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Bank Profits and Bank Taxes in the EU

Morgan Maneely and Lev Ratnovski

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WORKING PAPER

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Bank Profits and Bank Taxes in the EU
Prepared by Morgan Maneely and Lev Ratnovski*

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ABSTRACT: Since 2022, EU banks have been enjoying historically high profits. The profits are mostly driven by the delayed pass-through of the rapid monetary policy tightening to deposit rates and as such are likely transitory. Against this background, almost half of EU countries have introduced new taxes on banks. This paper documents the significant diversity in the design of the new bank taxes—in terms of their tax base, rate, duration, and burden. The paper discusses several trade-offs in the design of bank taxes and argues that an alternative or complementary policy response to temporarily high bank profits is to lock them in as usable bank capital, for example through an increase in countercyclical capital buffer rates.

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WORKING PAPERS

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Prepared by Morgan Maneely and Lev Ratnovski¹

¹ The authors would like to thank Helge Berger, Pelin Berkmen, Oya Celasun, Romain Duval, Borja Garcia, Vincenzo Guzzo, Shafik Hebous, and seminar participants at the European Department of the IMF for useful comments. All errors are ours.

Contents

1. Introduction	4
2. Bank Profits – Recent Developments	5
3. Documenting New Bank Taxes in the EU	8
4. Some Trade-Offs in the Design of Bank Taxes	12
Taxes on liabilities/assets vs. profits/revenue/NII.....	12
Taxes on profits vs. net revenue vs. NII.....	13
Taxes on “excess” vs. regular profits, net revenue, and NII.....	14
Bank taxes vs. higher CCyB rates.....	15
Unremunerated reserve requirements as a tax on banks	16
Bank taxes, profitability, and capital.....	17
New vs. pre-existing bank taxes.....	17
5. Macroeconomic effects of bank taxes	19
6. Conclusions.....	20
References.....	21

Glossary

CCyB	Countercyclical Capital Buffer
CESEE	Central, Eastern and Southeastern Europe
CIT	Corporate Income Tax
DFR	Deposit Facility Rate
ECB	European Central Bank
EU	European Union
GDP	Gross Domestic Product
GFC	Global Financial Crisis
HHI	Herfindahl–Hirschman Index
IMF	International Monetary Fund
NFC	Non Financial Corporations
NII	Net Interest Income
NPLs	Non-Performing Loans
pp	Percentage Point
ROA	Return on Assets
RWA	Risk-Weighted Assets
S5	The Market Share of 5 Largest Institutions
URR	Unremunerated Reserve Requirements

1. Introduction

Since 2022, EU banks have enjoyed a significant bump-up in their profits as economies emerged from the pandemic, inflation rose following the invasion of Ukraine and monetary policy interest rates increased sharply. Against the background of large fiscal deficits and political economy pressures, the response of many European governments has been to introduce new taxes on banks. Some observers have argued that bank taxes may adversely affect financial stability, as banks that do not retain earnings and are valued by investors at a discount may find it challenging to accumulate buffers or raise new equity when needed ([Bochmann et al., 2023](#)).

This paper documents the new bank taxes in Europe and highlights the significant diversity in the design of the new bank taxes—in terms of their tax base, rate, duration, and burden. The paper discusses several trade-offs in the design of bank taxes and argues that an alternative or complementary policy response to temporarily high bank profits is to lock them in as usable bank capital through an increase in countercyclical capital buffers, where there is scope to do so.

The paper relates to the preexisting literature on the profitability issues for banks in Europe (see [Pagano et al., 2014](#), and [Langfield and Pagano, 2016](#), among others) and on bank taxation ([International Monetary Fund, 2010](#), among others.)

The analysis of this paper proceeds as follows. Section 2 discusses recent developments in bank profits in the EU countries. We argue that recent high bank profits are predominantly related to delayed pass-through of policy interest rates to deposit interest rates, and as such are likely transitory (see also [Chen et al., 2024](#), for an analysis of profitability covering a large sample EU and non-EU European banks). Section 3 documents new bank taxes across the EU countries, highlighting the heterogeneity in their design, as relates to the tax base, rate, duration, and burden. Section 4 discusses several trade-offs related to the design of bank taxes. Section 5 reviews the literature on the macroeconomic effects of bank taxes. Section 6 concludes.

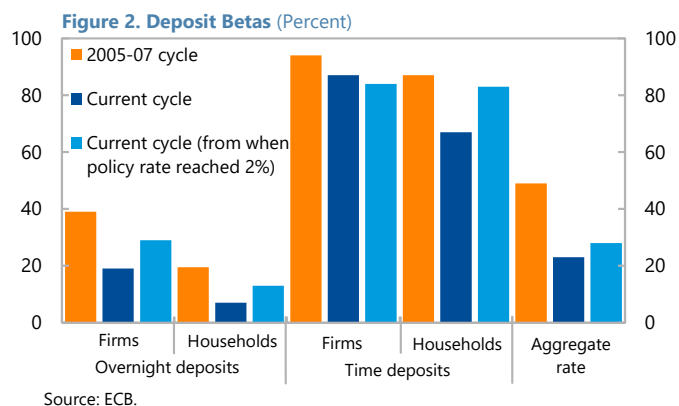
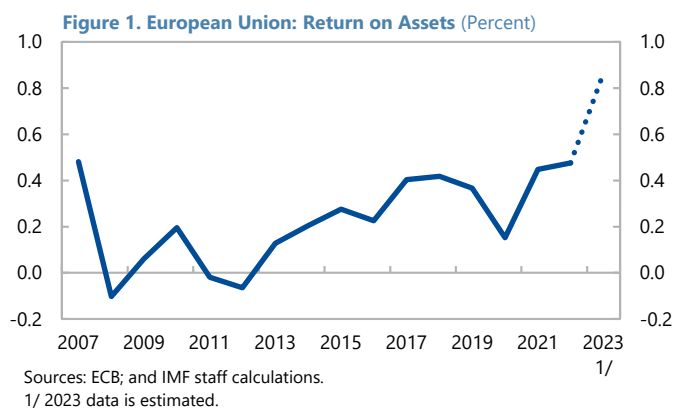
2. Bank Profits – Recent Developments

Since 2022, EU banks have been enjoying very high profits. Figure 1 depicts aggregate profits, as captured by bank ROA, for EU banks from 2007 to present. All numbers are annual actuals, except for the 2023 outcome that is obtained by extrapolating the first three quarters of 2023 to the full year. The Figure indicates that EU banks' ROA has been at most 0.4 percent since the GFC. Yet, post-pandemic, bank ROA has reached 0.5 percent in 2022 and is expected to approach 0.8 percent in 2023.¹

Much of these high profits are attributable to the low pass-through of policy interest rates to bank deposit rates so far. Figure 2, reproduced from analysis of [Adalid et al., 2023](#) for the euro area demonstrates that deposit betas – the ratio of the increase in deposit rates to the increase in policy rates – were around 25-30 percent during the 2022-23 ECB tightening cycle but at the 50 percent level during the previous (2005-07) tightening cycle.

