

# Climate change policies and trade: Implications for industrial policy in South Africa

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TOWARDS A JUST TRANSITION - THE ROLE OF INDUSTRIAL POLICY

# Framing the Issues

- Historical emissions produced by developed countries
- But climate change and policies likely to have far-reaching implications for developing countries like SA
  - hotter and drier in Southern Africa and fewer resources for adaptation
  - economic structure of SA is energy-intensive
  - energy-mix in SA very carbon intensive – mitigation path is expensive
- Mitigation policies being developed will affect DC:
  - Reduce demand
  - Impact on the “rules of the game” by imposing a “carbon tax” reflecting emissions
  - Mitigation policies pull in the opposite direction of policies aimed at structural transformation → need to transform industrial base beyond energy-intensive resource-based sectors

## Unjust transition –

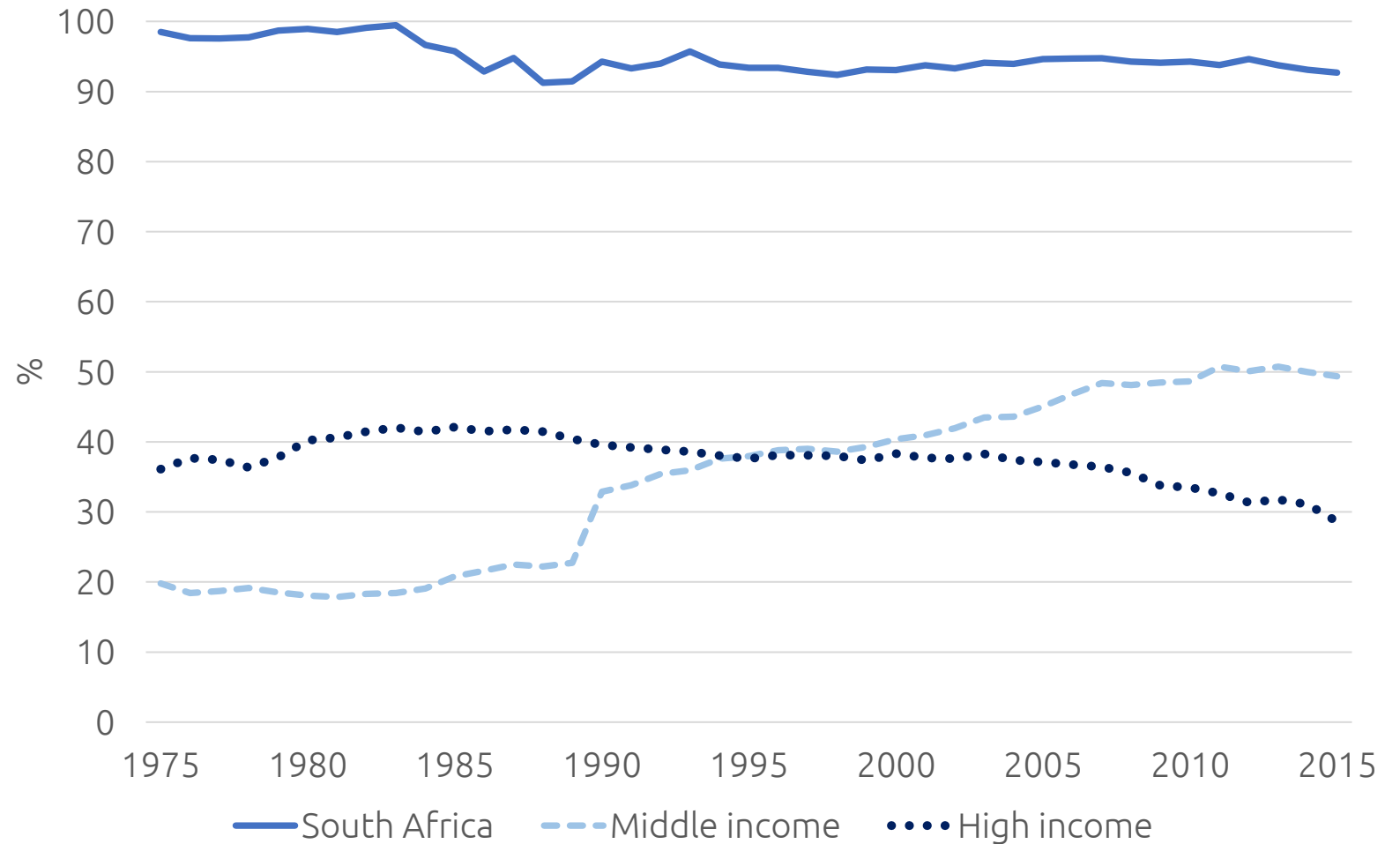
policies that result in the loss of both competitiveness and access to critical export markets pose a threat to **existing productive capabilities**

