



AUSTRIA

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AUSTRIA'S BANKING SECTOR AS INTER-MEDIATOR OF WESTERN EUROPEAN

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PUBLIC EXPENDITURE: A COMPARISON OF AUSTRIA WITH OTHER COUNTRIES¹

In the past decade, Austria's government expenditure growth has been very steady, thus avoiding the boom-bust pattern of some other European countries. However, expenditure levels are relatively high, and the difference with Germany has been widening. Compared with other countries, spending is particularly high for pensions, capital transfers and subsidies, including in the transport sector.

A. Growth and Volatility of Public Expenditure in 2002–12

1. In the past decade, Austria's expenditure to GDP ratio increased less than in most other EU countries. Between 2002 and 2012 Austria's expenditure to GDP ratio increased by 1 percentage point, compared with 2½ percentage points in the euro area-12 (EA-12)², and 7–9 percentage points in countries like Ireland, Spain, and United Kingdom (Figure 1).

- The lower increase in the ratio partly reflects strong GDP growth. GDP grew by 1.6 percent on average, well above most other euro area countries.
- It also reflects contained expenditure growth. Expenditure grew by 1.8 percent annually in real terms—well below countries like Ireland, Spain, and United Kingdom.³

2. Austria expenditure growth has not only remained contained on average, Austria has also managed to avoid the boom-bust cycle in public expenditure that characterized some of the other European countries (Figures 2 and 3).

- In the pre-crisis years, expenditure growth remained fairly modest, and there was no need to retrench expenditure in the post 2009 period.
- This contrasts with countries like Ireland, Spain, and United Kingdom that saw an expenditure surge in the pre-crisis boom years, which had to be unwound post 2009.

¹ Prepared by Almira Buzaushina.

² EA-12 comprises Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain. These are 11 countries that adopted the euro as their common currency in 1999 and Greece that joined the euro area in 2001.

³ Higher expenditure growth in Ireland and United Kingdom was not the result of bank support measures, as these took place mostly during 2008–10. In Spain, without bank support, expenditure in 2012 would have been about 3.8 percentage points of GDP lower, which would have reduced the 2002–12 average real expenditure growth rate from 3.3 to 2.5 percent.

3. The absence of an expenditure boom in Austria partly reflects the absence of a revenue boom. A cross-country comparison shows that countries that had a real expenditure surge prior the crisis are also those countries that had a real revenue boom (Figure 2, top left panel). In countries with a revenue boom, revenue grew fast not only because economic growth was rapid, but also because of the composition of growth, which was revenue rich.

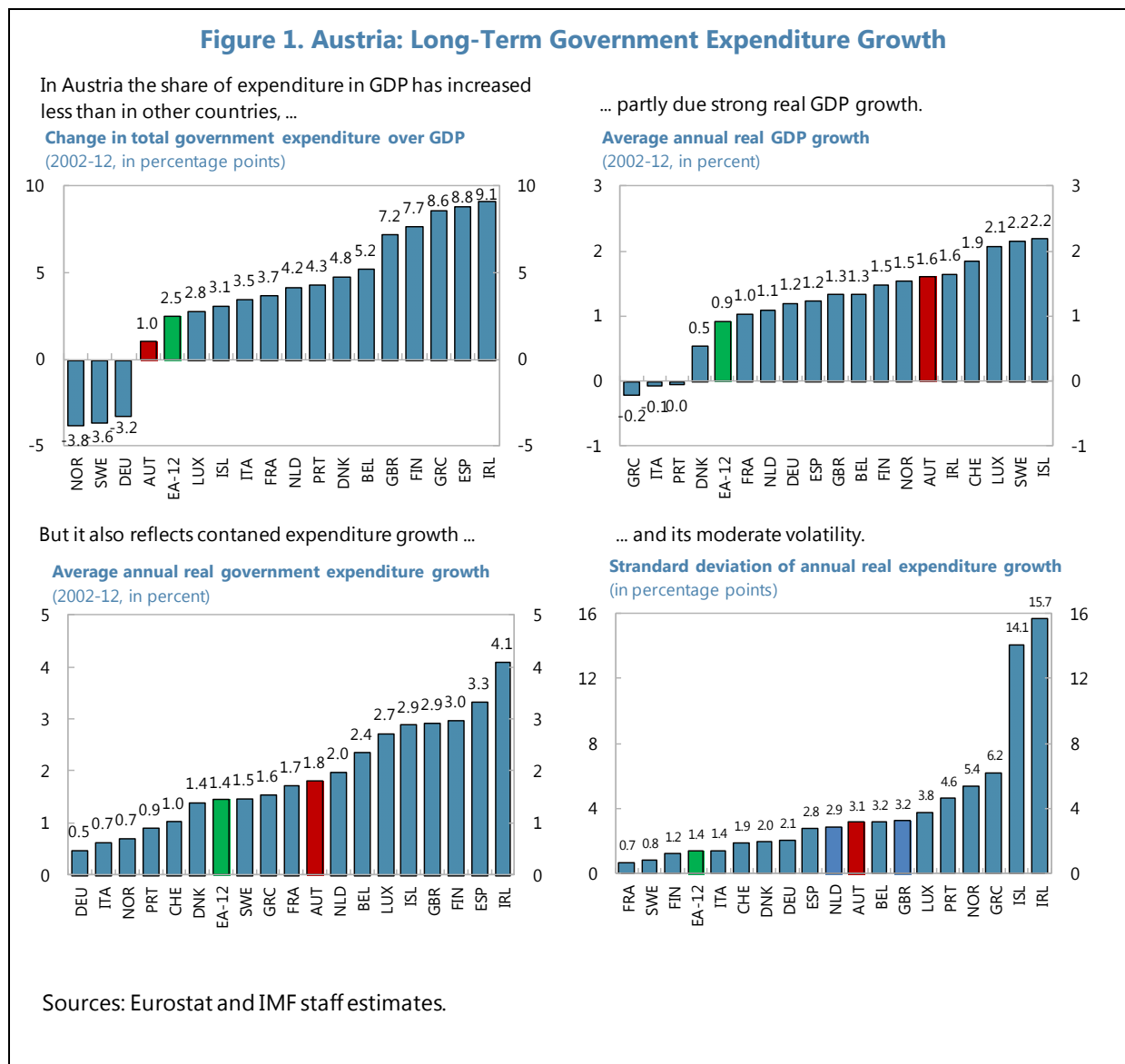
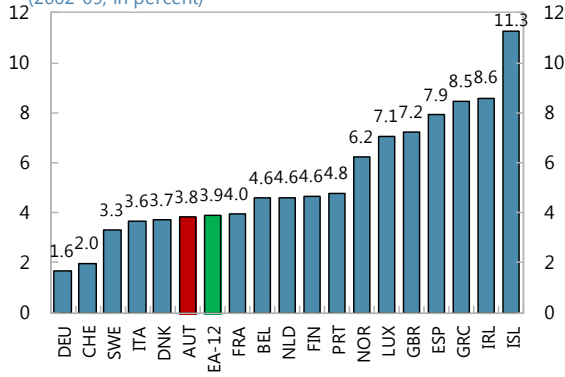


Figure 2. Austria: Volatility of Government Spending

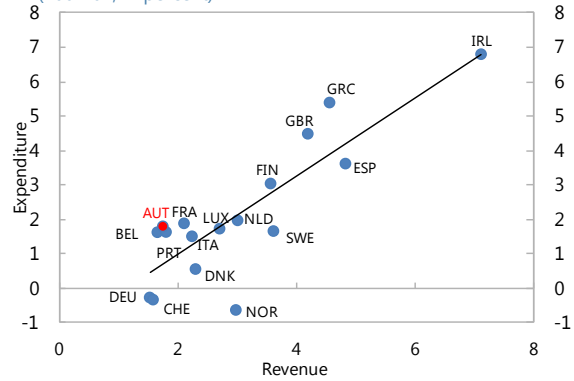
Austria didn't have a public expenditure surge during the pre-crisis years...

Average annual government expenditure growth (2002-09, in percent)



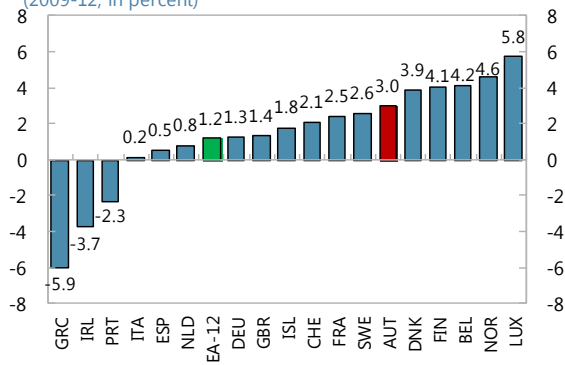
... as Austria didn't have a revenue/spending boom during that period.

Average annual real expenditure vs. revenue growth (2002-07, in percent)



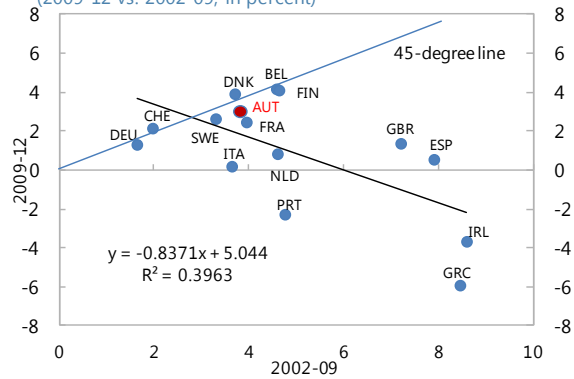
As a result, Austria didn't have to retrench expenditure post 2009.

Average annual government expenditure growth (2009-12, in percent)



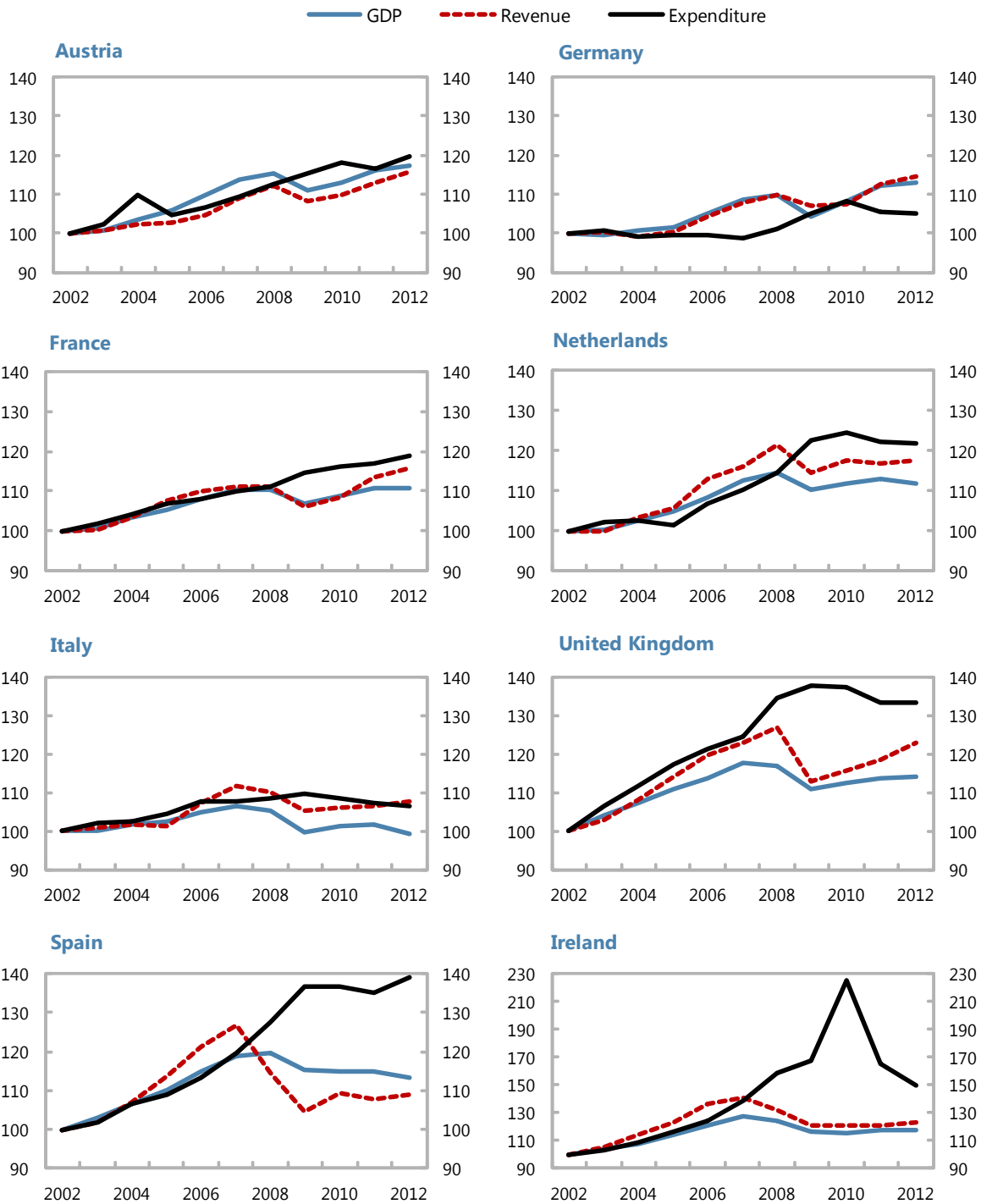
Procyclicality of expenditure has been much less than in other countries.

