

Profitability of Austrian banks' domestic business from 1995 to 2016: driving forces, current challenges and future opportunities

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This study analyzes how Austrian banks generated profits in their domestic business over the last two decades, i.e. from 1995 to 2016, while paying close attention to the heterogeneity in business models. We focus on the period after the global financial crisis (GFC) and the challenges it entails, in order to highlight the most important trends and their potential repercussions on the medium-term sustainability of banks' profits and consequently Austria's financial stability. We find that banks and their income grew strongly before the GFC at the expense of their margins, whereas this trend went into reverse after the crisis hit. Operating expenses increased steadily until recently, when cuts in staff-related expenses started to show effects. Higher credit risk costs were another consequence of the GFC, but the sector-wide ratio of nonperforming loans never surpassed 5%. All of these developments resulted in strong volatility in the return on (average) assets (ROA) after the onset of the GFC and – supported by historically low loan loss provisioning – a recent return to pre-crisis levels. Overall, smaller local banks generated above-average ROAs. Large banks underperformed, while large regional banks performed in line with the banking sector average. In the near future, improvements in operating profitability in a highly competitive market are likely to depend on banks' pricing power and their ability to use the currently calmer environment to address structural cost issues, to tap new sources of income whose pricing adequately reflects risks and to ready themselves for the digitalization of their business.

JEL classification: G01, G21

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The sustainable profitability of banks is an important building block in strengthening a financial system's stability, as it allows banks to fulfill their important role as financial intermediaries in the economy and to build up loss-absorbing capacity for future downturns. In this study, we analyze the unconsolidated profitability of Austrian banks based on their domestic business (which includes direct cross-border activities) from

1995 to 2016. This period includes both the global financial crisis (GFC)² and the current low interest rate environment. We place special emphasis on how different business models fared.³ The paper is structured as follows: in section 1, we start by characterizing banks' business models. Section 2 then analyzes operating income in detail, focusing in particular on interest and non-interest income. Section 3 is dedicated

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² We use the term GFC for the bank crisis that followed the collapse of the U.S. investment bank Lehman Brothers in September 2008.

³ Given our long time series of 22 years and the Austrian banking system's fragmentation, the bank sample is highly variable over time. Amounting to over 1,000 in 1995, the number of banks was still high in 2016 (at more than 600). It should also be noted that due to the lack of consolidation in unconsolidated figures, profits in decentralized sectors are subject to an upward bias. Together with the study undertaken by Kavan et al. (2016), which looked at Austrian banking subsidiaries in Central, Eastern and Southeastern Europe, this study complements the picture regarding the history of and the medium-term outlook for Austrian banks' profitability.

to operating expenses, while section 4 takes a close look at credit risk costs. Section 5 provides a final overview, where we use waterfall charts for revenues and expenses and compute returns on assets, before section 6 summarizes the findings of this study.

1 The characterization of distinct business models

In order to gain further insight when analyzing the profitability of Austrian banks' domestic business, we first assign each bank to one of seven business models, which we characterize as follows:⁴

- large banks that typically operate nationwide;
- large regional banks that typically operate in a single larger region or federal province (Bundesland);
- smaller local banks that typically operate in a single smaller region or town;
- private banks offering specialized services, typically to wealthier individuals (e.g. wealth management);
- building and loan associations (Bausparkassen) that focus on savings and mortgage products;
- special purpose banks that offer a highly heterogeneous set of services (e.g. asset management, investments, private pensions, car financing); and
- other joint stock banks.

These general business model characteristics translate into differences in terms of the banks' size and their profit generation. As of 2016, large banks and large regional banks together accounted for nearly two-thirds of all unconsolidated total assets of the Austrian banking sector (with nearly

one-third each). Smaller local banks represent by far the highest number of banks in Austria, but combined hold only around 15% of the sector's total assets. The other business models are less significant in Austria, as the respective banks hold only between 2% and 4% each of the Austrian banking sector's total assets. When we analyze the structure of each business model's profit and loss statement, the following differences become evident: while large regional banks typically reflect the average structure of the Austrian banking sector, large banks derive an above-average share of their income from investments and allocate a high share of their expenses to risk provisions. Both smaller local banks and building and loan associations are highly dependent on net interest income. However, the former stand out as having a higher share of personnel expenses, while the latter spend more on administration. Private banks tend to earn most of their income from fees and commissions and record an above-average share of personnel expenses. Special purpose banks are characterized by a high share of "other" income (mostly from leasing) and by a low share of net interest income.

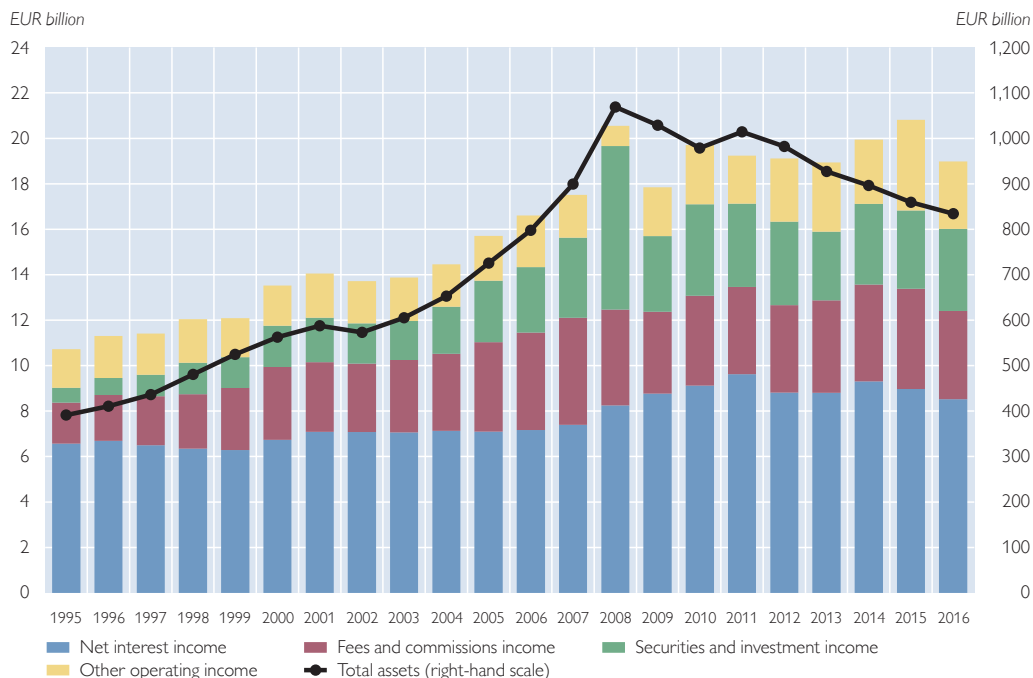
2 Operating income relies strongly on net interest income, while income from fees and commissions, securities and investments gained in importance

Before the GFC, the operating income of Austrian banks nearly doubled from 1995 to 2008, but its rise was not as strong as the balance sheet expansion (see chart 1), which points to a compression of the operating income

⁴ We did not analyze in detail Austrian credit institutions that are guarantee banks, bad banks, foreign branches located in Austria or banks that are otherwise not involved in standard banking operations.

