INTERNATIONAL MONETARY FUND

IMF Country Report No. 23/227

DENMARK

June 2023

2023 ARTICLE IV CONSULTATION—PRESS RELEASE; AND STAFF REPORT

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2023 Article IV consultation with Denmark the following documents have been released and are included in this package:

- A **Press Release.**
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on lapse-of-time basis following discussions that ended on May 12, 2023, with the officials of Denmark on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on June 1, 2023.
- An **Informational Annex** prepared by the IMF staff.

The documents listed below have been or will be separately released.

Selected Issues

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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International Monetary Fund
Washington, D.C.

PR23/236

IMF Executive Board Concludes 2023 Article IV Consultation with Denmark

FOR IMMEDIATE RELEASE

Washington, DC – **June 26, 2023:** On June 16, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Denmark and endorsed the staff appraisal without a meeting.

The Danish economy recovered strongly from the pandemic. Following a relatively mild contraction in 2020, the economy grew by around 5 percent in 2021 and 3¾ percent in 2022. With the level of output now well above its pre-pandemic trajectory, tight labor markets, and much-elevated import prices, headline harmonized consumer price index inflation reached a 40-year high in October 2022 before decelerating. More recently, there are signs that economic activity is cooling, as inflation is lowering real incomes, financial conditions are tightening, and external demand is weakening, but labor markets remain relatively tight.

Economic activity is set to soften in the first half of 2023, followed by a gradual recovery. GDP growth for 2023 is projected at 1¼ percent due to weaker external demand, high inflation, and tightening financial conditions. Inflation will continue to decelerate but stay above 2 percent in the near term. Moderating energy prices will continue to reduce headline inflation, but core inflation will decelerate slowly as the positive output gap persists in the near term. Risks to growth are broadly balanced, but risks to inflation are tilted to the upside, reflecting renewed supply shocks and stronger-than-expected and persistent wage pressures.

Executive Board Assessment[2]

In concluding the 2023 Article IV consultation with Denmark, Executive Directors endorsed staff's appraisal, as follows:

Denmark's recovery from the pandemic was impressive, but strong output and employment growth has contributed to inflationary pressures. GDP growth is expected to slow in 2023, while inflation will remain elevated in the near term. Risks to growth are broadly balanced, while upside risks dominate inflation. In the medium term, Denmark faces lower economic growth due to lower global growth and demographic challenges.

Near-term fiscal policy should support disinflation, given persistently elevated inflation. There is uncertainty regarding the contractionary effects assumed in the fiscal plan, while positive output gaps and high inflation are expected in the near term. Accordingly, the authorities should, as insurance, consider keeping tight spending control and saving any revenue above

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[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

[2]. Management has determined it meets the established criteria as set out in Board Decision No. 15207 (12/74); (i) there are no acute or significant risks, or general policy issues requiring a Board discussion; (ii) policies or circumstances are unlikely to have significant regional or global impact in the near term; and (iii) the use of Fund resources is not under discussion or anticipated.

budget forecasts aiming to improve the structural balance by ½ percentage points of GDP. If downside risks to growth materialize and inflation eases, automatic stabilizers should be allowed to operate fully.

Medium-term fiscal policy should be recalibrated as needed to adhere to the fiscal rules. The structural balance will weaken to a deficit over the medium term mainly due to defense and demographic-related spending. The authorities' forward-looking efforts to contain the level of the structural deficit within 0.5 percent of GDP set for 2030 by deploying supply-side measures are commendable. However, if fiscal trends suggest the risk of breaching the structural deficit limit (one percent of GDP), the authorities should stand ready to recalibrate medium-term fiscal policy. In this context, any changes to the indexation of statutory retirement age to life expectancy should safeguard long-term fiscal sustainability.

The financial system remains sound, but rising risks warrant continued vigilance and close monitoring. The authorities should closely monitor banks' liquidity risk management and ensure that their impairment charges are continuously updated as economic prospects change. In addition, commercial real estate (CRE) risks should continue to be closely watched, and further efforts are needed to close data gaps. The authorities should also consider an increase in risk weights on CRE exposures or the introduction of a sectoral systemic risk buffer. Furthermore, the supervisor's initiative to develop a pilot stress test for pension and insurance companies is welcome. Finally, given the increased risk of cyberattacks on critical infrastructure and institutions, efforts to monitor cyber security risks and strengthen resilience against cyberattacks should continue.

The authorities should consider tightening macroprudential policies to target pockets of vulnerability. The increase of countercyclical capital buffer was appropriate. However, tightening of borrower-based macroprudential measures should be considered to contain riskier mortgages, especially variable-rate mortgages with deferred amortization. Once house prices and inflation stabilize, the authorities are encouraged to review the high tax deductibility of mortgage interest expense and complex rental market regulations from the financial stability perspective. In this light, the government's plan to link property taxes to market valuations starting in January 2024 is welcome. The authorities are also encouraged to consider reforming the institutional setting of financial sector policy making in line with the 2020 Financial Sector Assessment Program.

Denmark is exposed to money laundering and terrorist financing threats. Progress has been made in strengthening the anti-money laundering/combatting the financing of terrorism (AML/CFT) framework. The authorities should continue efforts to increase the use of cross-border data and technological solutions in assessment of AML/CFT risks.

The authorities' strong focus on labor market reforms is welcome amidst the expected decline in the working-age population in the coming years. Canceling a public holiday will help increase annual hours worked, while the proposed personal income tax reform will help improve work incentives. The government is also planning to reform the early retirement schemes to increase employment. But additional measures should be explored consistent with Denmark's well-functioning flexicurity model. These include: (i) reviewing the structure of marginal effective tax rates, including benefits, to minimize disincentives to work and earn more, especially for lower-income households; (ii) continuing efforts to increase employment rates of immigrants; and (iii) enhancing education outcomes of students with immigrant backgrounds.

Further measures are needed to achieve Denmark's ambitious climate goals. In addition to strengthening of carbon pricing (Green Tax Reform), policy should consider complementary fiscal incentives at the sectoral level, including feebates in agriculture.

It is recommended that the next Article IV consultation be held in the standard 12-month cycle.

Denmark: Selected Economic Indicators, 2022–24

	2022	2023	2024
		proj.	
Output			
Real GDP growth (%)	3.8	1.3	1.4
Employment			
Unemployment rate (%)	4.5	5.0	5.0
Prices			
Inflation (%, Q4 on Q4)	10.2	3.3	2.6
General government finances			
Revenue (% GDP)	48.6	49.5	49.3
Expenditures (% GDP)	45.3	47.5	48.4
Fiscal balance (% GDP)	3.3	2.0	0.9
Public debt (% GDP)	30.1	30.5	30.3
Money and credit			
Domestic credit growth (%)	-4.0	...	...
3-month interbank interest rate (%)	0.3	...	...
10-year government bond yield (%)	1.2	...	...
Balance of payments			
Current account (% GDP)	13.1	9.1	7.8
International reserves (% change)	1.9	...	...
Exchange Rate			
ULC-based REER (% change)	-1.8	...	...

Sources: Statistics Denmark, OECD and Fund staff calculations.

INTERNATIONAL MONETARY FUND

DENMARK

STAFF REPORT FOR THE 2023 ARTICLE IV CONSULTATION

June 1, 2023

KEY ISSUES

Context. The Danish economy recovered strongly from the pandemic, which contributed to inflation pressures from higher energy and import prices. More recently, there are signs that economic activity is cooling, as inflation is lowering real incomes, financial conditions are tightening, and external demand is weakening, but labor markets remain relatively tight. Staff expect growth to slow to 1¼ percent in 2023. Risks to growth are broadly balanced, but upside risks dominate inflation. The financial system has remained stable, although house prices have fallen. The medium-term growth outlook remains modest, reflecting well-known structural issues, in particular demographic headwinds.

Policy recommendations. The priority is to bring down inflationary pressure while achieving a soft landing of the economy amid high uncertainty and ensuring financial stability in the wake of tightening financial conditions and increased global financial market volatility. The right structural reforms can lift growth over the medium term.

- **Fiscal policy.** Additional fiscal tightening should be considered to lower price pressures and provide insurance against upside inflation risks. To preserve the long-term sustainability of the public finances, fiscal policies might have to be adjusted in line with demographic trends and the effectiveness of ongoing labor market reform measures.

- **Financial sector policy.** Risks around households' creditworthiness, cross-border macrofinancial exposures, and liquidity require close monitoring. Macroprudential policies should target known pockets of vulnerability. The strengthening of supervision for anti-money laundering and countering the financing of terrorism purposes should continue.

- **Structural policy.** Boosting productivity and labor supply are key for ensuring strong, sustainable, and inclusive long-term growth and the welfare state. Reform priorities include continuing the ambitious digitalization agenda with further efforts to promote competition, reviewing the tax-benefit system, tightening early retirement conditions, and utilizing immigrant labor more effectively while enhancing educational outcomes for students with immigrant backgrounds. The green tax reform will support the green transition.

Approved By
Helge Berger (EUR) and Johannes Wiegand (SPR)

Discussions were held in Copenhagen from May 2–12, 2023. The team comprised Kotaro Ishi (head), Burcu Hacibedel, Raju Huidrom, Gohar Minasyan, and Seyed Reza Yousefi (all EUR). Fuda Jiang (EUR) provided research assistance, and Hannah Jung (EUR) provided administrative assistance. Anne Marcussen (Alternative Executive Director) participated in the discussions.

The team met with Ms. Krogstrup, Governor of Danmarks Nationalbank; Messrs. Kieler and Pedersen, Deputy Permanent Secretaries of the Ministry of Finance; Messrs. Degn and Nygaard Jørgensen, Deputy Permanent Secretaries of the Ministry of Economic Affairs; Ms. Ank, Deputy Permanent Secretary of the Ministry of Industry, Business and Finance Affairs, Mr. Skaarup, Deputy Permanent Secretary of the Ministry of Taxation; Mr. Vie Madsen, Acting Director General of the Danish Financial Supervisory Authority; Ms. Anker, Director General of Statistics Denmark; other senior officials; and representatives from the Danish Economic Council, social partners, academics, and the financial sector.

