A New Monetary and Fiscal Framework for the Euro Area

Speech mostly based on the paper “Who’s Afraid of Eurobonds?” by Bianchi, Melosi, and Rogantini Picco

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The views in this paper are solely those of the authors and should not be interpreted as reflecting the views of the Federal Reserve Bank of Chicago or any other person associated with the Federal Reserve System, or the Sveriges Riksbank.
Where Does the Euro Area Stand?

Several countries in the Euro area have now elevated debt

Debt-to-GDP ratio for selected Euro area countries. The figure reports the evolution of the debt-to-GDP ratio for France, Italy, Spain, Germany, Portugal, and the Euro area over the sample 1990-2020.
Where Does the Euro Area Stand?

Required fiscal adjustment will certainly be a drag on the recovery of high-debt countries...

Debt-to-GDP ratio for selected Euro area countries. The figure reports the evolution of the debt-to-GDP ratio for France, Italy, Spain, Germany, Portugal, and the Euro area over the sample 1990-2020.
Where Does the Euro Area Stand?

...but also likely to be a drag on the economic performance of the EA as a whole

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Where Does the Euro Area Stand?

- Low and flat term structure considerably constrains monetary policy

**Euro Area Yield Curve.** All bonds issued by EA central governments with 3 months through 10 years maturity. Source: ECB.
Low and flat term structure considerably constrains monetary policy

Limited space for the ECB to stabilize the EA economy in recession

Euro Area Yield Curve. All bonds issued by EA central governments with 3 months through 10 years maturity. Source: ECB.
Where Does the Euro Area Stand?

- Inflation rates close to zero

**Inflation for selected Euro area countries.** The figure reports the evolution of inflation for France, Italy, Spain, Germany, Portugal, and the Euro area over the sample 1960-2020.
Where Does the Euro Area Stand?

- Things quite different in the past → strict fiscal rules

Inflation for selected Euro area countries. The figure reports the evolution of inflation for France, Italy, Spain, Germany, Portugal, and the Euro area over the sample 1960-2020.
Where Does the Euro Area Stand?

- Limits of monetary policy + strict fiscal rules → No tools to stabilize high-debt economies

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Where Does the Euro Area Stand?

- Limits of monetary policy + strict fiscal rules → A more polarized political climate

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Challenges from low interest rates and the rising number of high-debt countries:

1. Ensure adequate macroeconomic stabilization to the EA economy

2. Mitigate political polarization by ensuring
   
   2.1 High-debt countries are not left with no stabilization tools

   2.2 Low-debt countries are not called responsible to repay debts they did not issue

The old M/F framework is likely to keep exacerbating these problems
1. Ensuring Adequate Macroeconomic Stabilization

In a low-interest rate environment, **inflation has to raise moderately in expansion**

1. When interest rates are low, ZLB constraint is frequently binding
2. Optimal monetary policy prescribes lower for longer interest rates (Krugman 1998 and Eggertsson and Woodford 200?)
3. By promising moderately higher inflation in expansion, this monetary strategy mitigates the recession
4. But this stabilization effects emerge only if the central bank can credibly promise to moderately increase inflation in recovery
In a low-interest rate environment, inflation has to raise moderately in expansion

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More asymmetric fiscal imbalances pose new challenges to EA policymakers (Bianchi, Melosi, and Rogantini Picco 2021)

- Low-debt countries have the mirage of having fiscal room to weather the next recession...
- ...but the lack of stabilization tools in high-debt countries takes a costly toll on low-debt countries’ economy too
- Besides, constrained monetary policy cannot mitigate the persistent headwinds to economic growth in low-debt countries due to fiscal adjustments in high debt countries
2. Fighting Economic Stagnation to Mitigate Political Polarization

The new M/F framework has to prioritize stable economic growth for every EA country

1. The required fiscal adjustment in high-debt country is likely to be a significant and persistent drag on their economic performance

2. High-debt country will also face deeper recessions due to the lack of stabilization tools

3. The EA policymakers have to alleviate the economic consequences of these fiscal adjustments for every EA country

4. Macroeconomic stabilization guaranteed to every country after common shocks
The Policy Proposal

- Eurobonds issued to combat recessions affecting all EA countries (e.g., the pandemic recession) with no provision of how and when they should be repaid

- New monetary framework to allow inflation to temporarily overshoot the ECB’s target after recessions

- Strict fiscal discipline at national levels
Bianchi, Melosi, and Rogantini Picco (2021) evaluate this policy proposal in a two-country model of a currency union calibrated to the EA economy.

- Market participants form beliefs about what fraction of Eurobonds are fiscally unfunded.
- The larger the unfunded share, the larger the inflation needed to stabilize Eurobonds.
- The new monetary framework plays a pivotal role in coordinating markets’ beliefs.
  - What is the inflation overshoot sought by the ECB in the post-pandemic recession?
  - The answer would pin down the share of fiscally unfunded Eurobonds in the model.
  - The central bank must be set clear boundaries about how much overshooting in inflation is really being contemplated to avoid the return of the Great Inflation of the 1970s.
Two-country model of a currency union with national debts and Eurobonds.

