



# Balancing Supply and Demand in an ETS

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# Why Balancing Supply and Demand ?

To assure short, medium and long term stability to the price of allowances in order to drive investments from the private sector



# Flexibility Mechanism

- Most ETS's allow for "Banking" as a flexibility mechanism:
  - PRO : Allows for actual/past vintages to keep a market value
  - CON : If the ETS is over allocated (caps are too high due lack of ambition or due to greater mitigation effort from covered sources than expected), then Banking will drive the long term price of allowance towards zero



# Options for Balancing S&D

- *A priori* :
  - Include design features in the regulation that will prevent any “excessive” shift in market price
    - PRO : automatic
    - CON : restrict “free” market
- *A posteriori* :
  - Human intervention to balance supply and demand after an “excessive” shift in market price have been observed
    - PRO : does not restrict “free” market
    - CON : once a human intervention is required, it is very hard to agree on what to do and how to do it



# Supply and Demand Balance Features of the Quebec and California ETS

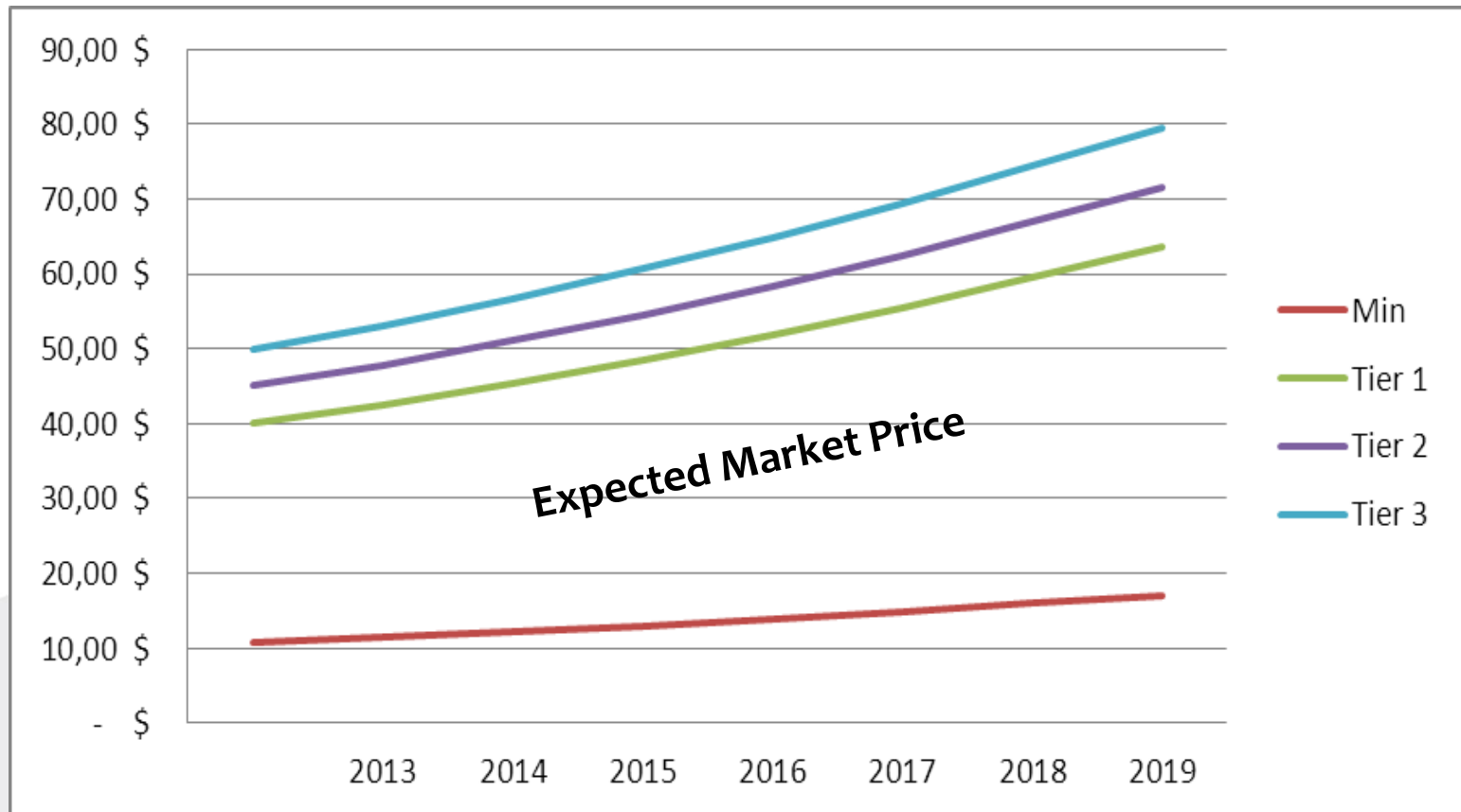
- *Auction Reserve Price* (market floor price) :
  - Minimum auction price of \$10 in 2012, increasing by 5% plus inflation per year:
    - QC : \$10.75 in 2013, \$11.39 in 2014 ..... ~\$20 in 2020
    - CA : \$10.71 in 2013, \$11,34 in 2014 ..... ~\$20 in 2020
    - Joint Auctions : Maximum of QC and CA reserve price based on the most recent exchange rate
  - Unsold allowances are removed from the market (set aside)
  - Unsold allowances can be put back at auction after two consecutive auctions close above the Auction Reserve Price