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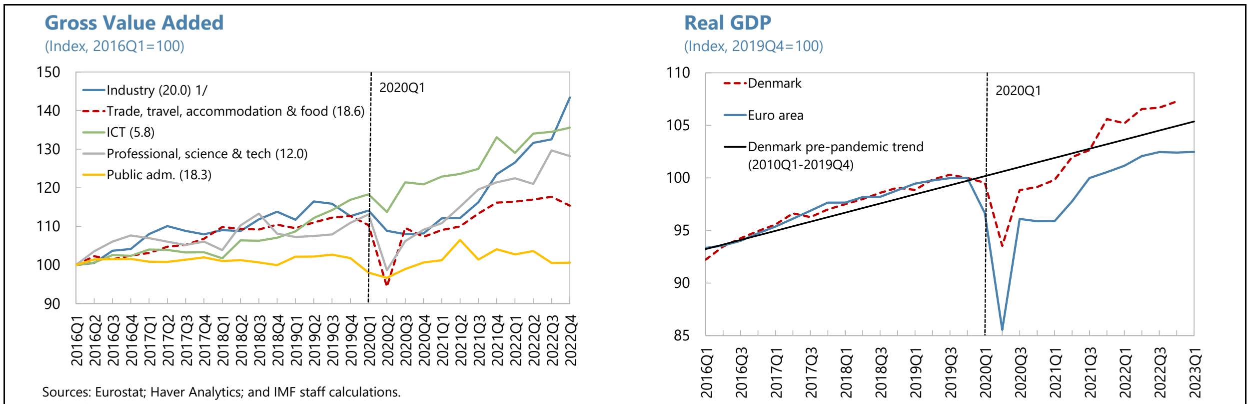
CONTEXT

1. Denmark's strong recovery from the pandemic contributed to high inflation (Figures 1, and 2, and Table 1). Following a relatively mild contraction in 2020, the economy grew by around 5 percent in 2021 and 3¾ percent in 2022. The recovery was initially driven by fiscal support and a quick COVID-19 vaccine rollout—which allowed the authorities to lift all containment measures by September 2021, among the earliest in the European Union. Subsequently, private sector activity took off, aided by accommodative financial conditions and the exceptional expansion in the pharmaceutical industry, while fiscal support was withdrawn. However, with the level of output well above its pre-pandemic trajectory, tight labor markets, and much elevated import prices, headline harmonized consumer price index (HICP) inflation reached a 40-year high of 11½ percent (year-over-year) in October 2022 before decelerating.



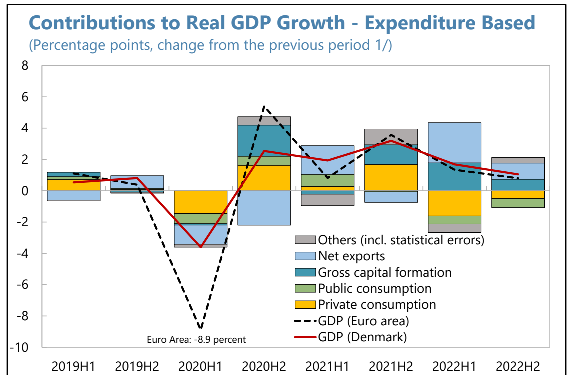
Sources: Eurostat; Haver Analytics; and IMF staff calculations.
1/ The figure in the parenthesis indicates a percentage share in the total gross value added.
Sources: Eurostat; Haver Analytics; and IMF staff calculations.

2. A key policy challenge is navigating the current highly uncertain moment in the global economy. Denmark has been largely sheltered from the direct economic spillover of Russia's war in Ukraine due to its limited direct trade, energy, and financial linkages with Russia and Ukraine. However, the banking sector turmoil in the United States and Switzerland in early 2023 has raised renewed global financial stability and growth concerns. As a small open economy, Denmark is exposed to the anticipated slowdown in the global economy. Denmark has a large financial sector (amounting to nearly six times its GDP), with extensive linkages with other European countries, especially the Nordics. Domestically, households' indebtedness remains substantial, and residential property prices have fallen from high levels. Accordingly, policy challenges could intensify if global banking system uncertainty lingers or worsens, spilling over to Denmark.

3. Following the November 2022 general elections, on December 13, a centrist government was formed for the first time in 44 years. The new government's policy focus includes green policies, inflation, labor, taxation, and immigration. Progress in the structural reform agenda has been mixed, but Denmark's policy direction has been broadly in line with past staff recommendations (Annex I).

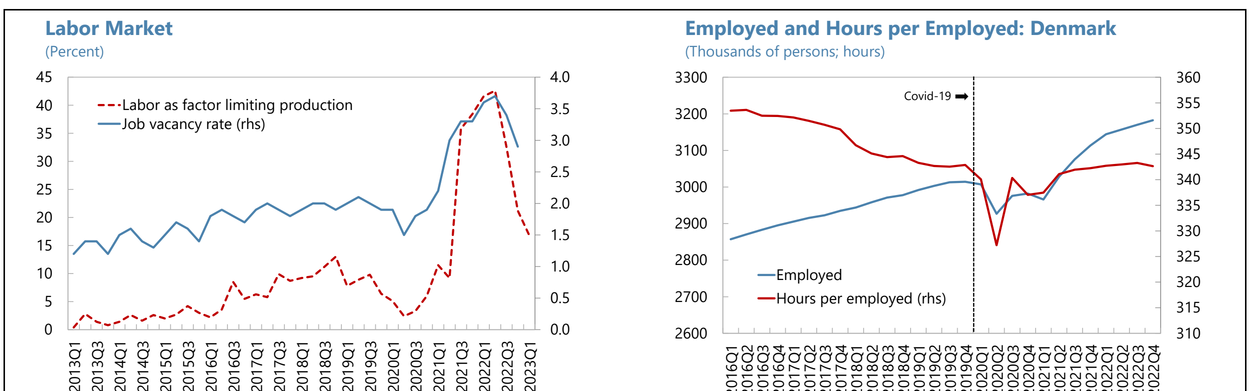
RECENT DEVELOPMENTS—SIGNS OF SOFTENING

4. Growth is moderating (Figure 2). Output growth slowed to 2 percent in 2022:H2, down from 3½ percent in H1 (seasonally adjusted, annualized). Private consumption weakened due to reduced real disposable income and increased retail interest rates. Business investment and net exports—which registered strong growth in 2022:H1 due to strong pharmaceuticals, freight services, and Information and Communications Technology (ICT) exports—also moderated in H2. High-frequency business and consumer confidence indicators continue to remain in negative territory. The flash GDP estimate in 2023:Q1 indicates that the Danish economy continued to grow but more slowly at 1¼ percent (q/q, annualized).



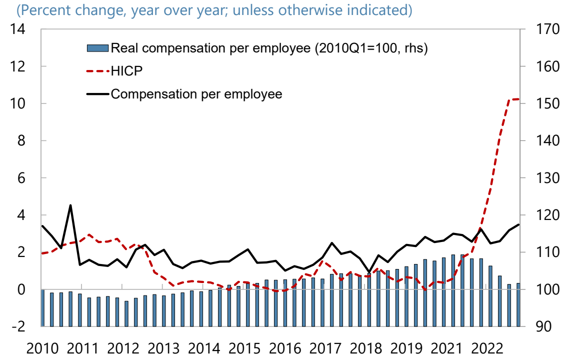
Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.
1/ Stacked columns indicate percentage points contributions to Denmark's real GDP growth.

5. Labor market pressures have softened, but the market remains relatively tight (Figure 3). The labor force participation rate rose by around 1 percentage point to 63½ percent in 2022, in part reflecting the government's various measures to incentivize people to work, while hours per employed have returned to pre-pandemic levels. The job vacancy rate and the number of businesses reporting labor shortage "as a factor limiting production" have fallen in recent months. However, labor market conditions remain relatively tight, with employment in 2022:Q4 growing by around 2¼ percent (year on year) and the unemployment rate in the lowest range since the late 2000s.



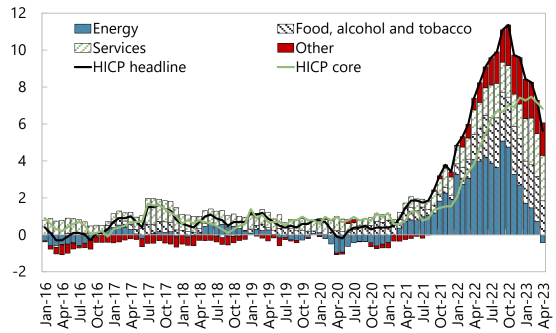
6. Headline inflation is leveling off from a historical high, but core inflation is sticky. Since its peak in October 2022, headline HICP inflation has started falling as global energy price pressures eased but remained elevated at around 5½ percent in April 2023. Core inflation (HICP excluding energy and unprocessed food products) proved sticky (around 7 percent). With the sharp increase in inflation, real wages fell to around the levels a decade ago. Wage pressures, however, have thus far been relatively contained: nominal compensation per employee grew around 3½ percent (y/y) in 2022:Q4, well below the headline inflation.

HICP Inflation and Compensation per Employee
(Percent change, year over year; unless otherwise indicated)



Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

Denmark: Inflation Decomposition
(Percent change, year over year)



Sources: Eurostat; Haver Analytics; and IMF staff calculations.

7. **Fiscal policy was tightened in 2022** (Tables 2–4). The overall fiscal surplus in 2022 of 3¼ percent of GDP was well above the budget forecast of 1¼ percent of GDP due to well-contained spending while surprise inflation buoyed revenues.[1] The structural balance was strengthened by 1 percentage point of GDP to a surplus of 1 percent of GDP in 2022, reflecting the unwinding of the bulk of COVID-19 related support measures (1.1 percentage points of GDP), more than offsetting the new and small discretionary spending (½ percent of GDP), including energy-related compensation measures (Box 1), defense, and humanitarian spending for Ukraine refugees. Gross debt declined from 36½ percent of GDP in 2021 to around 30 percent in 2022, among the lowest in the European Union.

Text Table 1. Denmark: Fiscal Budgeted versus Outturns
(In percent of GDP)

			2022	
	2020	2021	Spring Budget[1]	Outturn
Revenue	53.8	54.4	47.9	48.6
Expenditure	53.5	50.8	47.3	45.3
Overall balance	0.2	3.6	1.2	3.3
Structural balance[2]	0.5	0.0	0.3	1.0
Public gross EMU debt	42.2	36.7	32.2	30.1
Memorandum items:				
COVID-19 related above-the-line support[3]	1.6	1.6	0.4	0.5

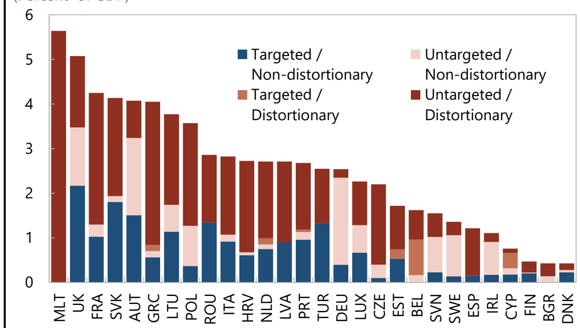
Source: Ministry of Finance (MOF); Ministry of Economic Affairs (MOEA); and IMF staff calculations.
1/ MOF Economic Survey, May 2022.
2/ Percent of potential GDP.
3/ MOF Economic Survey, Dec 2021. Outturn is based on MOEA Economic Survey, March 2023.

[1] Staff's estimate suggests that the inflation surprise in 2022, defined as projected inflation for 2022 in the October 2022 World Economic Outlook minus that for 2022 in the October 2021 World Economic Outlook, in isolation, would have yielded fiscal savings of about 2¾ percent of GDP (Garcia-Macia 2023).

Box 1. Measures to Compensate for Higher Energy Prices

Denmark's compensation measures to mitigate the impact of higher energy prices are small. Compensation measures amount to about ½ percent of GDP during 2022–23, small relative to the European average (around 2½ percent). Some measures—notably the "heat checks" benefits to pensioners—are targeted. But others—e.g., cuts to electricity VAT, higher employment deductions—are not, and would impede the price passthrough. The authorities also imposed a ceiling on rent increases (capping at 4 percent) during 2022–23.

Fiscal Costs of Household Support Measures in 2022-23 1/
(Percent of GDP)



Sources: Arregui et al. (2022).
1/ Support measures for most countries are as of December 2022.