Deposit financing represents about half of EU banks' liabilities. A back-of-the-envelope estimate based on 20 percent lower transmission of a 4 percentage points increase in the ECB's policy interest rates to deposit rates obtains a $(4 \times 0.2 \times 0.5) = 0.4$ percentage point benefit for the cost of funding of EU banks from low deposit betas. Absent this benefit, the ROA of European banks over 2022-23 would have been not 0.5-0.8 percent, but rather in the range of 0.1-0.4 percent: below or close to the 0.3 percent "normal times"-average over the 2015-2019 post-GFC and post-euro crisis period.

At the same time, recent IMF analysis ([Beyer et al., 2024](#)) suggests that the low deposit betas represent not a permanently low, but rather a *delayed* pass through of monetary policy to deposit rates. Indeed, the literature has long established that deposit market competition is sluggish ([De Graeve et al., 2007](#)). Such



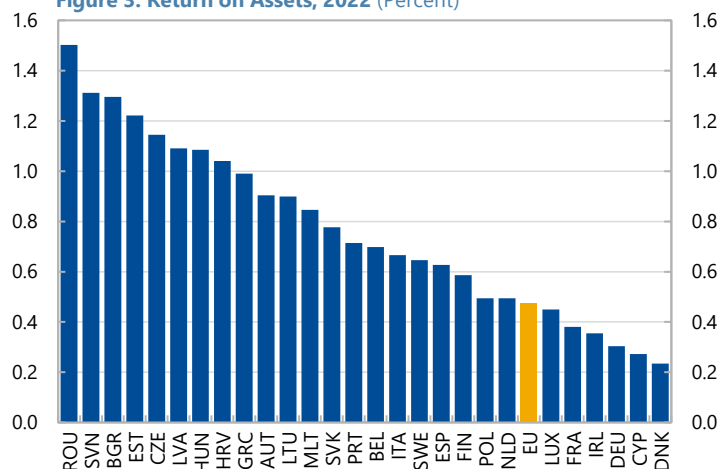
¹ [Chen et al \(2024\)](#) obtain somewhat higher bank profitability figures for 2023 based on the aggregation of unconsolidated banking data for banks in all European countries (including non-EU).

sluggishness can introduce a temporary wedge between policy and bank deposit rates, especially when monetary policy tightening is very rapid. As the deposit market ultimately adjusts, including by deposit-holders switching banks or reallocating their savings from sight to term deposits ([Messer and Niepmann, 2023](#)), deposit betas can catch up, leading to higher bank funding costs and a reversal of bank profitability. Indeed, [Chen et al. \(2024\)](#) using bank-level data on 2500 European banks estimate that by 2026 interest rate margins of European banks are likely to revert to close to 2015-2019 averages.

Additionally, EU banks may see NPL ratios increase. They are now enjoying record low NPL ratios: about 1.8 percent in aggregate as of 2023 Q3, as compared to 6.8 percent at the NPL ratios' peak in 2015. Low NPLs increase bank profits by allowing lower provisioning expenses. Looking ahead, NPLs might increase because of the lagged impact on bank credit quality of the pandemic (masked for some time due to policy support to the economy), the war-driven increase in energy and other input costs, and the monetary policy tightening. Indeed, NPLs tend to peak about three years after a shock ([Ari et al., 2021](#)). Should such dynamics transpire, higher NPLs would be another drag on European banks' profitability.

Interestingly, the profitability of EU banks is very heterogeneous across countries (Figure 3). For example, banks in the CESEE countries tend to have above-average profitability, while French and German banks have below-average profitability. Bank profitability in the EU has always been heterogeneous historically, but recent dispersion of bank profitability somewhat exceeds historical averages.

Figure 3. Return on Assets, 2022 (Percent)