Average annual expenditure growth (2009-12 vs. 2002-09, in percent)



Sources: Eurostat and IMF staff estimates.

Figure 3. Austria: Real GDP, Expenditure and Revenue Compared
(Index, 2002=100)



Sources: Eurostat; and IMF staff calculations.

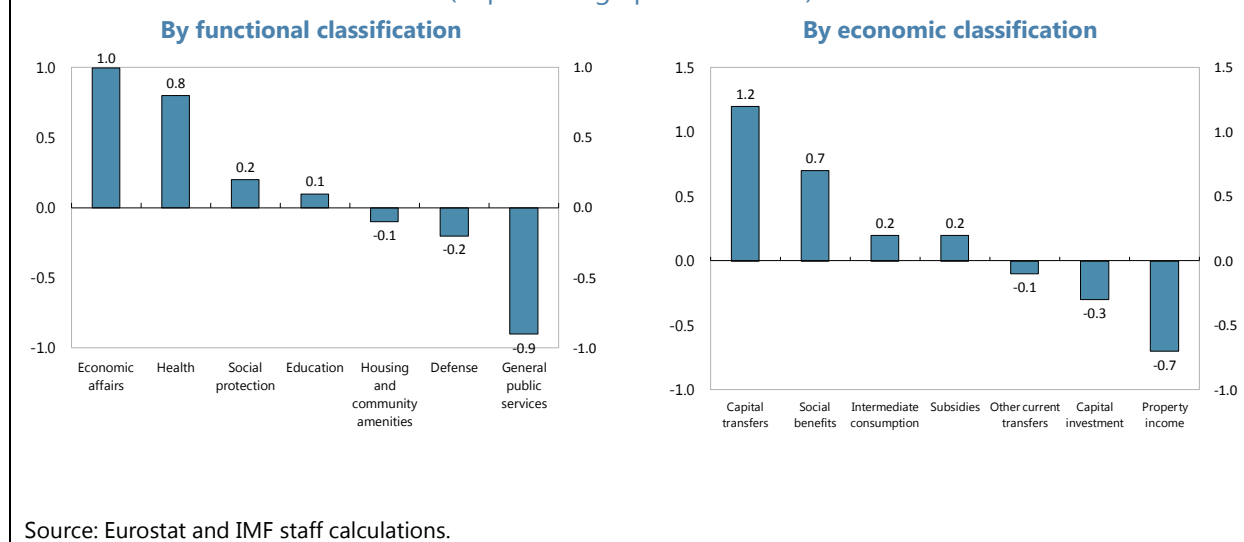
4. The composition of expenditure in the past decade remained broadly the same. While expenditure in some categories⁴ increased by more than in others (Figure 4), the composition of expenditure according to both functional and economic classifications remained broadly the same.

- By *functional classification*, spending on social protection has remained the highest by far, accounting for about 40 percent of overall expenditure. Compared to 2002, significant increases in expenditure-to-GDP ratios for economic affairs and health (in total by 1.8 percentage points) have been only partly offset by a decline in spending for general public services relative to GDP (by -0.9 percentage points). While the increase in expenditure for economic affairs reflects (temporary) public interventions in response to the crisis (bank rescues, etc.), health (for which spending is usually not dependent on economic cycle) now ranks the second most important function of government expenditure. Even though spending on economic affairs is more volatile, it exceeded Austria's spending on education in 2012.
- According to *economic classification*, the composition of expenditure in the main categories has been more stable. Social benefits and transfers in kind, increasing by 0.7 percentage points between 2002 and 2012, have remained the highest component by far. Due to a significant increase in spending on capital transfers during the last decade, in 2012 Austria's general government spent almost the same amount on capital transfers (3.1 percent of GDP) as on subsidies (3.5 percent of GDP). At the same time, expenditure for gross fixed capital formation decreased by 0.3 percentage points, accounting only for 1 percent of GDP in 2012.⁵
- Combining these two classifications, between 2002 and 2012, the increase in capital transfers is particularly noticeable in the functional category economic affairs (+1.3 percentage points) and can be explained by public interventions in the context of the global financial crisis, namely by public capital injections in the banking sector (+0.9 percentage points). Social benefits increased the most in the functional category social protection (+0.5 percentage points), namely in the subcategory old age (+0.6 percentage points) that covers mostly public pension spending. The increase in subsidies fell mostly on subsidies in the functional category health, in particular for hospital services (+0.5 percentage points).

⁴ Functional classification splits expenditure into ten functional groups such as general public services; defense; public order and safety; economic affairs; environmental protection; housing and community amenities; health; recreation, culture, and religion; education; and social protection. According to the economic classification, total government expenditure is divided into intermediate consumption and taxes, compensation of employees, subsidies, property income, social benefits and social transfers in kind, other current transfers, capital transfers, and gross capital formation.

⁵ With the implementation of the ESA 2010 standards, several public enterprises (e.g., public hospitals, Vienna lines, and some businesses of the Austrian federal railways (OeBB)) will be classified into the government sector, which is likely to result in an expenditure shift from subsidies and capital transfers to other components, such as public investment.

Figure 4. Austria: Change in Expenditure-to-GDP Ratios, 2002–12
(in percentage points of GDP)



B. A Comparison of Expenditure Levels

5. Nevertheless, expenditure levels in Austria are relatively high, and the difference with Germany has been widening (Figure 5). In 2012, the expenditure-to-GDP ratio was 51.7 percent of GDP, which is about 2 percentage points higher than the EA-12 average. The difference with Germany—a country that has also come through the crisis well—is much larger (7 percentage points in 2012) and has widened significantly over the last decade.

6. A cross-country analysis of public spending by different type of categories shows several areas where spending stands out. Looking at main categories by economic and functional classification in Austria and its peer countries,⁶ Austria's expenditure is particularly high for subsidies in health care (in particular hospital services) and in economic affairs (transport sector), for capital transfers in economic affairs (transport sector and bank rescues), and for social benefits in social protection (old-age) (Figure 6). If compared to Germany, expenditure levels are particularly high for social benefits into social protection, subsidies into the health sector, and for capital transfers into economic affairs (Figure 5). Even subtracting capital transfers for bank rescues and subsidies into hospital services due to Austria's peculiar accounting,⁷ Austria's subsidies in broad sense (subsidies and capital transfers) are among the highest in the region (3.9 percent of GDP in 2012) and by 2.3 percentage points higher than in Germany (Figure 6).

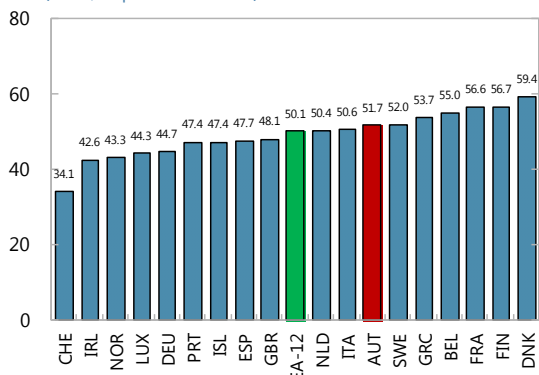
⁶ In this analysis Austria's peer countries comprise EA-12, Denmark, Iceland, Norway, Sweden, Switzerland, and United Kingdom.

⁷ From the second half of 1990s to the early 2000, many state and municipal hospitals were transformed into private corporations owned by sub-national governments, but recorded outside public accounts (Fagnoli, 2014).

Figure 5. Austria: High Expenditure Levels

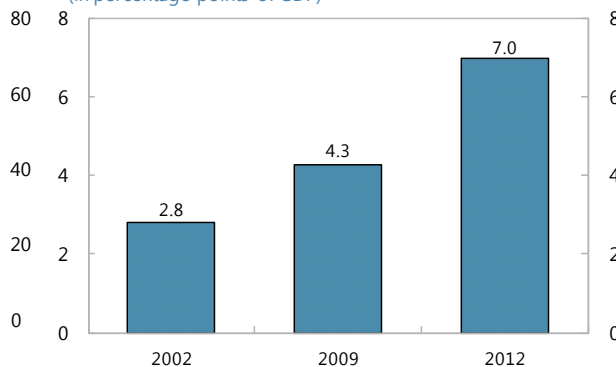
Austria's total government expenditure level is high.

Total government expenditure
(2012, in percent of GDP)



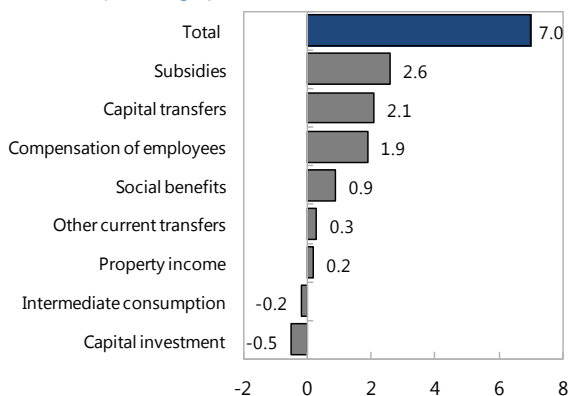
The gap in expenditure-to-GDP ratio between Austria and Germany widened further.

Government expenditure: Austria minus Germany
(in percentage points of GDP)



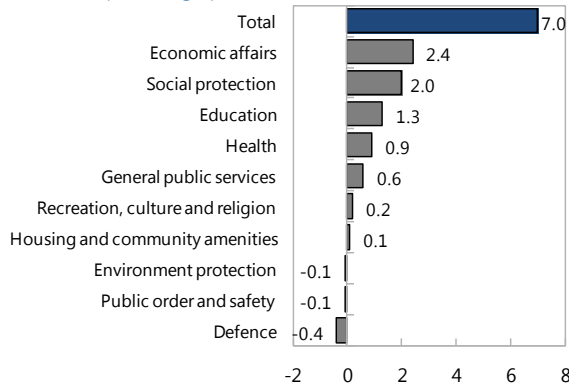
According to economic classification, subsidies and capital transfers stand out in particular.

Government expenditure: Austria minus Germany
(2012, in percentage points of GDP)



Among functions, these are economic affairs and social protection.

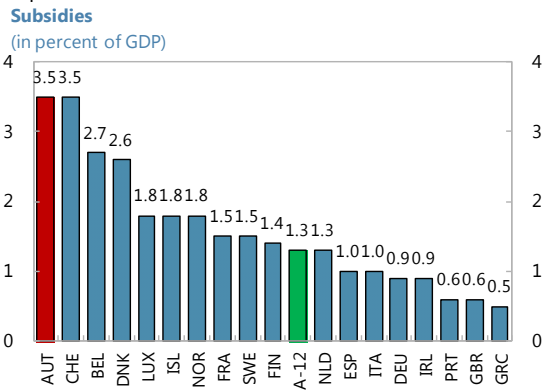
Government expenditure: Austria minus Germany
(2012, in percentage points of GDP)



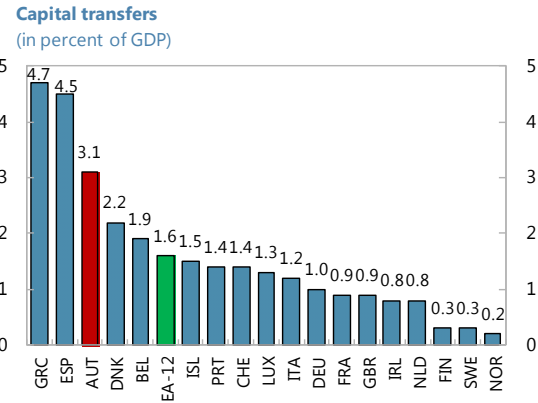
Sources: Eurostat and IMF staff estimates.