Exceptionally large contractionary shock hits when debt-to-GDP away from steady-state:

- Country 1 (Italy): annual debt-to-GDP 134.8%
- Country 2 (Germany): annual debt-to-GDP 61.9%

Case 1. Fiscal Discipline
- National fiscal authorities stabilize national debt (PF)
- Euro area fiscal authority stabilizes Eurobond debt (PF)
- Monetary authority is always active (AM)

Case 2. Emergency Budget Rules
- National fiscal authorities stabilize national debt (PF)
- Euro area fiscal authority does not stabilize Eurobond debt due to the shock (AF)
- Monetary authority accommodates Eurobond debt due to the shock (PM)
Calibration

Fiscal parameters

- Tax rates steady-state: EC, DG Taxation and Customs Union, 2018
- Tax rates persistence: EC, DG Taxation and Customs Union, over available time-span
- G and Z steady-state: quarterly average in 2019, Eurostat
- G and Z persistence: estimated using available time-span, Eurostat
- Debt response for fiscal instruments: high-country debt-to-GDP back to SS in 15 years

Recession induced through a one standard deviation risk-premium shock

- Persistence: Match average EABCN peak-to-trough
- Volatility: Match output volatility over 1999Q1-2019Q4
Use the model to investigate the following issues:

1. Does the EA need a new monetary and fiscal framework?

2. Macroeconomic stabilization under the current and proposed frameworks

3. The proposed framework who wins? and who loses?

4. Threats to central bank’s independence
Does the EA need a new monetary and fiscal framework?
When monetary policy is unconstrained, it can be used as a stabilisation tool.

Different scenarios. The figure compares the effects of a big contractionary shock for the two countries under different EA scenarios concerning monetary/fiscal policy and debt levels. Under fiscal discipline, all debt is stabilized with taxation. Under the EA emergency budget, the Eurobonds are stabilized following a fiscally-led rule. Under symmetric debt, both countries have the same level of low debt, close to 60%. Under asymmetric debt, high debt country has a debt of 134.8%.
Does the EA Need a New Monetary and Fiscal Framework?

- Initial stock of debt matters for recovery under fiscal discipline

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If ZLB binds, no stabilisation tools for high-debt countries under fiscal discipline

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This is very disruptive, also for low-debt countries because EA is heavily integrated.

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Does the EA Need a New Monetary and Fiscal Framework?

- Scope for Eurobonds as a stabilization tool when there is ZLB and high-debt!

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Macroeconomic stabilization under the current and proposed frameworks
Facing a Recession

- Fiscal discipline in response to shock costly for both countries

Euro area emergency budget. The figure compares the effects of a contractionary shock for the high debt country and low debt country under two scenarios. Under fiscal discipline, all debt is stabilized with taxation. Under the Euro area emergency budget, part of the debt is stabilized following a fiscally-led rule.
Facing a Recession

- Using the Euro area emergency budget mitigates recession in both countries.

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Fiscal discipline still maintained at national level → low volatility

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Facing a Recession

- Less fiscal adjustment needed at national level under emergency budget

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Facing a Recession

▶ Euro area emergency budget lowers national debt-to-GDP

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Facing a Recession

- Some increase in inflation

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Facing a Recession

- **Less time** spent at the zero lower bound

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The proposed framework who wins? and who loses?
### Volatility

<table>
<thead>
<tr>
<th>Volatilities</th>
<th>Fiscal Discipline</th>
<th>Emergency Budget</th>
<th>No ZLB constraint</th>
<th>Fiscal Discipline</th>
<th>Emergency Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euro Area Output</td>
<td>18.578</td>
<td>11.933</td>
<td>0.134</td>
<td>0.116</td>
<td></td>
</tr>
<tr>
<td>Euro Area Inflation</td>
<td>0.597</td>
<td>0.439</td>
<td>0.005</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>High-Debt Country Output</td>
<td>20.085</td>
<td>12.517</td>
<td>0.145</td>
<td>0.122</td>
<td></td>
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<tr>
<td>High-Debt Country Inflation</td>
<td>0.625</td>
<td>0.438</td>
<td>0.005</td>
<td>0.004</td>
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<tr>
<td>Low-Debt Country Output</td>
<td>17.083</td>
<td>11.352</td>
<td>0.122</td>
<td>0.110</td>
<td></td>
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<tr>
<td>Low-Debt Country Inflation</td>
<td>0.570</td>
<td>0.441</td>
<td>0.004</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>ZLB Frequency</td>
<td>0.236</td>
<td>0.152</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table:** Volatilities of Output and Inflation for 1000 simulations of 40 periods under Fiscal Discipline and Emergency Budget.
Threats to the independence of the central bank
Central Bank Independence

