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The “doom loop” and default incentives

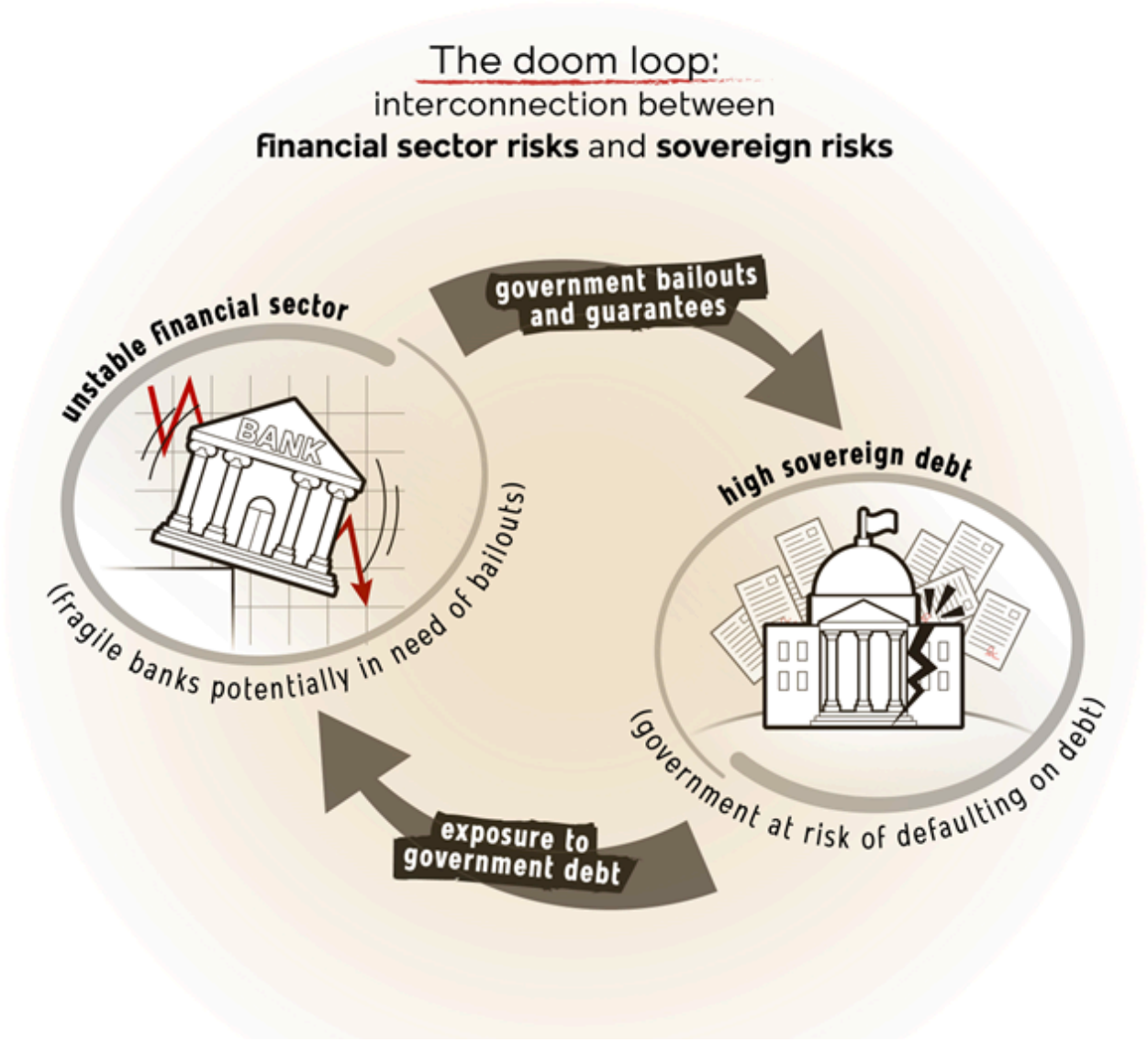
by Luis Rojas and Dominik Thaler[1]

The “doom loop” or “sovereign-bank nexus” has been identified as a key driver of the European debt crisis. It has been back in the spotlight recently, as the response to the public health crisis and the Russian invasion of Ukraine have caused sovereign debt levels to balloon. We explore the impact of default risk on policies aimed at breaking the doom loop. According to our model, factoring in default risk has major implications for the choice and calibration of such policies.

The sovereign-bank doom loop revisited

The doom loop describes the spillovers between fiscal sustainability risk and financial stability risk, arising from the government and financial sectors each being exposed to stress in the other sector. Specifically, if sovereign bonds lose value because the government’s creditworthiness is declining, the balance sheets of financial institutions suffer, because they hold large amounts of domestic government bonds. Weakened financial institutions, in turn, may force the government to bail out the financial system. Such bailouts entail expenses for the government, casting a further shadow over their finances. This vicious circle can exacerbate economic downturns (Acharya et al., 2014; Farhi and Tirole, 2018) or even trigger purely panic-driven crises (Brunnermeier et al., 2016, 2017; Cooper and Nikolov, 2018). This is why sovereign crises can develop suddenly – and can easily spiral out of control.