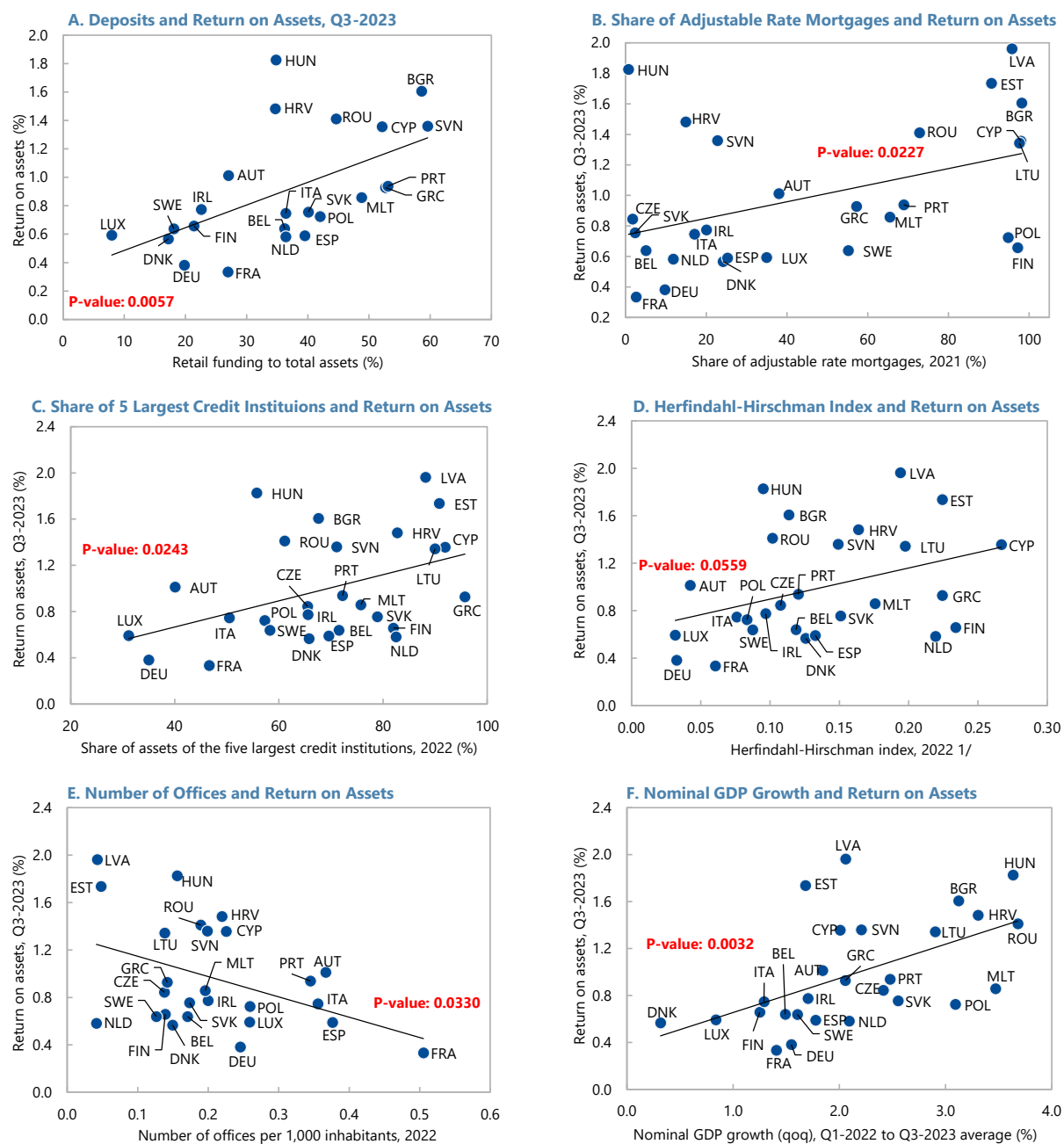


Sources: ECB; and IMF staff calculations.

Figure 4 uses country cross-sectional data on EU countries to illustrate several factors that may drive the heterogeneity in EU banks' profitability in 2023. While the bivariate associations established in Figure 4 may not be causal, they all have high statistical significance, and as such appear instructive.

Banks are more profitable in countries where: (4A) banks have more depository funding, consistent with the funding cost benefits from low deposit betas; (4B) there are more adjustable-rate and less fixed-rate mortgages, as fixed-rate mortgages originated during the pandemic times of low interest rates imply low interest income for banks going forward; (4C and 4D) the banking system is more concentrated, as captured by the HHI or the S5 measures; (4E) banks are more cost-efficient as captured by a lower number of bank offices (branches) per capita; (4F) the macroeconomic environment is more conducive for bank profitability, as captured by higher nominal GDP growth, reflecting the fact that both higher real growth and higher inflation may benefit banks.

Figure 4. Heterogeneity of European Bank Profitability



Sources: European Central Bank; and IMF staff calculations.

1/ The Herfindahl index refers to the concentration of banking business, obtained by summing the squares of the market shares of all the credit institutions in the banking sector.

3. Documenting New Bank Taxes in the EU

Against the background of temporarily high bank profits, almost half of EU countries (12 out of 27) have introduced new taxes on banks since 2023. In this section, we document these new taxes, highlighting substantial heterogeneity in their design. A key dimension of heterogeneity is the tax base. Candidate tax bases include bank liabilities or assets; bank profits or excess profits; bank NII or excess NII; or bank net revenue (a sum of NII and non-interest income) or excess net revenue. Other dimensions of heterogeneity are tax rates, tax duration, and the consequent overall tax on banks (that corresponds to the fiscal revenue for the government).

In documenting the burden of new bank taxes across EU countries, we express the tax (on a per-year basis) as the percentage of bank RWA, which arithmetically corresponds to the percentage point impact on bank capital ratios. This enables us to interpret the value of the tax as the *potential* “prudential” impact of bank taxes, under the strict assumption that the tax funds could have been allocated to bank capital instead. The caveat to this interpretation is that it is highly imperfect, as yet another counterfactual is one where banks could have paid out the amounts collected via taxes to bank shareholders through dividends or share repurchases. Still, we use this metrics as, independently of the validity of the non-distribution assumption, it offers a highly parsimonious way to compare tax rates.

The data on the value of the tax comes from several sources, tapped in the following order. First, we use data on expected tax revenue from the IMF’s country desks for EU countries. Second, if country desks do not immediately have data on expected tax revenue, we use data from news reports. Finally, if neither desk data nor news reports are available, we calculate potential tax revenue by applying information on tax base and tax rates to the ECB’s consolidated banking data.² Note that the data on the value of the tax represents country aggregates and may mask any differential impact of taxes on specific banks.

We now proceed to document bank tax arrangements for all EU countries that have introduced new bank taxes since 2023.

Three countries have introduced taxes on stocks: bank liabilities or bank assets.

- **Belgium** has increased its tax on certain bank liabilities to 0.17% from a pre-existing 0.13% (“liabilities to customers”: mostly deposits, representing about 2/3 of Belgian banks’ overall liabilities). With this increase, Belgium expects to collect annually €150M in tax revenue, corresponding to about **0.04% of RWA**. Going forward, Belgium intends to reach a predetermined budget amount (adjust tax rates annually to maintain constant tax revenue as bank liabilities change).

² See <https://data.ecb.europa.eu/methodology/consolidated-banking-data>.

- **The Netherlands** has increased bank tax to 0.06% on short-term bank liabilities (under 1 year duration) and 0.03% on long-term bank liabilities (over 1 year duration), from the pre-existing taxes of 0.04% and 0.02%, respectively. Liabilities in the form of deposits and equity are excluded from taxation. The Netherlands expects to collect annually €150M in tax revenue, corresponding to about **0.02% of RWA**.

A distinguishing feature of the new Belgian and Dutch taxes on banks is that they are very small in terms of fiscal revenue. Both Belgian and Dutch bank taxes are envisioned as permanent.

Moving on to taxes on assets:

- **Slovenia** has introduced a tax of 0.2% of bank assets. To ensure that the tax does not become overly burdensome for banks, it is capped at 30% of pre-tax bank profits (although this cap is currently not binding for the banking system in aggregate and would not have been binding in any of the past 10 years). The tax is envisioned as a 5-year tax, earmarked to finance reconstruction efforts after the major floods of August 2023. Slovenia expects to collect €100M annually in tax revenue, corresponding to **0.3% of RWA**.

Other countries have introduced taxes on flows: bank profits, NII, or net revenue. These taxes can be on the overall profits or revenue or on their “excess” measure.

In the Baltic states:

- **Estonia** has agreed with banks that they will pay out some profits as dividends, making them subject to CIT (undistributed profits are not taxed in Estonia) at rates of 20% in 2024 and 22% in 2025. The banks will pay out extraordinary dividends to ensure tax revenue of €120M over two years, corresponding to about **0.3% of RWA** annually. Note that the arrangement necessitates that banks pay out substantially more than the value of the tax: total payouts needed to support the value of the tax given the CIT rates would be $1 / 0.20 = 5$ times the value of the tax in the first year and $1 / 0.22 = 4.5$ times in the second year, implying payouts of 3% of RWA over two years.
- **Latvia** has made bank profits fully subject to CIT of 20% in 2024, whereas undistributed corporate profits are generally not taxed in Latvia. There is no clarity on whether this arrangement will become permanent. Additionally, Latvia has introduced for 2024 a one-off “Mortgage borrower protection fee” (MBPF) of 0.5% of the value of outstanding mortgages, earmarked for mortgage borrower support, which is payable unless a bank voluntarily reduces mortgage interest rate for 2024 by 50%. Latvia expects to collect €120M from bank CIT, corresponding to about **0.9 percent of RWA**, and additionally up to €90M from MBPF, corresponding to about **0.8 percent of RWA**.