Figure 6. Austria: Composition of Government Spending, 2012

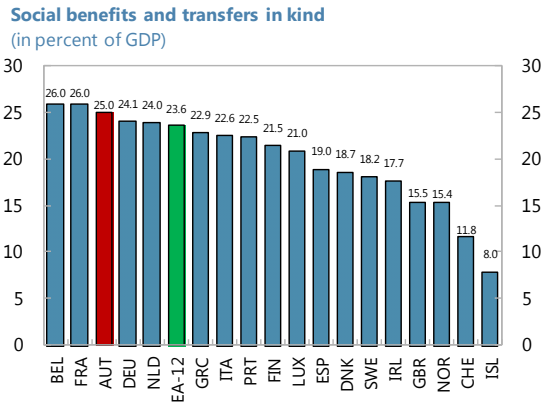
Compared with its peers in the region, Austria's expenditures on subsidies...



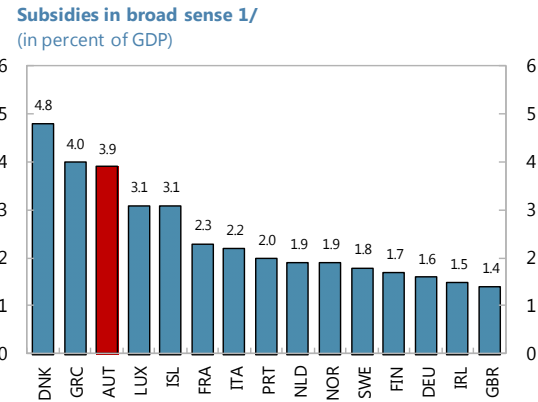
... capital transfers, and...



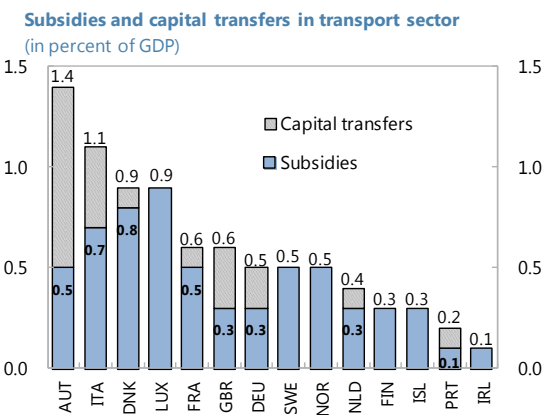
... social benefits and transfers in kind are among the highest.



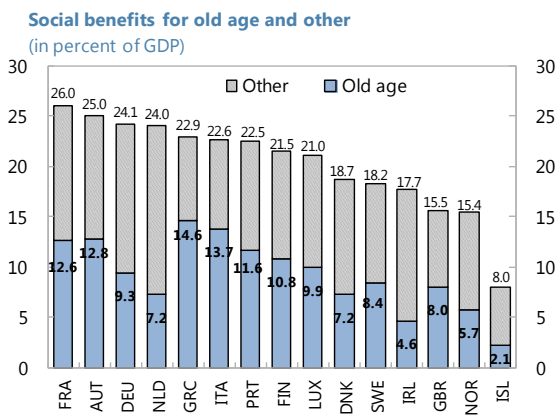
Even abstracting from support to banks and hospitals, Austria's subsidies and capital transfers stand out...



... in particular in the transport sector.



In social benefits, spending for old age is notably high.



Sources: Eurostat and IMF staff estimates.

1/ Sum of subsidies and capital transfers, excl. subsidies on health and capital transfers in general economic, commercial, and labor affairs and economic affairs n.e.c.

C. Spending Categories that Stand Out

The previous cross-country comparison of expenditure levels in individual economic and functional categories suggests that spending in the following two areas stand out old-age social benefits (mainly pensions, Section A) and subsidies in broad sense (mainly into the transport sector, Section B). Potential for efficiency gains appears to exist in health care spending (Section C).

Pensions

7. Public pension spending is high and will increase further due to aging. Current high public pension spending reflects both a high replacement rate and low effective retirement age. While high pension benefits are ultimately the country's choice and in terms of income older people compare relatively well with the total population,⁸ these benefits will become increasingly costly to sustain with the aging of the population. According to the European Commission (EC) 2012 Ageing Report, the old-age dependency ratio⁹ in Austria is projected to increase by about 23 percentage points between 2015 and 2050 (Figure 7). As a result, spending on pensions will rise further—the latest official projections foresee an increase in public pensions spending from 13.9 percent of GDP in 2015 to 16.4 percent in 2035, one of the highest levels in the euro area (Ministry of Finance, 2013).

8. Raising effective and statutory retirement ages would help mitigate cost pressures. The 2012 pension reform is a step in the right direction.¹⁰ The reform aims at an increase in the effective retirement age (from 58.4 years in 2012 to 60.1 years in 2018) as well as at increases in employment rates among older workers according to a specified path and schedule.¹¹ The latest official projections, assuming a rise in the effective retirement age and in labor force participation among the 55–64 years old, still project a 2½ percentage points of GDP increase in public pension spending between 2015 and 2035. As targeted labor market outcomes are subject to the largest uncertainty (e.g., in 2013, the actual outcome on effective retirement age (58.5 years) was below the

⁸ According to OECD, 2013b, in the late 2000s, the average disposable income of older people (65+ years) in Austria was 91.3 percent that of the total population, with public transfers accounting for the largest part of the income resources. Also Austria's old-age poverty at 11 percent is below the OECD average of 12.8 percent.

⁹ The old-age dependency ratio is defined as population aged 65 and over as a percentage of the population aged 20–64 (EC, 2012).

¹⁰ The 2012 pension reform that came into force on April 1, 2012, extends the number of contributory years entitling for the corridor pension and the long-term insurance pension from 37.5 to 40 years; restricts access to disability pension by tightening eligibility criteria and strengthening re-integration into work life ("fit2work"); increases the deductions in case of early retirement from currently 4.2 to 5.1 percent. Other measures include moderate adjustments of pension benefits (by 1 percentage points and 0.8 percentage points lower than CPI in 2013 and 2014, respectively).

¹¹ The employment rate among men (aged 55–59) is planned to increase from 68.1 percent in 2012 to 74.6 percent in 2018, among men (aged 60–64) from 21.6 percent in 2012 to 35.3 percent in 2018, and that among women (aged 55–59) from 47.9 percent in 2012 to 62.9 percent in 2018.

planned trajectory), further measures may be needed. OECD suggests raising the deduction in case of early retirement from the current 5.1 to above 6 percent to achieve full actuarial neutrality, as well as a more rapid increase of the statutory retirement age¹² for women, which is not currently envisaged (OECD, 2013a). Going forward, developments in the effective retirement age and employment rate among older workers are intended to be closely monitored so as to take additional measures if necessary.

Subsidies

9. Austria's subsidies and capital transfers are among the highest in the region, even abstracting from support to banks and hospitals (Figure 13). Given Austria's peculiarity in accounting for public expenditure in health, in particular for hospital services, we subtract subsidies for hospital services from the total amount of subsidies. Excluding in addition capital transfers due to bank rescues, Austria's expenditure on subsidies in a broad sense is still one of the highest in the region (3.9 percent of GDP in 2012) and 2.3 percentage points higher than in Germany. The biggest bulk of these subsidies goes into the transport sector (mainly railways, OeBB), both in form of subsidies and capital transfers. As the "Administrative Reform Working Group" points out, the Austrian system of subsidies and transfers has many deficiencies such as insufficient targeting, unsatisfactory ex-post evaluation, and transparency gaps that allow for multiple funding.¹³

10. Reducing the comparatively high level of subsidies requires restructuring and cost savings at public enterprises. This relates in particular to Austrian Railways (OeBB) where operating costs, pensions, and infrastructure investments offer scope for rationalization.¹⁴ Given the scope of infrastructure projects aimed at a modernization and a capacity increase of the national rail network and their long-lasting implications for the federal budget, measures, such as strict cost-controlling and re-dimensioning of the projects, need to be taken/intensified to reduce the construction and maintenance costs. Health preventive measures and retraining of older workers at OeBB would help limit early retirement due to disability and organizational needs. An extension of the transparency databank for public subsidies to incorporate states and municipalities as well as public enterprises would allow for stricter control and streamlined processes in the allocation of subsidies in other areas.

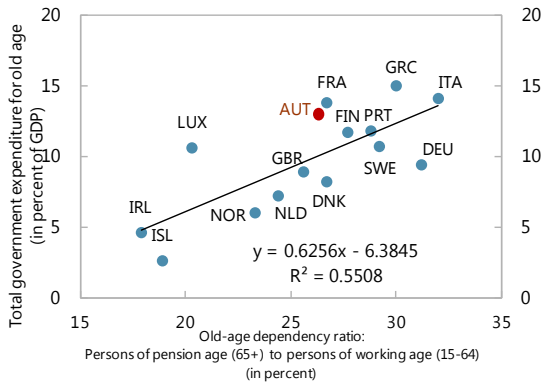
¹² The statutory retirement age is set at 65 years for men and at 60 for women, and the retirement age for women will converge to men by 2033.

¹³ See Arbeitsgruppe Verwaltung Neu, 2010.

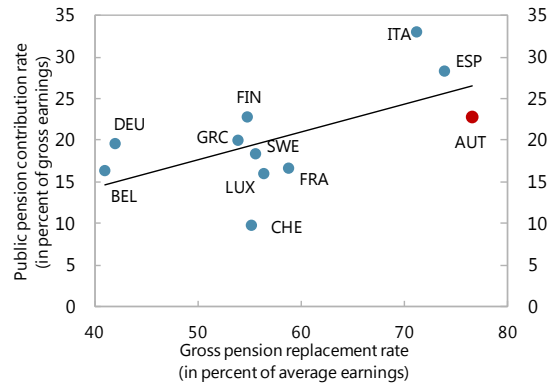
¹⁴ See Grossman and Hauth, 2010 and Annex 4 in IMF, 2011.

Figure 7. Austria: Comparison of Pension Parameters

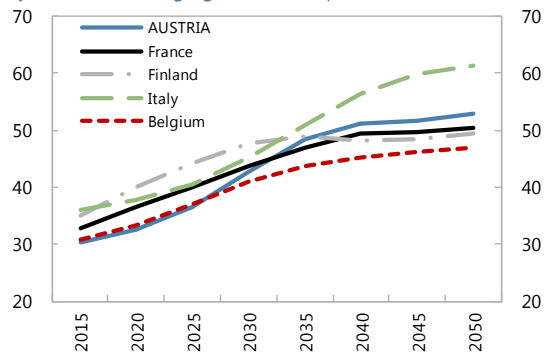
Austria's pension expenditures are high, despite its relatively favorable old-age dependency ratio.
Old-age Dependency and Expenditure Ratio



This reflects generosity of the pension system, which requires high contributions.
Public pension contribution vs. gross pension replacement rate, 2012

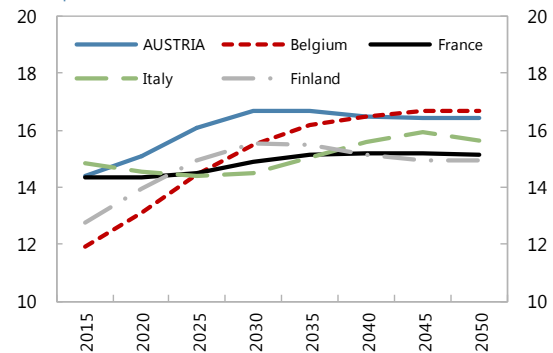


However, there are strong demographic pressures on the pension system...
Old-age dependency ratio: Persons of pension age (65+) to persons of working age (20-64) (in percent of GDP)

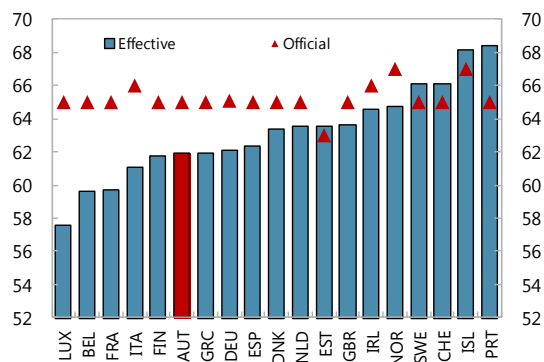


...and public pension spending is projected to rise.