Figure 1: Doom loop



To break the doom loop, a common policy recommendation is to sever the link between the financial system, or banks for short, and the government. How can this be done? One way is to limit banks’ exposure to domestic sovereign debt – for example, through regulatory requirements. Another way is to stabilise bond prices near their fundamental value by providing a central bank backstop through bond purchases. Indeed, such policy proposals have emerged as lessons learned from the euro area debt crisis (e.g. Bénassy-Quéré et al., 2019).

However, this reasoning overlooks a critical aspect: how the identity of the government’s creditors shapes its default incentives and ultimately the sustainability of its debt. Lowering domestic banks’ exposure to sovereign debt can weaken a government’s incentives to avoid default in two ways (Bolton and Jeanne,

2011; Gennaioli et al., 2014). First, if domestic banks hold lower volumes of domestic sovereign bonds, a greater share needs to be held by foreigners. Governments are typically less inclined to repay foreign lenders than domestic ones, so this increases the likelihood of default. Second, if banks are shielded from a sovereign debt crisis, the fallout of a sovereign default will be less severe, which can also increase the likelihood of default. We refer to these two effects as the “temptation channel” and the “commitment channel” respectively. Through these channels, policies reducing the exposure of domestic banks to domestic sovereign debt may inadvertently undermine fiscal sustainability.

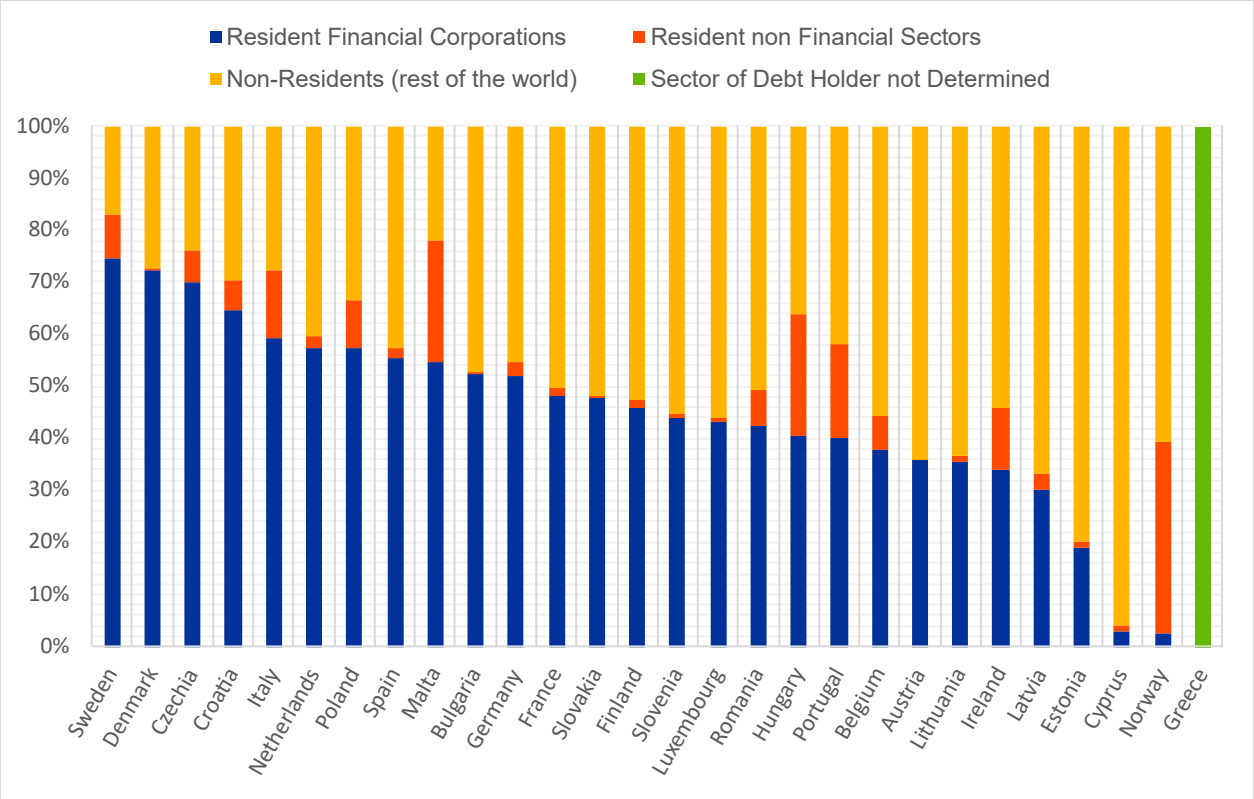
In Rojas and Thaler (2024), we explore this tension between the detrimental effects of banks’ exposure to domestic sovereign debt (the doom loop) and the beneficial effects related to governments’ default incentives (the temptation and the commitment channels). We use a simple three-period model of sovereign debt and banking that incorporates multiple equilibria – similar to the frameworks used in the aforementioned studies. We focus on the strategic nature of sovereign default. Our analysis reveals the unintended consequences of interventions aimed at breaking the doom loop and highlights unexpected benefits of non-interventionist approaches.

