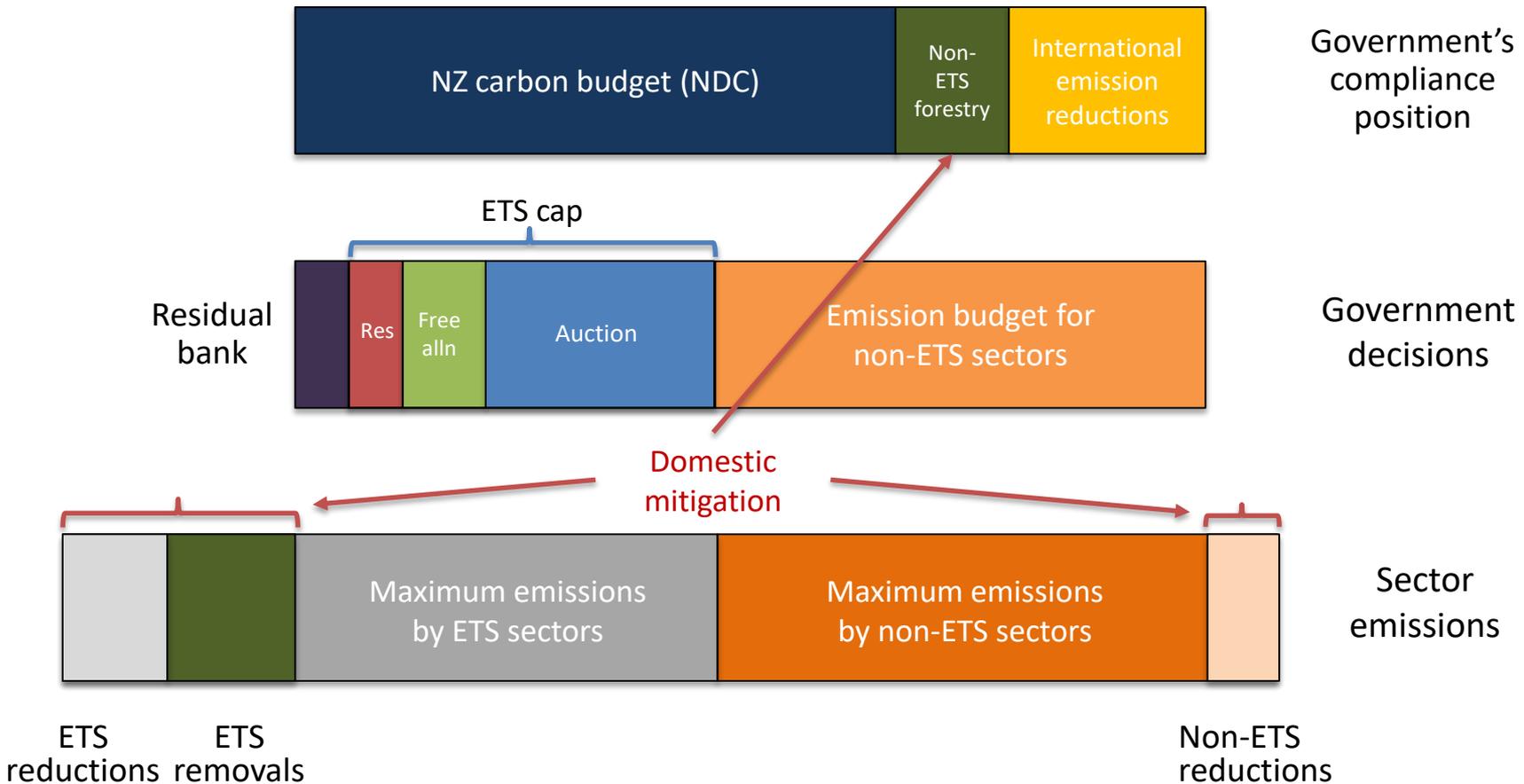
Align the Cap with targets (2)

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Align the Cap with targets (3)

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A larger ETS cap means lower emissions in non-ETS sectors – or slower domestic decarbonisation with more international emission reductions purchased by the government