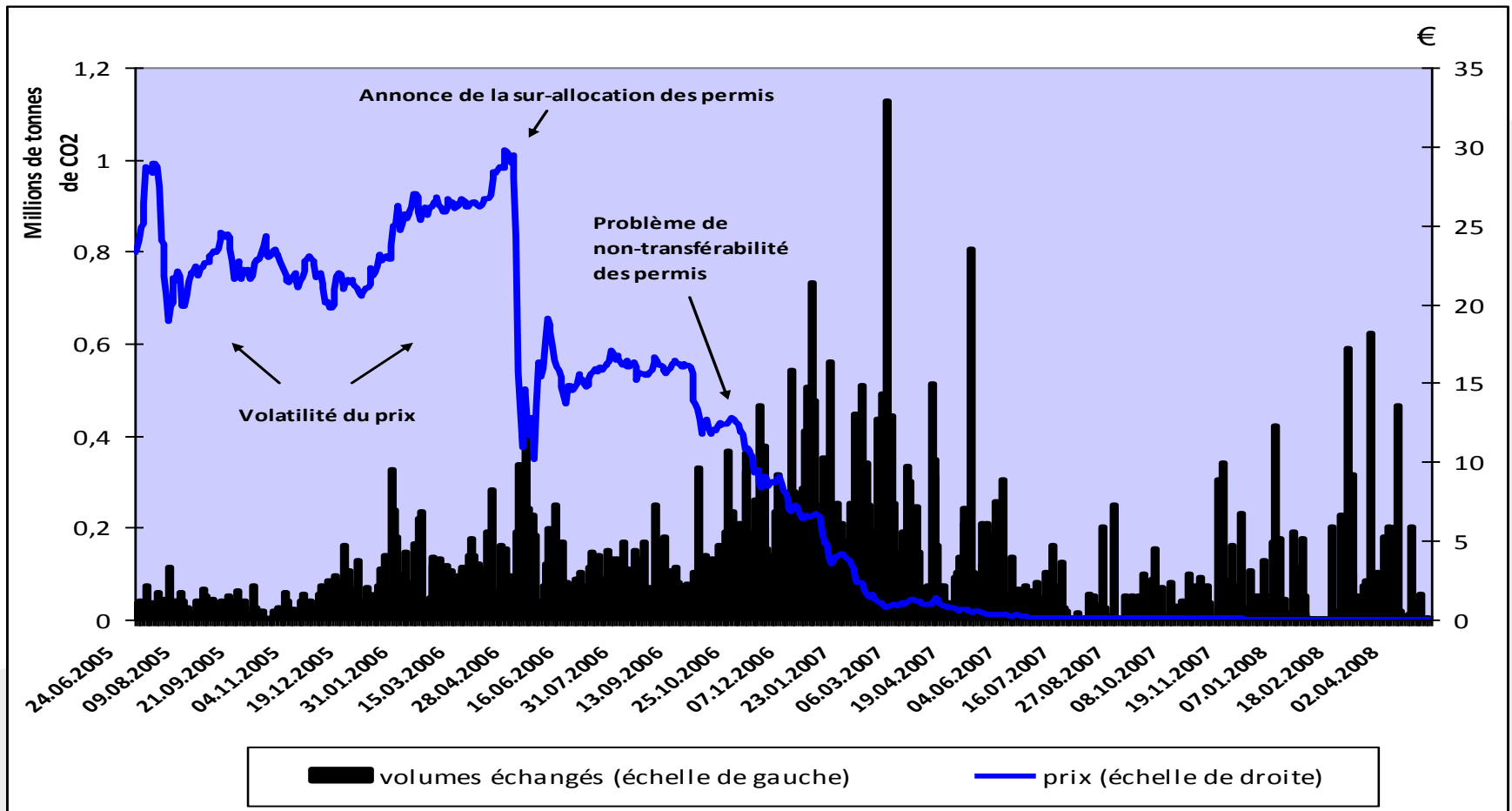
# Supply and Demand Balance Features of the Quebec and California ETS