Unintended consequences of limiting banks’ exposure

Limiting banks’ holdings of domestic sovereign bonds deactivates the doom loop by breaking one link in the chain: domestic banks’ balance sheets are no longer negatively affected if the price of sovereign bonds falls, which prevents further financial stress.

However, it entails other risks and costs. In most countries, the domestic financial sector is a major holder of domestic sovereign bonds. As Figure 2 shows, in 2023 the domestic financial sector held more than 50% of sovereign debt in countries like Spain, Italy and Germany. So a limit would cause a significant shift of sovereign debt from domestic to foreign holders.

Figure 2: Composition of sovereign debt holders



Source: Eurostat.

This shift can affect the likelihood of default through the temptation and commitment channels. The lower the holdings by domestic banks, the greater the temptation for that government to default, as a higher fraction of debt is held by foreigners. Simultaneously, the less the domestic financial sector would suffer from a government default, the weaker that government’s implicit commitment to repay. So where is the problem, as long as the sovereign does not actually default? In fact, while limiting banks’ exposure can reduce the likelihood of a panic driven by the doom loop, the associated higher risk of fundamental default would increase risk premia and therefore public sector financing costs during normal times. These costs must be weighed against the benefits of eliminating the doom loop. If the risk of a doom loop is sufficiently low, why pay to insure against it?

Benefits of debt renationalisation during panics

During financial turmoil, governments often incur significant fiscal expenses – such as bailouts – which force the government to issue additional debt. If all of the new debt is bought by foreign investors, then the government’s temptation to default increases, fuelling the doom loop. Conversely, if domestic banks purchase the additional debt, the temptation to default does not rise and sovereign debt prices do not fall in response to a bailout – effectively disabling the doom loop.

In other words, debt renationalisation can act as a stabiliser in times of sovereign stress by preventing self-reinforcing fears of default. Both the European sovereign debt crisis and, more recently, the COVID-19 crisis featured debt renationalisation. While such shifts in investor composition are often seen as a problem, our theory suggests they may actually be beneficial – and should not be restricted by regulation.

Policies in a monetary union

At the EU level, two policy proposals have attracted particular attention: first a central bank backstop such as the ECB’s Transmission Protection Instrument (TPI) and, second, the European Safe Bonds (ESBies) proposal by Brunnermeier et al. (2016, 2017). By analysing the interplay between investor composition and government default, we uncover important lessons for both policy approaches.

The Transmission Protection Instrument

As yields on European debt climbed at the start of the COVID crisis, sparking fears of a return of the doom loop, the ECB launched the Transmission Protection Instrument (TPI). It enables the ECB “to make secondary market purchases of securities issued in jurisdictions experiencing a deterioration in financing conditions not warranted by country-specific fundamentals” (ECB press release, 21 July 2022). The doom loop produces just such non-fundamental variation in sovereign bond prices.

In our set-up, the TPI can indeed be an effective tool to avoid the panic-driven doom loop. Flooring sovereign debt prices limits the potential losses of financial institutions, avoiding large bailouts and consequently the spillover from fiscal to financial risk.

However, the policy must be carefully calibrated to avoid the risk of a new self-fulfilling panic. Imagine that all private investors sell off the bonds of one particular government. Bond prices drop until they reach the threshold at which the ECB intervenes by buying debt to stabilise the price. This insulates banks from any further losses in case of a subsequent default, reducing the government’s incentive to repay its debts through the commitment channel. And to the extent that part of the default losses faced by the ECB are shared across the Member States, it also reduces the repayment incentive through the temptation channel. Consequently, the perceived risk of a sovereign default increases. If the ECB buys the bonds at prices above the levels justified by the higher default risk due to a change in investor composition, the initial sell-off to the ECB is rational from an investor’s perspective. The sell-off thus becomes self-fulfilling.

Such a panic can be avoided if the ECB sets a floor for bond prices far enough below their fundamental value. However, the floor must not be too low, or it will fail to curb the original doom loop panic. Picking the right intervention threshold is therefore a delicate balancing act.

The risk-sharing arrangements among the individual national central banks and the rest of the Eurosystem play an important role in finding this balance. The less risk-sharing there is, the larger the range of desirable intervention thresholds for the bond price. In other words, less risk-sharing makes it easier to successfully calibrate the TPI.

European Safe Bonds

The proposal for European Safe Bonds (ESBies) consists in a macroprudential policy restricting the sovereign bond holdings of euro area banks to ESBies, which would be the senior tranche of a bundle of European bonds. This way banks would avoid large exposures to their own government and would have a “safer” asset. However, this policy could have two unwanted side effects.

First, as mentioned earlier, this could increase financing costs due to weakened incentives to repay. Second, while the doom loop at the national level would disappear, a new doom loop could emerge: sufficiently widespread panic about euro area countries’ ability to repay their debts could trigger a repricing of the senior tranche, destabilising the financial system Europe-wide. This, in turn, could force several countries to bail out their banks – creating a new, even larger doom loop at the European level.

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