Introduce a Price Band

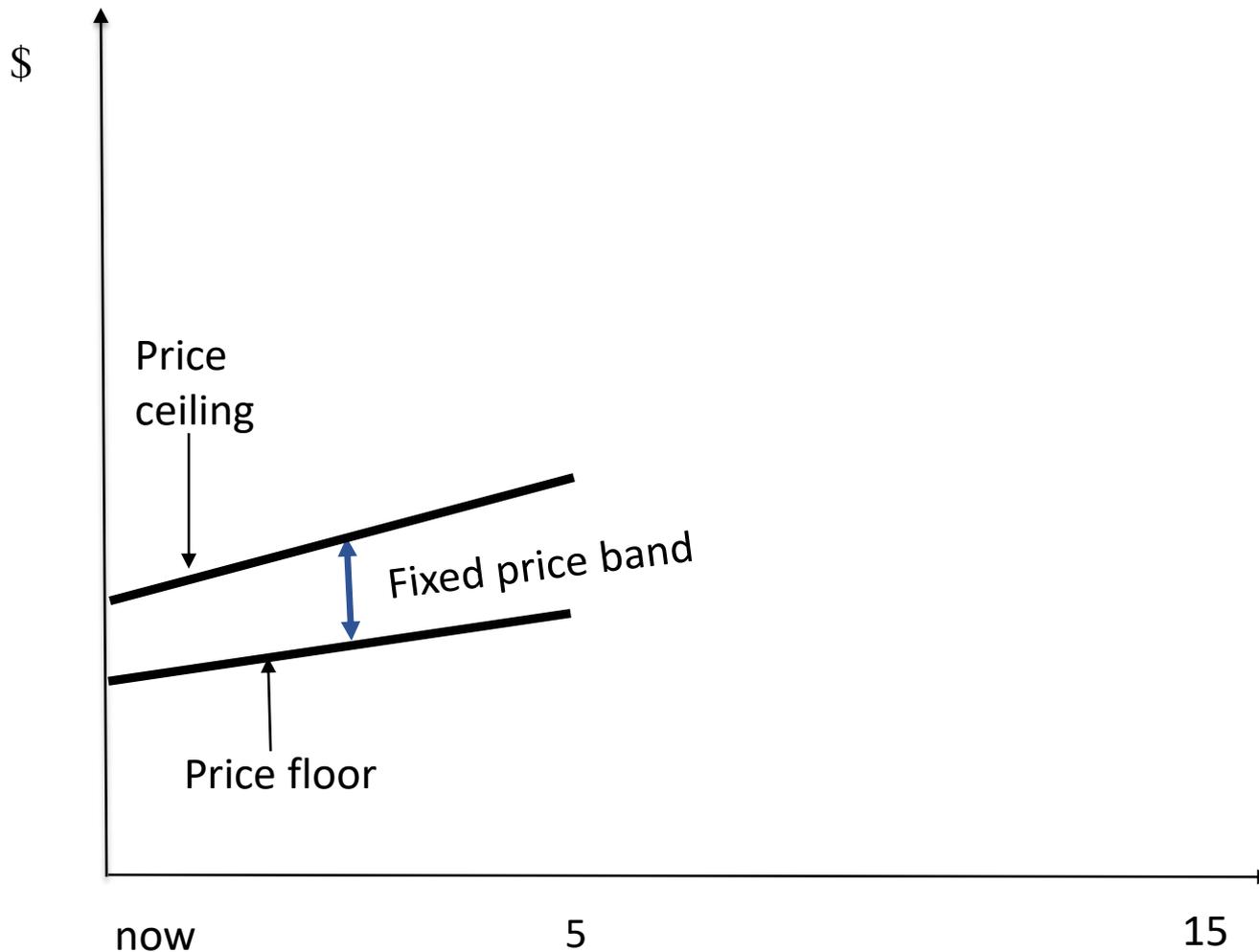
Price Floor: Reserve price at auction

Price Ceiling: Trigger for releasing more auction volume from the Unit Reserve at increasing prices

- Limits price risk and supports a smooth price transition
- Units not sold at auction move to the Unit Reserve
- Guided by 10-year Price Band Trajectory