Chart 1

Breakdown of Austrian banks' domestic operating income



Source: OeNB.

margin.⁵ During this benign phase of the financial cycle, net interest income was more or less flat (especially in the early 2000s), while fees and commissions income more than doubled, and income from securities and investments increased substantially (more than five-fold between 1995 and 2007, before doubling in 2008), as some banks and bank customers expanded their capital market activities.

After the onset of the GFC, several of these trends went into reverse. From end-2008 to end-2016, the volume of total assets dropped by one-fifth, while operating income declined by less than one-tenth. Net interest income improved in the immediate aftermath of the crisis before being negatively affected by the low interest rate environment. Securities and investment income remained close to its 2007 pre-crisis level. Fees and

commissions income barely recovered from the impact of the GFC, dropping by one-quarter between 2007 and 2009. The following subsections analyze these developments in more depth.

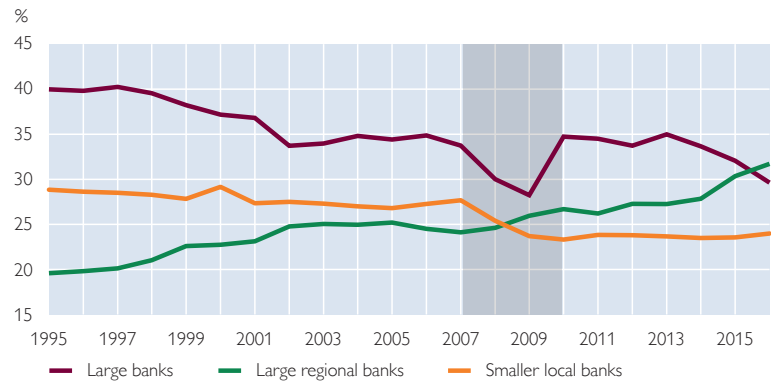
2.1 Net interest income is the most important domestic income source and was affected by distinct pre- and post-GFC price and volume effects

Net interest income (NII) is by far the most important source of domestic income for Austrian banks. However, the above-described developments caused the share of NII in operating income to drop from 61% to 40% between 1995 and 2008, before recovering only slightly thereafter (2016: 45%, as can be inferred from chart 1). This substantial relative decrease is attributable to clear endogenous trends in both

⁵ See Gruber, Kavan and Stockert (2017) for further details regarding an adapted DuPont analysis of banking profitability, including the concept of the operating income margin.

Chart 2

Business models' share in net interest income



Source: OeNB.

Note: The figures for 2008 and 2009 are influenced by the temporary reporting of a large investment bank (classified as a special purpose bank, not shown here).

pricing (i.e. total spread/margin) and volumes of interest-earning assets underlying the NII, as well as to the dynamic rise in non-interest income before the GFC. Subsections 2.2 and 2.3 will explain the latter, but we will first focus on the drivers of banks' NII.

As a starting point, it is worth noting that three types of banks have dominated the Austrian banking sector's unconsolidated NII, accounting for an aggregate share of more than 80% over the analyzed time span. Their relative importance varied over time, however. From 1995 to 2016, large and smaller local banks both saw their respective shares in total NII drop from 40% and 29% to 30% and 24%, while large regional banks rose to the top spot, as their share in total NII expanded from 20% to 32% (see chart 2). To analyze these shifts in more detail, we dissect the changes in the NII for these three business models "into a volume and a price effect, using the total spread (i.e. a margin/price) on interest-earning assets and interest-bearing liabilities (i.e. volumes) according to a formula proposed by the ECB. This formula defines the total spread as the combination of a spread – i.e. interest revenue per interest-earning asset (IEA) minus interest expense per interest-bearing liability (IBL) – and an endowment effect, which 'measures the gain from the fact that some part of IEA does not have an interest cost. [...] This calculation disregards the cost of equity capital.'"⁶

The left-hand panel of chart 3 highlights the pricing side: the total spread of Austrian banks' domestic business fell by half before the crisis, from 1.8% in 1995 to 0.9% in 2008, before recov-

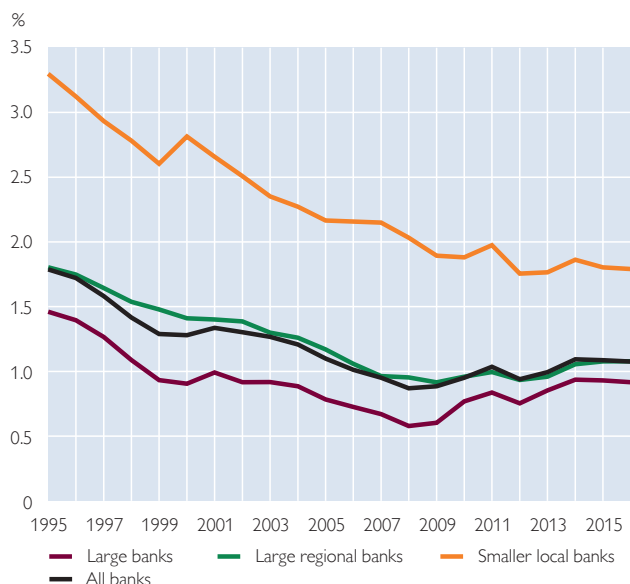
ering slightly to 1.1% in 2016, when both the yield on IEAs (2.0%) and the cost of IBLs (0.8%) were at their historical lows due to the low interest rate environment. These challenging market trends affected business models to various degrees, however. On the one hand, smaller local banks witnessed a substantial fall in their total spread over the last two decades, and it still remains under pressure. After all, their business model typically relies on funding from deposits, whose rate is subject to a natural zero lower bound, while their interest income often depends on variable rate loans that are linked to currently low (or even negative) inter-bank offered rates, such as the EURIBOR.⁷ On the other hand, large banks' and large regional banks' total spread fell by slightly less than average before the GFC (albeit from a lower starting point) and managed to recover some of these losses in the years thereafter.