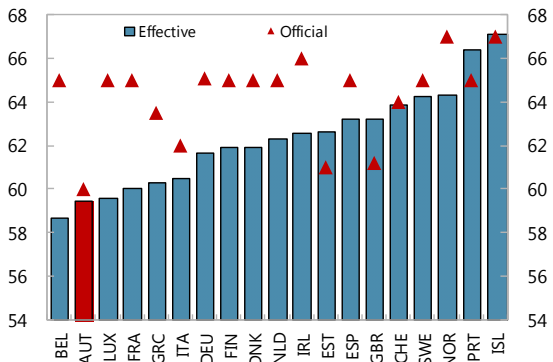
Public pension spending (in percent of GDP)



An increase of effective retirement age among men...



... and a faster increase of statutory retirement age among women would help limit the increase in pension



Sources: European Commission 2012 Ageing Report, Eurostat, OECD, and IMF staff estimates.

Health

11. Potential for efficiency gains appears to exist in health care spending. In the last decade, health expenditure grew on average at a higher rate than GDP, namely at 2.7 percent in real terms compared with average annual real GDP growth of 1.6 percent. As of 2012, health expenditure accounts for about 15 percent of total government expenditure and belongs to the second largest spending component after social protection. Going forward, the aging of the population, technological progress and increases in relative prices for medical products and services pose serious longer-term cost pressures on the Austrian health system. The latest official projections foresee an increase of 1.1 percentage points of GDP between 2015 and 2035. Results of a large-scale OECD study suggest that if Austria used its current health spending efficiently, it could improve the life expectancy of its population by two and a half years (Figure 8).¹⁵ Symmetrically, if Austria's health system was operating at the frontier level of efficiency, spending could be reduced by 2 percentage points of GDP or by one quarter of the current public expenditure on health care without adversely affecting outcomes. In particular, spending on hospital services—the main contributor to the high health expenditure—suffers from efficiency concerns,¹⁶ not least due to fragmentation between spending and funding responsibilities between different levels of government.¹⁷

12. Bringing health expenditure growth in line with GDP growth is challenging. In the context of the health care reform 2013, the authorities plan to limit nominal health expenditure growth to nominal GDP growth by 2016 and keep it at the expected average nominal GDP growth (3½ percent) beyond 2016. Targeting annual growth at 3½ percent without spelling out concrete measures might be challenging in the future against the background of serious demographic cost pressures. While the health reform correctly aims at improving the efficiency of the sector (e.g., by introducing a more evidence-based and coordinated approach to the planning and delivery of services), it could be further strengthened by specifying concrete measures to reach the defined targets, setting ambitious goals for shifting from inpatient to outpatient care, and by reinforcing preventive health care.

¹⁵ See OECD, 2011.

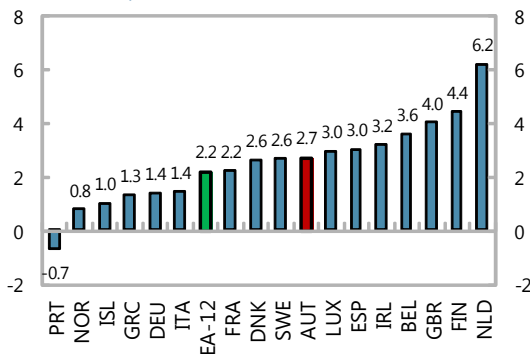
¹⁶ A hospital efficiency study developed in Austria suggests that up to one fifth of hospital costs could be saved (Hofmacher, Lietz, and Schnabl, 2005).

¹⁷ In Austria, hospital services are provided mostly by states ("Laender"), while funding is provided by transfers from federal government and social insurance funds. In contrast, social insurance funds carry the full cost for outpatient care.

Figure 8. Austria: Health Expenditure

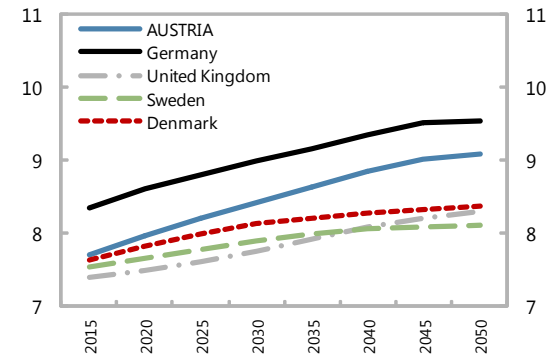
In the last decade, Austria's health expenditure grew annually at a higher rate than GDP, ...

Average annual real health expenditure growth (2002-12, in percent)



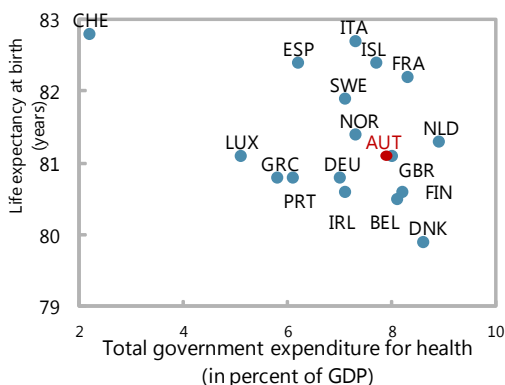
... and there are serious longer-term spending pressures.

Health care spending (in percent of GDP)



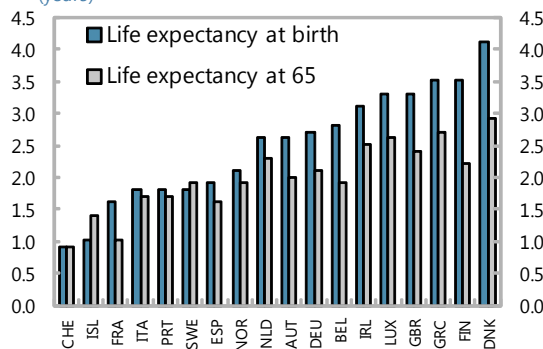
While the link between health care spending and outcome proxied by life expectancy seems to be weak, ...

Life expectancy and health spending ratio



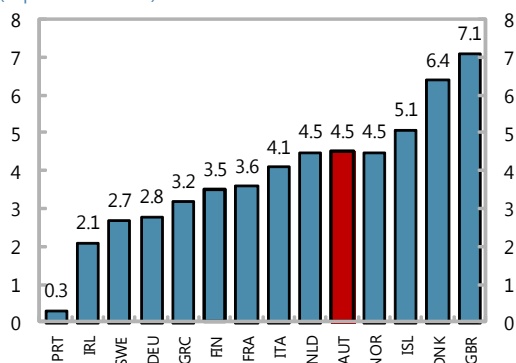
... life expectancy could improve if current spending was efficiently utilized.

Potential gains in life expectancy (years)



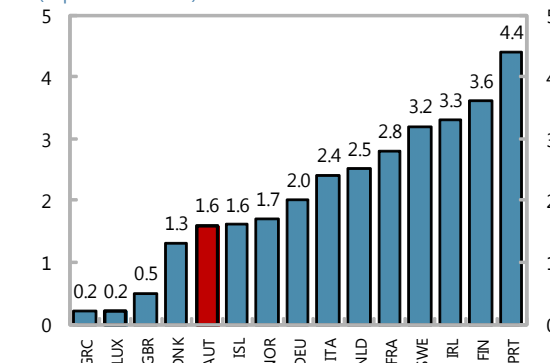
In particular, potential for efficiency gains appears to exist in hospital services.

Spending on hospital services (in percent of GDP)



And more use of outpatient care and prevention could be made in a better integrated health system.

Spending on outpatient services (in percent of GDP)



Sources: European Commission 2012 Ageing Report, Eurostat, OECD, and IMF staff estimates.

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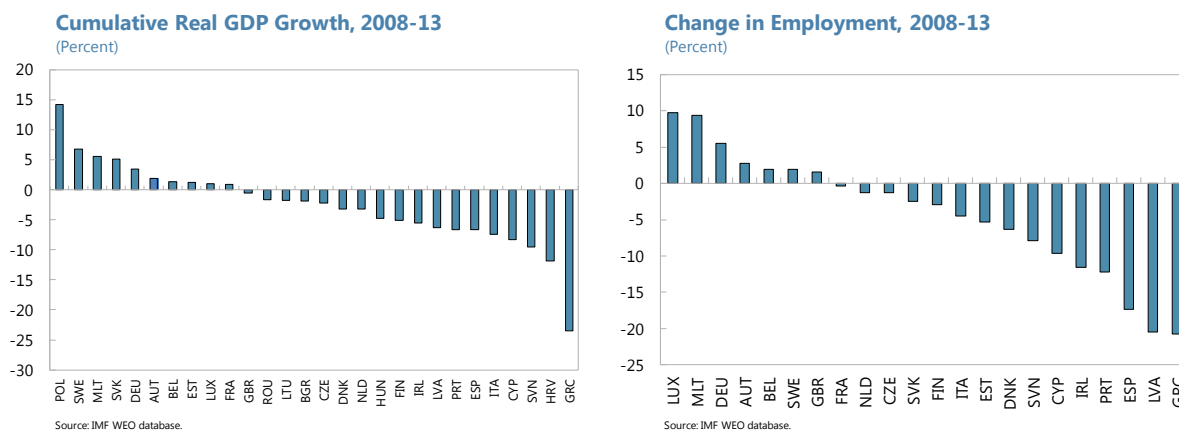
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PRE-CRISIS IMBALANCES AND POST-CRISIS GROWTH¹

A. Introduction

Austria has come through the global economic and financial crisis relatively well. It is one of the few euro area countries where real GDP and employment are higher than in 2008.



1. This note argues that Austria's better performance reflects the absence of large pre-crisis domestic imbalances. In the run-up to the global crisis household and corporate debt levels had remained moderate. The household saving rate had not experienced the sharp drop seen in countries with housing booms, but had in fact increased.² Growth of government spending had remained modest, and as a result there were buffers to weather the crisis. Households could smooth consumption, letting the household saving rate decline.³ Firms were not under severe pressure to cut costs, and could absorb demand shocks through lower profit margins and keep employment relatively stable; and the government could act counter-cyclically, in contrast to boom-bust countries which were forced to consolidate strongly.

¹ Prepared by Aaron Thegeya.

² The household gross saving rate increased from 12.9 percent in 2002 to 16.4 percent in 2007. The household gross saving rate is defined as gross savings of households and non-profit institutions serving households as a percent of gross disposable income.

³ The household gross saving rate declined to 12.1 percent in 2011.

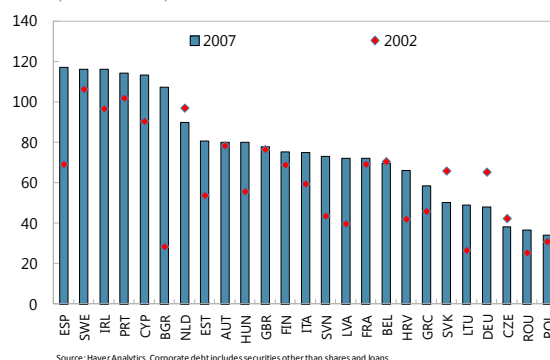
B. Non-Financial Corporate Sector⁴

Pre-Crisis Years

2. In many countries the non-financial corporate debt-to-GDP ratio increased sharply in the pre-crisis years.

Debt increases were the counterpart of corporate saving-investment shortfalls, as booming investment could not be funded from retained earnings only. By 2007, corporate debt was high particularly in Spain, Ireland and Portugal, and additionally there were rapid debt increases in the Baltics leading up to the crisis. In these countries, much of the debt surge was the result of a boom in the non-tradable sector, in particular in construction.