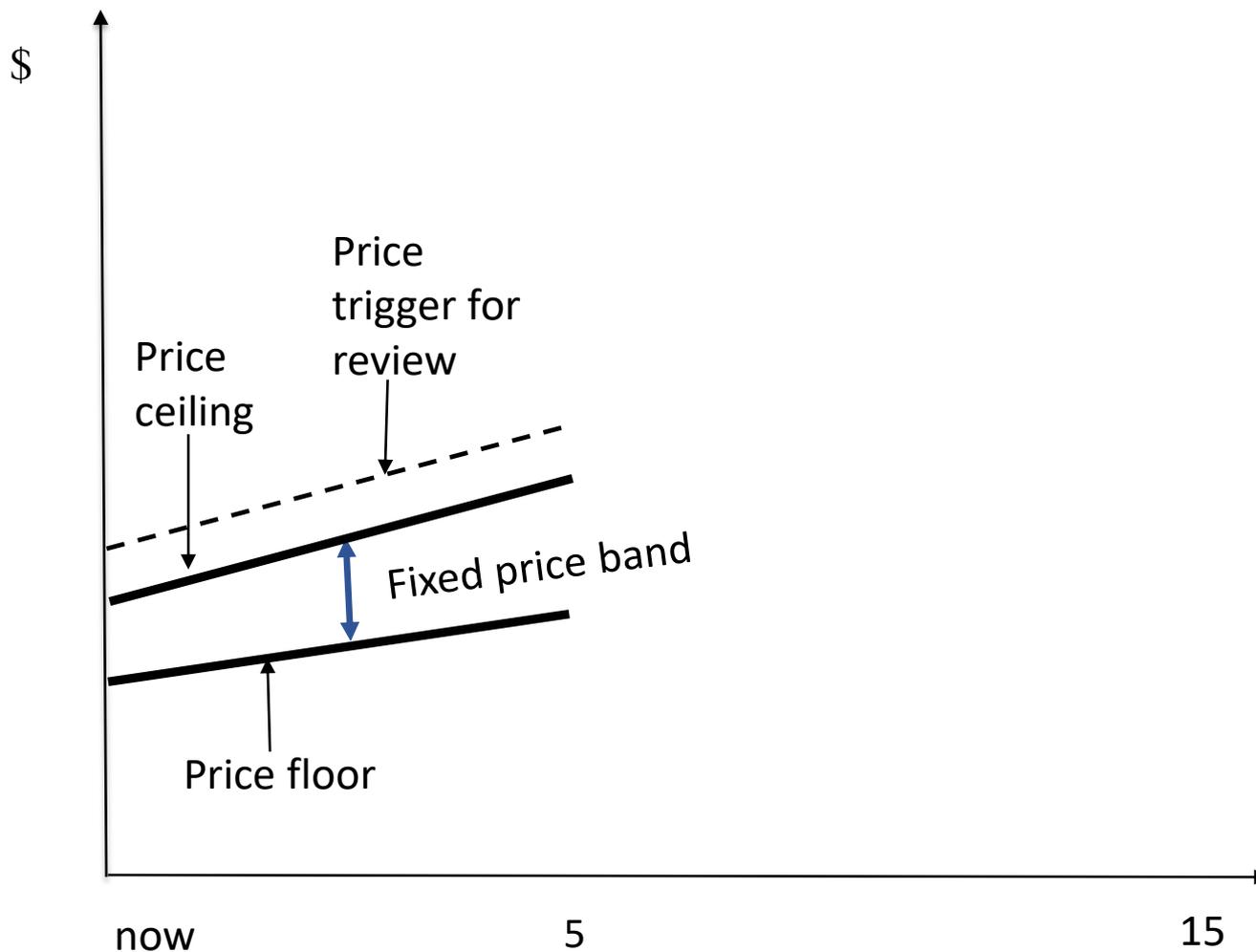
Price Band and Trajectories