⁶ See Kavan et al. (2016, pp. 67–69) for an application of this methodology and ECB (2000, p. 27) for the underlying formula.

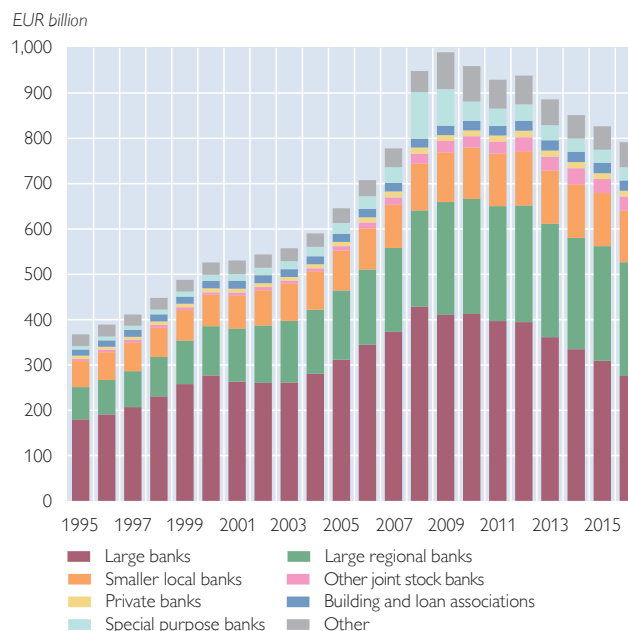
⁷ See Kerbl and Sigmund (2016), who offer more details on the impact of the negative interest rate environment. They also "find that small regional banks are hit hardest [by a negative interest rate environment]. These banks have a high share of deposits and are more sensitive to changes in the reference rates."

Chart 3

Austrian banks' total spread in their domestic business



Austrian banks' average interest-earning assets in their domestic business



Source: OeNB.

The right-hand panel of chart 3 shows the development of IEA volumes over time. They grew by more than 150% from 1995 to 2008 and declined by nearly one-fifth after the onset of the GFC.

With regard to the three most important types of Austrian bank business models, there are three main findings. First, large regional banks tripled their IEAs from 1995 to 2008. In contrast, large banks (+138%) and especially smaller local banks (+80%) expanded their IEA volumes more gradually and at a below-average pace. Second, after the onset of the GFC, large banks scaled back their IEAs by more than one-third from 2008 to 2016. Large regional banks and smaller local banks continued growing until 2012, before roughly stabilizing their volumes.

Third, and consequently, large banks that owned roughly half of all IEAs before the GFC witnessed a continuous decline of their share until 2016 (to slightly more than one-third of IEAs). At the same time, the large regional banks nearly caught up by raising their share from less than one-fifth in 1995 to nearly one-third in 2016.

Over the last two decades, shifts in the IEA mix appear to be linked to the spreads banks faced in different product segments.⁸ Throughout the period under review, the spread earned (before risk) on loans and advances was higher in the nonbank business than in the interbank business, given that, in the latter segment, competition is considered to be fiercer and credit risk to be lower. Before the GFC, however, the spread on nonbank business had declined, while the spread

⁸ This spread analysis is based on the difference between product-specific IEA yields (for loans and advances to banks or nonbanks) and the average cost of IBLs.

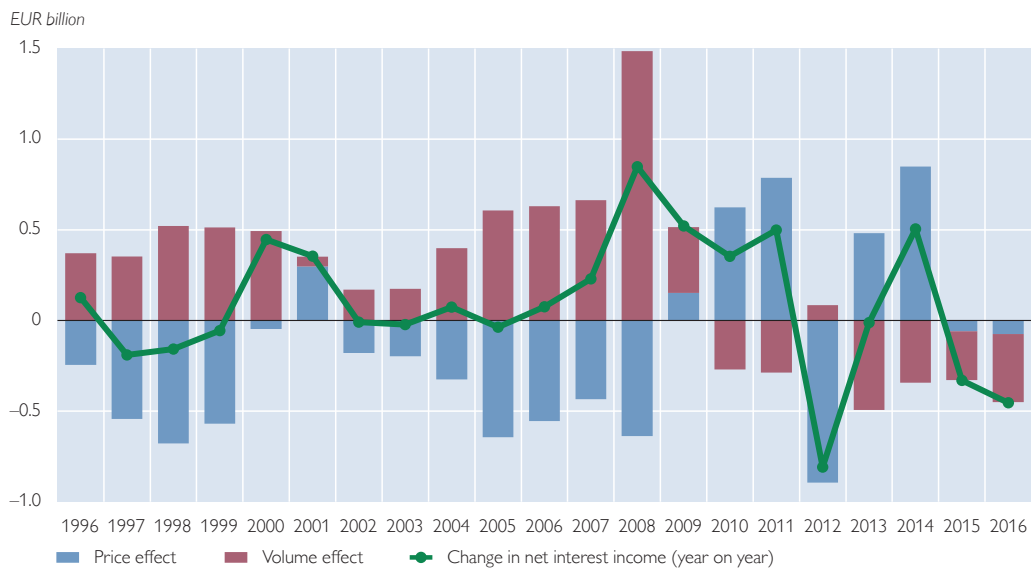
on interbank business had been rather stable. Therefore, it became relatively more attractive for banks in the pre-crisis years to increase their interbank assets to offset the prevailing pricing pressures, as they could expand more quickly, in higher volumes and at lower relative operating expenses (e.g. without a dense branch network). During these years, debt securities also gained in importance in Austrian banks' IEA portfolio.⁹ After the crisis, the picture changed, as the spread improved slightly in the nonbank business, but decreased in the interbank business. In this altered environment, banks cut back on their previous growth areas (i.e. activities in the interbank and debt securities markets) and refocused on

pricing, which had nonbank business regain importance.¹⁰

Combining the above-described pricing and volume effects, we conclude that NII was affected by clear pre- and post-GFC trends (see chart 4). In a highly competitive domestic market, the total spread was substantially compressed before 2008, which had a negative price effect on NII. At the same time, banks expanded their IEA volumes to stabilize and protect their main source of income. In the years following the onset of the GFC, the opposite was observed, as banks scaled back their aggregate IEA volumes, while focusing on earning higher total spreads to improve their NII (except for 2012¹¹). In the last two years under observation – 2015

Chart 4

Drivers of net interest income of Austrian banks in their domestic business



Source: OeNB.

⁹ Debt securities are also interest-earning assets, besides loans and advances.