- **Lithuania** has introduced for part of 2023 and 2024 a 60% tax (levy) on “excess” NII. Excess NII is defined as that exceeding the 2018-2022 average NII by 50%. This tax comes on top of the pre-existing arrangement where the bank CIT is 5pp higher than that for the NFC sector. Lithuania has collected from the excess NII tax €250M, corresponding to about **1.2% of RWA**.

In the EU CESEE countries:

- **Czech Republic** has introduced for 3 years, 2023-2025, a 60% tax on “excess” bank profits. The excess profits are defined as those exceeding the 2018-2021 average profits. Czech Republic expects to collect €600M annually, corresponding to about **0.5% of RWA**.
- **Hungary** has introduced a tax of 10% of net revenue (interest margin and fee revenue) of banks for 2022, declining to 8% in the first half of 2023. Thereafter and for 2024, the tax becomes progressive in bank revenue with the top marginal rate of 30%. For 2024, Hungary allows banks to deduct from the windfall tax 10 percent of the increase of a bank’s government bond portfolio, up to a maximum of 50% of a bank’s overall windfall tax liability. In the first year of the tax, Hungary collected €640M, corresponding to **0.6% of RWA**.
- **Romania** has introduced a 2% tax on bank net revenue (termed “turnover”) for 2024 and 2025, declining to 1% in 2026 and remaining permanent at that level. Romania expects to collect €160M in 2024, corresponding to about **0.2% of RWA**, and half of that in 2025.
- **Slovakia** has introduced a bank CIT surcharge: 30% in 2024, declining 5 percentage points per year to reach 15% in 2027, all on top of the standard CIT of 15%. Slovakia expects to collect from this surcharge €340M in 2024, corresponding to about **0.8% of RWA**, declining in later years with the declining surcharge rates.

In other EU countries:

- **Spain** has introduced a 4.8pp surtax on banks’ net revenue for 2023-2025, and the government has declared the intention of making the surtax permanent. This comes on top of bank CIT that is 5pp higher than the general CIT. The surtax will only cover the domestic operations of domestic banks, i.e., it will not cover the revenue of foreign banks in Spain nor the revenue of Spanish banks abroad, notably in the Latin American markets. The tax also will not apply to smaller banks. Spain collected €1.2B in surtax in 2023, corresponding to about **0.1% of RWA**.
- **Italy** has introduced for 2023 a one-off 40% tax on “excess” NII. Excess NII is defined as that exceeding the 2021 NII by over 10%. Italy is unique among the EU countries in that it has also introduced into the tax design optionality in respect to capital accumulation, permitting banks to allocate 2.5 times of the value of the tax to “non-distributable reserves” that form part of Tier 1 capital. Most Italian banks have made use of this optionality. Absent the optionality, Italy would have collected €3B, corresponding to about **0.25% of RWA**.

Table 1 summarizes the data on tax base, duration, and revenue, while also indicating the source of information on bank revenue. Note that, except from the low revenue in Belgium and the Netherlands, the expected tax revenue is clustered between 0.25% and 1% of bank RWA per year.

Table 1. Summary information on new bank taxes in the EU

Country	Tax base	Tax duration	Tax revenue, EUR million	Tax revenue, percent of RWA	Source for tax revenue
Belgium	Liabilities	Permanent	150	0.04	Desk/News
The Netherlands	Liabilities	Permanent	150	0.02	Desk/News
Slovenia	Assets	5 years	111	0.3	Own calculations
Estonia	Profits	2 years	60	0.3	Desk/News
Latvia	Profits	1 year	140	0.9	Desk/News
Lithuania	NII *	1 year and 7.5 months	250	1.2	Desk/News
Czech Republic	Profits *	3 years	600	0.5	Own calculations
Romania	Net Revenue	Permanent	160	0.2	Desk/News
Slovakia	Profits	3 years (decreasing)	340	0.8	Desk/News
Hungary	Net Revenue	2-3 years	640	0.6	Desk/News
Spain	Net Revenue *	3 years	1200	0.1	Own calculations
Italy **	NII *	1 year	3000	0.25	Desk/News

* = "excess"
** = option to allocate to capital

4. Some Trade-Offs in the Design of Bank Taxes

The wide heterogeneity in new bank tax arrangements in the EU raises questions on the relative merits of alternative designs of bank taxes. In this section we highlight several trade-offs, without drawing conclusions on the optimality of any type of tax and without ranking them against specific criteria.

Before turning to comparisons, it's worth noting that all new taxes introduced in an ad hoc manner in response to a surge in profits come with the downside of hampering the predictability of the business environment. This applies even in the case of very low, de-facto symbolic new taxes on banks, which may resolve political economy pressures but not raise material amounts of fiscal revenue while potentially hurting confidence in the stability of the tax system.

Taxes on liabilities/assets vs. profits/revenue/NII

Bank profits, net revenue, and NII are flows, whereas liabilities or assets are stock. The stock characteristics of a bank are usually inert. By contrast, bank profits and revenue are bound to fluctuate, especially as banking is a relatively cyclical industry. Consequently, a tax on bank liabilities or assets has advantages in that it offers fiscal revenue that is more stable over time. At the same time, a tax on liabilities or assets may be particularly burdensome for banks during downturns when bank profits and hence the capacity to pay the tax is lower. Consistent with this, most of recent temporary (windfall) taxes on banks have profits or revenue as their base, whereas taxes on liabilities or assets are longer-term or permanent.³

When the tax base is a flow, the tax base may be easier to manipulate. Banks may use discretion with respect to provisioning or the use of non-distributable reserves to shift the timing of profits, which they may be especially incentivized to do when the tax is temporary. Banking groups may adjust the internal pricing of intragroup lending to allocate profits, net revenue, and NII to jurisdictions with the lowest average tax rate.