Table 1. Fiscal Measures to Compensate for Higher Energy Prices

Category	Measures	DKK million		Percent of GDP	
		2022	2023	2022	2023
Targeted; Non-distortionary	"Heat check"; lump-sum retiree compensation; child and youth benefits; elderly checks	2,583	4,040	0.09	0.14
Untargeted; Non-distortionary	Increased employment deduction; pool to phase out fossil fuels in district heating	661	660	0.02	0.02
Untargeted; Distortionary	Reduction of electrcity tax; freezing scheme	210	4,405	0.01	0.16
Miscellaneous		10	100	0.00	0.00
Total		**3,464**	**9,205**	**0.12**	**0.32**

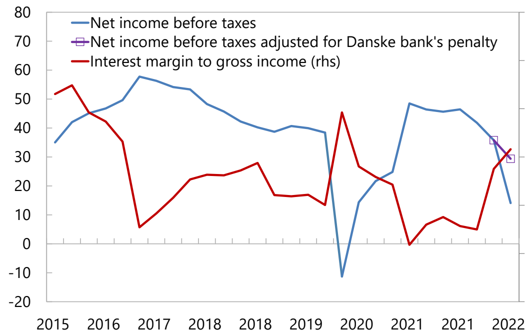
Source: MOF; and IMF staff calculations.

Most measures are funded by the reallocation of other spending items. Except for the "heat check," compensation measures are fully funded by tapping general reserves, bringing forward revenues (from contributions into pension savings), and cutting some public investment.

Support for energy companies. While profitable, electricity companies experienced a "cash crunch" last year (as collateral requirements were rising). The government offered temporary liquidity support of up to 125 billion DKK in the form of loan guarantees. However, there was no take-up due to steep terms, with companies resorting to borrowing from banks instead.

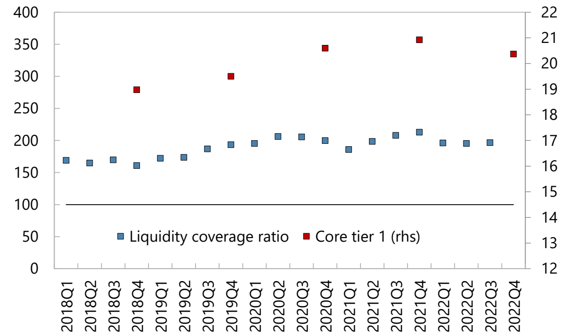
8. **The financial system remains stable** (Figure 4 and Table 5). The non-performing loan (NPL) ratio continued to fall to 2.4 percent in 2022:Q4, down from 3.1 percent in 2021:Q4. The impairment charges and provisions ratio has remained low at around ¾ percent, although impairment charges for the macroeconomic and geopolitical risks increased. Increased market interest rates boosted the interest margin, but banks' overall profitability deteriorated in 2022, partly reflecting Danske Bank's anti-money laundering settlement costs. Nonetheless, banks' core Tier 1 capital and liquidity coverage ratios stayed at 20.4 percent and nearly 200 percent, respectively, well above the regulatory requirements in 2022—while the leverage ratio remained at around 5 percent, relatively low compared to other European countries.

Net Income and Interest Margin
(DKK billion; percent)



Sources: IMF, Financial Soundness Indicators; and IMF staff calculations.

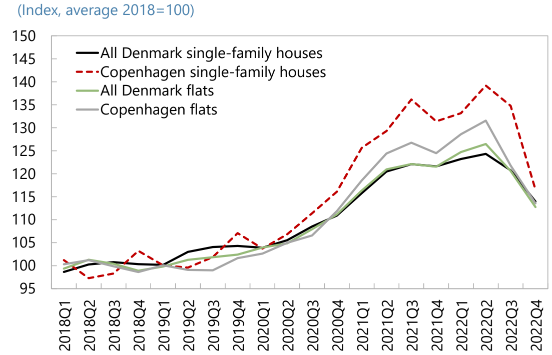
Regulatory Capital and Liquidity Coverage Ratio
(Percent; all banks)



Sources: Danmarks Nationalbank; and IMF, Financial Soundness Indicators.

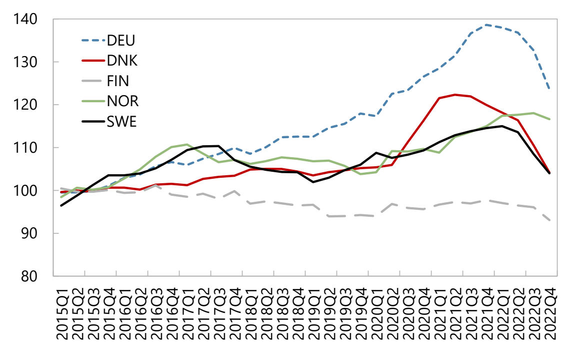
9. Activity in the real estate sector has cooled, and residential property prices have fallen (Figure 5). Residential construction indicators, including time-on-market and transactions, all suggest cooling real estate markets. Throughout the pandemic, residential property prices rose fast by more than 20 percent on average by 2022:Q2, reflecting low mortgage rates, tax incentives, and a sharp increase in construction costs. However, with higher interest rates, house prices have since started falling, and the average house prices fell by more than 7 percent in 2022:H2.

House Prices
(Index, average 2018=100)



Sources: Finance Denmark; and IMF staff calculations.

Price to Income Ratio
(Index, 2015=100)

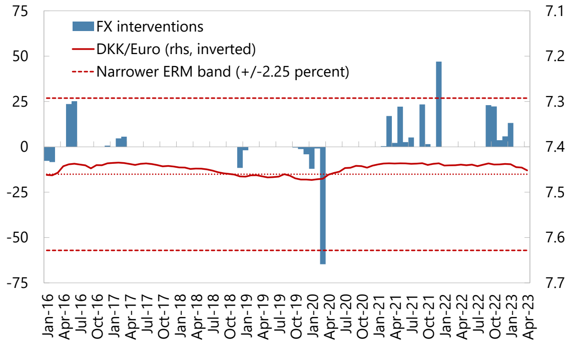


Source: OECD.

10. Following the European Central Bank (ECB), Danmarks Nationalbank (NB) increased its policy rates significantly. The objective of Denmark's monetary policy is to ensure a fixed exchange rate against the euro.[2] To this end, DN has raised its policy rates seven times since July 2022, for a total of 345 basis points to 2.85 percent (CD and current account rates), closely following the ECB's policy decisions. As currency appreciation pressures continued, DN also purchased foreign exchanges, equivalent to US$ 7.3 billion in 2022, to steer the krone close to the central rate of DKr 746.038 per 100 euro.

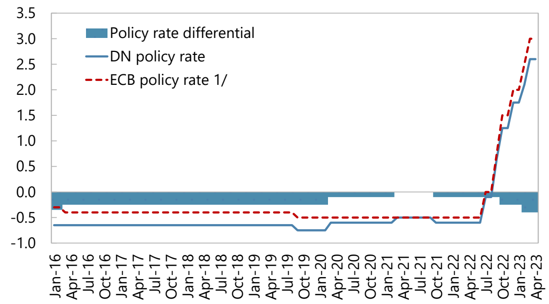
[2] European Exchange Rate Mechanism 2 remains the formal framework for Denmark's fixed exchange rate policy. The krone is allowed to fluctuate within the narrow band of +/- 2.25 percent around the central rate of DKr 746.038 per 100 euro.

FX Interventions and the Exchange Rate
(LHS: Bln. DKK; RHS: percent)



Sources: Haver Analytics; and IMF staff calculations.

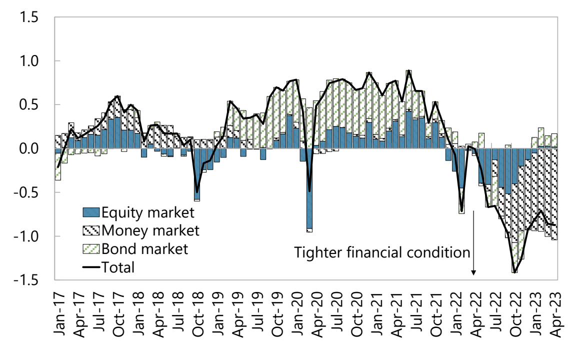
Policy Rate Differential with the ECB
(Percent)



Sources: Danmarks Nationalbank; ECB; and IMF staff calculations.
1/ This reflects the ECB's deposit rate. Prior to the global financial crisis, the main refinancing operations (MRO) rate was the relevant ECB policy rate.

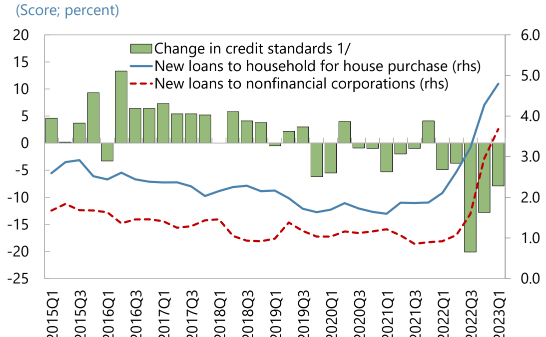
11. Financial conditions have tightened. Equity, money, and bond markets point to the tightening of the overall financial conditions since Fall 2021—although the tightening of the financial conditions index has partially reversed recently. Along with increases in lending rates, credit standards have also tightened. With tightening financial conditions, overall credit growth contracted by 4 percent in 2022, with moderate credit growth to non-financial corporates more than offset by a sharp decline in credit to households.

Denmark Financial Markets Conditions
(Index)



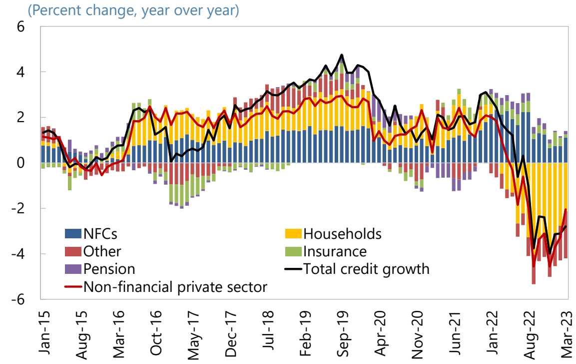
Source: Danmarks Nationalbank.

Bank Interest Rate and Credit Standards
(Score; percent)



Sources: Haver Analytics; and Statistics Denmark.
1/ Rated on a scale from -100 to 100, with higher scores indicating easier credit access.

Credit Growth
(Percent change, year over year)



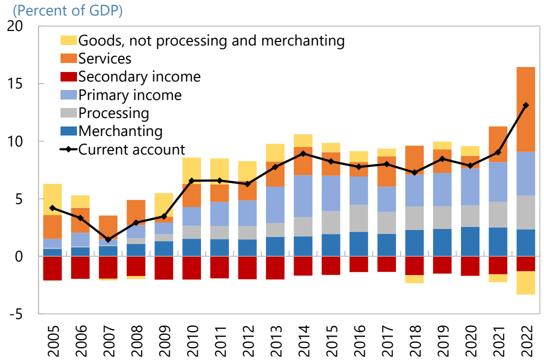
Sources: Danmarks Nationalbank; and IMF staff calculations.