¹⁰ See pp. 43–45 of this Financial Stability Report to learn more about growth in mortgage loans in Austria and the related financial stability considerations.

¹¹ In 2012, smaller local banks were particularly affected by the spread compression. The three-month EURIBOR strongly declined that year and smaller local banks barely profited from lower IBL costs (as their deposit rates were not directly linked to the EURIBOR). At the same time, the yield earned on their IEA declined markedly, as the interest rate of loans was typically linked to interbank offered rates.

and 2016 – this trend came to a halt given a small negative price effect that arose from the low interest rate environment. With the latter taking its toll, NII in domestic business declined. It is interesting to note the following: First, the sign of the (price/volume) effect was the same across all business models in most years.¹² Second, price effects were very significant for smaller local banks and the reduction of IEA volumes after 2008 was particularly striking with regard to large banks. And, third, large regional banks became the top NII earners, experiencing an average price effect and strong IEA volume growth (in particular before the GFC).

2.2 Net fees and commissions income reflects cyclical developments; expanding it proved difficult in recent years

Net fees and commissions income (NFCI) was the second most important source of income for Austrian banks in the period under review (see chart 1). However, with traditional retail banking prevailing, its role is subordinate to NII. NFCI typically accounted for less than one-quarter of total operating income between 1995 and 2016. As the left-hand panel of chart 5 shows, payments and the securities business are the two most important contributors to NFCI, accounting for around two-thirds. Over time, NFCI also displays clear procyclical trends that were largely caused by the securities business, which exhibited pronounced upswings in line with financial market developments (peaks in 2000 and 2007). Since the onset of the GFC, however, the share of NFCI in the total operating income of Austrian banks has been fairly stable, at around 20%.

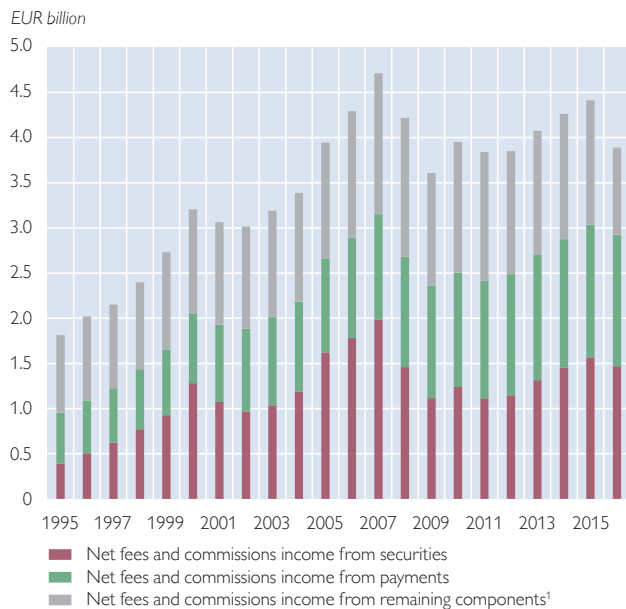
From a business model perspective and as highlighted in the right-hand panel of chart 5, smaller local banks continuously increased the share of NFCI in total operating income (to 23% in 2016). By contrast, in the case of large banks, this figure declined strongly after the GFC, even dropping below the level recorded in 1995 (2016: 15%). At a more granular level, the following trends are noteworthy over the last two decades:

- NFCI from the securities business – which is particularly important for private and special purpose banks – gained in significance across all business models (except for smaller local banks): its share in total operating income doubled from 4% in 1995 to 8% in 2016.
- Starting from a share of 5% in 1995, NFCI from payment services also became more significant, reaching nearly 8% of total operating income in 2016. It is interesting to note that this steady development was mainly driven by an increase at smaller local banks (from 5% in 1995 to 13% in 2016), whereas the large banks' share stagnated at around 6%.
- Credit-related fees hovered around 2% to 3% of total operating income of all Austrian banks, with noteworthy cyclical developments at large banks. Smaller local banks and large regional banks showed a steady increase.
- Other NFCI – e.g. from foreign exchange operations – lost in importance, as its share fell from its 2.7% peak in 2001 to 0.7% of total operating income in 2016. The introduction of euro banknotes and coins in 2002 acted as the main driver of this development.

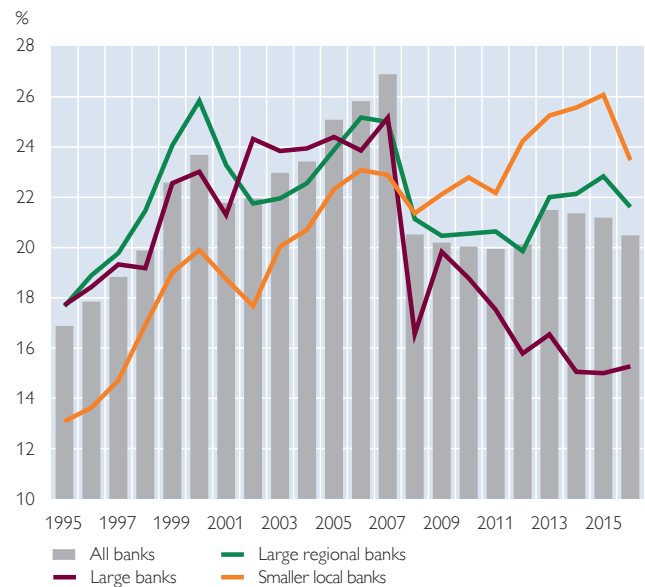
¹² An exception has been noted above regarding IEA growth discrepancies in the years after the onset of the GFC.

Chart 5

Components of net fees and commissions income



Share of net fees and commissions income in total operating income



Source: OeNB.

¹ Remaining components consist of credit operations, foreign exchange and precious metals operations and other service operations.