## Unjust future –

climate change policies that fail to equip developing countries to keep up with green technological change and lay the foundation for **future productive capabilities**

(Cameron et al., 2021; Davies, 2021)

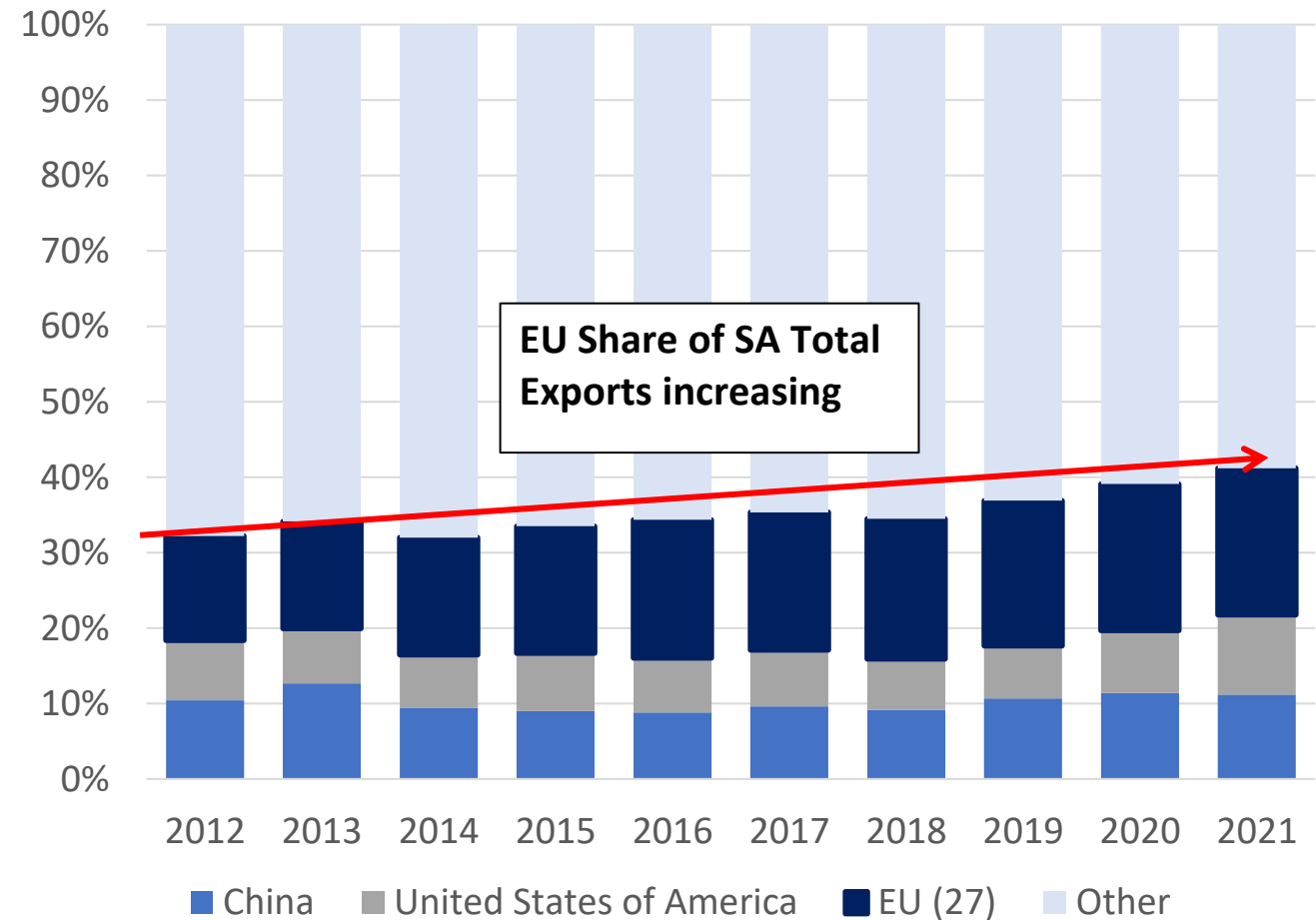
## Electricity production from coal sources (% of total)



