ANARRES_t: Trade Policy Experiments - Results

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What sims are run?

- base
- sim03 = Full FTA
  - Bilateral tariff removal between Africa and OECD
  - Bilateral export duty removal between Africa and OECD
- sim07 = Part FTA
  - Africa removes all tariffs and export duties on OECD
  - OECD removes all tariffs and export duties on Africa **EXCEPT Agriculture**

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What closures are run?

- All closures have:
  - Exchange rate flexible, KAPWOR fixed
  - Savings rate flexible, investment volume (IADJ) fixed
  - No productivity changes
  - CPI numeraire

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What closures are run?

- clbase: anar_t_cl_full_internal.inc
  - Full employment
  - Government savings adjusts
- clos02: anar_t_cl_UE_internal.inc
  - Surplus unskilled labour in Africa
  - All other factors and regions full employment
  - Government savings adjust

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What closures are run?

- clos03: anar_t_cl_UE_tx_afr.inc
  - Surplus unskilled labour in Africa
  - All other factors and regions full employment
  - Tax replacement
    - *TX* in Africa
    - *TYH* in all other regions
- clos04: anar_t_cl_UE_afr.inc
  - Surplus unskilled labour in Africa
  - All other factors and regions full employment
  - Tax replacement
    - *TYH* in all regions

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What closures are run?

- clos05: anar_t_cl_mining2.inc
  - Surplus unskilled labour in Africa
  - All factors fixed in natural resources in Africa
    - Does this hold output constant?
    - NO! there is substitution between value added and intermediate inputs (controlled by the set *aqx*(*a*))
  - All other factors and regions full employment
  - Tax replacement
    - *TYH* in all regions

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Checks to verify sims and closures

- anar_t_reslevel.gdx
  - Review **lev_TM(w,c,r,elst,clos,sim)**
    - Should be 0 when tariffs are removed
  - Review **lev_WF(f,r,elst,clos,sim)**
    - Should be 1 when there is surplus labour
  - Review **lev_TXADJ(r,elst,clos,sim)**
    - Should be different from 1 in Africa for clos03 in sim03 and sim07 (the policy shocks)

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Checks to verify closures

- anar_t_reslevel.gdx
  - Review **lev_TYHADJ(r,elst,clos,sim)**
    - Should be different from 1 in Africa for clos04 and clos05 in sim03 and sim07
    - Should be different from 1 for all other regions in clos03, clos04, and clos05 in sim03 and sim07
  - Review **lev_WFDIST(f,a,r,elst,clos,sim)**
    - For 'anres' in 'afr', should differ from one in clos05 for sim03 and sim07(policy shocks)

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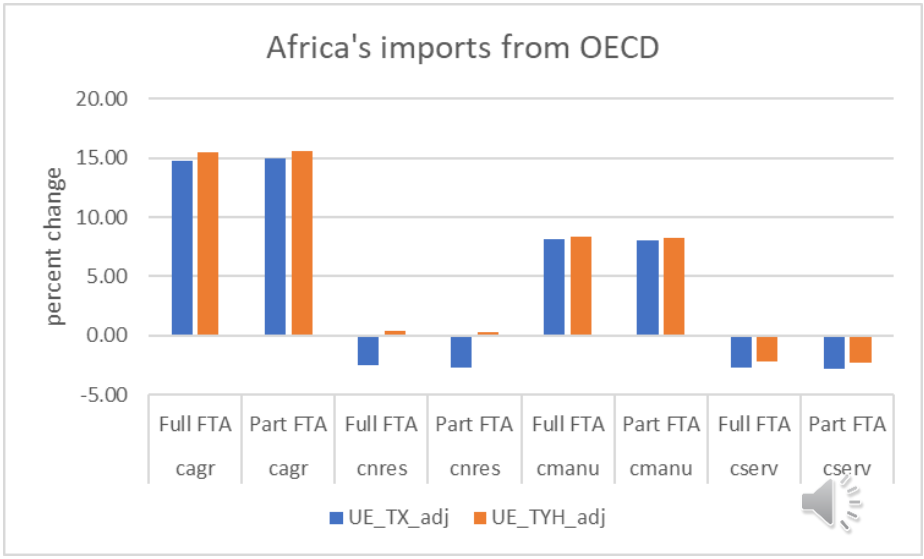
Trade Results