One advantage of a tax on profits or revenue compared to a tax on liabilities or assets is that it would, all other factors held constant, incentivize the pass-through of policy rates to bank deposit rates. The mechanism is that when deciding on whether to compete more aggressively for bank deposits, banks trade off the cost of higher interest expense from offering more competitive deposit rates in the near-term against the benefit of having a larger depositor base in the future. Taxing profits (or revenue) implies that some of the costs of higher interest expense are externalized by banks as it lowers their taxes, leading

³ Note that taxes on bank liabilities have been in place in several EU countries for several years, including in the form of the Single Resolution Fund (SRF) fees. In particular, taxes on uninsured liabilities were proposed and adopted by several EU countries following the GFC as a way to incentivize banks to reduce their risk. However, evidence suggests that in response to such taxes, banks have shifted the risk to the asset sides, leaving their overall riskiness unchanged ([Devereux et al. 2019](#)).

banks to compete more for deposits at the margin. This effect might be particularly pronounced when the profits (or revenue) tax is temporary, as the absence of the tax in the future permits banks to fully internalize the benefits from a larger deposit base. A caveat is that these effects may be offset by the fact that banks could respond to higher taxes by increasing their margins, including by reducing interest paid on deposits (see Section 5). Thus, although a tax on profits or revenue may incentivize the pass-through of policy rates to bank deposit rates compared to other types of bank taxes, its net effects compared to no or lower bank taxes are ambiguous.

Taxes on profits vs. net revenue vs. NII

Bank profits represent, in first approximation, bank net revenue less operational and provisioning expenses. Like with CIT more generally, taxes on bank profits reduces (though does not eliminate) banks' incentives to invest in increasing operational cost-efficiency, because part of the effects of better cost-efficiency on bank profits is taxed away. At the same time, a tax on profits maintains a bank's incentives to make provisioning expenses, as these expenses reduce the tax base. Incentives to make provisions give banks scope to recognize and resolve NPLs in a timely manner, which supports the efficient allocation of credit in the economy.

Bank net revenue represents the sum of NII and net non-interest income. In principle, a tax on NII is most directly related to the effects of monetary policy tightening on bank profitability, including those that operate via low deposit betas and are at work today. At the same time, taxing NII but not non-interest income may over time give rise to substitution between bank income streams, as banks may start offering more competitive rates but charging higher fees, which would lead to a narrowing of the tax base.

Table 2 summarizes the considerations surrounding different choices of the tax base for bank taxes so far. In the Table, "XX" stands for the strong effect, and "X" for a milder effect. For example, taxes on assets or liabilities offer stable fiscal revenue, maintain bank incentives for cost-efficiency investments, and are difficult to evade. But these taxes may be particularly burdensome for banks in downturns when bank profits are low, and do not incentivize the pass through of policy rates to deposits. Taxes on profits, net revenue, or NII are not more burdensome for banks during downturns (especially the tax on profits as it deducts provisions from tax base); taxes on net revenue and NII maintain bank incentives for cost-efficiency investments; and all three of these taxes incentivize the pass-through of policy rates to deposits. The tax base for net revenue or NII taxes cannot be affected by provisioning and operational expense choices; and the tax on net revenue is immune from the substitution between interest and non-interest income streams.

Table 2. Trade-off in Choosing the Base for Bank Taxes

	Assets or Liabilities	Profits	Net revenue	NII
Stable fiscal revenue	XX			
Not destabilizing in downturns		XX	X	X
Cost-efficiency incentives	XX		XX	XX
Policy rate pass-through incentives		X	X	X
Difficult to evade (in the short-term)	XX		XX	X

XX: strong effect; X: milder effect.

Taxes on “excess” vs. regular profits, net revenue, and NII

Theoretically, taxing excess profits (economic rent – the return above the normal return to capital) may be an economically efficient approach to capital taxation, because it correctly accounts for the economic cost of capital while focusing on economic rents such as those related to the monopoly power or other sources of super-normal profits (Hebous et al., 2022). Moreover, in case of banks, taxing very high profits may be prudent as it may discourage risk-taking that often underlies unusually high profits in banking (cf. Meiselman et al., 2023). However, taxes on excess profits have some special features that limit their value in terms of generating stable and meaningful fiscal revenue. First, it may be difficult to define normal and excess profits in the banking context, because profits are highly cyclical and because the banking sector is undergoing secular changes that affect its structural profitability (see, e.g., Boot et al., 2021, for a discussion of the changes in the banking sector). Second, given their structurally low profitability, the profits of EU banks may frequently fall short of the normal rate of return of capital that is the economically justified threshold value of profits for the excess profits tax.⁴ In these circumstances, the tax rate will be zero (and moreover any losses compared to the normal rate of return may be carried forward, creating conditions where European banks are frequently not taxed at all, which may appear controversial from the political economy point of view. Third, since bank profits tend to be highly cyclical, also the fiscal revenue from excess profit taxes on banks will be cyclical – likely even more so than the fiscal revenue from regular profit taxes. This implies a degree of unpredictability of medium-term fiscal revenues from the tax on excess bank profits.

⁴ There is much debate about the normal (or required) rate of return on bank capital, with most estimates broadly in the range of 8 to 15 percent (see, e.g., Admati et al., 2010; Pennacchi & Santos, 2021; or Dagher et al., 2020), and the aggregate ROE of EU bank being below consistently 8% since the GFC (Enria, 2021).

Additionally, in practice so far, it may appear that the definition of “excess” profit that underlies the taxation of European banks is not necessarily tied to the concept of normal economic return on bank capital. For example, most countries that have introduced taxes on “excess” profits of banks have included the pandemic years into the calculation of historical averages used to define “normal” profits. As the pandemic-time bank profits were very low by historical standards, such a definition may reflect a desire to raise a targeted amount of revenue or address political economy considerations rather than an attempt to assess the economically justified normal return on bank capital.

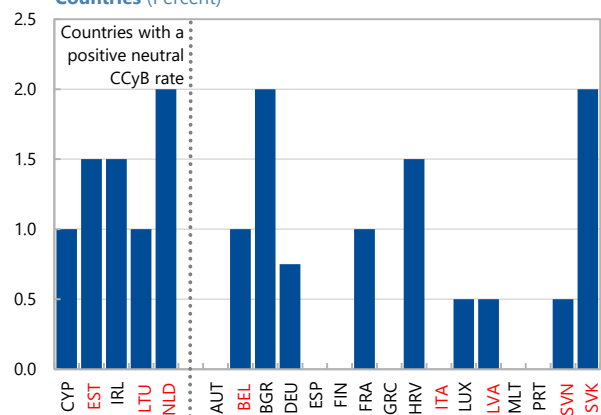
Bank taxes vs. higher CCyB rates

One concern about higher bank taxes relates to the fact that they draw on financial resources (retained earnings) that banks could have otherwise allocated to their capital. Of course, this counterfactual is partial, because banks could have also allocated their earnings to shareholder payouts, with no positive effect on capital. For this reason, any arrangements that include the optionality of allocating tax funds to bank capital are desirable insofar as they ensure that such capital remains locked in and unavailable for shareholder payouts in the near term.

In this sense, one may have concerns about the implementation of the option to allocate to non-available reserves (part of Tier 1 capital) a multiple of the value of the tax instead of paying the tax, as was implemented in Italy. Indeed, although non-available reserves cannot be disbursed to shareholders in the short term, other forms of bank capital (or simply new earnings) can be. Put differently, alternative forms of bank capital are largely fungible. Consequently, non-available reserves accumulated in one year enable banks to pay higher dividends to shareholders in later years while ending up with the same capital ratio as they would have had without such a scheme.