Source: World Development Indicators

# Challenges and opportunities in Mitigation and Transition

- What are the implications for competitiveness of SA exports as increasing climate policies through EGD impact on mitigation?
  - EU is a major trading partner for SA
  - Is most advanced in terms of climate policies in developing countries
- Impact on existing producers and jobs with the move to RE – what are the benefits for development of domestic capabilities?



Source: Trade Map

# EGD and trade risks for South African exports

- EGD EU policy to achieve net-zero emissions by 2050 – launched in Dec. 2019 → most measures aimed at domestic markets and producers, but implications for trading partners
- Direct measures (CBAM, move to electric vehicles, etc); changing consumer preferences; voluntary measures
- Most direct measure – CBAM
  - ‘force’ exporters to pay carbon price as local producers unless they are equally carbon taxed or have already decarbonised (Montmasson-Clair, 2021)
  - For the transitional period (2023-2025), CBAM for iron and steel, cement, fertiliser, aluminium and electricity = **root industries**
  - reduce the **competitive advantages** of exports from developing countries with **lower cost structures** = shifts the basis of competition from price efficiency to carbon efficiency
  - Both impact of carbon pricing and administrative cost

Summary table of SA's key export sectors and products to the EU; carbon intensity of sectors; and whether sector is affected by EGD policies

Sector	Sector employment (formal & informal)	Importance of EU market for SA	Growth in exports to EU (2011-2020)	SA carbon intensity (2015) [tCO <sub>2</sub> e per US\$ Millions]	Key exports to the EU (export share; export value)	Affected by "green" policies/private standards?
Basic metals and fabricated metal products	97,794**	High export share (22.8%) High export value (R19.8bn)	4.4%	5196.3	Unwrought aluminium (36.9%; R6.18bn) Flat-rolled products of stainless steel (49.2%; R3.23bn) Plates, sheets and strip, of aluminium (41.3%; R2.11bn) Unwrought nickel (33.5%; R1.56bn) Ferro-alloys (14.9%; R6.56bn)	Yes, CBAM
Transport equipment, automotive & auto parts and components	123,403 <sup>‡</sup>	High export share (55%) High export value (R70.96bn)	19.2%	1244.7	Motor cars (61.6%; R46.34bn) Motor vehicles for good transport (48.6%; R21.96bn) Centrifuges (60.2%; R17.45bn) Parts and accessories for tractors (30.9%; R2.66bn)	Yes, Fit for 55; EV incentives
Vegetable and fruit products	263,053*	High export share (26.6%) High export value (R16.84bn)	14.4%	1196.8	Citrus (33.1%; R9.25bn) Grapes (47.6%; R5.02bn)	Yes, Farm to Fork strategy; new CAP
Prepared foodstuffs; beverages; spirits; tobacco	311,492 <sup>‡</sup>	High export share (28.5%) Low export value (R5.79bn)	7.6%	786.3	Wine (38.6%; R3.92bn) Fruit juices (26.7%; R1.09bn)	Yes, Farm to Fork strategy; new CAP