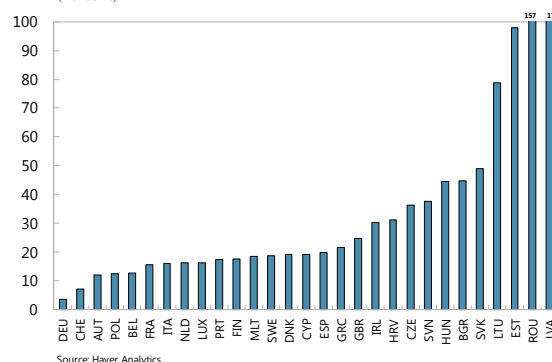
Change in Corporate Debt to GDP Ratio, 2002-07
(Percent of GDP)



3. At the same time, profit shares eroded in a number of countries as competition and overheating labor markets increased wage bills and reduced profit margins.

This was, however, certainly not an issue in all countries: in more than half of the countries, profit margins increased. These differences reflected the overheating of labor markets. Wage growth was most rapid in the Baltics and Romania, and the most restrained in Germany, Switzerland, and Austria.

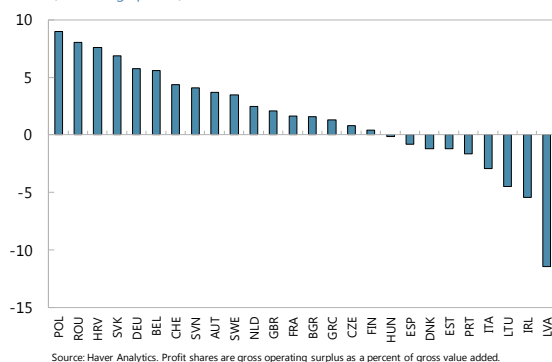
Change in Compensation per Employee, 2002-07
(Percent)



4. The combination of declining profits and increasing debt made the corporate sector in some countries vulnerable.

- Firms with a large gap between corporate saving (retained profits) and investment depended on the continued flow of new financing, which could suddenly dry up.
- If global conditions were to deteriorate, the combination of rising debt and declining profitability could also make it more difficult to roll over existing debt.

Change in Corporate Profit Shares, 2002-07
(Percentage points)



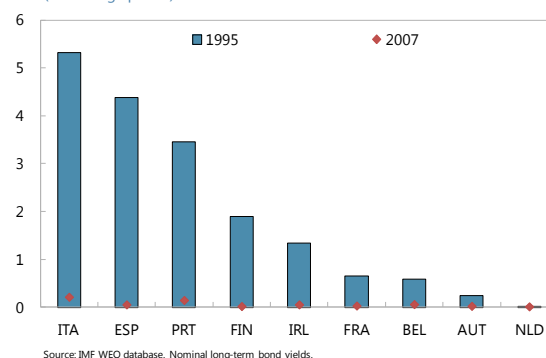
⁴ This section borrows from Bakker and Zeng (2014).

5. On both fronts Austria was different: the increase in corporate debt was modest, and profitability increased moderately.⁵ Corporate debt to GDP grew by 2 percentage points only between 2002 and 2007, and the share of short-term debt to total securities remained constant.

6. It is an interesting question why Austria did not have a corporate borrowing boom.

- One reason is that increased corporate profitability had boosted availability of internal financing. Firms also increased equity financing as a reaction to the low equity ratio of the Austrian corporate sector.
- Another reason may have been the behavior of Austrian banks. During the pre-crisis boom years, Austrian banks expanded aggressively—but in CESEE, not in Austria. Incentives to expand in the two markets were very different: banking in CESEE was very profitable, while profitability in the domestic Austrian market is structurally low.
- Another reason may have been that Austria did not benefit from interest rate convergence—the interest rate differential with Germany was already near zero in the mid-1990s.

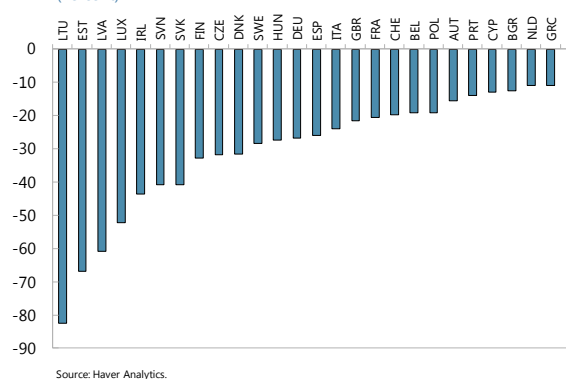
Long-Term Interest Rate Differential with Germany
(Percentage points)



The Crisis

7. Once the global crisis hit and capital flows dropped, the large saving-investment shortfalls were no longer sustainable, and during the next few years firms managed to reduce the gaps substantially. Countries that had larger imbalances typically suffered more acute crises which were reflected in a more severe contraction of the non-financial corporate sector.

Change in Corporate Investment, 2007-09
(Percent)



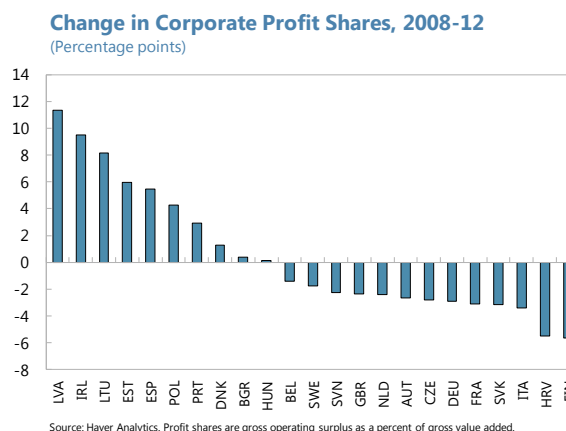
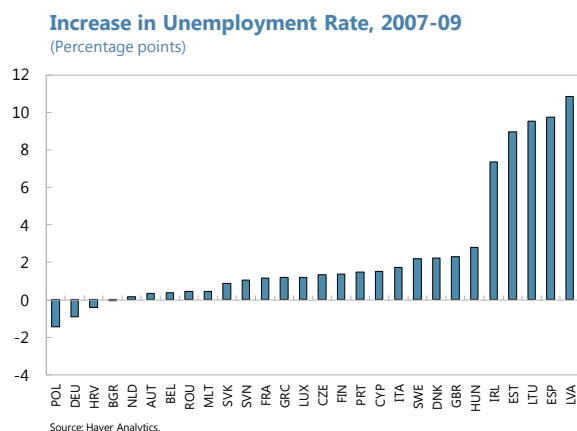
8. The gaps were partly closed by reducing investment. There was a large variation in the drop of investment, ranging from 8 percent in Romania to 82 percent in Lithuania in the immediate aftermath of the crisis.

⁵ Austria's corporate sector is dominated by the manufacturing and trade industries, which together comprised 65 percent of turnover in 2012. (See OeNB, "Structural Business Statistics 2012, Preliminary Results", 2013). A large share of Austria's manufactured output is exported, with manufactured exports comprising 38 percent of total exports. About half of Austria's exports are to euro area countries, with the dominant partner, Germany, accounting for close to a third of Austria's exports. Exports within the euro area do not carry exchange rate risk.

9. In many countries, the gap was further closed by boosting corporate saving through slashing costs to improve profits.⁶ Unprofitable production capacity was shut down and employment was slashed to save costs and restore profit margins. The result of this corporate adjustment was high unemployment and a sharp decline in production. The unemployment rate jumped by 7 percent or more in the Baltics, Ireland and Spain between 2007 and 2009.

- The increase in profit margins was largest in countries that had seen the largest increase in debt and the biggest deterioration of profits in the pre-crisis period. The Baltics, Ireland and Spain saw increases in profit margins above 5 percentage points between 2008 and 2012.
- By contrast, in countries that did not experience a corporate borrowing binge, and where corporate profitability had not deteriorated, profit margins declined during the crisis, as firms held on to their workforce.

10. Austria fell in this latter category. In Austria firms did not need to slash costs, and employment remained relatively stable. Firms instead absorbed costs of a temporarily under-utilized workforce, and corporate profit shares fell during the crisis. A similar experience occurred in other countries where employment held up relatively well, such as Germany and the Netherlands.



⁶ See International Monetary Fund (2014) *Jobs and Growth: Supporting the European Recovery*, p. 39.

C. Households

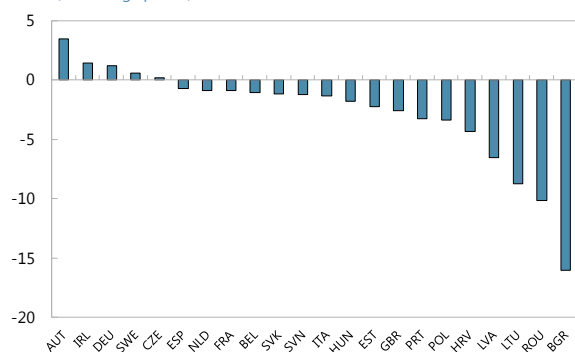
Pre-Crisis

11. Many EU countries experienced credit/housing price booms during the pre-crisis years which boosted consumption, increased household debt and led to a sharp decline in the household saving rate. The boom was most pronounced in Spain, Ireland, Portugal, the UK and Eastern Europe. The drop in household saving rates exacerbated the boom, with household saving rates behaving very pro-cyclically in some countries. In Estonia, for example, household saving rates dropped to a trough of -6 percent between 2002 and 2007, even though incomes were growing by up to 20 percent.⁷

12. This boom made households vulnerable:

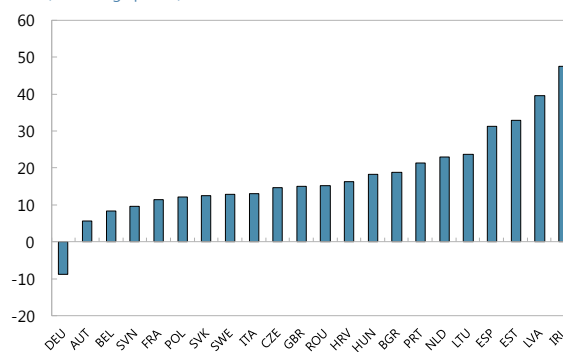
- As household saving had become negative in a number of countries, household consumption levels could only be maintained with continued flows of new financing.
- Household debt had gone up on the back of rising asset valuations. While household net worth was not a problem as long as housing prices remained high, a fall in housing prices would lead to a sharp drop in net worth, and to a problem with debt overhang.

Change in Household Gross Saving Rate, 2002-07
(Percentage points)



Source: Haver Analytics. Data includes households and NPISH. Calculated as gross savings as a percent of gross disposable income.

Increase in Household Debt to GDP Ratio, 2002-07
(Percentage points)



Source: Haver Analytics.

13. In a number of countries, which included Austria, there was no credit/housing boom and household saving did not decline. In Austria housing prices remained flat, household borrowing was modest, and its saving rate increased rather than declined.

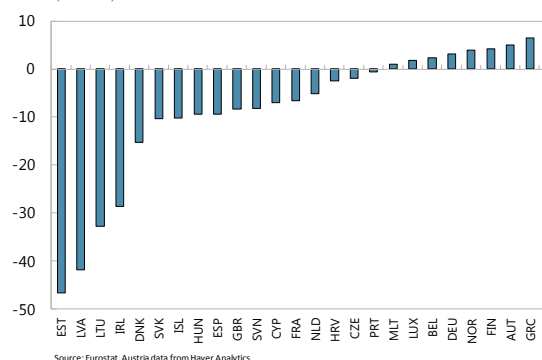
⁷ See Bakker and Felman (2014).

The Crisis

14. When the crisis hit, this housing price/credit boom came to a sudden end.

Between 2007 and 2009, countries that had seen large housing price increases now saw a sharp drop.