12. The current account surplus increased largely on account of high international freight and shipping rates (Tables 6 and 7). The current account surplus was 13.1 percent of GDP in 2022, up from 9 percent of GDP in 2021. The surge in international freight rates drove a nearly 50 percent increase in sea transport exports (accounting for half of the total service exports), and the services surplus reached a record high of 7.4 percent of GDP in 2022. In contrast, the goods surplus narrowed from 4 percent of GDP in 2021 to 3¼ percent of GDP in 2022, reflecting higher commodity and other import prices. After correcting for the one-off impact of the freight rates, the external position is stronger than implied by medium-term fundamentals and desirable policies.

Structural policies aimed at raising investment, including in climate, would help reduce the surplus (Annex II).[3]

Current Account

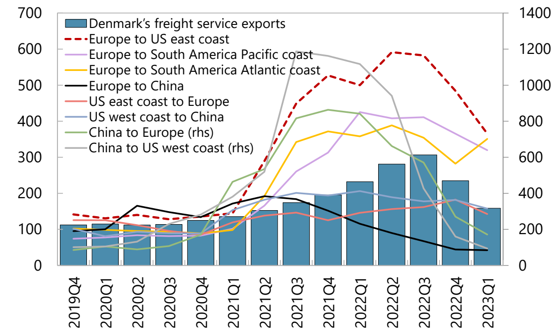
(Percent of GDP)



Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

International Freight Rates and Denmark's Freight Service Exports

(Index, 2018Q1 = 100)



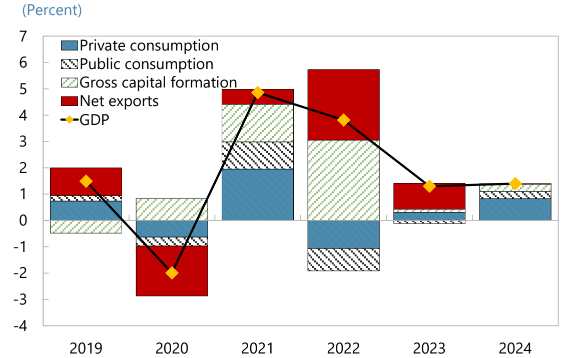
Sources: Bloomberg; Haver Analytics; Statistics Denmark; and IMF staff calculations.

OUTLOOK AND RISKS

13. Economic activity is set to soften in the first half of 2023, followed by a gradual recovery. GDP growth for 2023 is projected at 1¼ percent, down from 3¾ percent in 2022. In the first half of 2023, weaker external demand, especially from Europe and the United States, and tightening financial conditions will weigh on activity. Subsequently, activity will gain momentum, assuming a continued moderation in energy prices and overall inflation and an improvement in external demand. The growth recovery will continue into 2024, driven mainly by private consumption, with growth expected at 1½ percent.

Contributions to Real GDP Growth by Expenditure

(Percent)



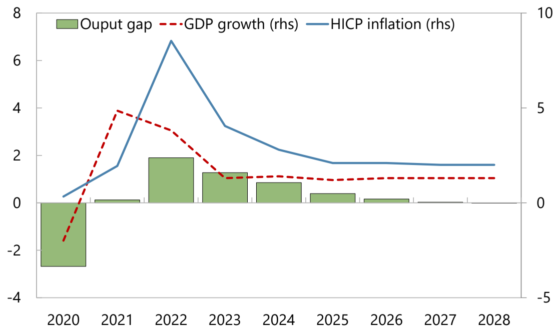
Sources: Statistics Denmark; and IMF staff estimates.

14. Inflation will continue to decelerate but stay above 2 percent in the near term. Moderating energy prices will continue to reduce headline inflation, but core inflation will decelerate slowly as the positive output gap persists in the near term. Headline and core inflation is projected to remain high at around 2½–2¾ at the end of 2024. The recent collective bargaining agreed on wage growth at around 5 percent annually over the next two years, broadly in line with euro area countries. There are limited signs of a self-enforcing wage-price spiral, with a decline in households' inflation expectations.[4]

[3] This assessment is, however, subject to important uncertainties (see Annex II).

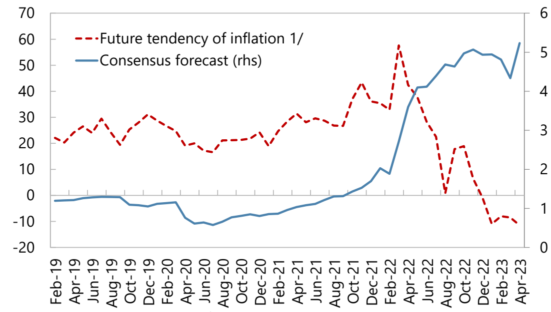
[4] See Selected Issues Chapter 1.

GDP Growth, Inflation and Output Gap
(Percent of potential real GDP; percent change, year over year)



Sources: Statistics Denmark; and IMF staff estimates.

Inflation Expectations over the Next 12 Months
(Percent)



Source: OECD; and Consensus forecast.
1/ Survey question: "By comparison with the past 12 months, how do you expect that consumer prices will develop in the next 12 months?".

15. Beyond 2025, the medium-term outlook is less sanguine. First, global growth is not expected to return to pre-pandemic growth levels, which will limit Denmark's external demand.[5] Second, Denmark's potential growth will be constrained by a steady decrease in the working-age population (see the structural section). Finally, it is uncertain if the recent exceptional performance in the manufacturing industry (especially the pharmaceutical sector) is sustainable. Overall, staff expect medium-term growth to slow to around 1.3 percent, down from the pre-pandemic average of 1.8 percent.

16. Risks to growth are broadly balanced, but risks to inflation are tilted to the upside (Annex III).

- *Downside growth risks.* An escalation of Russia's war in Ukraine (disrupting global trade), renewed supply disruptions, deepening geo-economic fragmentation, and a sharper and more persistent tightening of global financial conditions would further weaken growth. Should policies in the euro area not act as forcefully to bring down inflation, monetary policy tightening might need to be greater than expected later on, resulting in weaker growth in the euro area and Denmark. Under these risk scenarios, in Denmark, house price corrections could accelerate, triggering a downward spiral in house prices, households' balance sheets, and the real economy (see paragraph 22).
- *Upside inflations risks.* Renewed supply shocks would push up energy and commodity prices again. Domestically, to the extent that the wage formation process is backward-looking, stronger wage pressures may emerge over time, driving inflation higher and reducing competitiveness.
- On the upside, an end to the war in Ukraine, the stabilization of global commodity markets, further easing of supply-chain bottlenecks, and stronger recovery in external demand would spur faster growth. In particular, Denmark's pharmaceuticals and other globally competitive export industries (including ICT and green technologies) could overperform, boosting overall economic growth.

[5] See IMF World Economic Outlook, April 2023.

POLICY DISCUSSIONS

Key policy priorities are to bring down inflationary pressures while achieving a soft-landing of the economy amid high uncertainty and ensure financial stability in the wake of tightening financial conditions and increased global financial market volatility. Boosting productivity and labor supply are key for sustaining strong, sustainable, and inclusive long-term growth and the welfare state.

A. Keeping Prudent Fiscal Stance to Contain Capacity Pressures

17. The Spring 2023 Budget shows that the structural balance will remain in a surplus of ¾ percent of GDP in 2023, broadly unchanged from 2022. The budget includes small discretionary spending measures (i) to support Ukraine; (ii) to provide temporary support to vulnerable segments of the population hit hard by higher prices; and (iii) to improve hospital services, amounting to 0.4 percent of GDP in total. In addition, the government continues to provide compensation measures for higher energy prices (0.2 percent of GDP, see Box 1), These measures (except the Ukraine Fund) are offset by the expiration of the remaining Covid-19 related measures and the reallocation of other spending items (including public investment), thus making the structural balance to be broadly unchanged.

Text Table 2. The 2023 Budget: Key Discretionary Measures

Measures and objectives	Amount	
	DKK in billion	Percent of GDP
Ukraine Fund		
To provide defense, humanatarian, and business support to Ukraine	7.0	0.25
Inflation aid		
Temporary and targeted inflation aid for those hit hard by higher prices	2.4	0.08
Hospital service		
To strengthen emergency departments and eliminate waiting lists for non-urgent treatments and operations	0.8	0.03
Total	**10.2**	**0.36**
Memo items:		
Earlier compensation measures for higher energy prices (Box 1)	6.7	0.24
Grand Total	**16.9**	**0.60**

Source: Ministry of Finance; and IMF staff calculations.

18. Near-term fiscal policy should support disinflation, given persistently elevated inflation. The Ministry of Finance estimates that the fiscal plan would reduce output growth by around 0.8 percentage points in 2023,[6] given that (i) the multiplier effects of the expansionary discretionary measures (e.g., energy-related tax deductions) are smaller than the multiplier effects of the contractionary spending measures (e.g., the containment of public investment) and (ii) a large amount of private demand was brought forward in 2021–22 in response to COVID 19-related stimulus measures (e.g., enhanced capital depreciation allowance in 2021), which would have a contractionary effect in 2023. However, there is uncertainty around the size of fiscal multipliers and the estimates of the demand that was brought forward. Furthermore, the level of output gap is expected to remain positive for the next two years, and inflation will be elevated with an upside risk.

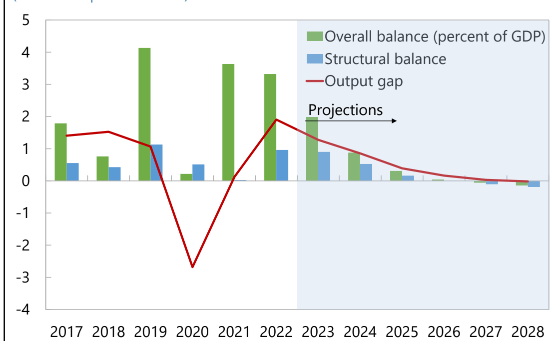
[6] The Ministry of Finance estimates that the fiscal plan would reduce the output gap by 0.9 percentage points of GDP in 2023.

Accordingly, as insurance, staff recommend that the authorities make every effort to improve the structural balance in the order of ½ percentage points of GDP in 2023 through tight spending control and saving any revenue above budget forecasts. With inflation expected to remain persistently elevated in 2024, fiscal policy should continue to support disinflation. In case downside risks to growth materialize and inflation eases, automatic stabilizers (among the strongest in the OECD economies) should be allowed to operate fully.

19. Over the medium term, the structural balance will weaken to a deficit. The structural balance will deteriorate from a surplus of around 1 percent of GDP in 2023 to a small deficit by 2028, reflecting an increase in defense and age-related spending programs. To contain the level of the structural deficit within the medium-term objective of 0.5 percent of GDP set for 2030, the authorities are planning supply-side measures, including canceling a public holiday (approved by the parliament), tightening the duration of student grants, and strengthening early retirement rules. [7] Staff assess Denmark to have substantial fiscal space, with public debt projected to stay steadily around 30 percent of GDP over the medium term (Annex IV).

Fiscal Balances

(Percent of potential GDP)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.