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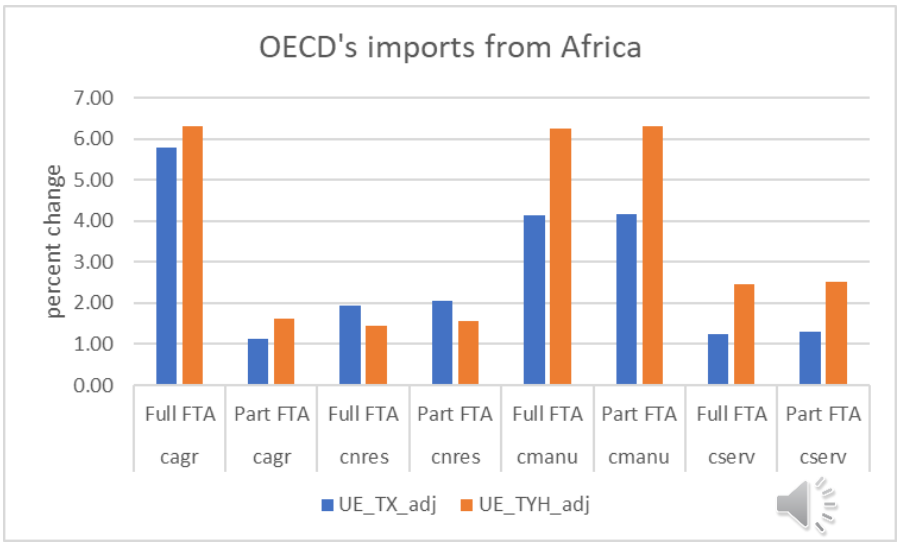
Trade Results



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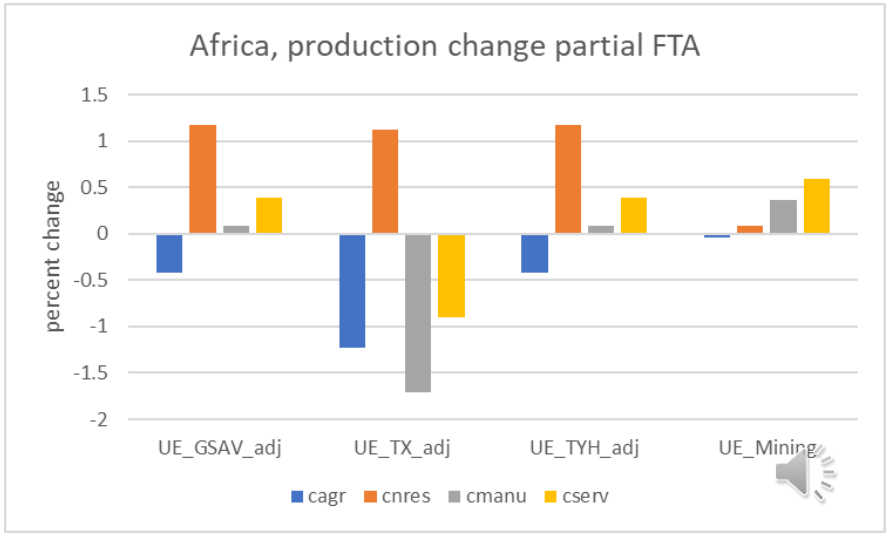
Production Results