Housing Price Index Increase, 2007-2009
(Percent)



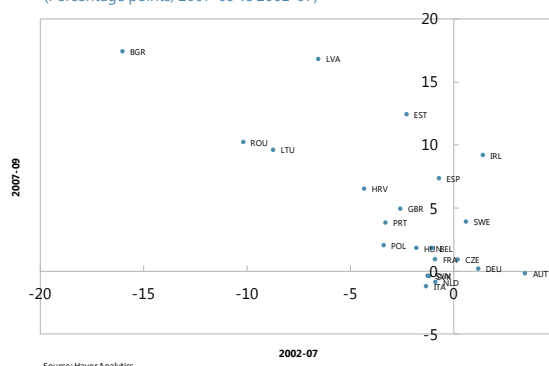
15. Large wealth losses and drying up of new funding forced households to reduce their consumption and increase their saving. It

was not just that the absence of new funding made it no longer possible to sustain negative saving rates; the large wealth losses and the increased costs of rolling over existing debt made households keen to reduce their debt burden.

16. Thus, households could not smooth consumption; instead the increase in their saving rates exacerbated the recession. The

increase in saving rates was in some cases quite dramatic, for example in Latvia where rates jumped by over 11 percent in the immediate aftermath of the crisis.

Change in Household Gross Saving Rate
(Percentage points, 2007-09 vs 2002-07)



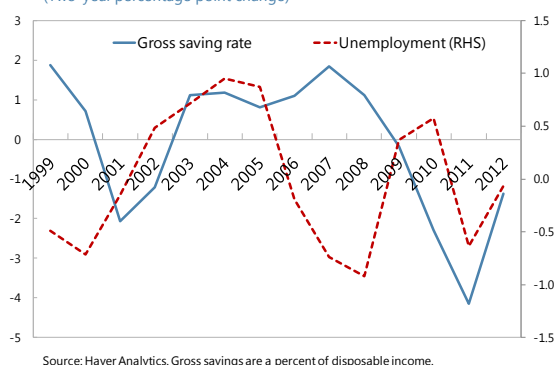
17. In countries where households had not gone on a borrowing binge pre-crisis, household saving rates behaved less pro-

cyclically. Indeed, there is a strong correlation between the decline of household saving rates pre-crisis, and their subsequent increase. Countries where household saving rates dropped the most saw the biggest jump during the crisis.

18. Austria was in this category: households reduced their saving rate, mitigating the decline in consumption.

Consumption growth remained positive in 2009, and in fact was (marginally) faster than in 2007. German and French households smoothed consumption in a similar fashion.⁸

Change in Gross Saving Rate and Unemployment
(Two-year percentage point change)

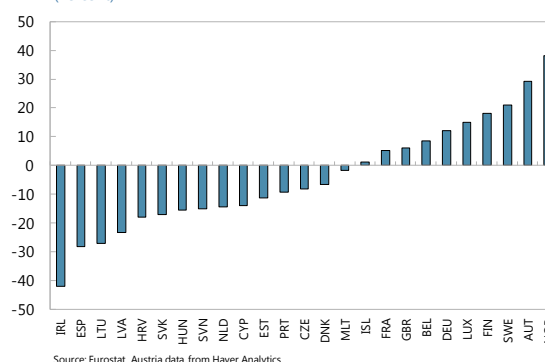


⁸ For a discussion of the behavior of household saving rates during the crisis, see also Bakker and Felman (2014).

19. Since the crisis, housing prices in Austria have risen rapidly although household debt has not increased much.

- Housing prices in Austria have gone up sharply since 2008 and could potentially contribute to a reduction of the saving rate. Housing prices increased cumulatively by 35 percent between 2008 and 2013, with an even more rapid increase of 56 percent in Vienna—amongst the highest in the EU since the crisis. Increases may reflect in part a flight to real assets by households and foreigners, as well as increased demand due to immigration.⁹
- Over this period, household debt has risen moderately in Austria. This contrasts with other countries where housing prices have increased rapidly (Norway and Sweden), and household debt has also grown very quickly.

Housing Price Index Increase, 2008-12
(Percent)

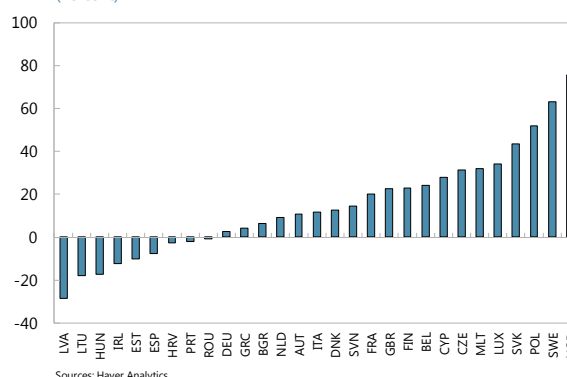


D. The Public Sector

20. As discussed in the first Selected Issues Paper, in the pre-crisis years, in many countries the private sector boom indirectly contributed to a public spending spree, as a surge of boom-related tax revenues generated room to boost public expenditure. When the private sector boom ended, tax revenues dropped sharply, forcing the governments to retrench.

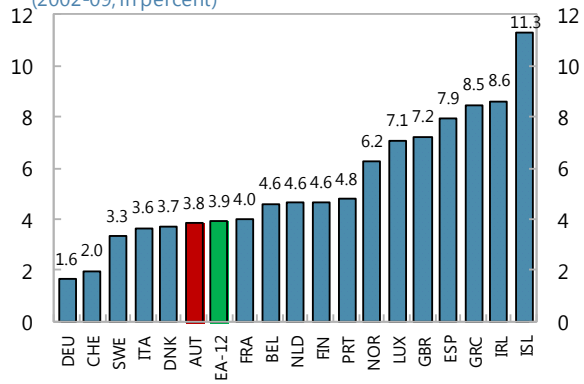
21. In contrast, Austria's public sector provided a counter-cyclical balance that was crucial in maintaining stability during the crisis, thereby dampening its impact. Austria's expenditure had remained under control during the boom years, thus there was no need to retrench during the crisis—and in fact there was room for countercyclical policy.

Change in Household Long-Term Loans, 2008-12
(Percent)

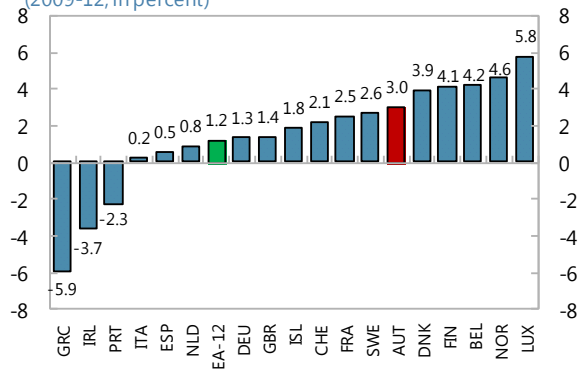


⁹ See OeNB, "Financial Stability Report", December 2013, p. 30.

Average annual government expenditure growth
(2002-09, in percent)



Average annual government expenditure growth
(2009-12, in percent)



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Bakker, Bas. B, and Joshua Felman (2014), Boom-Busts and the Rich: How Have Wealth and Inequality Influenced Business Cycles?, IMF Working Paper, forthcoming.

Bakker, Bas B., and Li Zeng (2014), Reducing the Employment Impact of Corporate Balance Sheet Repair, in "Jobs and Growth: Supporting the European Recovery: Supporting the European Recovery" edited by , by Martin Schidler, Helge Berger, Bas Bakker and Antonio Spilimbergo, IMF.

OeNB, "Financial Stability Report", December 2013.

OeNB, "Structural Business Statistics 2012, Preliminary Results", 2013.

AUSTRIA'S BANKING SECTOR AS INTER-MEDIATOR OF WESTERN EUROPEAN SAVING¹

A. Introduction

1. **Austria's banking system has significant assets abroad, but its net international investment position is close to zero.** Foreign assets of Austria's banking system are 104 percent of GDP, while foreign liabilities are 99 percent of GDP.
2. **The balanced IIP position of the banking system is because large investments in CESEE on the asset side of the balance sheet are offset by large liabilities to Western Europe.** Foreign claims of Austrian banks and subsidiaries in CESEE are 69 percent of Austria's GDP; conversely, foreign claims of Western banks on Austria are 64 percent of Austria's GDP.^{2,3}
3. **In other words, the IIP position of the banking sector is near zero because Austria's banking sector intermediates** Western European savings into CESEE. This intermediation has been effective in transferring capital to rapidly expanding CESEE markets over the last decade, therefore playing an integral role in their development.
4. **However, intermediation has also increased the interconnectedness of Austria's financial infrastructure** with both Western and Eastern Europe, increasing its vulnerability to external shocks, as well as exposing CESEE financial markets to funding shocks from Western Europe.

B. The Banking Sector During the Pre-Crisis Years

The Asset Side

5. **Austrian banks expanded rapidly in CESEE in the decade preceding the global crisis.** After the banking sectors in CESEE were opened to foreign investors in the mid-to-late 1990s, and given low margins in Western Europe, Austrian—and other Western European banks—became increasingly interested in expanding in Eastern Europe. They acquired local banks that were

¹ Prepared by Aaron Thegeya.

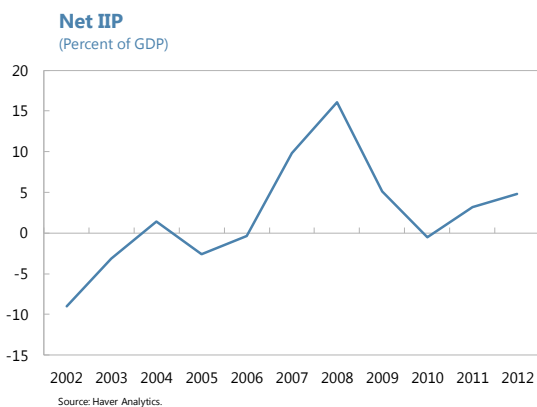
² BIS consolidated banking statistics include claims of Austrian banks' worldwide offices, including positions of foreign subsidiaries and branches but excluding inter-office activity. These statistics include only banks with majority domestic ownership. Conversely, IIP statistics include only claims of banks resident in Austria on non-residents. Therefore, BIS consolidated banking claims on CESEE include a broader set of exposures than IIP, and are likely greater than claims that would be included under the same consolidation basis as IIP.

³ BIS statistics only collect information on assets of the banking system. Asset positions of Western European banks are given vis-à-vis the Austrian economy, and serve as an indicator of the liabilities of the Austrian banking system.

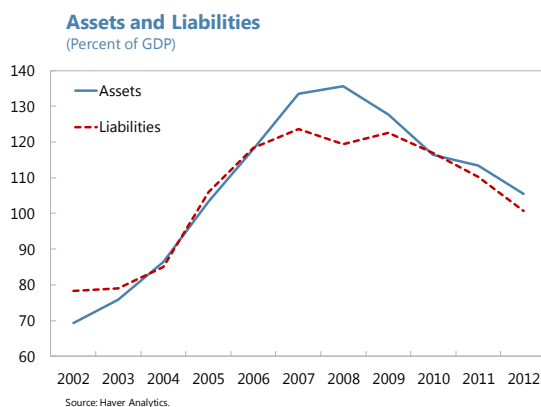
privatized or put up for sale by their private owners. They also strategically acquired subsidiaries across the region during the privatization process, gaining access to the market as well as exporting their banking expertise.

Figure 1. Austria: IIP of Banking Sector

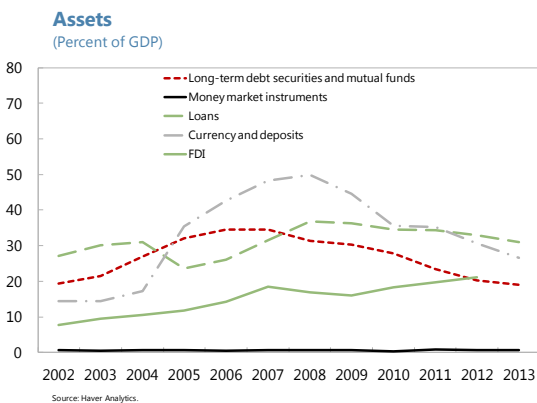
The net IIP is close to zero...



