The Bright Side of the Doom Loop: Banks' Exposure and Default Incentives

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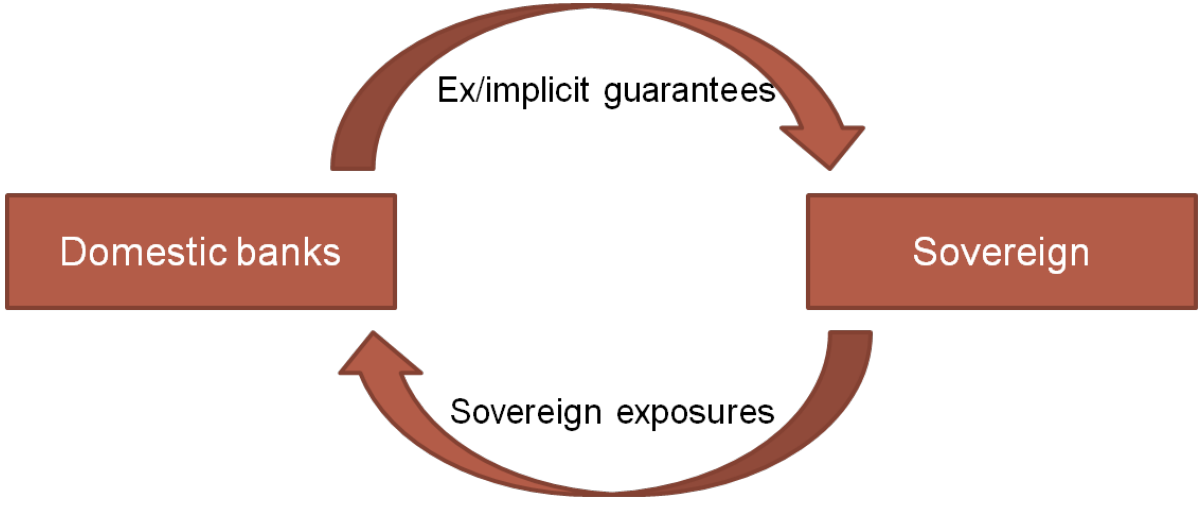
(This presentation does not represent the view of the Bank of Spain)

8.9.2020

The Doom Loop and the European Debt Crisis

- **The doom loop**: Spillover of sovereign default risk to financial stability risk and vice versa causing a “vicious circle”



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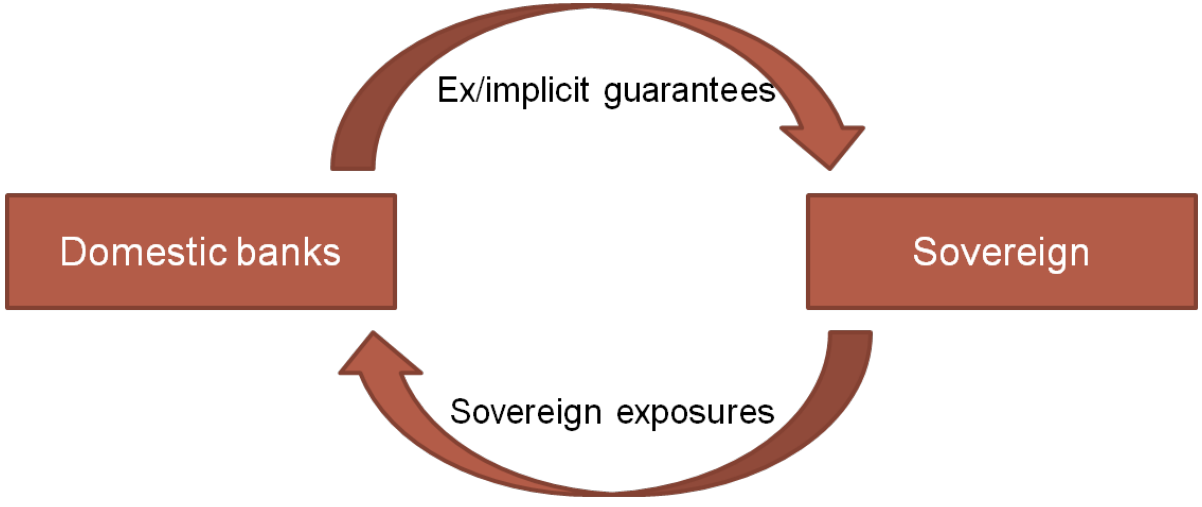

