

Discussion of Arellano-Bai-Mihalache's "COVID-19 Vaccination in Emerging Markets"

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- Purpose: Study financial constraints in pandemic with vaccine

Summary

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- Method
 - Open economy SIR model with lockdown
 - Costly vaccination subject to flow constraint

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 - Open economy SIR model with lockdown
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- Results:
 - Lockdown more severe with vs. without vaccination
 - Lockdown less severe with vs. without financial constraints
 - Vaccination less expansive with vs. without financial constraints
 - Relaxing financial constraints more beneficial than vaccine price subsidy

- Mechanism for main results

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- Empirical support for mechanism

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- \uparrow Financial constraints \rightarrow \downarrow Lockdown \rightarrow Faster herd immunity
- Faster herd immunity \rightarrow Less need for vaccine
- Vaccine availability increases benefit of lockdown
 - Buying time saves more lives
 - But the relative benefit is larger if no financial constraints

Policy Implication: Ex-Post Lending Has Minimal Benefit

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- **Ex-ante lending** has significant benefits because facilitates lockdown
 - ↓ Financial constraint → ↓ Lockdown cost
 - ↑ Lockdown → Slower herd immunity → ↑ Vaccination

Challenges of Doing This With Global Lockdown

- Synchronized lockdown increase import demand globally

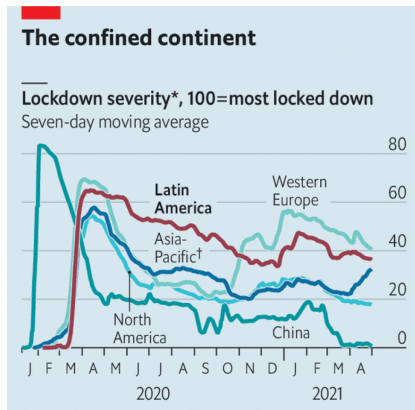
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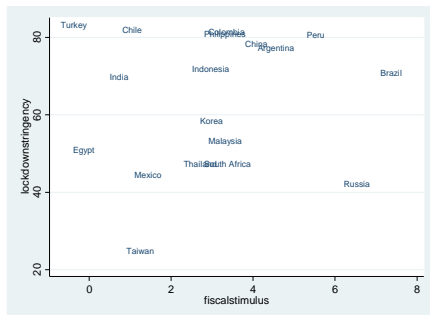
- Synchronized lockdown increase import demand globally
- Diminishes quantitative magnitude of channel
- Subsidizing lockdown in EMs increases lockdown cost in AEs
 - Is this even politically feasible?

Did EMs Lock Down Less Stringently Than AEs?



Contrary to model, LatAm locked down more

Did More Constrained EMs Lock Down Less Stringently?



Contrary to model, more constrained EMs did not lock down less

y-axis is Oxford COVID-19 stringency index on April 15, 2020

x-axis is change in cyclically adjusted primary deficit to GDP in 2020

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Conclusion

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- Conclusion: Better to alleviate constraints ex-ante vs. ex-post
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- Conclusion: Better to alleviate constraints ex-ante vs. ex-post
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- Outstanding questions
 - Relevance of mechanism under a global shock
 - Empirical support for the mechanism