In the current low interest rate environment, banks have a vital interest in pushing up their NFCI, which is particularly true for retail-orientated banks that experience pressures on their net interest income (see chart 3). Achieving this objective is not easy, however, as success often depends on the prevailing financial cycle as well as on the nature of banking services and products. It seems that banks' efforts were generally more effective where fees and commissions were opaque and thus difficult to compare or nonnegotiable, or where it was unpractical for customers to switch banks often ("sticky business").¹³

2.3 Income from direct investments is significant, but its momentum ended with the onset of the GFC

With a share of 21% between 2004 and 2016, income from direct investments contributed significantly to Austrian banks' domestic operating income (see chart 6), but its weight declines in step with the banks' size. While this type of income is particularly important for large banks (36%), it stands at 19% for large regional banks and at a mere 10% for smaller local banks.¹⁴

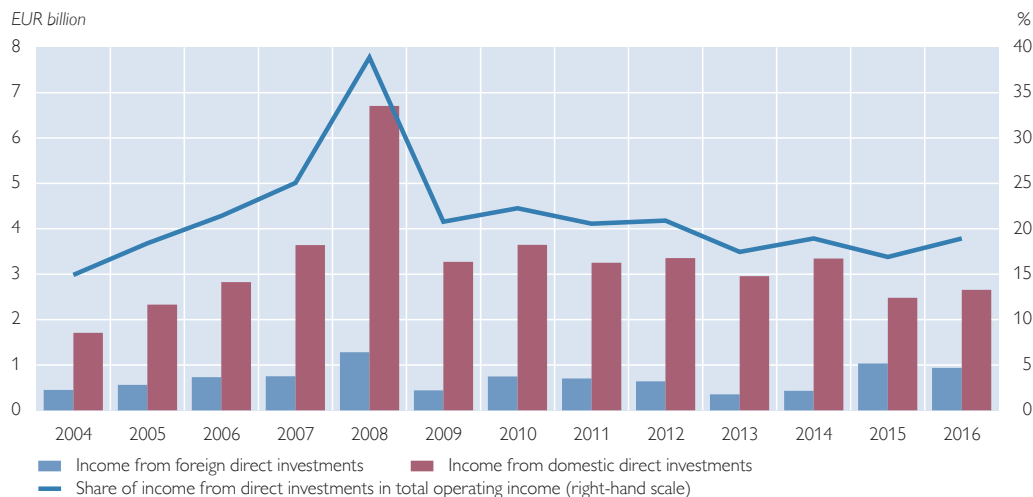
These varying percentages are also reflected in the cumulative income banks obtained from their direct investments from 2004 to 2016, which

¹³ Indications supporting this conclusion can be found in various bank customer surveys that conclude that "only 20% of the respondents know the exact costs of their current account, 35% know them approximately and 43% do not know them" (Austrian Federal Competition Authority, 2017, p. 27), while "[regarding the comprehensibility of banks' terms and conditions] only 43% said they understand everything. For 36% not everything is understandable or transparent. 10% do not understand the terms and conditions and 11% have never looked at them." (ING-DiBa, 2017, translated from German into English by the authors of this study).

¹⁴ Granular data on income from direct investments became available in 2004.

Chart 6

Total income from direct investments (foreign and domestic)



Source: OeNB.

added up to EUR 51 billion for the total banking sector, with EUR 33 billion earned by large banks, EUR 11 billion by large regional banks and EUR 4 billion by smaller local banks. Irrespective of the business model, the larger part of this income derives from domestic direct investments, in particular in nonbanks.

When we look at the developments of the last two decades, a procyclical trend emerges, as both the number and aggregate book values of Austrian banks' direct investments increased significantly before the GFC, but dropped substantially thereafter. From 2008 (peak) to end-2016, the number of direct investments contracted by 32% to over 3,000, with smaller local banks holding slightly more than half of them. This decrease in numbers corresponded to a 45% reduction in the total book value of all direct investments to EUR 43 billion (large banks: -58% to EUR 24 billion). While this reduction in direct investments streamlined the structure of the Austrian banking sector (including its governance), it also put an end to the momentum this

source of income had witnessed before the GFC.

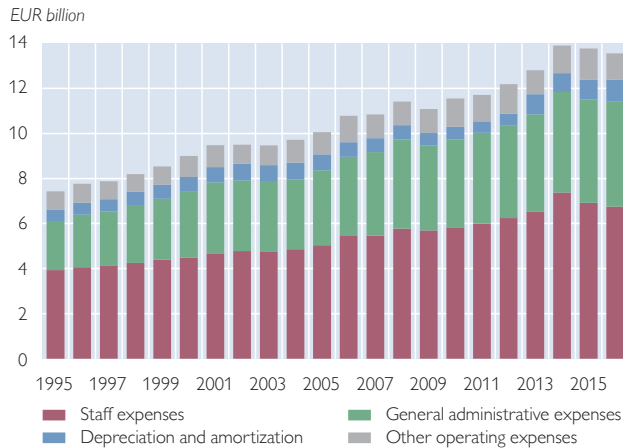
3 Operating expenses increased steadily until recently, when cuts in staff-related expenses started to show effects

Austrian banks' operating expenses increased steadily between 1995 and 2014, when they peaked at EUR 13.9 billion, as one-off costs triggered a strong increase in staff expenses. Since then, Austrian banks' cost-cutting efforts have been reflected in slightly decreasing operating expenses, which stood at EUR 13.6 billion in 2016 (see the left-hand panel of chart 7).

When analyzing Austrian banks' operating expenses over the last two decades, we note that their composition did not change much. Half of them are related to staff, while general administrative expenses account for 35%. The latter increased more markedly overall, recently driven by investments and costs related to information technology (e.g. IT system upgrades and overhauls). In contrast, staff expenses grew more slowly and recently started

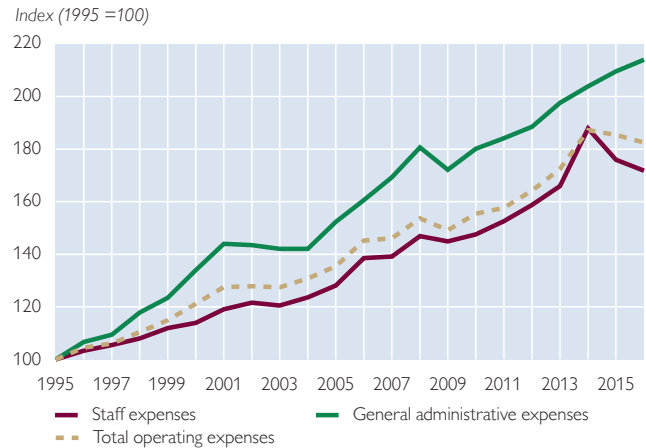
Chart 7

Composition of operating expenses



Source: OeNB.