A tool available to lock in temporarily high bank profits is through an increase in CCyB rates for this stage of the financial cycle, including in the context of the transition to positive neutral CCyB (Miettinen and Nier, 2024). In circumstances where authorities assess that a tax on banks would not compromise the ability of banks to extend credit going forward, then neither would an increase in the CCyB rates if it is of a similar magnitude in terms of drawing on bank resources. In this context, Figure 5 illustrates that multiple countries that have introduced new taxes on banks still have zero or low CCyB rates, in

Figure 5. CCyB Rates in Participating Banking Union Countries (Percent)



Source: ECB.

Note: The bars represent rates notified by the national authorities to the ECB for 2024. Countries with bank taxes are shown in red.

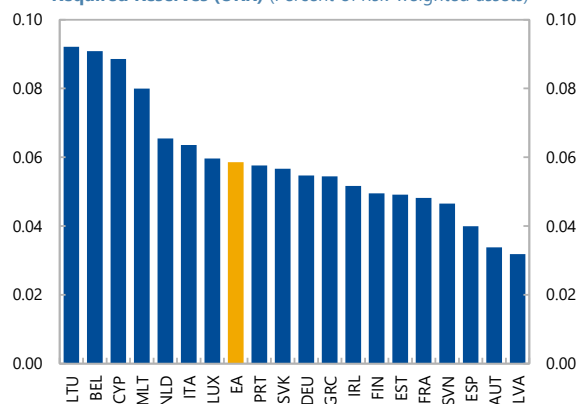
comparison to other countries. These circumstances appear to highlight a lost opportunity to allocate temporarily high bank profits to high usable capital of banks that would increase their resilience to shocks.⁵

Unremunerated reserve requirements as a tax on banks

Reserve requirements – a regulation that mandates some entities to hold specified amounts of funds on accounts with the central bank – are primarily a systemic liquidity management tool, and may also have prudential and monetary effects or purposes (IMF, 2022). In addition, when reserve requirements are unremunerated (URR), they become a de-facto tax on banks. However, whereas the revenue from bank taxes accrues to fiscal authorities, URR benefits the financial position of the Eurosystem (or other issuing central banks). The use of reserve requirements as a fiscal tool is a matter of controversy. On the one hand, such use may bring unintended effects for the central bank’s monetary and financial stability objectives, For example, XXX. On the other hand, the quasi-fiscal nature of URR might have benefits if and when a weakening in the financial position of the central bank exposes it to political pressure and harm its independence,⁶ and URR are used to strengthen the financial position of the central bank without having a material effect on financial stability.

In the euro area, reserve requirements are presently defined as 1% of deposits and other debt liabilities with the duration of under 2 years. This includes overnight deposits but excludes repo financing. The total required reserves in the euro area are relatively modest: around €170B, representing about 0.5% of bank assets and 1.5% of bank RWA. Then, increasing URR by 1pp when DFR is 4% will cost euro area banks €19B = 0.06% of RWA, a relatively small amount, with minor heterogeneity across euro area countries (see Figure 6).

Figure 6. Impact of a 1pp Increase in Unremunerated Required Reserves (URR) (Percent of risk-weighted assets)



Source: ECB; and IMF staff calculations.

While relatively financially inconsequential from the banks’ perspective, an increase in URR can help offset the temporary losses experienced by the Eurosystem at present. For example, the €19B revenue from a hypothetical increase in URR by 1 pp would more than offset the €8B loss recorded by the Eurosystem in 2023. At the same time, ad hoc increases in unremunerated reserve requirements (a

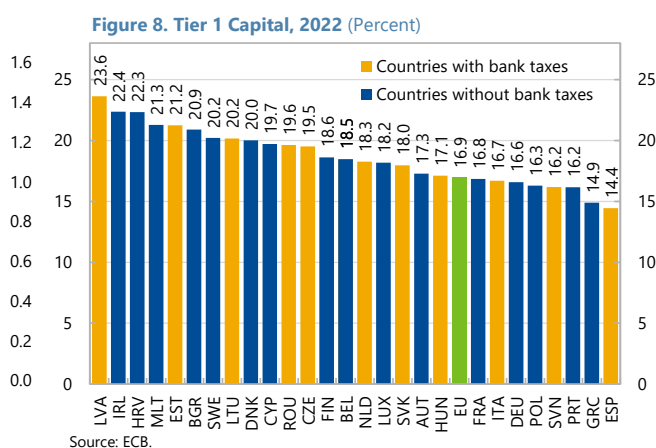
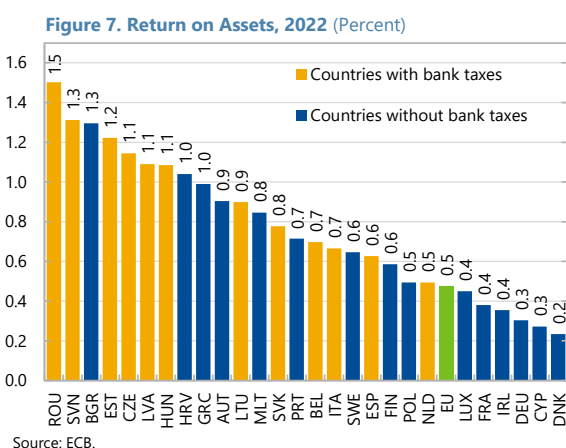
⁵ In addition to CCyB, EU countries may also activate Systemic Risk Buffer (SyRB), but these are usually sectoral in nature and serve to absorb uncertain present lending risks rather than to ensure the banks’ ability to lend in potential future adverse scenarios, as the CCyB is doing.

⁶ See Belhocine et al. (2023) for a discussion of the Eurosystem’s financial position and related policy issues.

liquidity management and monetary policy tool) in response to fluctuating central bank finances is a blunt instrument that doesn't differentiate between banks experiencing different levels of profitability. Like ad hoc new taxes, they may also raise concerns about the stability of regulations and the business environment for banks.