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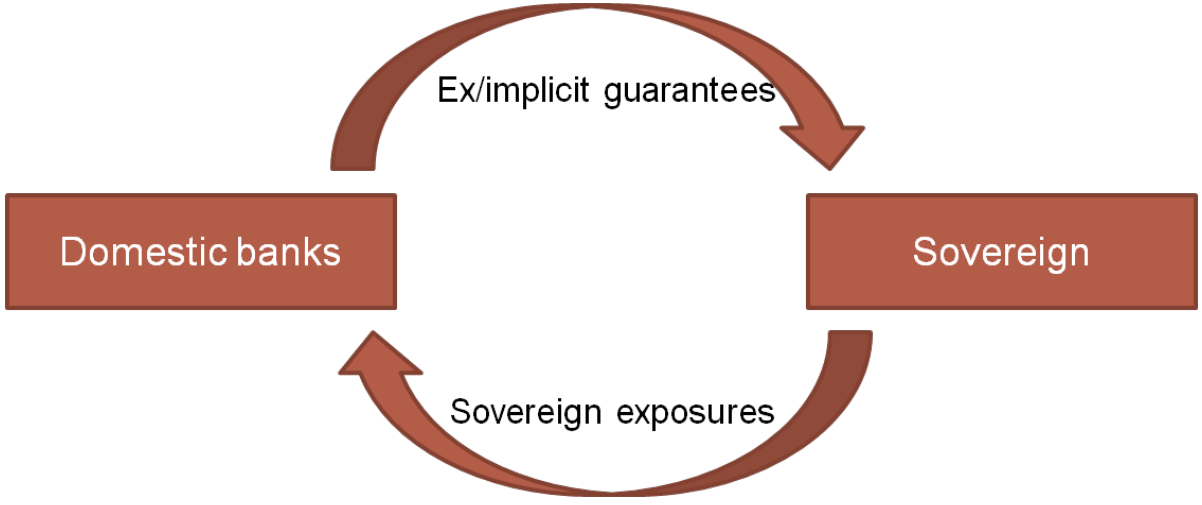

- Key driver of European debt crisis
- Potential concern as the health crisis drives up sovereign debt
- Policy proposal:
  - limit exposure of the financial sector to the government (e.g. Brunnermeier et al., 2016, Benassy-Quere et al., 2018)

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- Empirics:
  - **Domestic banks' bond holdings** reduce sovereign **default premia** (e.g. Gennaioli et al., 2014)

This paper

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- Bridge the two literatures:
  - Extend the doom loop theory to include how **domestic banks' balance sheets** affect the **strategic default** decision of the government
- Reassess the proposed **policies**

Model

simple 3-period model of a small open economy

- agents
  - home: **government**, banks, households
  - rest of the world: **foreign investors**

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    - Default decision: $\underbrace{\textit{foreign debt}}_{\textit{default benefit}}$ *vs.* $\underbrace{(\textit{loan destr.} + \textit{exog. costs}) \times \textit{loans} \times \textit{TFP}}_{\textit{default cost}}$

The doom loop

- The sunspot / fundamental shock triggers investors to expect a higher **default probability**,
- this reduces the **bond price**,
- this makes **banks insolvent**,
- this causes a **bailout,**
- that increases **foreign debt**,
- which makes default more attractive and hence increases the **default probability**,
- which confirms the negative expectations / amplifies the fundamental shock.