Notes: \* Fruit SA Statistics 2019 (<https://fruitsa.co.za/wp-content/uploads/2020/10/FRUIT-SA-STATS-2019.pdf>), \*\* WOW Manufacture and Wholesale of Basic Iron and Steel 2019, \*\*\* CHIETA Annual Report 2019/2020, \*\*\*\* Quantec EasyData (Sum of Wood and wood products and Paper and paper products), <sup>Δ</sup> Mining employment (<http://www.statssa.gov.za/?p=14682>), <sup>‡</sup> Quantec EasyData (2020)

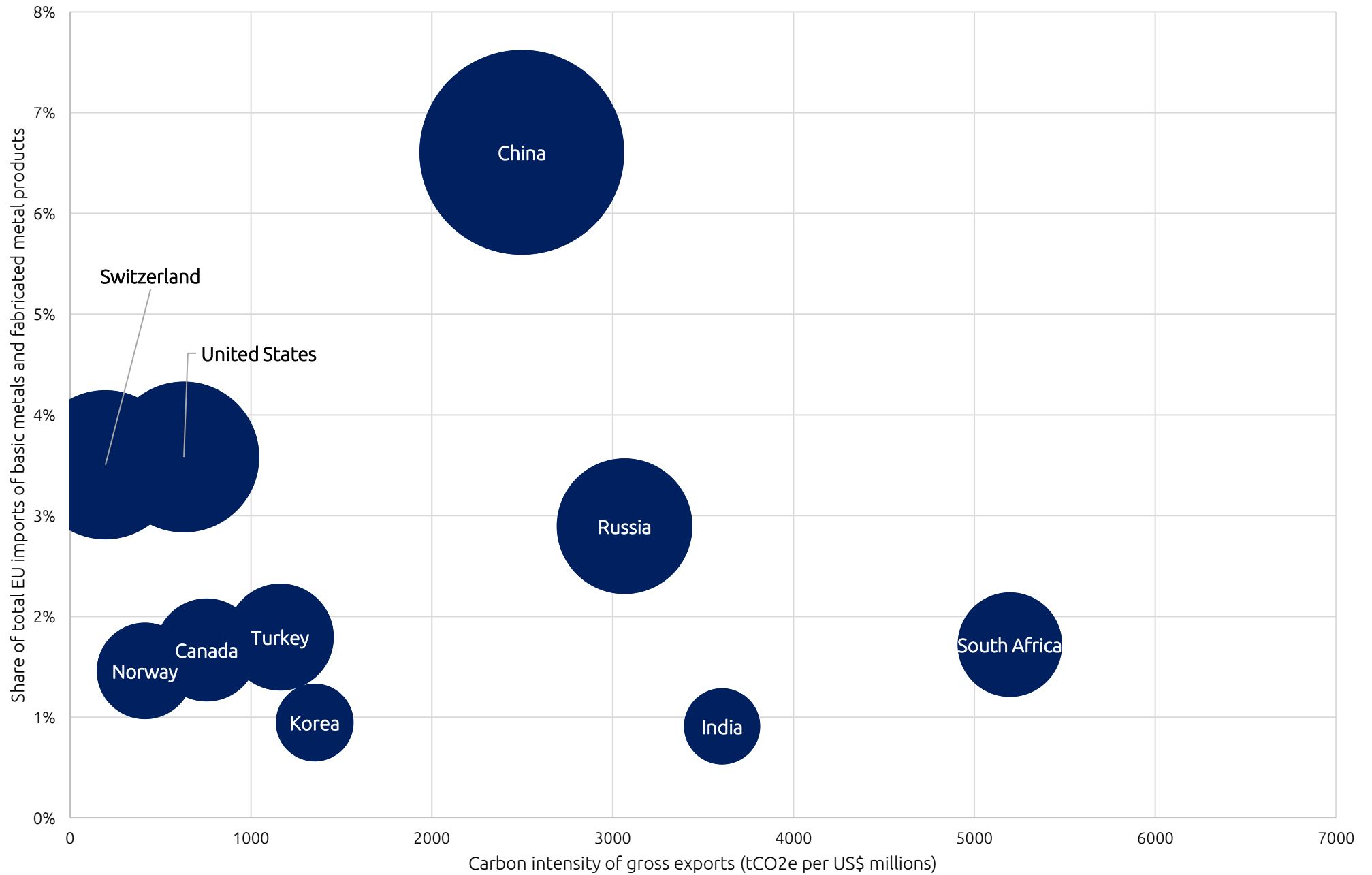
# Framework For Identifying Priority Sectors