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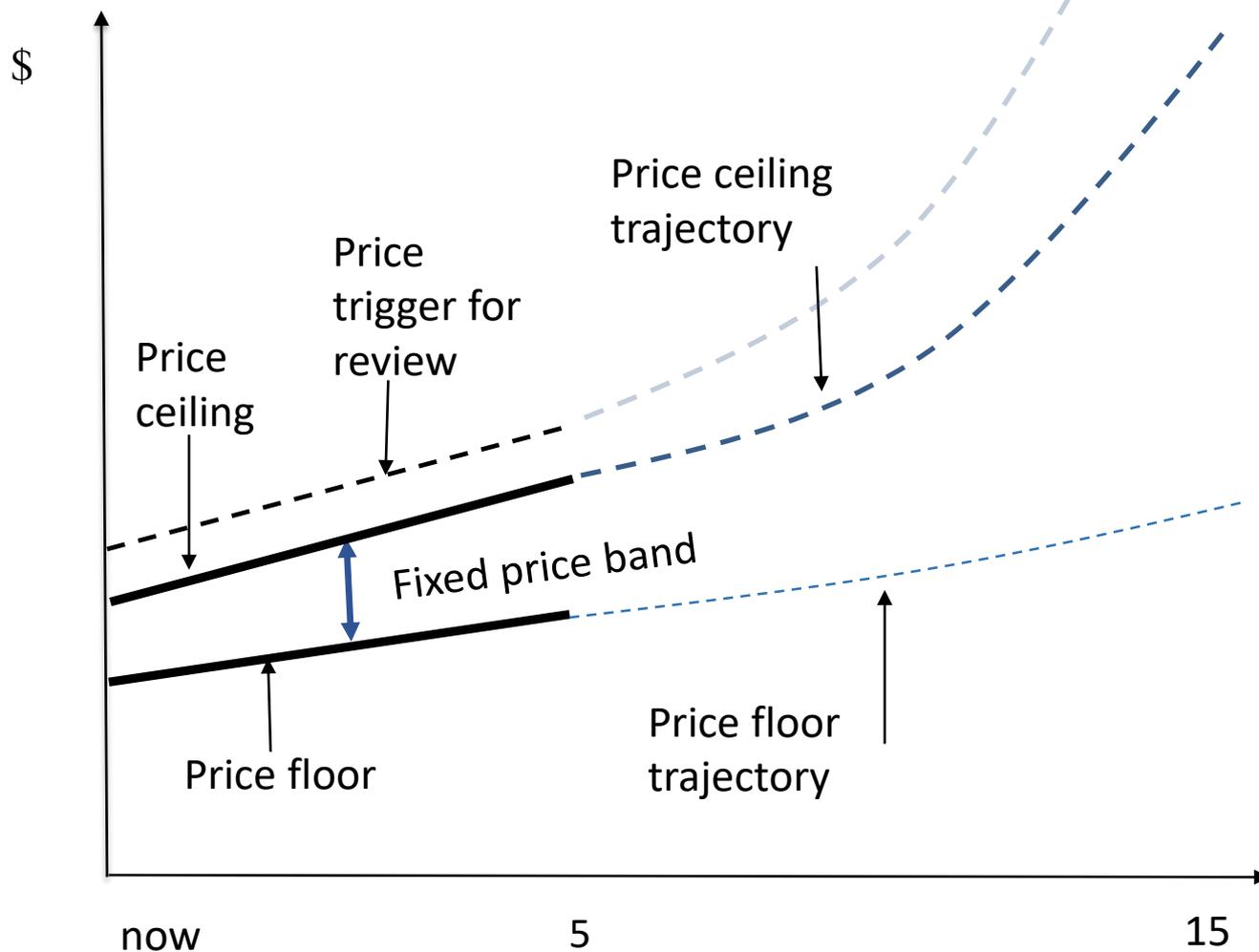
Price Band and Trajectories