20. Given the uncertainty around the demographic trend and the effectiveness of labor market reform measures, the government should continue to recalibrate fiscal policy as needed to ensure its long-term sustainability. Population projections are sensitive to fertility and mortality rates and migrations, thus subject to both upside and downside risks. The labor reform measures, in particular, the cancellation of the public holiday, might not yield the expected revenues. Accordingly, if fiscal trends suggest the risk of breaching the structural deficit limit, the authorities will need additional fiscal adjustment measures. On the public pension, the government has gradually raised the statutory retirement age to 68 years old by 2030, and thereafter, linked to life expectancy. The government's Pension Commission recently suggested a slower pace of the link—currently one-to-one indexation—for intergenerational fairness. Any changes to the indexation should safeguard long-term fiscal sustainability.

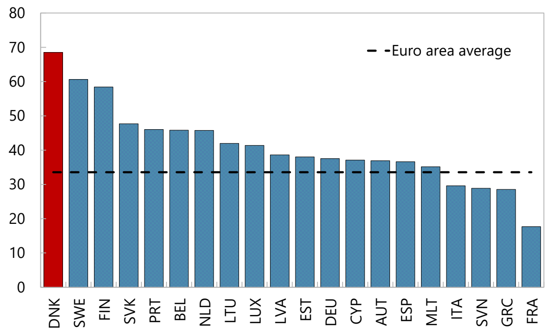
B. Safeguarding Financial Stability

21. The Danish financial system is sizable and highly interconnected with other European countries, including the Nordics. Financial system assets amount to nearly six times GDP, of which the banking system accounts for more than 40 percent and is dominated by seven domestic systemically important financial institutions—the largest is the Danske Bank Group (with assets of

[7] The 2012 National Budget Law set the structural deficit ceiling at 0.5 percent of GDP. However, with the strong fiscal position, in March 2022, the government decided to lower the limit of the structural deficit to 1 percent of GDP.

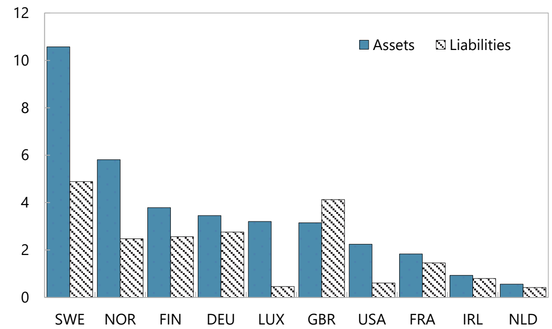
about 134 percent of GDP). The banking system has large domestic real estate (68 percent of the total loans) and cross-border exposures (with assets and liabilities amounting to about 43 percent of GDP).

Real Estate Exposure Share, 2021
(Percent of total loans; domestic banks)



Source: European Central Bank.

International Investment Position of Danish Banks
(Percent of GDP; 2022Q4 or latest)

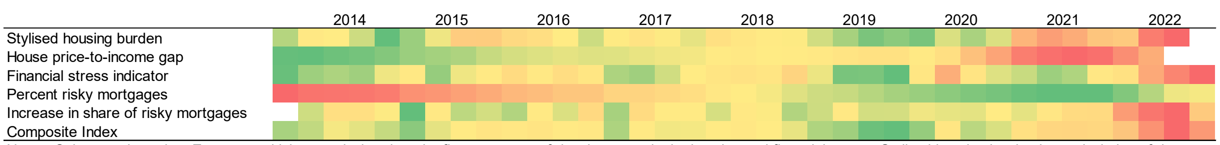


Sources: Danmarks Nationalbank; and IMF staff calculations.

22. While the financial system remains sound, systemic risks have risen over the last year, given lower growth, elevated inflation, and tightening global financial conditions.

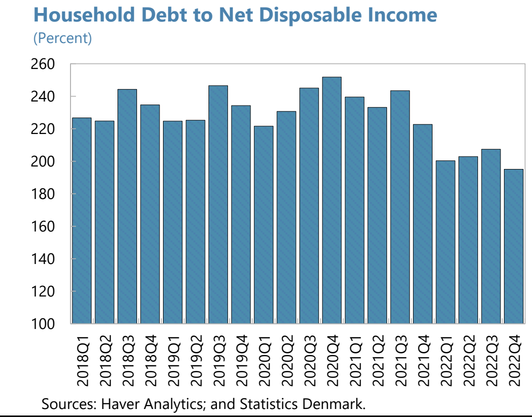
- *Household sector risk*. Various indicators suggest elevated risk in the household sector. The level of household debt, while falling from a high level due to tightening financial conditions, remains high (at 195 percent of net disposable income as of end-2022) compared to other European countries. [8] In addition, the share of riskier types of mortgages, especially variable-rate mortgage loans with deferred amortization, has risen to more than one-third of all mortgages. House prices are expected to fall further, and should lenders call for amortization, some borrowers could face increased pressures in servicing debt and thus reduce consumption, further lowering growth. Meanwhile, strong labor markets, households' sizeable wealth, and the generous social safety net would mitigate risks arising from a macro-financial feedback loop.

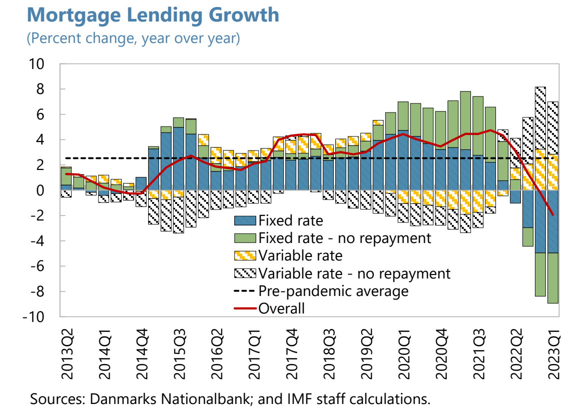
Text Table 3. Heat Map of Housing Sector Indicators



Notes: Colors are based on Z-scores, which are calculated on the five measures of developments in the housing and financial sector. Stylized housing burden is a calculation of the financing costs, including property taxes, when buying a single-family house as a share of average disposable household income. The house price-to-income gap is defined as deviations of the ratio of house price to income from its long-term trend. Growth in real house prices denotes house price increase adjusted for inflation. The Financial Stress indicator aggregates the levels of stress in five key submarkets/sectors: the money, bond, equity and foreign exchange markets and the banking sector. A small value of the indicator shows low volatility and high confidence in the financial system, while a high value indicates that the five submarkets are dysfunctional and market participants are nervous. Increase in share of risky mortgages is the percentage point difference in share or mortgages that are variable rate with deferred amortization in a single quarter. The data are quarterly, and the sample period is from 2013 Q4 to 2022 Q4. Composite index is a simple average of the five measures. White cells represent unavailable or missing data.
Source: Denmark Systemic Risk Council, Danmarks Nationalbank, Statistics Denmark, and IMF staff calculations.

[8] The decline in household debt also reflected Denmark's unique mortgage system, where fixed-rate borrowers tend to refinance and partially amortize their mortgages when the market value of mortgages falls as interest rates rise. Danish homeowners with fixed-rate mortgages have the opportunity to restructure these by buying back their callable mortgage bonds at par value at any time. With rising long-term interest rates, the market prices of the bonds financing mortgage loans fall. And hence, converting a loan would result in new mortgages at a higher rate but with lower outstanding debt.





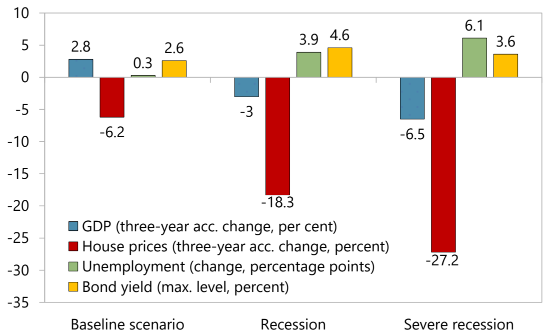
- *Liquidity risks.* Banks' liquidity coverage ratios remain high, but raising liquidity has become more expensive. Mortgage Credit Institutions may need more liquidity, as they are required to provide additional collateral in case of a severe property price decrease. In addition, pension and insurance firms might face an increase in liquidity needs, especially pertaining to variation margin calls from derivative contracts if interest rates rise further.
- *Cross-border and commercial real estate (CRE) risks.* CRE is the most leveraged sector in Denmark, with its debt accounting for around 30 percent of the total corporate sector debt. Foreign investors also play an important role in real estate transactions, exposing the Danish CRE market to global CRE market volatility. For example, a downturn in CRE markets abroad might spill over to the Danish financial system due to common ownerships/foreign investors and interconnectedness in financial institutions.
- *Other corporate sector risks.* Risks would arise from the increased costs due to high inflation and interest rates and weaker demand from Denmark's main trading partners—all contributing to squeezing profits and weakening debt service capacity. Corporate bankruptcies have increased, mainly driven by small businesses, to which medium-sized banks are particularly exposed.

23. DN's stress tests suggest that banks have sufficient capital and liquidity buffers to cope with even a severe recession scenario. The capital stress testing under a severe recession scenario assumes (i) a cumulative GDP contraction of 6½ percent over three years; (ii) the unemployment rate rising by more than 6 percentage points; and (iii) 100 basis points higher interest rates than the baseline scenario. The results suggest that all banks would be able to meet the risk-based capital requirements with the release of the countercyclical capital buffer (CCyB). Some banks, however, will be challenged, coming close to the capital buffer requirements. On the liquidity front, all the systemic banks would be able to survive at least five months in the most severe scenario, which assumes the closure of their access to markets and deposit withdrawals.[9]

[9] From 10 to 100 percent depending on the type of customer deposits.

Macroeconomic Scenarios in Stress Test

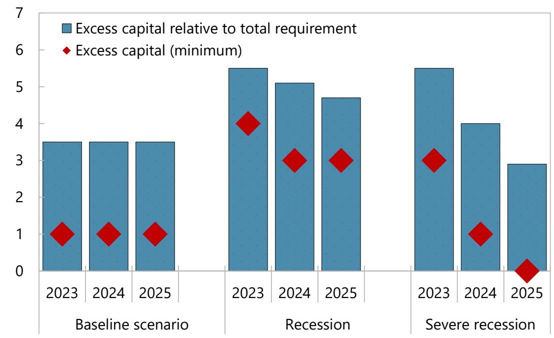
(Percent)



Source: Danmarks Nationalbank.

Systemic Credit Institutions in Different Scenarios

(Percent of risk exposure amounts)



Source: Danmarks Nationalbank.

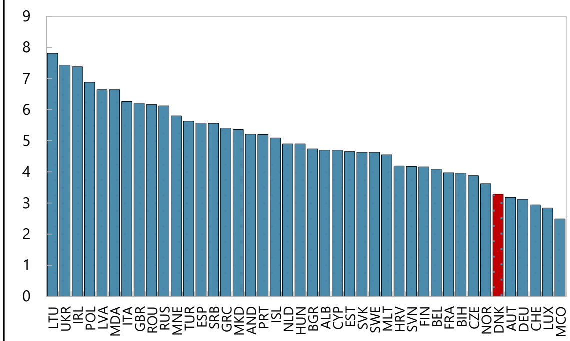
24. Against this backdrop, the authorities should continue to be vigilant in monitoring risks. Close supervision is warranted to monitor banks' risk management and to ensure the adequacy of banks' assessment of impairment charges as economic prospects change. In this light, expanding the data coverage of the credit registry—to include information pertaining to deposits, financial guarantees, and internal ratings-based capital requirements—will help improve the monitoring of the financial system. In addition, given the high concentration of banks' exposure to mortgage loans, households' creditworthiness should be carefully assessed. Cross-border macrofinancial risks, potentially arising from CRE markets in the Nordic region, should continue to be closely monitored. In this light, the authorities should close the data gaps that limit the assessment of vulnerabilities in the CRE sector, while an increase in risk weights on CRE exposures or the introduction of a sectoral systemic risk buffer can be considered. Finally, supervisors should continue to closely pay attention to cyber security risks, given the increased risks of cyberattacks on critical infrastructure and institutions.