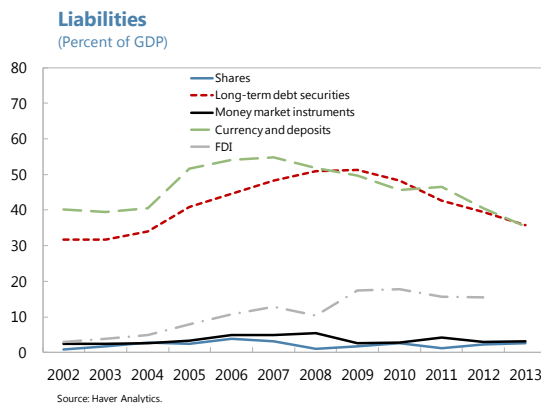
... although foreign assets and liabilities have grown significantly.



Credit is extended to CESEE through direct cross-border loan and deposit transfers from parents to subsidiaries...



... and funding is obtained from Western Europe by issuance of long-term debt, as well as deposits transfers.

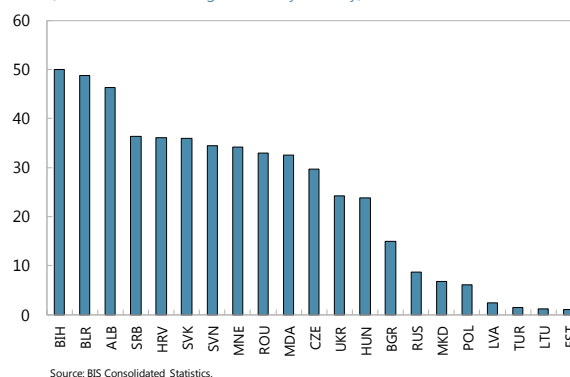


6. The most rapid expansion occurred between 2003 and 2007, when Western European banks fueled and financed a credit boom in CESEE. Average claims on the private sector as a percent of GDP in CESEE more than doubled between 2003 and 2007. Over the same period, real GDP growth within CESEE was on average over 6 percent.⁴ Western European banks financed much of the credit increase through deposits and capital injections to their local subsidiaries. They also provided cross-border loans directly to their customers. The magnitude of the credit boom differed among individual countries, and was closely linked to the influx of capital from Western banks.

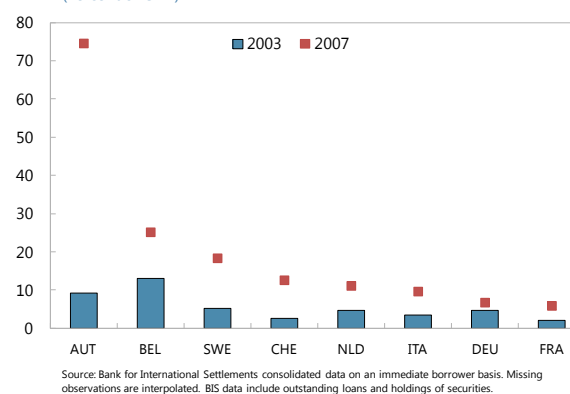
7. By 2007, foreign claims⁵ of Austrian banks on CESEE—a proxy of the credit granted by Austrian banks and their subsidiaries to the nonbank sector in CESEE—had increased to 70 percent of Austrian GDP—up from 10 percent of GDP in 2003. While other Western European countries also increased their exposure, none did so as rapidly as Austria. Austria's exposure to CESEE was also larger than any other economy in Europe in absolute amounts.

8. Austrian banks became significant players in CESEE relative to other foreign banks. By 2007, foreign claims of Austrian banks exceeded 30 percent of total foreign claims in Albania, Belarus, Bosnia and Herzegovina, Croatia, Moldova, Montenegro, Romania, Serbia, the Slovak Republic and Slovenia. Austrian banks' exposure had become large also relative to the size of the host countries. The most significant expansion took place in Croatia, Bosnia and

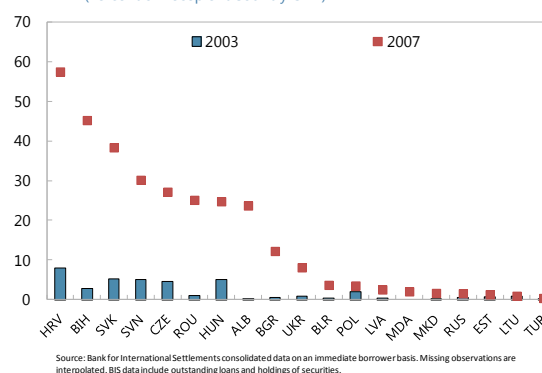
Foreign Claims of Austrian Banks on CESEE
(Percent of Total Foreign Claims by Country)



Foreign Claims of Banks on CESEE
(Percent of GDP)



Foreign Claims of Austrian Banks on CESEE
(Percent of Receptant Country GDP)



⁴ See International Monetary Fund, *CESEE Regional Economic Issues*, October 2013, Figure 6.

⁵ Foreign claims are the consolidated claims of Austrian banks on CESEE. They include all assets of their subsidiaries, but excluded loans of the parent banks to their subsidiaries. See Box 1.

Herzegovina, the Slovak Republic and Slovenia. Austria's claims in these countries were at least 30 percent of GDP by 2007, and as high as 57 percent of GDP in the case of Croatia.

The Funding of the Expansion

9. As discussed above, much of the credit expansion of Austrian banks and their CESEE subsidiaries was funded through deposits and capital injections from the parent banks. Parent banks also provided cross-border loans directly to their customers.

Box 1. The BIS Banking Statistics¹

The BIS publishes two sets of statistics on international banking activity: the **locational** statistics and the **consolidated** statistics.

- The locational statistics show the external positions of reporting banks. In essence, they measure cross-border funding. They capture gross outstanding claims of banking offices located in the BIS-reporting countries, including positions between related offices. The locational statistics are compiled using principles that are consistent with balance of payments statistics.
- The consolidated statistics show the worldwide consolidated claims (also known as foreign claims) of banks headquartered in the BIS-reporting countries. In essence, they measure what a bank owns. They include claims of their own foreign affiliates but exclude positions between related offices.

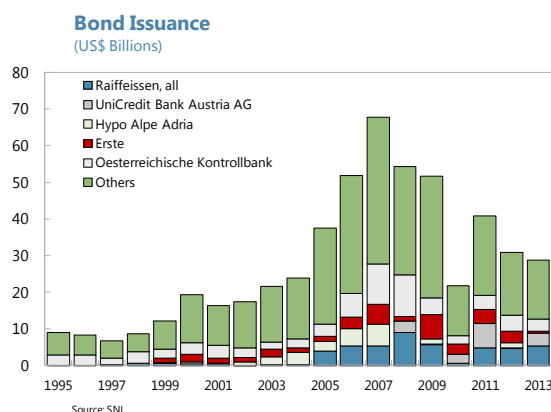
External positions are broken down into external positions on the banking sector and on nonbanks. The external position on the banking sector includes the external position vis-à-vis both affiliated banks, and vis-à-vis non-related banks.

Consolidated claims are broken down into international claims and local claims of foreign affiliates in local currency. International claims in turn are split further into cross-border claims, and local claims of foreign affiliates in foreign currency, although the BIS does not publish this breakdown.

^{1/} This box is based on Box 1 in International Monetary Fund, *CESEE Regional Economic Issues*, April 2013.

10. Austrian parent banks funded this expansion through externally issued bonds and loans rather than from Austrian deposits.

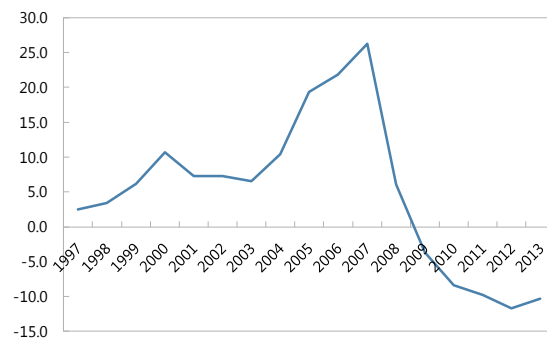
- Net issuance of international debt securities rose from US\$2 billion in 1997 to US\$27 billion in 2007. Outstanding international debt securities rose from 28 percent of GDP in 2004 to 42 percent of GDP in 2007, with outstanding bonds and notes worth US\$192 billion by 2007. Raiffeisen Bank, Hypo Alpe Adria and Erste Bank were particularly active in international bond markets over this period.



AUSTRIA

- Additional funds were attracted in the deposit market. Austria's external currency and short-term deposit liabilities increased by US\$82 billion between 2003 and 2007, while long-term deposit liabilities increased by US\$41 billion over the same period. Austrian banks provided financing by transferring deposits to subsidiaries located abroad. Inter-office assets of Austrian banks increased from 2.7 percent of GDP in 2002 to 5.7 percent of GDP in 2007.

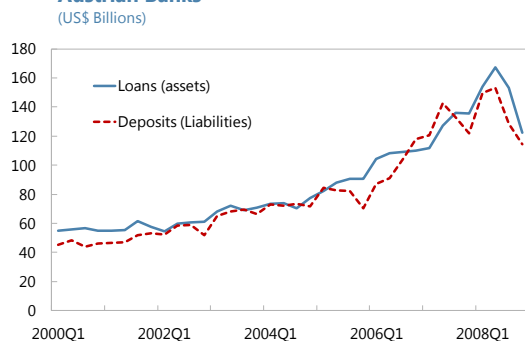
Net Issuance of International Debt Securities by Austrian Banks
(US\$ Billions)



Source: Bank for International Settlements.

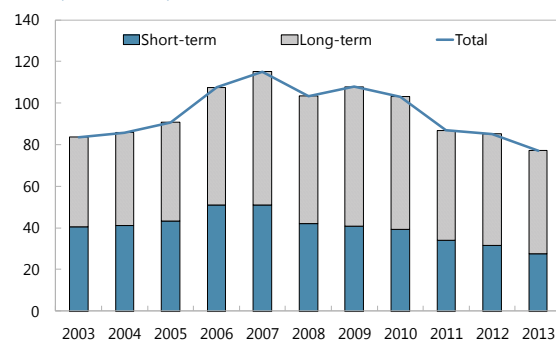
- BIS figures show a similar picture. Deposit liabilities of BIS-reporting Austrian banks went up as amounts similar to the external loans they provided.
- Overall, gross external debt of Austrian banks increased from US\$213 billion in 2003 to US\$432 billion in 2007. This corresponded to an increase from 84 percent of GDP to 115 percent of GDP over this period.

External Loans and Deposits of BIS-reporting Austrian Banks
(US\$ Billions)



Source: BIS, Locational Statistics, Table 7A.

Gross External Debt of Austrian Banks
(Percent of GDP)



Source: Bank for International Settlements.

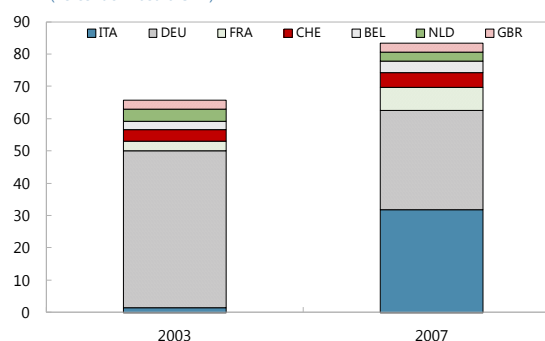
11. Italian and German banks were particularly important creditors. The shift between Italian exposure and German exposure in large part reflects the restructuring of Unicredit group. In 2007, Bank Austria merged with Unicredit and took over Unicredit's significant operations in CESEE.⁶

The Build-Up of Vulnerabilities During the Pre-Crisis Years

12. The rapid expansion of Austrian—and other Western European banks—created vulnerabilities, both for Austrian banks, and for CESEE.

- In CESEE, the credit boom contributed to a sharp increase in current account deficits and an overheating of the economies. Overheating was not only visible in inflation and wages: housing prices were also rising rapidly. By 2008, the external debt of many countries had reached high levels, and their international investment positions had become highly negative.⁷
- The rapid increase in external debt made Austria's banks vulnerable to funding shocks. By 2007, foreign liabilities of Austrian banks had increased to 120 percent of GDP.