- *Cost Containment Reserve (market ceiling price) :*
  - Made of : 1% of 2013-2014 Caps, 4% of 2015-2017 Caps and 7% of 2018-2020 Caps
    - About 20 million allowances for Québec and only available to Québec covered entities
    - About 120 million allowances for California and only available to California covered entities
  - Allowances divided in 3 equal tiers:
    - Tier 1: available at \$40 in 2013, price increasing at 5% plus inflation per year
    - Tier 2: available at \$45 in 2013, price increasing at 5% plus inflation per year
    - Tier 3: available at \$50 in 2013, price increasing at 5% plus inflation per year
  - 4 quarterly Cost Containment Reserve Sales per year
    - For Québec, up to 4 sales per year
    - QC and CA : allowances are transferred in the entity's compliance account (not tradeable on the market)

# Supply and Demand Balance Features of the Quebec and California ETS's



# EU ETS – Phase 1



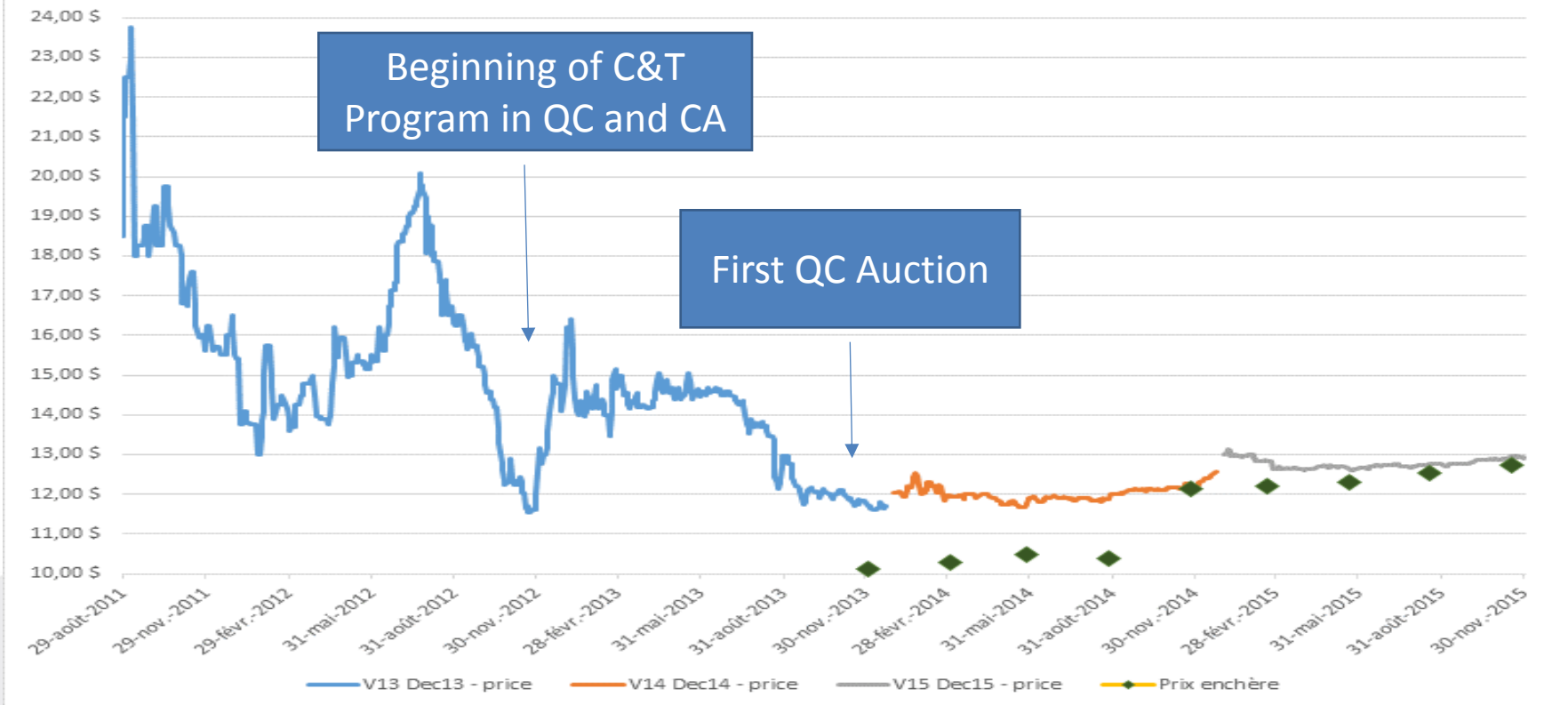
Source: Laurent et Le Cacheux, 2009.