Development of operating expenses



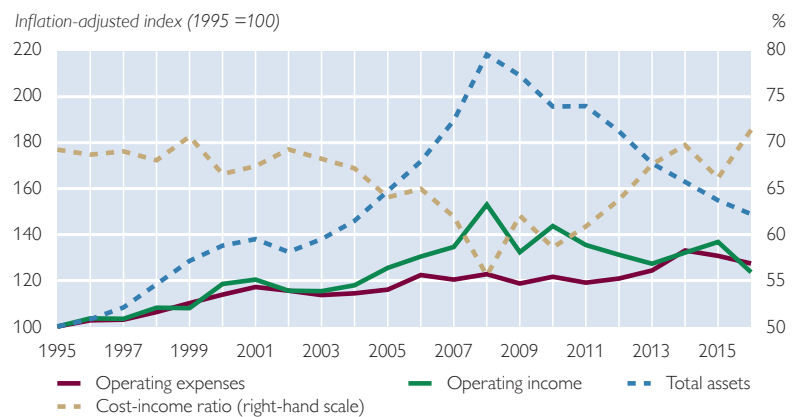
to exhibit a slight downward trend (see the right-hand panel of chart 7). Since the onset of the GFC, the number of full-time equivalents (FTEs) in banks in Austria has decreased by 10%, with the adjustment process gathering momentum since 2014, when outsourcing, automation and branch closures gained traction. By the end of 2016, the domestic Austrian banking system employed less than 62,000 FTEs, which is the lowest value since records began in 1998.¹⁵ Likewise, the number of branches in Austria has fallen steadily since 2013, down to 3,926 in 2016 (the lowest level since 1995).

Austrian banks' domestic operating income grew and shrank along with their size, albeit to a lesser extent (see the beginning of section 2 and chart 1). Chart 8 sheds additional light on banks' operational efficiency by adjusting for inflation and including operating expenses to deduce their cost-income ratio (CIR, a common indicator of operating efficiency). The first thing we observe is that real operating ex-

penses show little correlation with the banking sector's size throughout the recent financial cycle, as costs remained more or less flat on an inflation-adjusted basis from 2001 to 2012. This could be related to the fact that half of the operating expenses are considered to be rather fixed and linked to bank-exogenous inflationary trends (e.g. staff costs). Second – and resulting

Chart 8

Cost-income ratio in comparison to banks' total assets, operating expenses and income over time



Source: OeNB.

¹⁵ See Ritzberger-Grünwald, Stiglbauer and Waschiczek (2016) for details regarding banking employment in Austria.

from the above-mentioned income and expense trends in relation to banks' growth, the CIR as measured in 2016 was virtually unchanged from its 1995 value. It had, however, gone down (i.e. improved) during banks' expansion phase before the GFC, and gone up (i.e. worsened) thereafter as banks' balance sheets were shrinking. Third, and consequently, the CIR increase after the onset of the GFC to slightly above 70% in 2016 was not primarily caused by rising real expenses but declining real operating income.

Finally, we take a look at the cost efficiency of the most important business models after the onset of the GFC. Smaller local banks display a CIR that is above the banking sector average. This is due to their costly distribution channel using small branches and their difficulty in generating economies of scale. Since they could not compensate for domestic weaknesses with foreign profits, they were forced to put a strong focus on cost-cutting initiatives that were supported by continued merger efforts to raise synergies. As a

result, they proved most successful in cutting operating expenses in absolute terms, which even fell below pre-crisis levels in recent years. This situation contrasts with large regional banks and large banks, which saw their CIR rise after 2008, while their operating expenses still remained above pre-crisis levels.

4 Credit risks materialized during the GFC, but as the NPL ratio approached pre-crisis levels again in 2016, provisioning came to a virtual standstill

Austrian banks' unconsolidated non-performing loan (NPL) ratio, which amounted to 3.0% in 2008, increased after the onset of the GFC, to peak at 4.7% in 2010.¹⁶ It then remained above 4%, before decreasing substantially to 3.5% in 2016, aided by an improved macroeconomic backdrop and balance sheet cleanups.

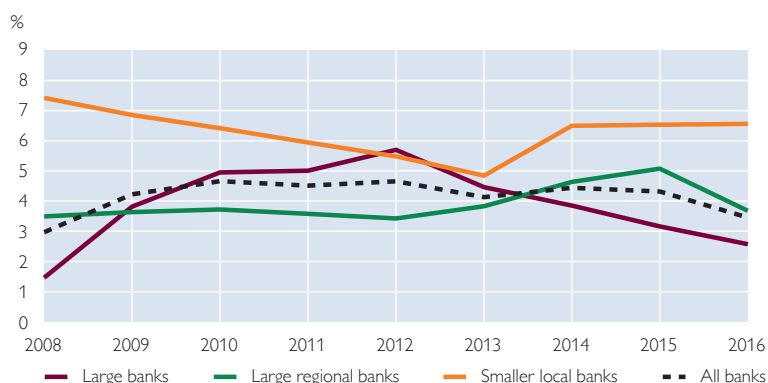
Looking at NPL ratios for various bank business models, we focus on developments evident for large banks, large regional banks and smaller local banks (see chart 9), as these banks account for more than 90% of the total volume of loans and NPLs to nonfinancial corporations and households.¹⁷

The NPL ratio of large banks increased significantly between 2008 and 2012, namely from 1.5% to an above-average 5.7%, but showed a continuous decline thereafter (2.6% in 2016).

Large regional banks exhibited a rather stable NPL ratio between 2008 and 2012, when it stood at a below-average 3.6%. Their NPL ratio peaked at 5.1% in 2015. Its significant reduction to 3.7% in 2016 was due, among other

Chart 9

NPL ratio of Austrian banks' domestic business



Source: OeNB.

¹⁶ The NPL ratio is defined as the volume of loans to nonfinancial corporations and households that are 90 days overdue and/or unlikely to be repaid in relation to total gross loans to nonfinancial corporations and households. Due to data limitations and changes in reporting standards, our analysis focuses on data from 2008 onward.

¹⁷ See box pp. 38–39 of this Financial Stability Report for a sectoral decomposition of the loan portfolio with a focus on NPLs.

factors, to a decline at some state mortgage banks (Landeshypothekenbanken), in particular in their corporate portfolios.

Smaller local banks post an above-average NPL ratio given their higher share of loans to households and small and medium-sized enterprises, which traditionally show higher default ratios. While the NPL ratio of these banks amounted to 7.4% in 2008, it decreased to 4.8% in 2013, as NPLs fell and the loan volume rose. However, when reporting standards changed in 2014, the ratio went up to 6.5% and remained stable thereafter.¹⁸

Of all loans to households and non-financial corporations, the latter dominate, with a share of 62% (end-2016), and show a consistently lower NPL ratio compared to the former. Between 2014 and 2016, amid a benign macro-economic environment, the NPL ratio declined for both types of loans (households: from 5.0% to 4.2%, and non-financial corporations: from 4.1% to 3.0%).¹⁹

How did these NPL ratios affect risk provisioning and, ultimately, Austrian banks' profitability? While absolute loan loss provisioning (LLP) was rather stable from 1995 to 2007, it increased considerably after the onset of the GFC, given the above-mentioned NPL dynamics. Equaling EUR 2 billion in 2007, LLP peaked at EUR 4.4 billion in 2009. This marked increase was to a considerable extent driven by risk provisions for direct cross-border loans.²⁰ Starting in 2012, but especially in 2016, LLP

went down sharply, to reach a historical low of a mere EUR 0.5 billion in 2016, which not only reflects the improved economic situation, but also supported the substantial profits Austrian banks made in that year. This development, which has yet to prove its sustainability, was observed for all business models, but was especially pronounced at large regional banks and smaller local banks.