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Mineral products	514,859 <sup>Δ</sup>	Low export share (12.4%) High export value (R38.09bn)	4%	1140.4	Precious-metal ores and concentrates (95.1%; R14.86bn) Titanium ores and concentrates (30.7%; R2.43bn) Niobium, tantalum, vanadium or zirconium ores and concentrates (30.5%; R2.01bn)	No, but potential candidates for future CBAM scope expansion
Pearls, precious stones, precious metals		Low export share (11.7%) High export value (R37.89bn)	14.6%	1140.5	Diamonds (30.1%; R6.74bn) Coin (93.2%; R10.01bn) Waste and scrap of precious metals (90.9%; R4.52bn)	No, but potential candidates for future CBAM scope expansion
Products of chemicals and allied industries	169,798 <sup>***</sup>	High export share (34%) High export value (R15.73bn)	25.7%	1287,7	Reaction initiators (60.4%; R6.54bn) Acyclic hydrocarbons (21%; R1.41bn) Sulphates (92.4%; R4.99bn)	No, but potential candidates for future CBAM scope expansion Chemicals Strategy
Pulp of wood, paper	93,658 <sup>****</sup>	Low export share (7.1%) Low export value (R0.79bn)	2.6%	902	Chemical wood pulp (7.1%; R0.79bn)	No, but potential candidates for future CBAM scope expansion