Macroprudential Policies

25. To strengthen the resilience of the financial system, further tightening of macroprudential policies targeting pockets of vulnerability could be considered. Since September 2022, the authorities have raised the countercyclical capital buffer from 0 percent to 2.5 percent in steps (among the highest in Europe), which helps strengthen banks' resilience to shocks. However, more should be considered, including (i) subjecting new mortgages extended to highly leveraged households to a lower loan-to-value limit than the current 95 percent or mandatory amortization until a minimum equity share is reached, (ii) extending the scope of the "growth area guidelines" beyond Copenhagen and Aarhus, and (iii) reviewing the risk weights of riskier mortgages. In the event of a severe adverse shock to the economy, the CCyB can be released to support credit flows.

26. Once house prices and inflation stabilize, the authorities are encouraged to strengthen the resilience of the housing sector. Incentives for bigger mortgages and debt bias can be reduced by lowering mortgage interest deductibility and linking property taxes to market valuations. To this end, the 2017 housing taxation agreement should be implemented in 2024 as planned. In addition, rent controls are stricter in Denmark compared with other peer countries, suppressing rental yields and dampening the supply. Thus, rental controls should be reduced—while protecting the most vulnerable—to increase the supply of rental properties.

Rental Yields in Denmark Compared to Europe
(Percent; 2022 or latest)



Source: Global Property Guide.

Insurance Sector

27. Domestic insurance companies are sizable but have ample buffers to withstand adverse shocks (Figure 6). Insurance companies have strong capital buffers, with the solvency capital ratio at around 245 percent. On liquidity, DN's analysis shows that life insurance companies can handle the liquidity needs in case of a further increase in interest rates of at least 200 basis points. However, if capital market volatility intensifies, their portfolios and liquidity positions could be adversely affected. This calls for continued supervisory vigilance in monitoring risks in the insurance sector, including its interconnectedness with other financial institutions.

2020 FSAP

28. To enhance the effectiveness of the current system vis-à-vis international best practices, the authorities are encouraged to follow up on the 2020 FSAP recommendations on the institutional setting; many of these have not been implemented.

- *Systemic risk oversight and macroprudential policy.* National legislation should incorporate borrower-based tools into the policy toolkit, and the chair of the Systemic Risk Council (SRC) be given the ability, enshrined in law, to make proposals for a recommendation after due consultation with other SRC members without the need to strive for consensus.

- *Banking and insurance supervision.* The operational independence of the Danish Financial Supervisory Authority (DFSA) should be enhanced, including by, for example, lengthening the terms of the Board members.

- *Financial crisis management and safety net.* The governance of the resolution authorities, and especially the FSC, should be strengthened. Its autonomy should be enhanced without interference from the government in the execution of its mandate except when fiscal support is needed.

Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT)

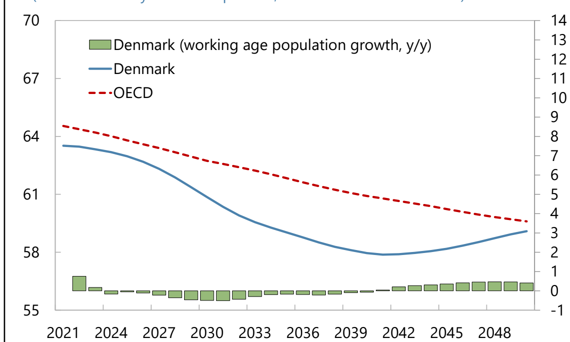
29. The material cross-border financial flows expose Denmark to elevated money laundering and terrorist financing (ML/TF) threats. The authorities have made progress in strengthening the AML/CFT framework, including enhancing the risk-based supervision of banks and the supervisory assessment of ML/TF risks. Greater use of cross-border data and technological solutions to support the analysis would help the supervisors carry out more targeted supervisory activities. Furthermore, the authorities should: (i) consider developing a minimum supervisory engagement model; (ii) make sure that Virtual Asset Service Providers have robust AML/CFT preventive frameworks; and iii) continue close supervision to ensure that financial institutions maintain adequate, accurate, and up-to-date beneficial ownership information.[10]

C. Pursuing Structural Reforms

30. Maintaining strong, sustainable, and inclusive long-term growth while sustaining the welfare state will require boosting productivity and sustaining the labor supply. In the decade leading to the pandemic, multifactor productivity was a key driver of GDP growth in Denmark, with its growth level much higher than in peers. Since the pandemic, however, as in other European countries, productivity growth has slowed in Denmark, reflecting a sluggish productivity recovery in the services sector. In addition, Denmark will face a challenge in maintaining a positive contribution of labor to growth, given an expected steady decline in the working-age population. Accordingly, the authorities need to continue structural reform efforts to boost productivity across broader economic sectors, including small and medium-sized enterprises (SMEs), and maintain labor supply growth against demographic headwinds.

Working Age Population

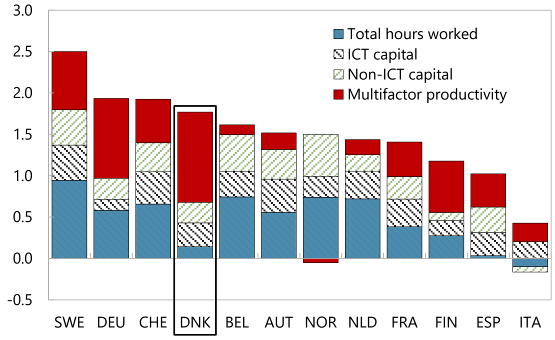
(Share of 15-64 years old in percent; unless otherwise indicated)



Source: OECD.

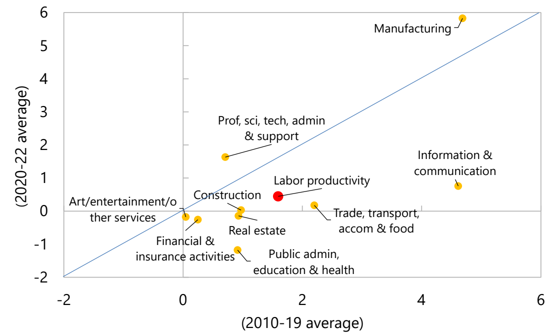
[10] IMF is currently providing technical assistance to Nordic-Baltic authorities, including Denmark. The key objective of the technical assistance project is to analyze cross-border ML/TF threats, vulnerabilities related to AML/CFT supervision of the banking sector and virtual assets, and the potential impact of financial integrity failures on financial stability.

Productive Factor Contributions to GDP growth
(Percentage point contribution to GDP growth; average of 2010 to 2019)



Source: OECD.

Hourly Labor Productivity
(Annual average growth; percent)

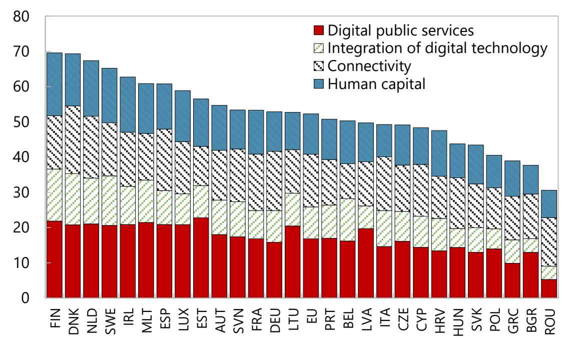


Source: ECB.

Promoting Digitalization and Improving the Efficiency of Product Markets

31. The government's continued efforts to further accelerate digitalization are welcome. Denmark is ranked second in the EU's 2022 Digital Economy and Society Index. Yet, the government is committed to further accelerating digitalization, including SMEs and the public administration, rural broadband, and the health sector.[11] The requirements of digital accounting systems will come into effect in a phased-in manner through 2026, which will improve the efficiency of business activity. Other reform areas that should be explored include increasing ICT specialists in the workforce, women in digital jobs, and talent with advanced digital skills.

Digital Economy and Society Index 2022 Ranking
(Index)

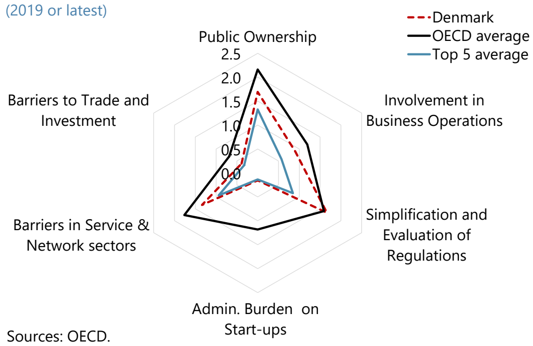


Sources: Digital Scoreboard; and European Commission.

32. Broader efforts should also continue to improve the efficiency of product markets and support competition. Denmark's product market regulation indicators fare overall well. Nonetheless, there are weak areas, including lawyers and other professional services, utilities (especially district heating), and semi-private health providers. The implementation of the European Competition Network Directive in March 2021 was a positive step toward ensuring the effective and efficient application of EU competition rules.

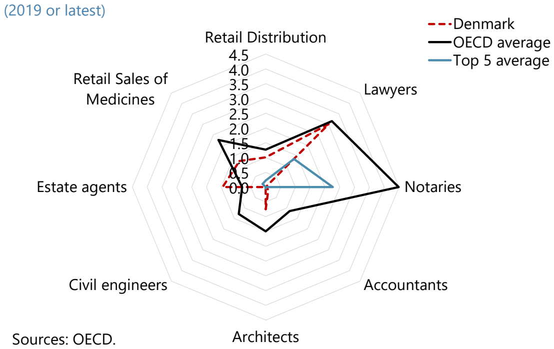
[11] See Denmark's Recovery and Resilience Plan.

Economy-wide PMR Indicators 1/
(2019 or latest)



Sources: OECD.
1/ Product Market Regulation (PMR) indicators measure the regulatory barriers to firm entry and competition.

Professional Services and Retail Distribution PMR Indicators 1/
(2019 or latest)



Sources: OECD.
1/ Product Market Regulation (PMR) indicators measure the regulatory barriers to firm entry and competition.