We now combine the above-described NPL and LLP trends to analyze the relative level of credit risk coverage that Austrian banks have built up (while disregarding additional collateral). This shows that, following stepped-up provisioning after the onset of the GFC, the coverage ratio of Austrian banks increased from 46% in 2008 to 62% in 2014 and dropped again to 49% in 2016, as LLP came to a virtual standstill.²¹ A highly heterogeneous picture emerged: while the coverage ratio of large regional banks (46%) and especially of smaller local banks (41%) remained below the sector-wide ratio of 49%, large banks managed to raise their ratio to 65% after sustained efforts.

Regarding the impact of LLP on banks' profitability, LLP consumed an average 44% of operating profits between 1995 and 2007. Induced by the GFC, this level surged to 65% in 2009, due to falling profits and increasing LLP. In 2016, however, risk provisioning reached its historical trough, when it amounted to only 9% of operating profits. The heterogeneity between

¹⁸ The change in reporting standards (caused by the Basel III framework) resulted in a smaller sample and the exclusion of direct lending.

¹⁹ Distinguishing between loans and NPLs to households and to nonfinancial corporations has only been possible since 2014.

²⁰ As of end-2016, direct cross-border loans amounted to around one-quarter of total outstanding loans (in unconsolidated terms).

²¹ The coverage ratio is calculated by dividing the loan loss provisions on NPLs by the total volume of gross NPLs. The data were sourced from the Central Credit Register, which only includes loans with volumes above EUR 350,000. Our figures may therefore not be comparable to coverage ratios calculated from other sources.

business models was again substantial. While large banks' LLP used up 19% of their operating profits, this ratio stood at a marginal 0.3% for large regional banks and at -0.2% for smaller local banks on account of net releases of loan loss provisions.

As far as the remaining profit and loss items are concerned, three, primarily cost-related, factors must still be noted: the bank levy, income taxes and the extraordinary profit or loss. First, the bank levy (Stabilitätsabgabe²²) was mainly borne by the large and large regional banks and amounted to an annual EUR 625 million between 2011 and 2015. In 2016, banks had to make a one-off payment of EUR 1 billion, but will now face a significantly reduced annual levy of approximately EUR 100 million. Second, income taxes, which averaged less than EUR 400 million

per year from 1995 to 2016, were largely paid by large regional and smaller local banks after the bank levy had been introduced. Third, the extraordinary net result – frequently a small loss – has typically played a minor role in Austrian banks' profits, except in 2006, 2009 and 2014, when its impact was substantial, exceeding EUR 1 billion, due to one-off effects at individual large banks.²³

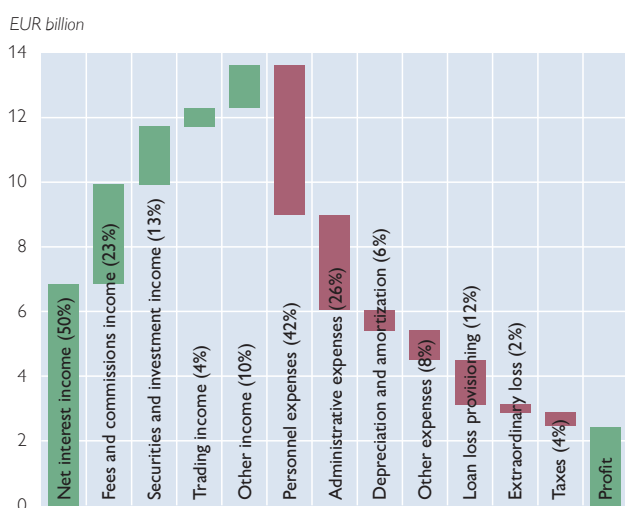
5 Final overview: increased provisioning weighed on profits after the GFC

In order to provide an overview of all aforementioned income and cost components that define banks' profitability, we create waterfall charts for revenues covering the periods before and after the GFC (1995–2007 and 2008–2016; see chart 10). The most noticeable

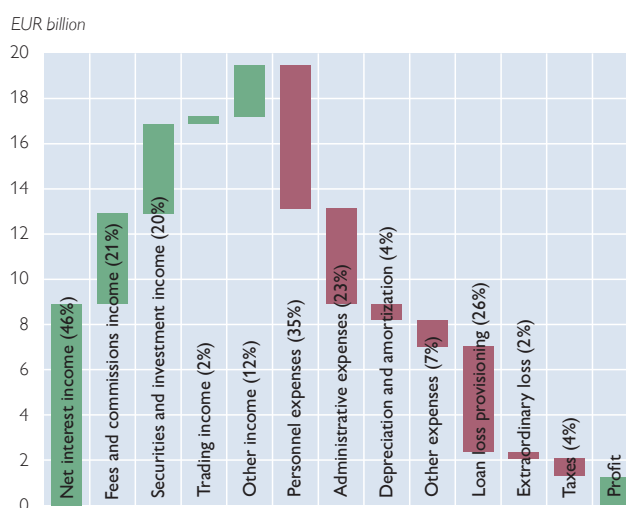
Chart 10

Accumulated profit and loss account of all Austrian banks (1995–2016, annualized)

1995–2007 (annualized)



2008–2016 (annualized)



Source: OeNB.

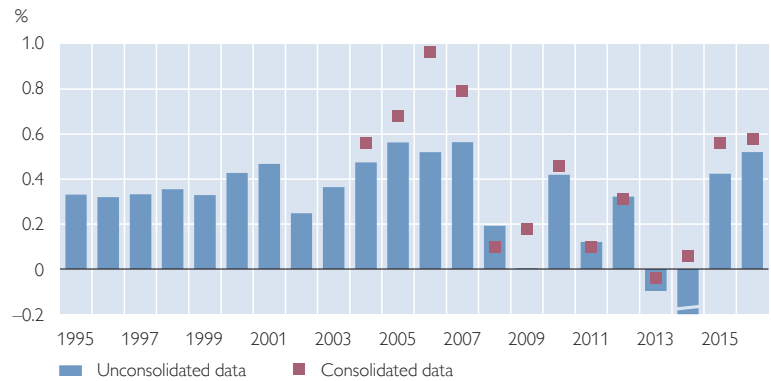
Note: Percentages indicate shares in total income or total expenses/costs.