- multiplicity / amplification

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- Extension: Symmetric multi country setting + ESBies
  - a new union-wide doom loop arises

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- Hence limits to banks' exposure are particularly bad in times of market turmoil

Conclusion

- Introducing the effect of banks' bond holdings on **default incentives** into a model of the doom loop leads to different policy conclusions
  - Limiting banks' exposure may be undesirable
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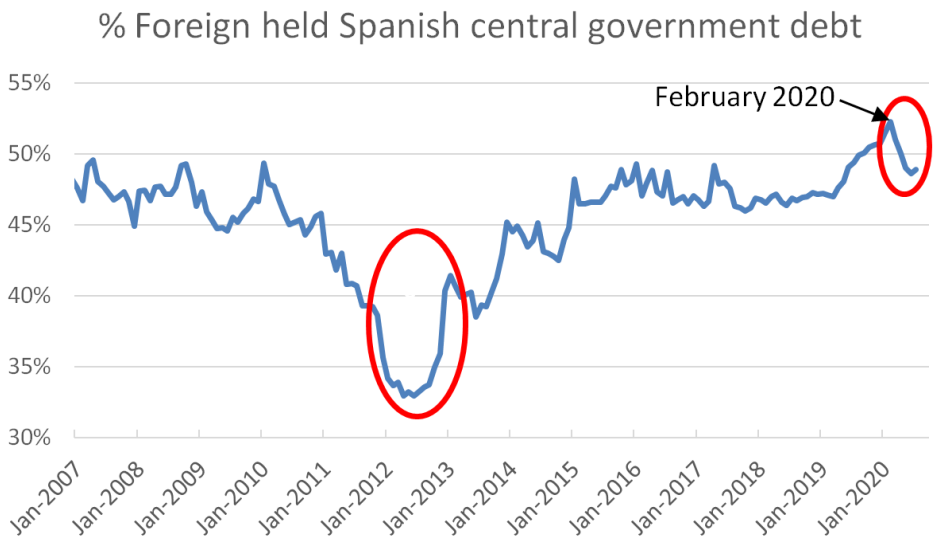
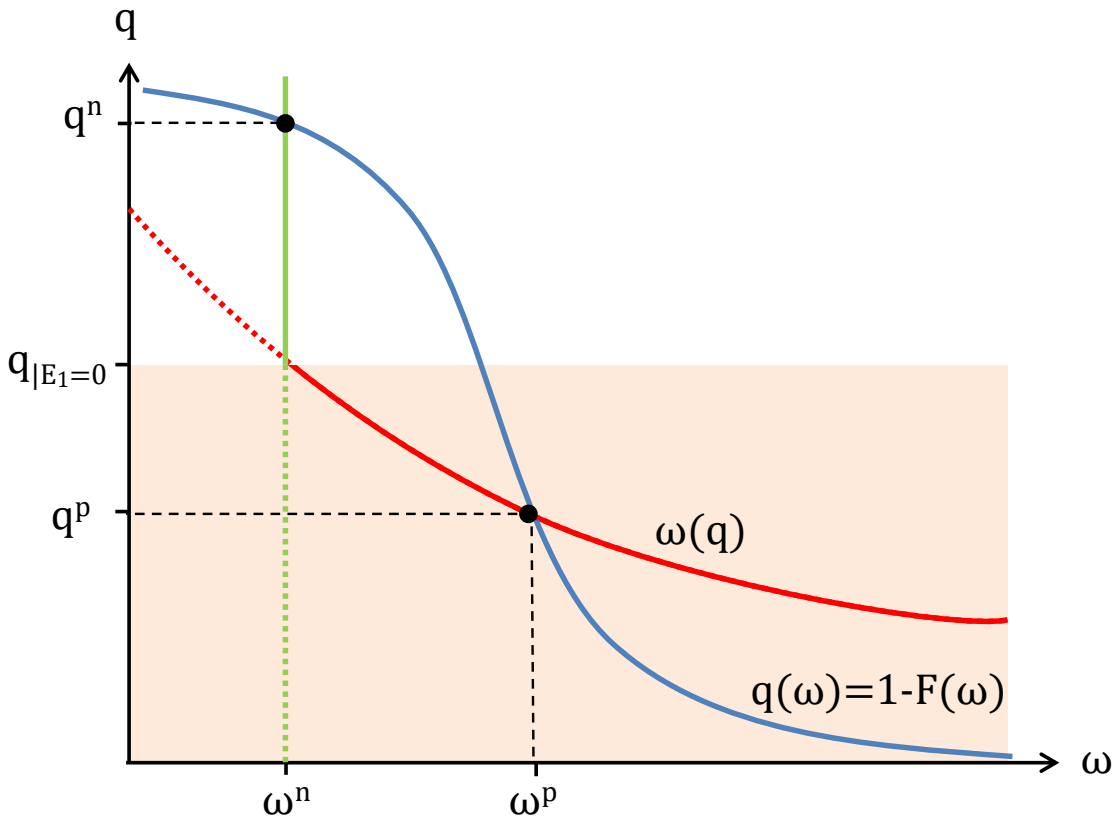
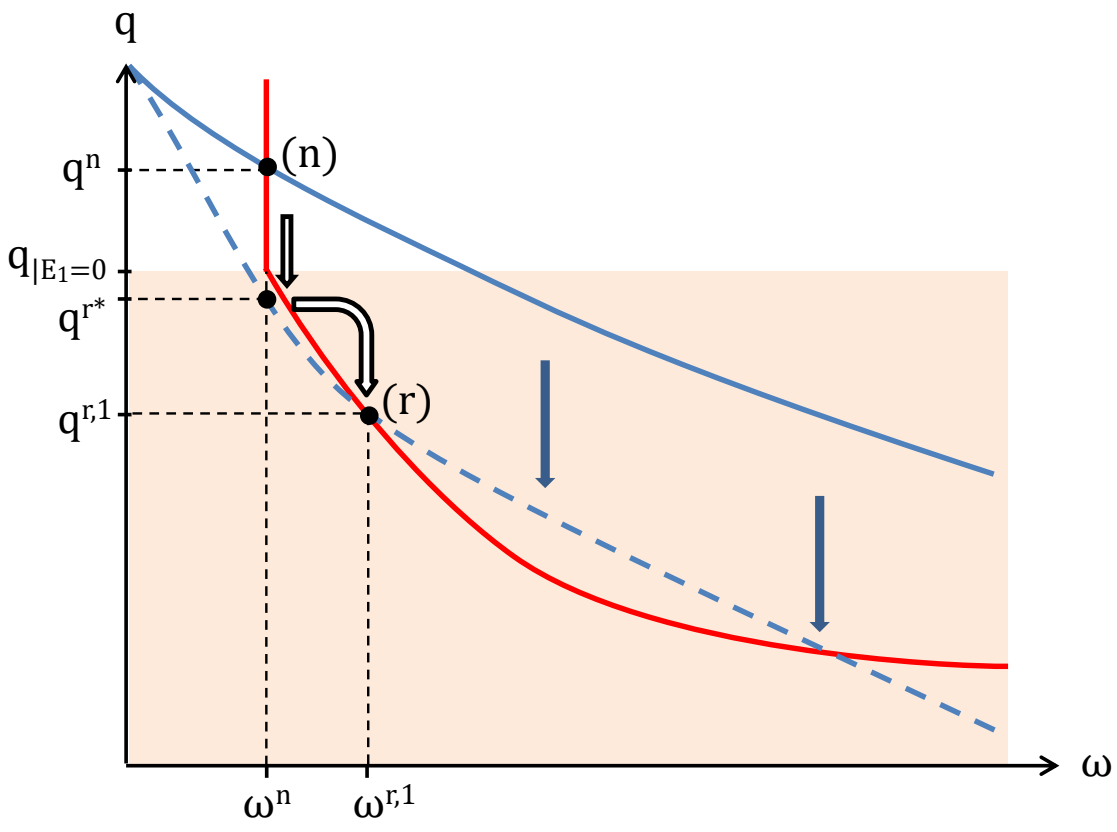
- We thus provide an argument
  - Against policies that restrict the financial sectors' exposure to domestic debt (e.g. German and French economists' proposal Benassy-Quere et al., 2018).
  - In favor of debt repatriation in crisis times – such as now