Bank taxes, profitability, and capital

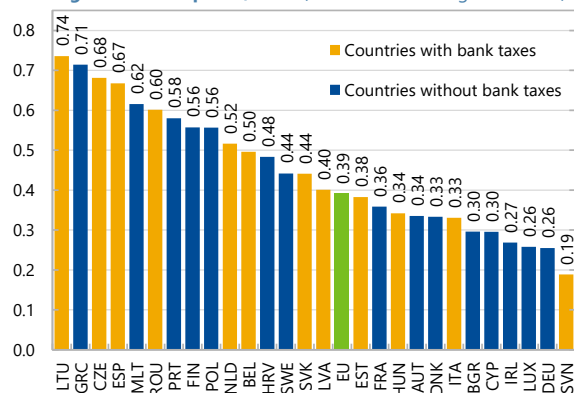
All countries that have introduced new bank taxes had above-average bank profitability, as captured by ROA (Figure 7). This suggests that, in principle, such taxes were adopted by countries where banks had, relative to other countries, more capacity to pay the taxes. At the same time, there are several countries that have introduced new bank taxes where banks had below-average bank capital (Figure 8), indicating that the authorities could have aimed to ensure that banks accumulate temporarily high profits into bank capital instead.



New vs. pre-existing bank taxes

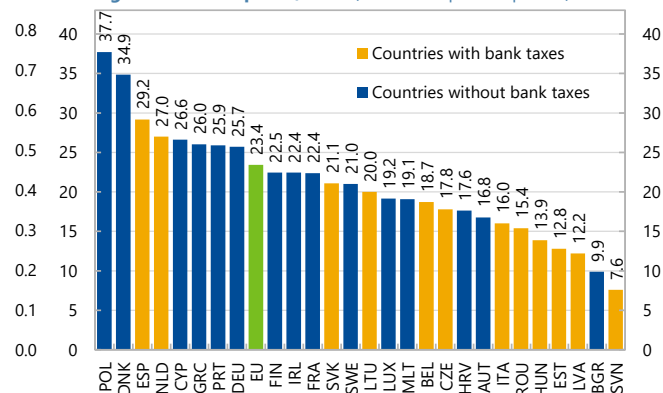
Figures 9 and 10 document the substantial heterogeneity of *pre-existing* bank taxes as a share of RWA and as a share of bank profits across the EU countries. Such heterogeneity may contribute to an uneven playing field for banks from different countries in the context of the single market and the incomplete banking union.

Figure 9. Tax Expense, 2022 (Percent of risk weighted assets)



Source: ECB.

Figure 10. Tax Expense, 2022 (Percent of pre-tax profits)



Source: ECB.

Hypothetically, new bank taxes could have represented an opportunity to even out the playing field in bank taxation across countries. In this respect, the picture is mixed. On the one hand, many countries with new bank taxes already had above-average pre-existing bank taxes as captured by the share of RWA (Figure 9). On the other hand, many countries with new bank taxes had above-average bank profitability, implying that their pre-existing taxes as a share of bank profits were below-average (Figure 10). On the latter metric, it appears that the new taxes on banks, at least in part, may have temporarily evened out the revenues raised from bank taxes across the EU.

5. Macroeconomic effects of bank taxes

The literature identifies several effects of higher bank taxes on bank activity and the macroeconomy. As a first-order effect, loan rates increase and loan volumes decline, as confirmed by evidence from multiple European and other countries ([Buch et al., 2016](#); [C  lerier et al., 2017](#); [Dom  nech et al., 2023](#)) as well as in DSGE models ([Borsuk et al., 2023](#)). Lower lending, in turn, induces a decrease in corporate investment ([Sobiech et al., 2021](#)) and suppresses banks' financial market activities including interbank lending and market-making ([Hryckiewicz et al., 2018](#); [C  lerier et al., 2020](#)). The effects of bank taxes on bank risk-taking are ambiguous: some studies suggest that taxes may reduce risk-taking ([Belucci et al., 2023](#)) while others present evidence for increased bank risk-taking ([Devereux et al., 2019](#); [Borsuk et al., 2023](#)).

Bank taxes may also result in lower interest rates and higher fees for depositors ([Banerji et al., 2018](#)). In fact, the cost of bank taxes may be particularly likely to fall on households as their demand for bank services is less price-sensitive compared to other bank customers ([Capelle-Blancard and Havrylchyk, 2017](#)). These effects may be especially pronounced in concentrated markets, where banks have more ability to pass on higher costs to customers ([Kogler, 2018](#)). However, in cases when taxes are imposed specifically on bank liabilities excluding deposits, deposit rates may on the contrary increase, as deposit funding becomes relatively more attractive for banks ([Buch et al., 2016](#)).

Higher bank taxes also penalize bank shareholders, and tend to induce a negative stock market response, leading to a loss of banks' market value ([Chronopoulos et al., 2019](#)). These effects need to be considered carefully in the EU, where price-to-book ratios are already low and may impede banks' access to equity funding markets.

Finally, there is evidence of cross-border spillovers in the economic effects of bank taxation. Specifically, as new taxes weaken the competitive position of affected banks, other banks not directly affected by taxes can use the weakness of competition to increase own margins ([Haskamp, 2017](#)). While the economic magnitude of this effect is uncertain, the presence of such spillovers may support a more coordinated approach to bank taxation in the context of the Banking Union.

6. Conclusions

This paper has documented recent trends in the profits of EU banks and the new bank taxes in the EU, discussed of several trade-offs in the design of bank taxes, and reviewed the literature on the potential macroeconomic effects of bank taxes.

This paper did not attempt to arrive at welfare- or economic efficiency-related conclusions relating to the optimal extent of bank taxation as these remain outside the scope of this analysis. Still, several considerations need to be kept in mind in the overall approach to bank taxation. First, new taxes introduced in an ad hoc manner in response to a surge in profits may be undesirable in that they may hamper the predictability of the business environment. Second, in countries where CCyB rates are low, bank taxes can be substituted or complemented by raising CCyB rates to lock in unusual bank profits into releasable capital buffers. Finally, and importantly, in designing bank taxes, governments need to consider the effects of bank taxes on monetary policy stance and transmission, as well as on financial stability (see [European Central Bank, 2022](#), and references therein).

In terms of the trade-offs in the design of bank taxes, our analysis has highlighted, for example, that taxes on assets or liabilities offer relatively stable fiscal revenue, maintain bank incentives for cost-efficiency investments, and are difficult to evade. At the same time, taxes on profits, net revenue, or NII are less burdensome for banks during downturns (especially the tax on profits as it deducts loan-loss provisions from tax base); taxes on net revenue and NII maintain bank incentives for cost-efficiency investments; and all three of these taxes may incentivize the pass-through of policy rates to deposits, all else being equal.