²² Pursuant to the Stability Levy Act (Stabilitätsabgabegesetz – StabAbgG), which is available (in German) at www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20007050.

²³ The net extraordinary result was -EUR 2.3 billion in 2006, EUR 2.2 billion in 2009 and -EUR 5.5 billion in 2014. For further details on some of these major profit and loss items, see www.bankaustria.at/files/BA-CA_AG_Bericht_2006_EN.pdf (2006), www.bankaustria.at/files/Jahresfinanzbericht_de.pdf (2009) and www.erstegroup.com/content/dam/at/eh/www_erstegroup_com/en/Investor%20Relations/2014/Reports/AR2014_unconsolidated_en.pdf (2014).

Chart 11

Return on average assets of the Austrian banking sector



Source: OeNB.

difference between these two periods is that credit risk provisioning increased substantially after the onset of the GFC, as risks that had built up before the GFC materialized and caused the share of annual credit risk costs in total costs to more than double. Consequently, annualized profits decreased significantly. Even so, not all business models were affected to the same extent. While large banks and other joint stock banks faced above-average increases in risk provisioning, smaller local banks and private banks even reduced their share of risk provisioning in total costs.

To translate absolute profits into even more meaningful relative profitability figures, we now turn to the return on (average) assets (ROA): Austrian banks generated an unconsolidated ROA of 0.3% per annum over the entire analyzed period (1995–2016, see chart 11).²⁴ Three findings are remarkable here. First, regarding the time dimension, the ROA stood at 0.4% in the years before the GFC, dropping to a mere 0.1% after 2008. Second, the different business models have not been equally profitable over the past 22 years. While smaller local banks, private banks and special purpose banks generated above-average ROAs in the majority of years, large banks and building and loan associations underperformed. Other joint stock banks and large regional banks displayed ROAs close to the average, which underlines the latter's representativeness for the Austrian banking sector as a whole. Third, unconsolidated ROAs were below consolidated ROAs in most years,

which implies that foreign activities via subsidiaries were more profitable than domestic activities (including direct cross-border activities).²⁵

6 Summary of findings

The sustainable profitability of banks is an important building block in strengthening a financial system's stability, as it allows banks to fulfill their important role as financial intermediaries in the economy and to build up loss-absorbing capacity for future downturns. During the two decades from 1995 to 2016, the GFC proved to be a major turning point for Austrian banks' domestic profitability (including from direct cross-border activities), as its repercussions negatively affected operating incomes and credit risk provisioning. While this temporal dimension is omnipresent in this study, we also pay close attention to the heterogeneity between various business models, focusing in particular on the three business models that dominate the Austrian

²⁴ Although comparable ROA data from other EU countries are scarce on an unconsolidated basis, Austrian banks' domestic net interest margins have typically been below the EU average, while their credit quality was less affected by the GFC (especially when compared to countries in the European periphery).

²⁵ In the years after the onset of the GFC – i.e. from 2009 to 2016 –, Austrian banks' subconsolidated profits from their CESEE subsidiaries amounted to around three-quarters of their total consolidated profits, while this share was close to half in 2016.

banking sector: large banks, large regional banks and smaller local banks.

Overall, we find that banks and their income grew strongly before the GFC at the expense of their margins, whereas this trend went into reverse after the crisis hit. Smaller local banks, which are particularly dependent on net interest income, experienced continuous and barely abating pressure on their net interest margin, while large banks, which managed a turnaround in their pricing after the onset of the GFC, considerably reduced their interest-earning assets. Other sources of income gained importance over the last two decades, but proved difficult to expand. On the one hand, net fees and commissions income became more important for smaller local banks (especially from payment services), while the opposite is true for large banks. On the other hand, income from direct investments, which is significant for larger banks, saw its momentum fade with the onset of the GFC.

On the cost front, operating expenses increased steadily until recently – with investments in information technology gaining importance – but cuts in staff-related expenses are now starting to show effects. It is noteworthy that Austrian banks' high post-crisis cost-income ratio is mainly driven, on an inflation-adjusted basis, by the decline in real operating income. Smaller local banks stand out in this respect as they are less cost efficient due to their difficulty in generating economies of scale. They consequently had a strong incentive for cutting their cost base (including via intra-sectoral mergers).

In addition to the above-mentioned income decline, higher credit risk costs were another consequence of the GFC, as risks that had previously built up in an expansionary (and margin-diluting)

phase materialized; but it must be emphasized that the Austrian banking sector's NPL ratio never surpassed 5%. Its decline in 2016 to 3.5% caused loan loss provisioning to come to a virtual standstill, which supported the substantial profits Austrian banks made in that year. However, this development, which was especially pronounced at large regional banks and smaller local banks, has yet to prove its sustainability. Regarding the remaining items on banks' profit and loss statement, the bank levy, which was a noteworthy cost item in the last few years, will be significantly reduced going forward, and the extraordinary result has typically played a minor role (except in 2006, 2009 and 2014).

All of these developments resulted in strong volatility in the domestic ROA after the onset of the GFC and – supported by historically low loan loss provisioning – a recent uptick to pre-crisis levels. Over the entire analyzed period, the different business models performed heterogeneously. While smaller local banks generated above-average ROAs in the majority of years and large banks underperformed, large regional banks generated average ROAs, which underlines their representativeness for the Austrian banking sector.

Looking forward, net interest income is likely to remain the backbone of Austrian banks' domestic income, as banks' business models have proven rather resilient to change. In a still highly competitive market, improving operating profitability is therefore likely to depend on banks' pricing power – both in terms of margins and fees – and their ability to make structural adaptations, which include raising investments in digitalization, and reducing staff expenses and streamlining branch networks. In a benign macro-

economic environment, low provisioning levels are a welcome and supportive trend from a profitability point of view, but they have yet to prove their sustainability over the medium term.

Our conclusion is that Austrian banks were significantly affected by the GFC in their domestic business, but

overall they weathered this cyclical storm well. Now, in a calmer macrofinancial environment, they should continue to proactively address their structural cost issues, to tap new sources of income whose pricing adequately reflects risks and to ready themselves for the digitalization of their business.

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