Claims of Foreign Banks on Austria
(Percent of Austria GDP)



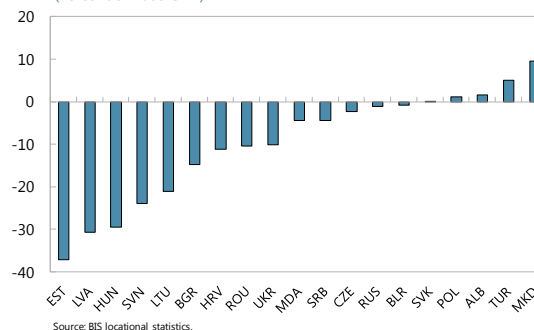
Source: Bank for International Settlements consolidated data on an immediate borrower basis. Missing observations are interpolated. BIS data include outstanding loans and holdings of securities.

C. The Banking Sector: The 2008 Crisis and Beyond

13. After Lehman Brothers defaulted in September 2008, Western European banks came under significant capital and liquidity pressure.

As risk aversion rose sharply and equity markets plunged, wholesale funding dried up suddenly and financing costs jumped. In a change of strategy, many banks in Western Europe advised their subsidiaries and branches in CESEE that new credit would henceforth need to be financed from an increase in local deposits rather than through funding from the parent bank.⁸

Change in Cross-Border Claims on CESEE, 2008-12
(Percent of 2008 GDP)



Source: BIS locational statistics.

⁶ BIS statistics only collect information on assets of the banking system. Positions of German and Italian banks are given vis-à-vis the Austrian economy, and serve as an indicator of the liabilities of the Austrian banking system.

⁷ Exceptions to this pattern were the Czech Republic, Hungary, Poland, and the Slovak Republic.

⁸ International Monetary Fund, *CESEE Regional Economic Issues*, April 2014, p. 20.

14. With Western European banks no longer sending new capital to CESEE, credit growth in many countries in CESEE came to a sudden stop.

The associated drop in domestic demand occurred just when the collapse of world trade led to a sharp fall in exports. The result was a steep downturn and a large increase in non-performing loans.

15. Since 2008, external funding of Western European banks to CESEE has dropped sharply. The reduction has come in two waves.⁹

- The first wave started after Lehman and subsided in the summer of 2009.
- Pressures re-emerged in the second half of 2011 as the euro area crisis spread to the banks of the core euro area.

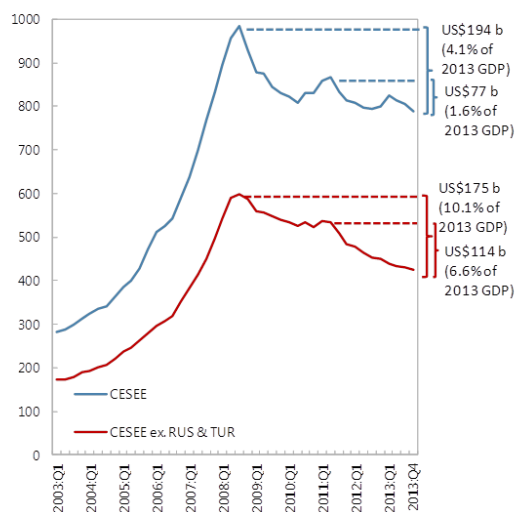
16. The reduction in external funding reflects a combination of demand and supply factors, the relative importance of which has varied over time and by country.¹⁰

- In the aftermath of Lehman and from mid-2011 (when the euro area crisis intensified), supply factors were important, notably rising funding costs and tighter credit conditions.
- Later on, when economic growth had weakened, demand factors became increasingly important. As credit demand in many countries was weak while deposit growth was relatively robust, it became attractive for subsidiaries to pay back parent funding.

- High NPLs further held back credit growth and encouraged repatriation of parent bank funding.

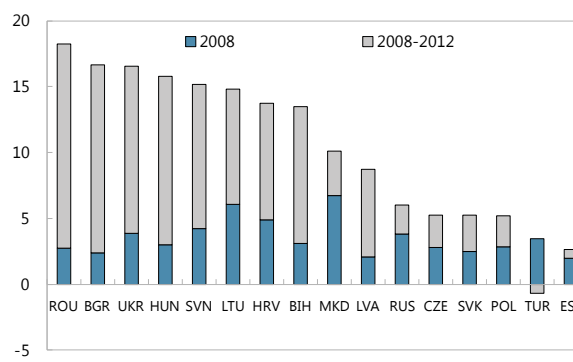
CESEE: External Position of BIS-reporting Banks, 2003:Q1-2013:Q4

(Billions of US\$, exchange-rate-adjusted, vis-à-vis all sectors)



Source: BIS, Locational Banking Statistics.

CESEE Non-Performing Loans to Total Gross Loans



Source: IMF FSI data.

⁹ See Heinz and Sun (2014); International Monetary Fund, *CESEE Regional Economic Issues*, April 2014, p.26.

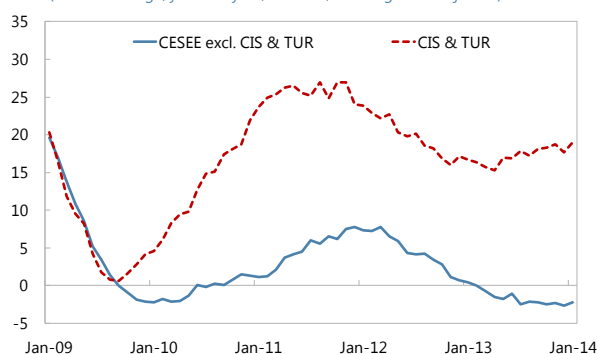
¹⁰ See International Monetary Fund, *CESEE Regional Economic Issues*, April 2014, p. 26.

17. The reduction in external funding differed across countries.¹¹ In aggregate, international claims on CESEE have fallen by 14 percent between 2008 and 2012. The largest drop has been in Ukraine (50 percent). A small number of countries have seen an increase in international claims over this period: the Slovak Republic, Poland, Turkey, Albania and Macedonia, FYR.

18. In most countries in CESEE, the decline in cross border funding has to a large extent been offset by an increase in domestic deposits and the level of credit has not declined. Notable exceptions include the Baltics, Hungary, and Slovenia.

Credit to Private Sector, 2009-14

(Percent change, year-on-year, nominal, exchange rate adjusted)



Source: CESEE Deleveraging and Credit Monitor (May 2014).

Austrian Banks

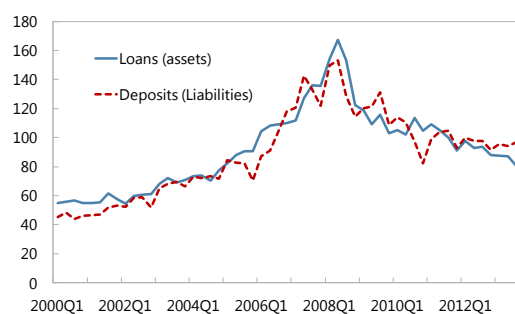
19. As their funding dried up, and their assets suffered from the end of the credit boom in CESEE, many Austrian banks came under pressure as well. Except for Italian-owned Unicredit Bank Austria, all Austria-based banks with major activities in CESEE received government support. Two of these banks had to be fully or partly nationalized and they have been retreating from the region.¹²

20. Since late 2008, Austrian banks have seen a significant reduction in both external assets and liabilities:

- Net issuance of international debt securities turned around sharply from US\$25 billion to US\$-7 billion in 2009. Additionally, funding from Western European banks dried up. Exposure of German and Italian banks, which were the largest creditors to Austrian banks, dropped by 7 and 9 percentage points of Austrian GDP between 2008 and 2012.¹³
- The reduction in external liabilities coincided

External Loans and Deposits of BIS-reporting Austrian Banks

(US\$ Billions)



Source: BIS, Locational Statistics, Table 7A.

¹¹ International claims are the sum of cross-border claims and local claims of foreign affiliates in foreign currency.

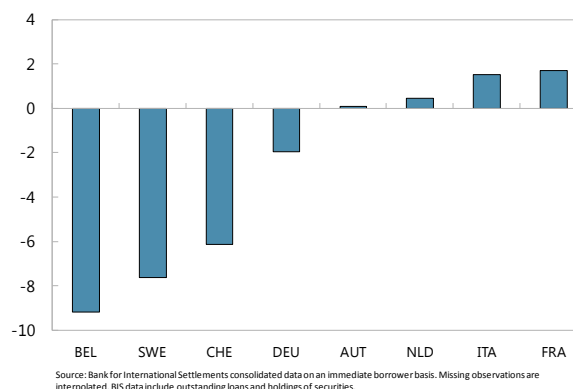
¹² The problems of a third nationalized bank (Kommunalkredit) rooted mainly in its considerable bond and CDS exposure to the euro area periphery (for more background on restructuring banks, see 2013 IMF Staff Report, Box 1).

¹³ The stock of outstanding external bonds has fallen from US\$204 billion to US\$155 billion between 2009 and 2013. Short-term securities issuance has declined as well, with outstanding amounts falling from US\$157 billion to US\$114 billion over the same period, while Austrian gross external debt has fallen from US\$832 billion to US\$817 billion.

with a reduction in external assets. BIS statistics show that since 2008, external loans (assets) of BIS reporting Austrian banks have fallen by roughly the same amounts as the external deposits (liabilities).

21. Indeed, since late 2008, Austrian banks have been shifting to a new model, in which credit of their CESEE subsidiaries is to a much larger extent funded by local deposits rather than by funding from the parent. The loan to deposit rate of Austrian CESEE subsidiaries decreased from 117 percent in 2008Q4 to 96 percent in 2013. In the longer run, this model would reduce the likelihood of future boom-busts in CESEE countries. It would also help reduce the external debt of Austrian banks, which would make them less vulnerable to funding shocks.

Foreign Claims of Banks on CESEE, 2008-13
(Percent of 2008 GDP)



22. The shift was further encouraged by the supervisory guidance adopted by the authorities in 2012 ("sustainability package"), which aimed to limit excessive parent bank funding by introducing a benchmark of 110 percent for the "loan-to-local-stable-funding ratio" on net new lending.¹⁴

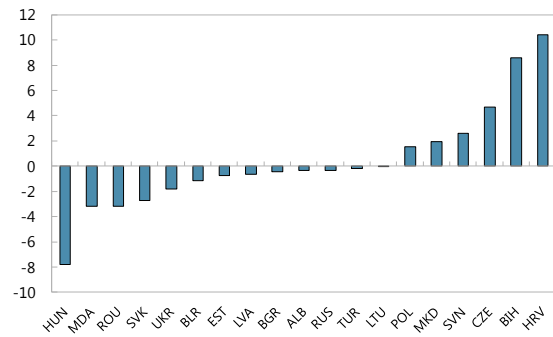
23. With increased domestic funding substituting for reduced cross-border funding, foreign claims of Austrian banks on CESEE have not changed much. Within CESEE, foreign claims of Austrian banks increased by 0.1 percent of 2008 GDP between 2008 and 2013. Foreign claims of Belgian, Swedish, Swiss and German banks declined over this period, while those of Netherlands, Italy and France increased somewhat.

24. Overall, Austrian banks remain committed to the CESEE region. Indeed, Austrian banks have played an active role in maintaining stability within the CESEE region within the framework of the Vienna Initiative. The Vienna Initiative was launched in 2009 and provided a forum for coordinated action by private and public stakeholders, including Austrian banks, to ensure that credit kept flowing within CESEE during the crisis.

¹⁴ For details on the supervisory guidance, see IMF 2012 Staff Report for Austria and related Selected Issues Paper; and <http://www.fma.gv.at/en/companies/banks/special-topics/supervisory-guidance.html>.

25. However, regional portfolio adjustments are apparent as banks are increasingly focusing on their core markets and reducing their business in countries which are defined as non-core or display macroeconomic and/or political vulnerabilities.

Foreign Claims of Austrian Banks on CESEE, 2008-13
(Percent of Receptient Country 2008 GDP)



Source: Bank for International Settlements consolidated data on an immediate borrower basis. Missing observations are interpolated. BIS data include outstanding loans and holdings of securities.

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