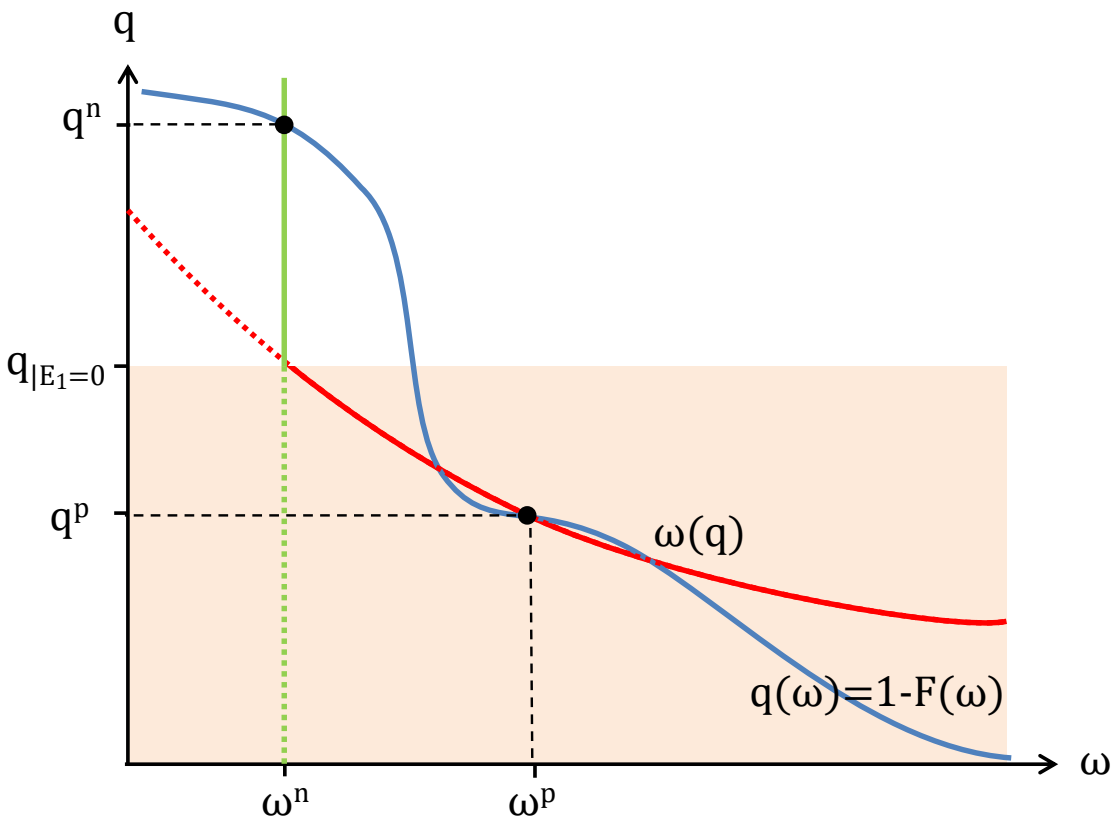
Appendix: Multiple equilibria



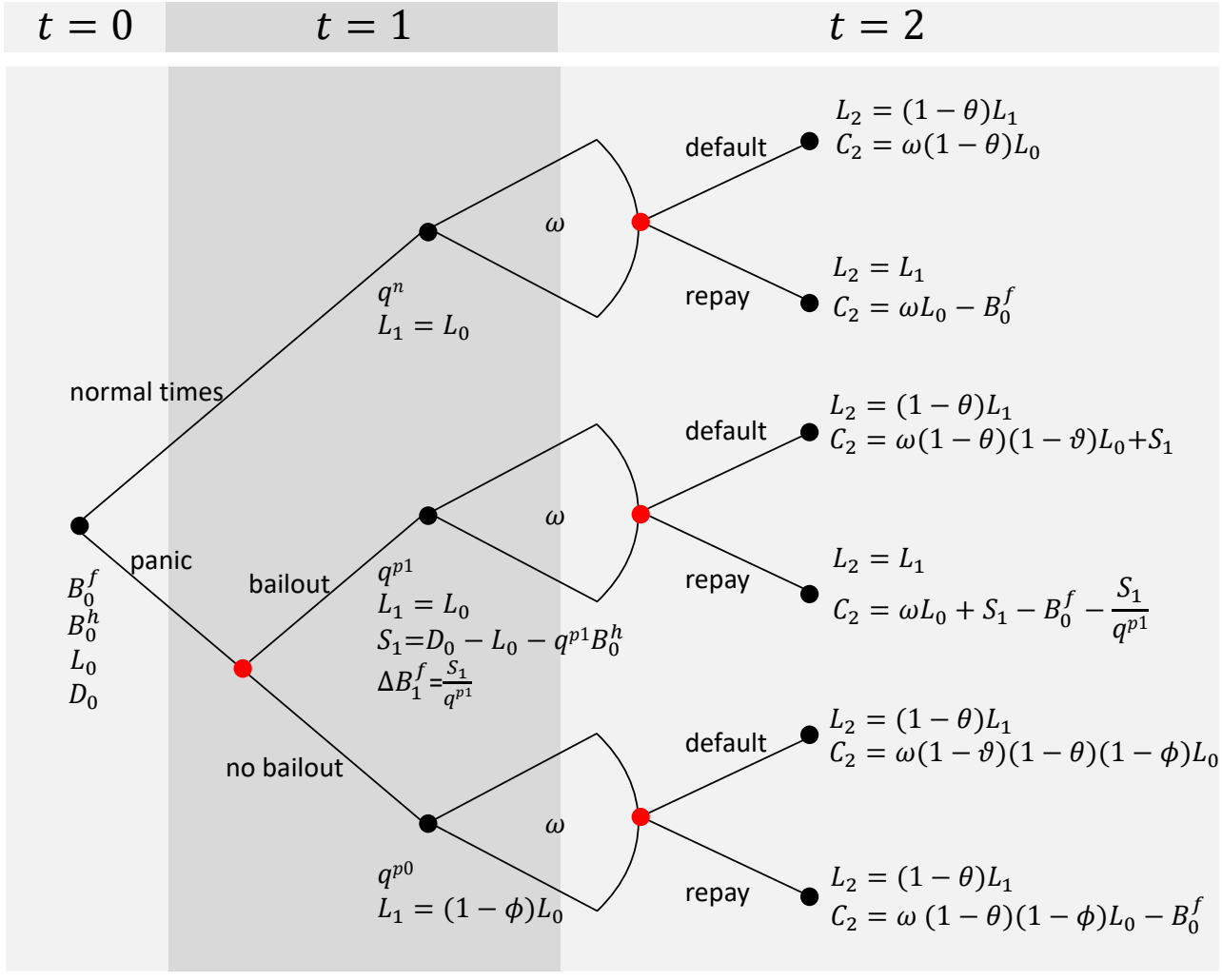
Appendix: Amplification



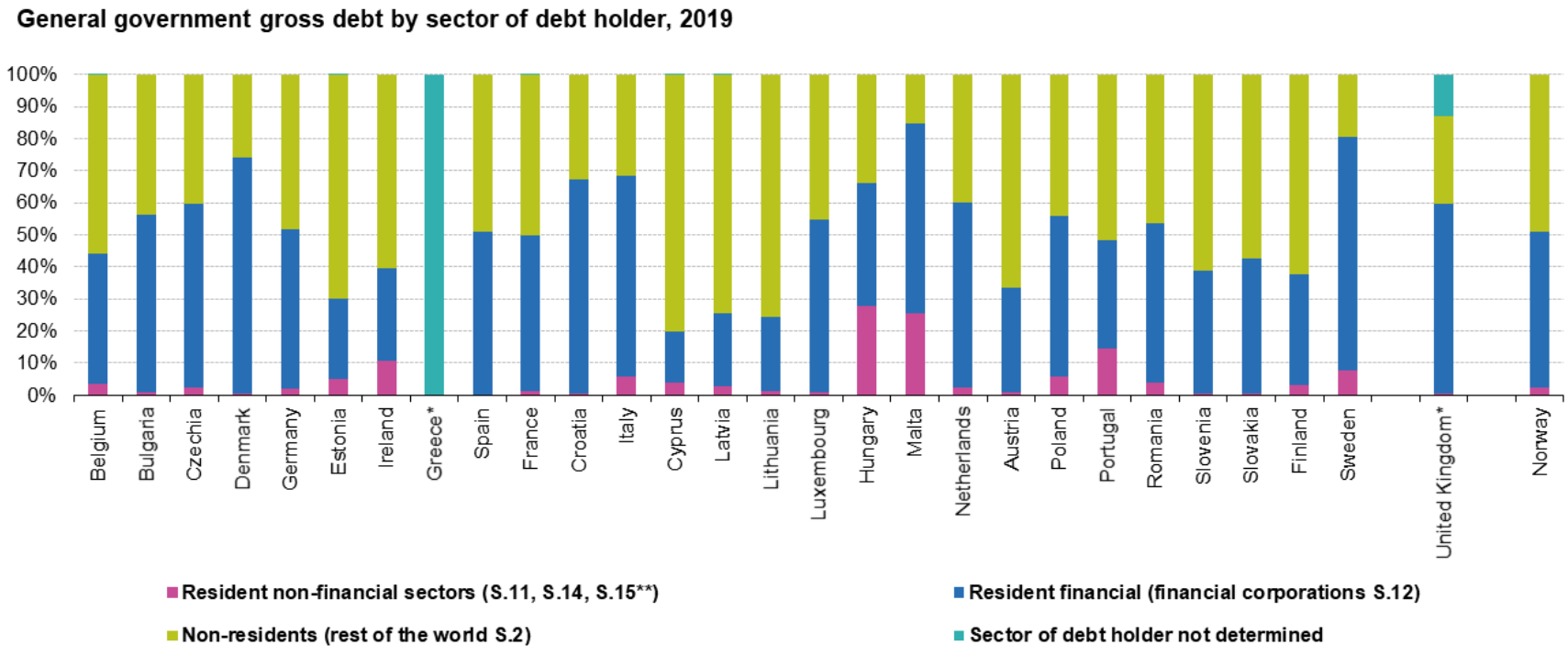
Appendix: Stability



Appendix: Model in extensive form



Appendix: Sovereign debt holders



* (partially) missing information ** non-financial corporations, households, non-profit institutions serving households

Source: Eurostat (online data code: gov_10dd_ggd, EU/ EA aggregates based on gov_10q_ggdebt)

eurostat

Appendix: Literature

Doom loop

- **Multiple equilibria**: Brunnermeier et al. (2016), Cooper and Nikolov (2018)
- **Amplification mechanism**: Acharya et al. (2014), Farhi and Tirole (2016), Leonello (2017), Abad (2020)

Banks' exposure as commitment device

- **Analytical theory**: Balloch (2016), Basu (2010), Bolton and Jeanne (2011), Brutti (2011), Erce (2012), Gennaioli et al. (2014), Mayer (2011)
- **Quantitative theory**: Sosa-Padilla (2018), Boz et al. (2014), Balke (2018), Engler and Grosse Steffen (2016), Mallucci (2014), Perez (2015), Thaler (2019)
- **Empirics**: Gennaioli et al. (2014), De Paoli et al. (2006), Sturzenegger and Zettelmeyer (2007), Acharya et al. (2014), Bolton and Jeanne (2011), Reinhart and Rogoff (2011b), Sosa-Padilla (2012) and Balteanu and Erce (2017)

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