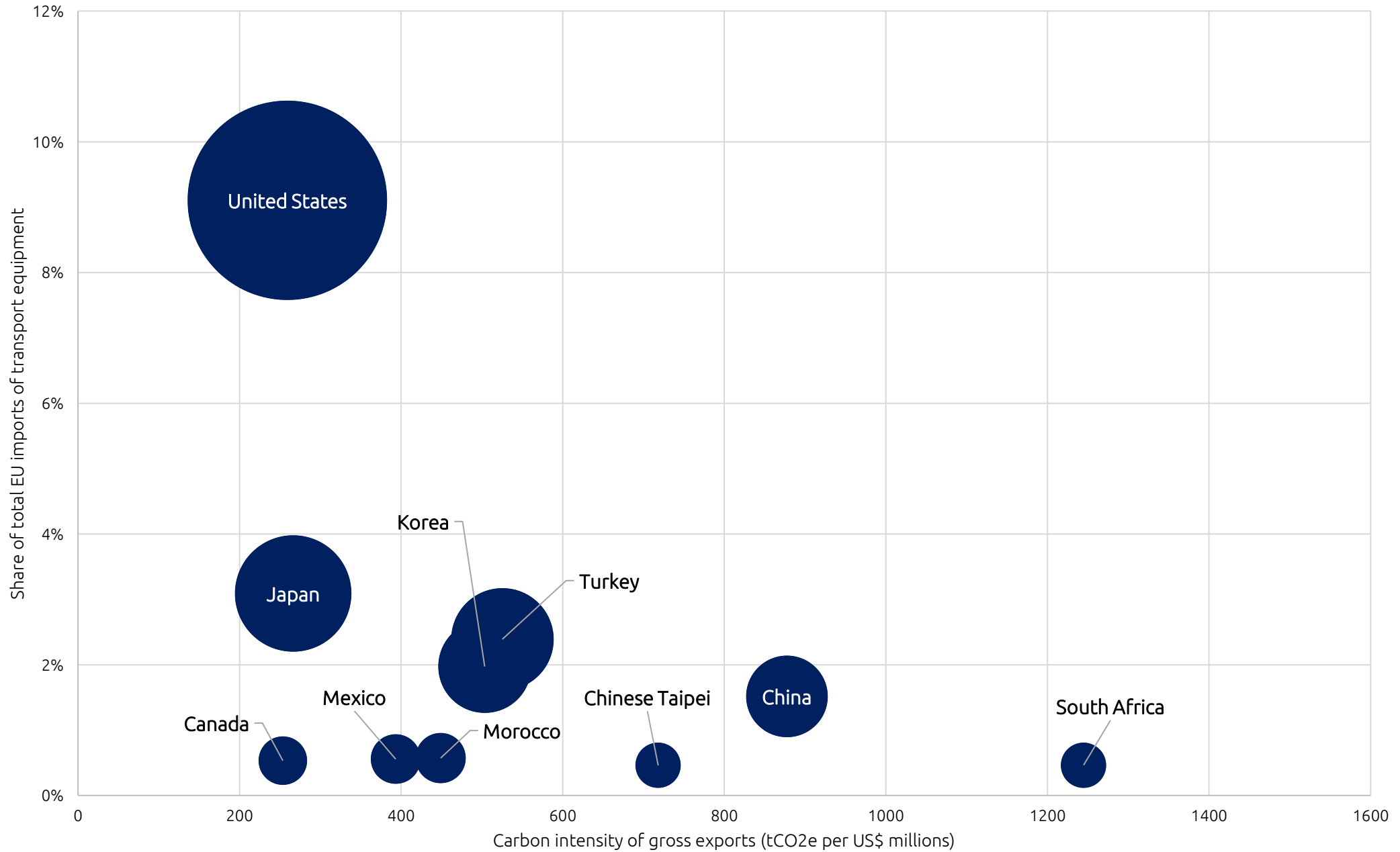
# Key suppliers of basic metals and fabricated metal products to the EU (28) with carbon intensity, 2015



Source: Adapted from Montmasson-Clair (2020)