- The new framework requires fiscal rules at the national levels
- While the decision of how much Eurobonds to issue pertains to the fiscal authorities...
- How much inflation to create out of the stock of Eurobonds is decided by the central bank
  - We are not proposing the central bank to give a blank check to the government; that is, all Eurobonds that will be issued will be repaid through higher inflation
  - As the stock of Eurobonds grows, only a fraction will be fiscally unfunded – the fraction needed to boost inflation in expansion as the central bank sees fit
  - Evidence from U.S. data suggests that the central bank plays a critical role in coordinating beliefs about the fraction of federal debt that market participants expect to be fiscally unfunded (Bianchi, Faccini, and Melosi 2021)
U.S. Real Federal Transfer Payments and Real Interest Rate. Left graph: Federal transfers in the data and its time trend measured by a quadratic polynomial fitted on each of the four time periods marked by the vertical blue bars. Right plot: The negative of the change in the share of unfunded transfers (black line) and the real interest rate (the red dashed line). The former is computed by taking the 3-year moving average of the changes in the share of unfunded transfers predicted by the model (smoothed estimates). The latter is computed by taking the one-year moving average in the real rate of interest predicted by the model (smoothed estimates).
Fiscally Funded and Unfunded Transfers. Estimated Decomposition of U.S. Government Transfers (red solid line) into their funded and unfunded cumulative components. These components isolate the cumulative effects of the historical realizations of funded or unfunded shocks on transfers. These realizations are estimated using the Smoother Kalman filter. Parameters are set at their posterior mode.
The Fiscal Stimulus in the US (Bianchi, Faccini, and Melosi 2021)

The Role of Unfunded Debt in The Past Recession. Model’s forecast on hours worked, inflation, the Federal Funds rate, and the real interest rate, conditional on using filtered data up to 2020Q4 (dashed blue line). The counterfactual scenario is based on the assumption that all transfer shocks estimated during the Pandemic Recession (i.e., 2020Q1 through 2020Q4) are funded (dot-dashed red line). Shocks are estimated using the Kalman smoother. Model parameters are set at their posterior mode.
Deterioration of fiscal positions put EA countries at crossroads.

1. Follow fiscal discipline regardless of causes behind large fiscal imbalances
2. Reform monetary and fiscal framework.

Possible overhaul of current monetary and fiscal framework resting on Eurobonds.

1. Eurobonds provide EA with a novel stabilization tool to weather future EA recessions
2. Eurobonds allow to separate the need for short-run stabilization from the issue of long-run fiscal sustainability
3. Allows the monetary authority to end a prolonged period of low inflation, reinstating monetary policy as a leading stabilization tool for the EA economy
Appendix
What if the High-debt Country Abandons Fiscal Discipline?

▶ **Period of conflict** between high-debt country fiscal authority and monetary authority

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Fiscal Discipline</th>
<th>Emergency Budget</th>
<th>Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\phi_\pi$</td>
<td>Monetary response to $\pi_{EA}$</td>
<td>1.89</td>
<td>0.9</td>
<td>1.89</td>
</tr>
<tr>
<td>$\gamma_{J,IT}$</td>
<td>Fiscal response for IT</td>
<td>0.11</td>
<td>0.11</td>
<td>0.001</td>
</tr>
<tr>
<td>$\gamma_{J,DE}$</td>
<td>Fiscal response for DE</td>
<td>0.11</td>
<td>0.11</td>
<td>0.11</td>
</tr>
<tr>
<td>$\gamma_{J,EA}$</td>
<td>Fiscal response for EA</td>
<td>0.11</td>
<td>0.001</td>
<td>0.11</td>
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</tbody>
</table>

Table: Parameters of the monetary and fiscal rules under *Fiscal Discipline*, *Emergency Budget*, and *Conflict*.

▶ $J \in \{C, L, K, G, Z\}$
▶ $\gamma_J = 0.11$ is to bring IT debt-to-GDP to SS in 15 years under fiscal discipline
▶ $\phi_\pi = 1.89$ as estimated in Coenen, Straub, and Trabandt (2013)
High-debt Country Abandons Fiscal Discipline

- Prolonged period of high debt-to-GDP for high-debt country

Conflict. The figure compares the effects of a contractionary shock for the high debt country and the low debt country under three scenarios: fiscal discipline, emergency budget, and conflict with fiscally-led resolution. Shaded areas indicate periods of conflict between the high debt country fiscal authority and the EA monetary authority.
Inflationary pressure

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High-debt Country Abandons Fiscal Discipline

- Spiral of stagnation and debt accumulation

**Conflicts.** The figure compares the effects of a contractionary shock for the high debt country and the low debt country under three scenarios: fiscal discipline, emergency budget, and conflict with fiscally-led resolution. Shaded areas indicate periods of conflict between the high debt country fiscal authority and the EA monetary authority.
High-debt Country Abandons Fiscal Discipline

- Outcome for low debt country worsens

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