33. To support business activity, including start-up and high-technology firms that tend to struggle with initial losses, tax measures should be explored. These include (i) relaxation of the cap on carry-forward losses; (ii) reduction of taxation of dividends without unduly distorting personal and corporate tax integration; and (iii) introduction of allowance for corporate equity to reduce the cost of capital. The authorities are looking into reforming the business support system (e.g., R&D grants and tax credits). In this regard, a cost-benefit analysis would usefully inform a reform strategy.[12]

Labor Market Policies to Increase Labor Supply

34. The authorities have remained strongly committed to labor market reforms consistent with Denmark's flexicurity model.[13] The authorities have announced an ambitious target to increase labor supply by 1.8 percent by 2030. In February 2023, the parliament approved the government's proposal to abolish a public holiday (effective in May 2024), estimated to permanently increase annual hours worked by ¼percent. However, given the ambitious target, they should continue to explore additional measures to increase work incentives across all age groups and to better integrate migrants consistent with Denmark's well-functioning flexicurity model.[14] Relatedly, the recently announced streamlining of active labor market policies (ALMPs) should be carefully designed to avoid unintended effects.

- *Reducing high marginal effective tax rates.* The government is planning to reduce marginal tax rates (currently among the highest in OECD economies) except for very high-income earners and increase the earned income credit. This is appropriate to increase work incentives. However, for the reform to be more comprehensive, the structure of marginal effective tax rates (METRs), including benefits, should be reviewed to minimize financial disincentives to work and earn more, especially for lower-income households facing a significant increase in the METR.[15] To

[12] See IMF Denmark 2022 Article IV Consultation Staff Report for other recommendations.

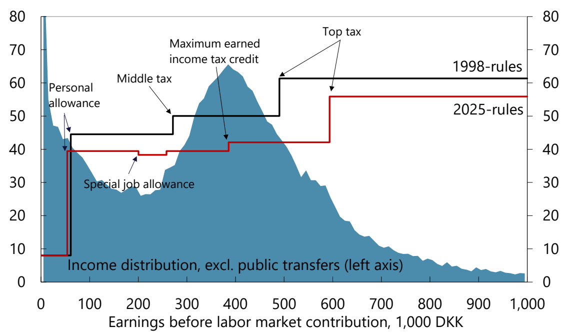
[13] The model has three core elements: (i) employers can hire and fire at will; (ii) employees can receive up to two years of unemployment benefits after losing their jobs; and (iii) the government runs education and retraining programs for the unemployed.

[14] See Selected Issues Chapter 2.

[15] For a more detailed discussion, see Annex I in IMF Denmark 2019 Article IV Consultation Staff Report.

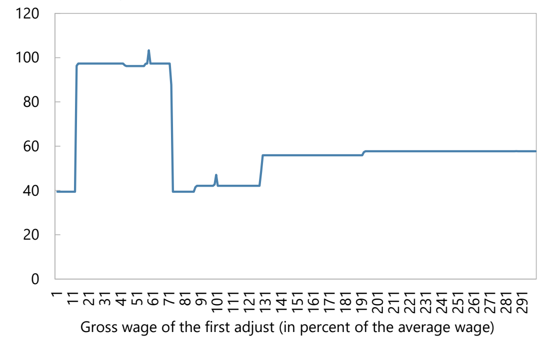
offset a potential revenue loss, property valuations should be updated, and mortgage interest deductibility be further reduced (see the financial sector).

Marginal Tax Rates for Employed Tax Payers
(1,000 persons; percent)



Source: Danish Ministry of Taxation.

Marginal Effecive Tax Rate
(Percent; a couple with two children, two earners)



Sources: OECD Tax Benefit Database; and IMF staff calculation.

- *Tightening early retirement conditions*. The government's efforts to raise the statutory retirement age are commendable. However, given that more than half of the Danes exit the labor market through the early retirement schemes, the early retirement schemes should be reviewed as planned.
- *Utilizing immigrant labor more effectively***.** The authorities continued efforts to attract skilled foreign workers, including by lowering the salary requirement limit (from around US$65,000 to US$54,000, equivalent) and expanding the positive list (to increase job types for persons with higher education) are welcome. While the recent large inflow of foreign labor and increases in employment rates of immigrants are largely driven by the cyclical tightness of the labor market, retaining these positive trends beyond the business cycle would be important. In this respect, support for on-the-job training programs as well as further efforts to enhance Danish language training should help.
- *Enhancing education outcomes for students with immigrant backgrounds***.** These students lag behind natives in education performance, as evidenced by large PISA score gaps in 2018, although some recently conducted studies suggest improvements in the prospects for students with immigrant backgrounds that have completed their primary education (through 9th grade) in Denmark. The authorities should continue to closely monitor the educational outcomes of students with immigrant backgrounds and consider policy measures to address issues that may be contributing to gaps in school performance, including school segregation.

Climate Change Policy

35. Denmark has made substantial progress in reducing emissions. Recent initiatives include Phase 1 of the Green Tax Reform and Green Restart to facilitate green transitions and the expansion of renewables.[16] Bulk of the emission reduction in the industrial sector would come from Phase 2 of the Green Tax Reform (to begin in 2025). The reform includes higher and more harmonized carbon

[16] For a detailed discussion, see IMF Denmark 2022 Article IV Consultation Staff Report.

prices across sectors, complemented by transition support for hard-hit companies and investment in carbon capture and storage (CCS) technologies.[17] Along with earlier measures, the reform would reduce emissions by 63 percent below 1990 levels by 2030, still falling short of the 70 percent target. Proposals to address the remaining shortfall—mainly in agriculture—are expected later this year.

36. Further measures are required to meet Denmark's ambitious climate goals. The proposed strengthening of carbon pricing is welcome. However, given uncertainty regarding emissions reduction, complementary fiscal incentives at the sectoral level are needed, including feebates in agriculture. More efforts will be needed to save energy, including in buildings, along with the expected adoption of the EU directive on energy savings.[18] Denmark is particularly exposed to long-term impacts from rising sea levels. The Danish Strategy for Adaptation to Climate Change (2008) should be updated to provide comprehensive guidance on the government's adaptation initiatives.

AUTHORITIES' VIEWS

37. The authorities broadly agreed with staff's assessment of the economic outlook and key risks. They expected GDP growth to slow considerably in 2023. Energy prices will drag down headline inflation, but core inflation will remain elevated as wage growth picks up. Nonetheless, they saw the wage increase following the collective bargaining negotiations in line with the euro area countries, not undermining Denmark's competitiveness. Risks to the outlook are more balanced than at the end of 2022 but are still slightly skewed to the downside. Higher interest rates are dampening house prices, and the authorities expect house prices to continue falling for the rest of the year. They viewed that the large current account surplus in 2022 reflected exceptionally large sea freight revenues, and with a decline in freight rates, the current account surplus would narrow.

38. The authorities assessed fiscal policy this year as appropriately tight to bring down inflation. The Ministry of Finance (MOF) indicated the fiscal stance in Denmark had been tightened earlier than in the euro area, and inflation risks appeared symmetric, thus not warranting a further adjustment relative to the euro area. They also indicated that the structural balance was not the right measure to assess the fiscal stance, as it did not fully capture the fiscal impact on activity. The authorities also emphasized the ECB's monetary policy in reducing inflation. On the medium-term fiscal policy, the authorities agreed that there would be the need to recalibrate medium-term fiscal policy in case of revenue shortfalls from planned supply-side measures but overall did not see fiscal risks tilted to the downside.

39. The authorities assessed that the financial system was sound. They highlighted the strength of the banking sector as evidenced by adequate capital and liquidity buffers and low NPL

[17] See IMF Denmark 2022 Article IV Consultation Staff Report (Annex VI) for details regarding the level of planned carbon prices (Green Tax Reform) and the current practice.

[18] See Danish Climate Council (2023).

ratios. However, they acknowledged rising risks due to lower growth and tightening financial conditions and agreed on the need to closely monitor developments.

40. The authorities acknowledged macrofinancial risks, arising especially from riskier mortgages. The Danish Financial Supervisory Authorities (FSA) indicated that they were reviewing the adequacy of bank capital requirements for riskier mortgages. The authorities agreed that the tightening of borrower-based measures focusing on risker mortgages would strengthen resilience, but ministries and the FSA expressed concerns about adverse impacts on house prices and demand, especially because housing markets were already weakening and saw a need for further analysis before recommendations on further policy measures were made. The DN stressed the need for introducing the legal basis for binding borrower-based measures and lowering the tax deductibility of interest expense. On the pending 2020 FSAP recommendations in the area of institutional reforms, the ministries did not see the need for legislative changes

41. The authorities agreed that maintaining high productivity and sustaining the labor supply would be a priority to support high, inclusive, and sustainable growth. The authorities agreed on the merits of reviewing tax measures to support new businesses but pointed out practical challenges, for example, in designing allowance for cooperate equity. The government has approved the cancellation of a public holiday but still needs to design the other measures aimed at increasing structural employment by 45,000 (about 1¾ percent), including the personal income tax, education, and early retirement forms. The authorities did not see the merits of reviewing benefits to reduce the marginal effective tax rate for lower-income households, as they did not expect a large effect. The authorities pointed to some improvements in the employment rate of immigrants and the educational outcomes of students with immigrant backgrounds.

42. The authorities agreed that further measures would be needed to meet the climate goals. They assessed that the 2030 climate goal gap could be met through achieving the sectorial emission reduction target within agriculture and "land use, land-use charge, and forestry." The authorities do not support feebates, as there are other policies in place to incentivize emission reduction, for example, in the transport sector. On energy efficiency, they welcomed the EU directive but noted that it was too early to judge whether additional measures would be necessary.

43. The authorities agreed that there was a need for government adaptation initiatives. In December 2022, the government decided to draw up a national climate adaptation plan which supports additional measures.

STAFF APPRAISAL

44. Denmark's recovery from the pandemic was impressive, but strong output and employment growth has contributed to inflationary pressures. GDP growth is expected to slow in 2023, while inflation will remain elevated in the near term. Risks to growth are broadly balanced, while upside risks dominate inflation. In the medium term, Denmark faces lower economic growth due to lower global growth and demographic challenges.

45. Near-term fiscal policy should support disinflation, given persistently elevated inflation. There is uncertainty regarding the contractionary effects assumed in the fiscal plan, while positive output gaps and high inflation are expected in the near term. Accordingly, the authorities should, as insurance, consider keeping tight spending control and saving any revenue above budget forecasts aiming to improve the structural balance by ½ percentage points of GDP. If downside risks to growth materialize and inflation eases, automatic stabilizers should be allowed to operate fully.

46. Medium-term fiscal policy should be recalibrated as needed to adhere to the fiscal rules. The structural balance will weaken to a deficit over the medium term mainly due to defense and demographic-related spending. The authorities' forward-looking efforts to contain the level of the structural deficit within 0.5 percent of GDP set for 2030 by deploying supply-side measures are commendable. However, if fiscal trends suggest the risk of breaching the structural deficit limit (one percent of GDP), the authorities should stand ready to recalibrate medium-term fiscal policy. In this context, any changes to the indexation of statutory retirement age to life expectancy should safeguard long-term fiscal sustainability.

47. The financial system remains sound, but rising risks warrant continued vigilance and close monitoring. The authorities should closely monitor banks' liquidity risk management and ensure that their impairment charges are continuously updated as economic prospects change. In addition, commercial real estate (CRE) risks should continue to be closely watched, and further efforts are needed to close data gaps. The authorities should also consider an increase in risk weights on CRE exposures or the introduction of a sectoral systemic risk buffer. Furthermore, the supervisor's initiative to develop a pilot stress test for pension and insurance companies is welcome. Finally, given the increased risk of cyberattacks on critical infrastructure and institutions, efforts to monitor cyber security risks and strengthen resilience against cyberattacks should continue.