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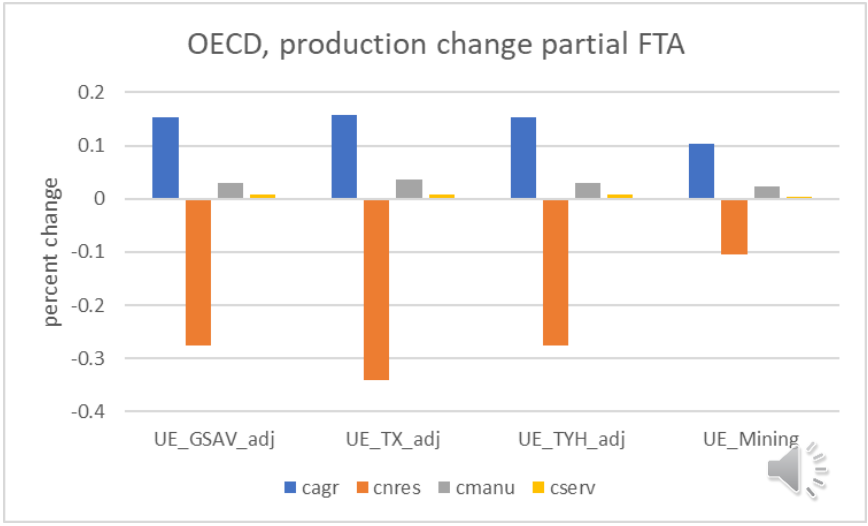
Production Results



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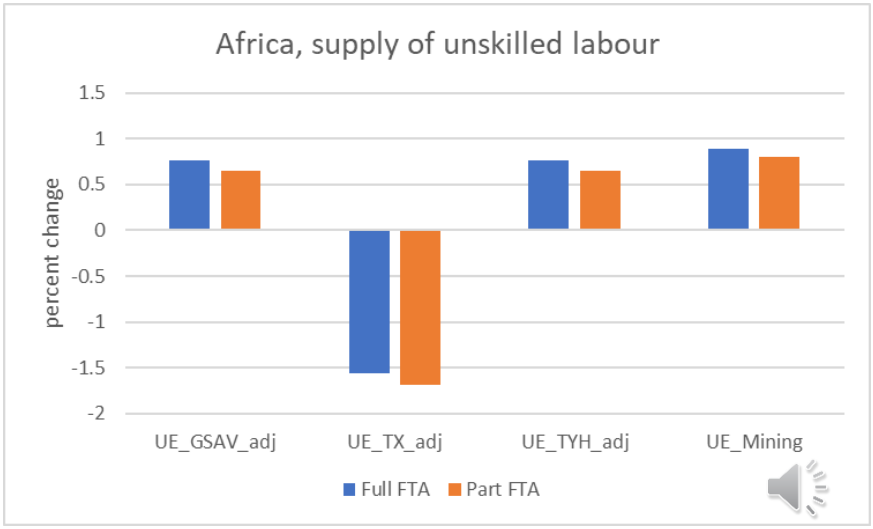
Unskilled Labour Supply



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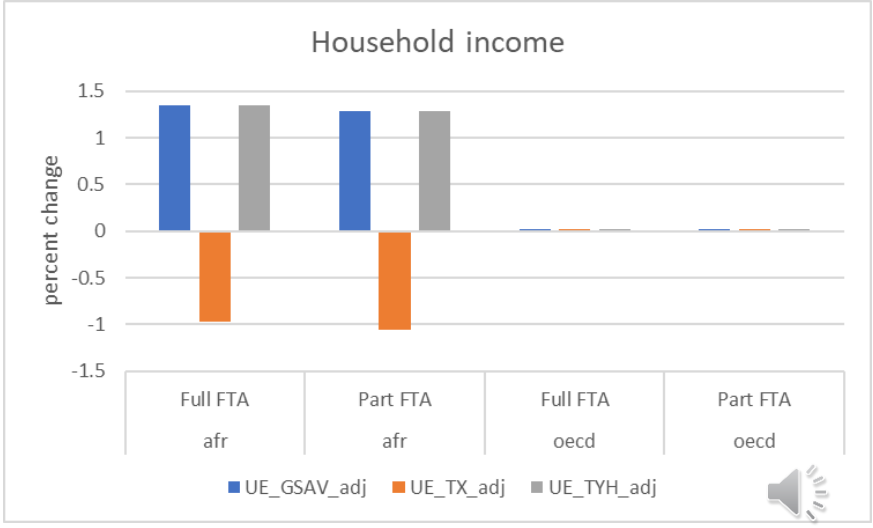
Household Income