# Key suppliers of transport equipment to the EU (28) with carbon intensity, 2015

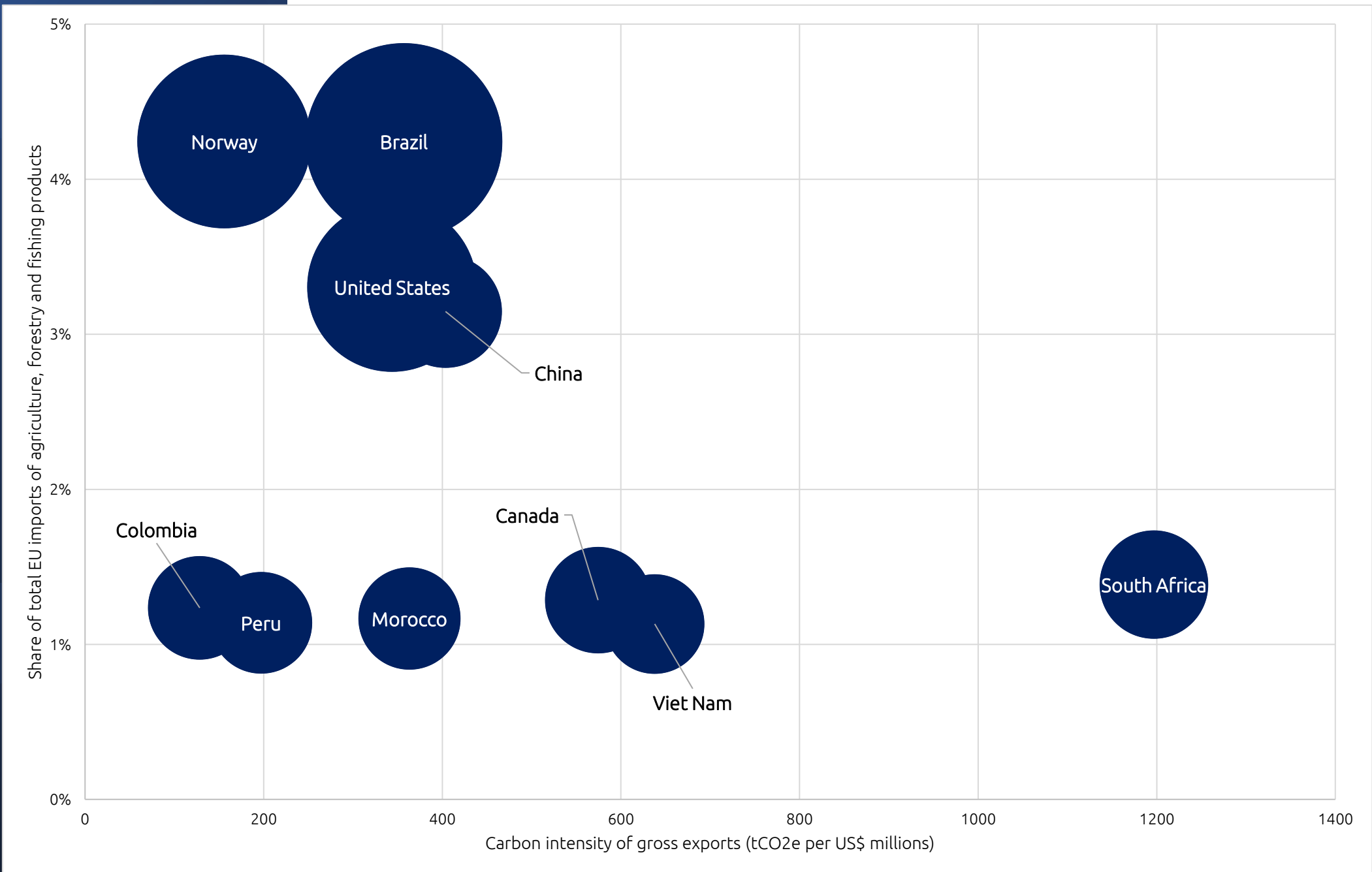


Source: Adapted from Montmasson-Clair (2020)

# Food and agricultural products

- The Farm to Fork (F2F) strategy, launched in May 2020 aims reduce the environmental impact of the EU's food system → reduction of pesticide, fertiliser and antibiotics usage in farming, mitigation of nutrient loss likely to affect exporters to the EU (CBI, 2021).
- A proposal for a legislative framework for sustainability in food is expected to come out in 2023 and it is expected to cover, among other things, use of chemical pesticides; levels of carbon embodied imports to the EU; reduction of excess nutrients; and front-of-pack nutrition and sustainability labelling.
- For SA – use of pesticides; carbon taxes in the future; packaging requirements
- Private sector initiatives

# Key suppliers of agriculture, forestry and fishing products to the EU (28) with carbon intensity, 2015



Source: Adapted from Montmasson-Clair (2020)

# Implications – Export and Transformation Challenges for SA

Vulnerabilities of SA key exports to the EU → support required to navigate these challenges

- CBAM affected industries - Costs of mitigation; Costs of administration; In the longer term → indirect emissions may be included
- Automotive → ICE cars phased out, value chain effects
- Food Sector → use of pesticides; possible CBAM inclusion labelling and information impose costs related to collecting, verifying, and reporting on information, together with on-going changes in demand towards eco-friendly and more sustainable products



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