References

- Adalid, Ramón, Max Lampe, and Silvia Scopel. 2024. "Monetary dynamics during the tightening cycle." ECB Economic Bulletin 8, European Central Bank, January.
- Admati, Anat R., Peter M. DeMarzo, Martin Hellwig, and Paul Pfleiderer. 2010. "Fallacies, irrelevant facts, and myths in the discussion of capital regulation: Why bank equity is not expensive." Preprints of the Max Planck Institute for Research on Collective Goods 2010/42, September.
- Ari, Anil, Sophia Chen, and Lev Ratnovski. 2021. "The dynamics of non-performing loans during banking crises: A new database with post-COVID-19 implications." *Journal of Banking & Finance*, 133: 106140, December.
- Banerji, Sanjay, Dimitris K. Chronopoulos, Anna L. Sobiech, and John O.S. Wilson. 2018. "Taxation and Financial Intermediation: Evidence from a Quasi-Natural Experiment." Social Science Research Network, October.
- Belhocine, Nazim, Ashok Vir Bhatia, and Jan Frie. 2023. "Raising Rates with a Large Balance Sheet: The Eurosystem's Net Income and its Fiscal Implications." IMF Working Paper 2023/145, July.
- Bellucci, Andrea, Serena Fatica., Wouter Heynderickx, Virmantas Kvedaras, and Andrea Pagano. 2023. "Liability taxes, risk, and the cost of banking crises." *Journal of Corporate Finance* 79: 102387, April.
- Beyer, Robert C. M., Ruo Chen, Florian Misch, Claire Li, Ezgi O. Ozturk, and Lev Ratnovski. 2024. "Monetary Policy Pass-Through to Interest Rates: Stylized Facts from 30 European Countries." IMF Working Paper 2024/009, January.
- Bochmann, Paul, Maciej Grodzicki, Heinrich Kick, Benjamin Klaus, and Cosimo Pancaro. 2023. "Euro area bank fundamentals, valuations and cost of equity." *Financial Stability Review*, European Central Bank, November.
- Boot, Arnoud, Peter Hoffmann, Luc Laeven, and Lev Ratnovski. 2021. "Fintech: what's old, what's new?" *Journal of Financial Stability*, 53: 100836, April.
- Borsuk, Marcin, Oskar Kowalewski, and Jianping Qi. 2023. "The dark side of bank taxes." *Journal of Banking and Finance*, 157: 107041, December.
- Buch, Claudia M., Björn Hilberg, and Lena Tonzer. 2016. "Taxing banks: An evaluation of the German bank levy." *Journal of Banking and Finance*, 72: 52–66, November.
- Capelle-Blancard, Gunther, and Olena Havrylchyk. 2017. "Incidence of bank levy and bank market power." *Review of Finance* 21 (3): 1023-1046, January.
- Chen, Ruo, Vincenzo Guzzo, Fazurin Jamaludin, Adil Mohommad, Ritong Qu, and Yueshu Zhao. "Bank Profitability in Europe: Not Here to Stay" IMF Working Paper, forthcoming.
- Chronopoulos, Dimitris K., Anna Sobiech, and John O.S. Wilson. 2019. "The Australian bank levy: Do shareholders pay?" *Finance Research Letters*, 28: 412–415, March.
- Célérier, Claire, Thomas K. Kick, and Steven Ongena. 2017. "Changes in the cost of bank equity and the supply of bank credit." CEPR Discussion Paper No. DP12172, July.
- Célérier, Claire, Thomas K. Kick, and Steven Ongena. 2020. "Taxing Bank Leverage: The Effects on Bank Portfolio Allocation." Social Science Research Network, September.

- Dagher, Jihad, Giovanni Dell’Ariccia, Luc Laeven, Lev Ratnovski, and Hui Tong. 2020. “Bank Capital: A Seawall Approach.” *International Journal of Central Banking*, March.
- De Graeve, Ferre, Olivier De Jonghe, and Rudi Vander Venet. 2007. “Competition, transmission and bank pricing policies: Evidence from Belgian loan and deposit markets.” *Journal of Banking and Finance*, 31(1): 259–278, January.
- Devereux, Michael, Niels Johannesen, John Vella. 2019. “Can Taxes Tame the Banks? Evidence from the European Bank Levies.” *The Economic Journal*, 129(624): 3058–3091, November.
- Doménech, Rafael, José Emilio Boscá Mares, Javier Ferri, Juan F. Rubio-Ramírez. 2023. “Macroeconomic Effects of Taxes on Banking.” *Social Science Research Network*.
- Enria, Andrea. 2021. “The many roads to return on equity and the profitability challenge facing euro area banks.” Presented at the 26th Annual Financials CEO Conference, Frankfurt, Germany, September 22.
- European Central Bank. 2022. “OPINION OF THE EUROPEAN CENTRAL BANK of 2 November 2022 on the Imposition of Temporary Levies on Certain Credit Institutions.” *European Central Bank*, November 2.
- Haskamp, Ulrich. 2017. “Spillovers of banking regulation: the effect of the German bank levy on the lending rates of regional banks and their local competitors.” *International Economics and Economic Policy*, 15(2): 449–466, December.
- Hebous, Shafik, Dinar Prihardini, and Nate Vernon. 2022. “Excess profit Taxes: Historical perspective and contemporary relevance.” *IMF Working Paper 2022/187*, September.
- Hryckiewicz, Aneta, Piotr Mielus, Karolina Puławska, and Malgorzata Snarska. 2018. “Does a bank levy increase frictions on the interbank market?” *Social Science Research Network*, May.
- International Monetary Fund. 2010. “Financial sector taxation: The IMF’s report to the G-20 and background material.” *International Monetary Fund*, September.
- International Monetary Fund. 2022. “Monetary and Capital Markets Department Technical Assistance Handbook: Reserve Requirements.” *International Monetary Fund*, July.
- Kogler, Michael. 2018. “On the incidence of bank levies: theory and evidence.” *International Tax and Public Finance*, 26(4): 677–718, November.
- Langfield, Sam, and Marco Pagano. 2016. “Bank bias in Europe: effects on systemic risk and growth.” *Economic Policy*, 31(85), 51–106, January.
- Meiselman, Ben S., Stefan Nagel, and Amiyatosh Purnanandam. 2023. “Judging banks’ risk by the profits they report.” *National Bureau of Economic Research*: 31635, August.
- Messer, Todd, and Friederike Niepmann. 2023. “What determines passthrough of policy rates to deposit rates in the euro area?” *FEDS Notes*, July.
- Miettinen, Paavo and Erlend Nier. 2024. “Rethinking Macroprudential Capital Buffers.” *IMF MCM Departmental Paper*.
- Pagano, Marco, Sam Langfield, Viral Acharya, Arnoud Boot, Markus K. Brunnermeier, Claudia Buch, Martin F. Hellwig, André Sapir, and Ieke Van Den. 2014. “Is Europe overbanked?” *Social Science Research Network*, June.
- Pennacchi, George G., and João A.C. Santos. 2021. “Why do banks target ROE?” *Journal of Financial Stability*, 54: 100856, June.

Sobiech, Anna L., Dimitris K. Chronopoulos, and John O.S. Wilson. 2021. "The real effects of bank taxation: Evidence for corporate financing and investment." *Journal of Corporate Finance*, 69: 101989, August.



PUBLICATIONS