# WCI (QC and CA) C&T Program – Early Days

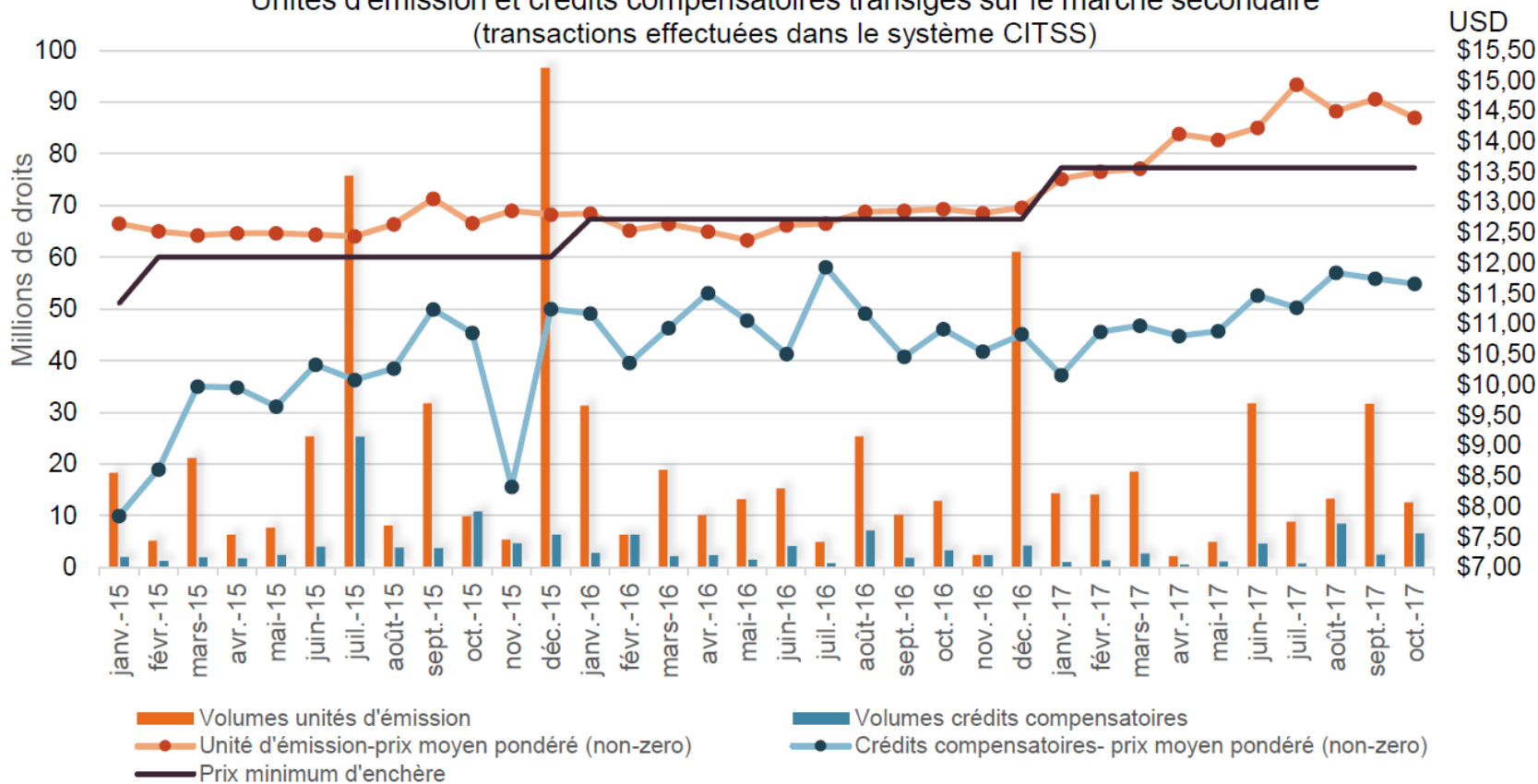
Évolution des prix des contrats à terme courants sur la bourse Ice Exchange et du prix de vente final des unités d'émission lors des ventes aux enchères



# WCI (QC and CA) C&T Program



Unités d'émission et crédits compensatoires transigés sur le marché secondaire  
(transactions effectuées dans le système CITSS)



# Thanks!