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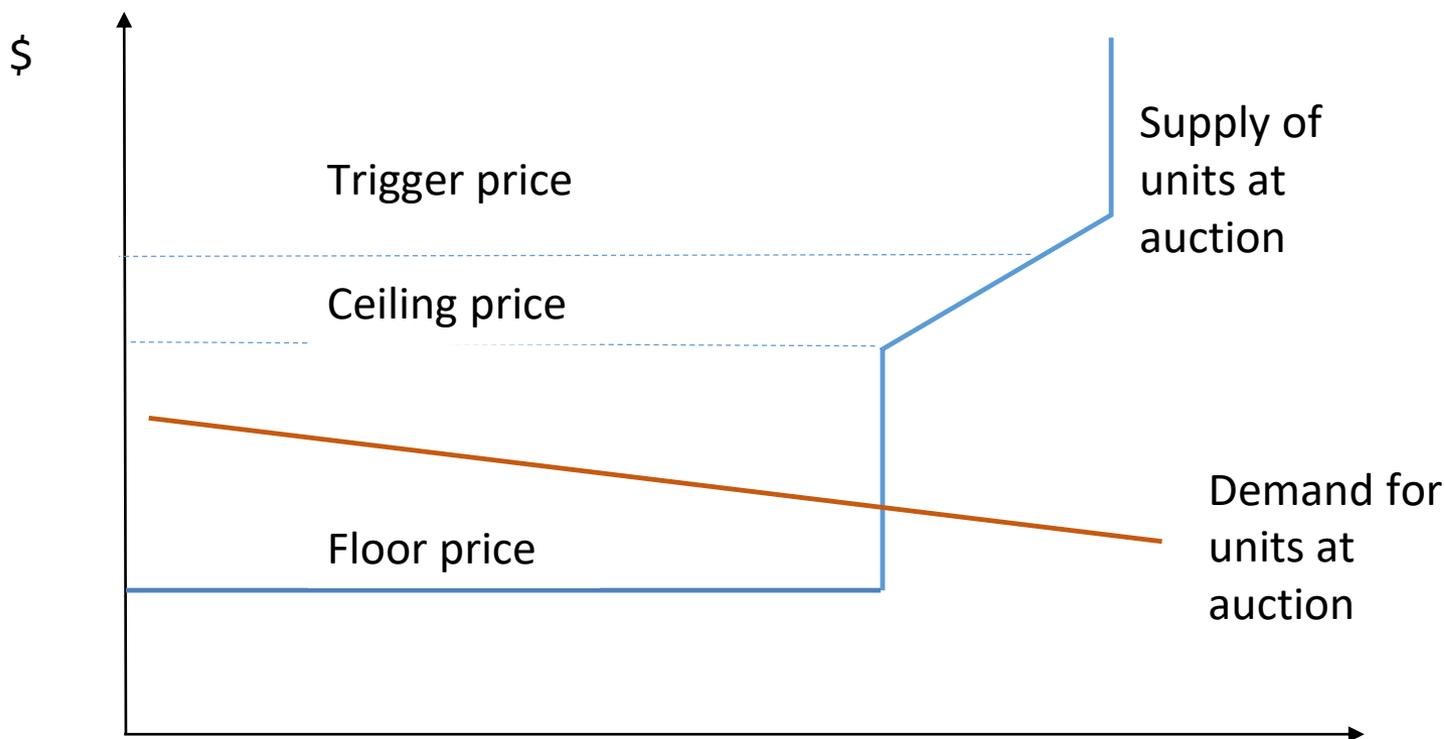
Price Band and Trajectories



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How is the Price Band implemented?



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Making it happen

Catherine Leining



Enable Independent Advice

An Independent Body is tasked with:

- Advising government on annual extension of the Cap, Price Band and Trajectories
- Advising government when a review is triggered
 - Unit reserve depletion
 - *Force majeure* event



Comparison with CCRA 2002

Similarities:

- Introducing auctioning under an ‘overall limit’ on auctioning + free allocation
- Setting the limit for 5 years in advance and extending by one year each year
- Continuing to exclude international emission reductions for the foreseeable future

Changes:

- Fixing the cap for all 5 years unless review triggered
- Adding a Fixed Price Band implemented through auction
- Adding a Unit Reserve limited by the Fixed Cap
- Adding long-term trajectories for supply and price
- Enlisting independent advice
- Limiting any future participant purchasing of international emission reductions



Key messages

NZ's pathway to meet long-term targets needs to strategically balance domestic decarbonisation and international emission reductions.

Purchasing international emission reductions needs to be managed by government – both quality and quantity.

The NZ market needs clear and predictable price signals for domestic decarbonisation.

This package provides a durable architecture for more predictable decision making under uncertainty – and can be implemented now.