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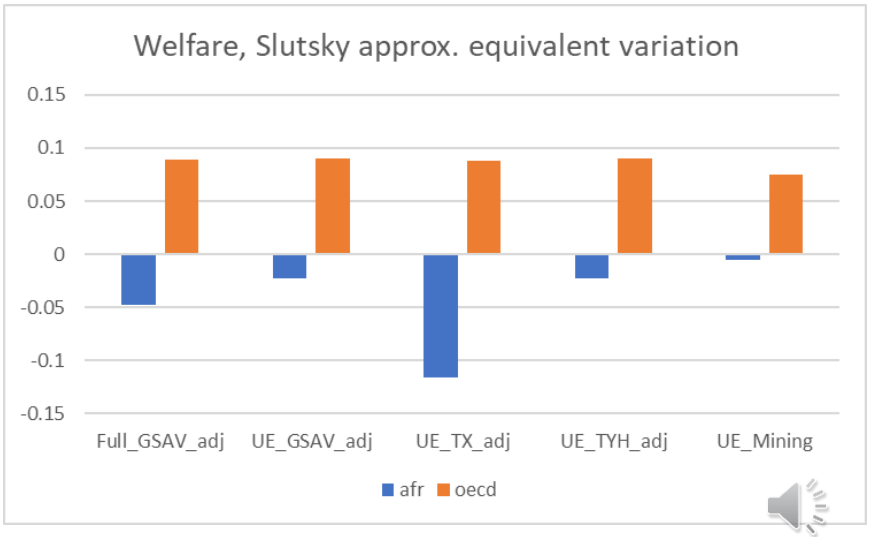
Welfare – Partial FTA



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Implications for Africa

- Imports of agriculture and manufacturing from OECD increase because high tariffs removed.
- Slight decline in imports of natural resources and services, exchange rate effect
  - Depreciation to maintain fixed trade balance
- Output of natural resources always expands
  - High export share of production and depreciation encourages exports

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Implications for Africa

- Welfare loss with FTA and either tax replacement option
  - TX adjusts
    - Decline in output
    - Producers shed unskilled labour
    - Household income declines
  - TYH adjusts
    - Producers hire more unskilled labour
    - Household income expands
    - 10% increase in TYH, households have less income to buy goods

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Implications for OECD

- Imports from Africa increase
- Slight increases in production
  - Biggest gain in agriculture
  - Biggest decline in natural resources
- Slight welfare gain

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Excluding Agriculture

- Output of agriculture declines further for Africa, with either tax replacement option
- Output of agriculture expands more for OECD compared to the full FTA
  - Gain because access to Africa's market (Africa removed 12% tariff on agriculture from OECD)
  - No import competition from Africa

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TX as Tax Replacement

- TX increases 66 - 67% in Africa
- Production declines
- Producers shed unskilled labour
- Total supply of unskilled labour declines

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Additional Simulations?

- Land is mobile between agriculture and natural resources
  - Africa can expand production and trade in natural resources by contracting agriculture
  - OECD can expand production of agriculture to export by contracting natural resources
  - Unrealistic!
- Activity specific land as a closure option

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Elasticities

- Did you review the elasticities?
- If you did
  - Do you think they are appropriate?
  - If not, why not?
- Do you think the choice of elasticities would
  - Change the magnitude of the results for Africa
  - Change the signs on the results for Africa
- Try using the GTAP elasticities as simple sensitivity test

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The End

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