48. The authorities should consider tightening macroprudential policies to target pockets of vulnerability. The increase of countercyclical capital buffer was appropriate. However, tightening of borrower-based macroprudential measures should be considered to contain riskier mortgages, especially variable-rate mortgages with deferred amortization. Once house prices and inflation stabilize, the authorities are encouraged to review the high tax deductibility of mortgage interest expense and complex rental market regulations from the financial stability perspective. In this light, the government's plan to link property taxes to market valuations starting in January 2024 is welcome. The authorities are also encouraged to consider reforming the institutional setting of financial sector policy making in line with the 2020 Financial Sector Assessment Program.

49. Denmark is exposed to money laundering and terrorist financing (ML/TF) threats. Progress has been made in strengthening the anti-money laundering/combatting the financing of terrorism (AML/CFT) framework. The authorities should continue efforts to increase the use of cross-border data and technological solutions in the assessment of ML/TF risks.

50. The authorities' strong focus on labor market reforms is welcome amidst the expected decline in the working-age population in the coming years. Canceling a public holiday will help increase annual hours worked, while the proposed personal income tax reform will help improve work incentives. The government is also planning to reform the early retirement schemes to increase employment. But additional measures should be explored consistent with Denmark's well-functioning flexicurity model. These include: (i) reviewing the structure of marginal effective tax rates, including benefits, to minimize disincentives to work and earn more, especially for lower-income households; (ii) continuing efforts to increase employment rates of immigrants; and (iii) enhancing education outcomes of students with immigrant backgrounds.

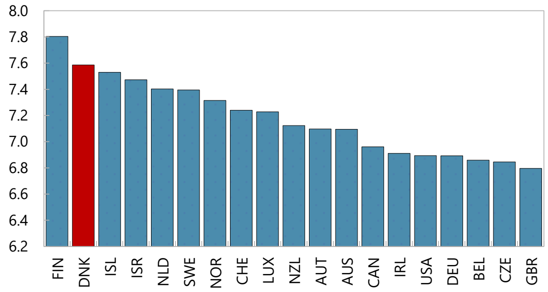
51. Further measures are needed to achieve Denmark's ambitious climate goals. In addition to strengthening carbon pricing (Green Tax Reform), policy should consider complementary fiscal incentives at the sectoral level, including feebates in agriculture.

52. It is recommended that the next Article IV consultation be held in the standard 12-month cycle.

Figure 1. Denmark: Context

Measures of well-being suggest Danes are among the happiest people in the world…

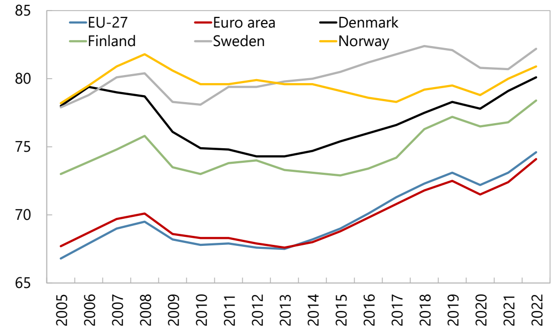
Happiness Score, 2020-22 1/
(Index)



Source: World Happiness Report 2023.
1/ Higher numbers mean more happiness. Caution is needed in interpreting scores for any individual country as the quality of underlying data can vary.

…amid high and rising levels of employment following structural reforms.

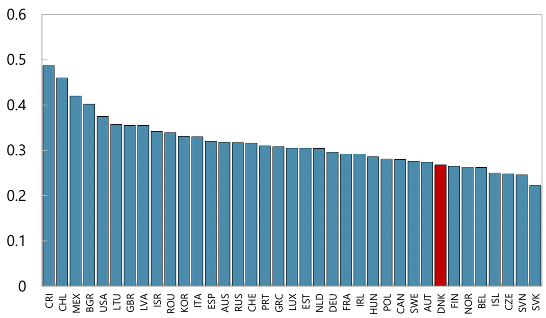
Employment Rates
(Percent)



Sources: Eurostat; and Haver Analytics.

Inequality is low by international standards.

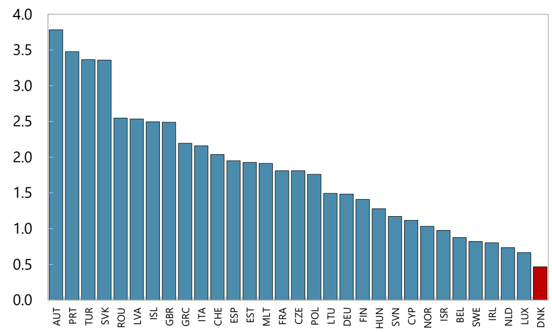
Gini Coefficients, Latest Available Data 1/
(Percent of disposable income)



Source: OECD.
1/ Lower numbers mean less income inequality.

Gas and electricity matter less for Danish production.

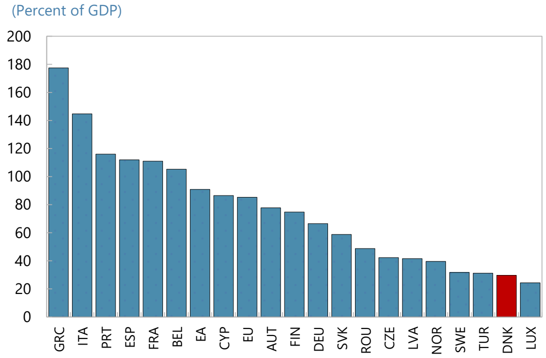
Electricity and Gas Usage
(Percent share of Gross Output, 2018)



Sources: OECD ICIO; and IMF staff calculations.

Public debt remained one of the lowest in the region.

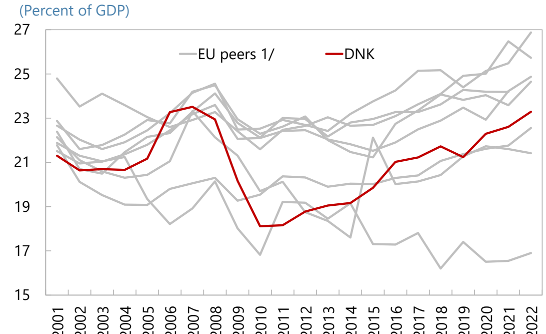
General Government Gross Debt, 2022
(Percent of GDP)



Sources: IMF, World Economic Outlook database; and IMF staff calculations.

The investment rate continued to increase.

Total Investment
(Percent of GDP)



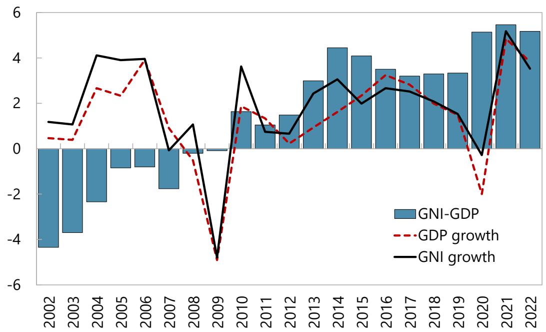
Sources: Haver Anaytics; and IMF staff calculations.
1/ EU peers are AUT, BEL, FIN, FRA, DEU, LUX, NLD and SWE.

Figure 2. Denmark: Recent Developments

Growth moderated somewhat in 2022…

Denmark: GDP and GNI

(Percent change, year over year)

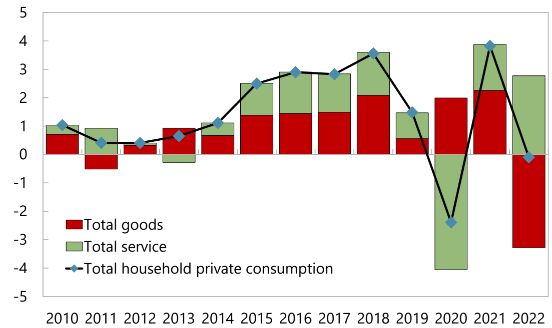


Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

…due to weak private consumption as goods consumption contracted…

Household Private Consumption

(Percent change, year over year; percentage contribution)

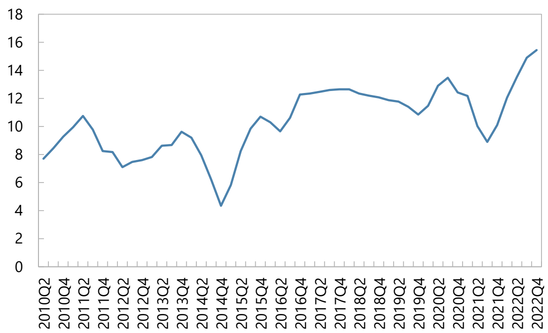


Sources: Statistics Denmark; Haver Analytics; and IMF staff calculations.

…while the household savings rate increased.

Gross Household and NPISH Saving Rate

(4-quarter moving average; percent)

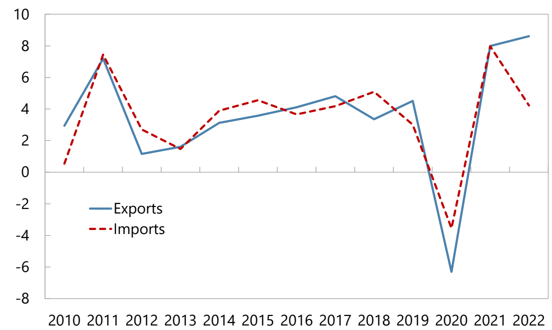


Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

Exports continued to grow fast…

Exports and Imports of Goods and Services

(Percent change, year over year)

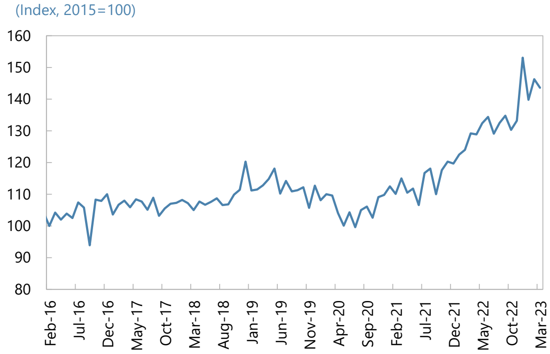


Sources: Haver Analytics; and Statistics Denmark.

…and so did industrial production.…

Industrial Production

(Index, 2015=100)

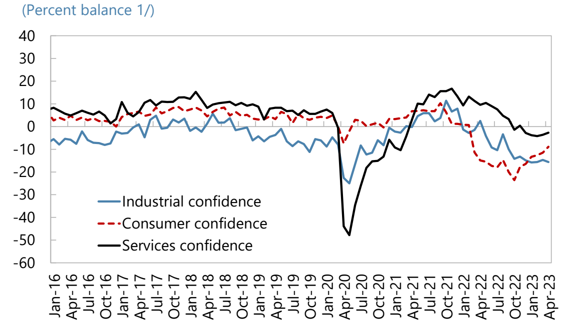


Sources: Haver Analytics; and Statistics Denmark.

…but confidence indicators are in negative territory.

Business and Consumer Survey

(Percent balance 1/)



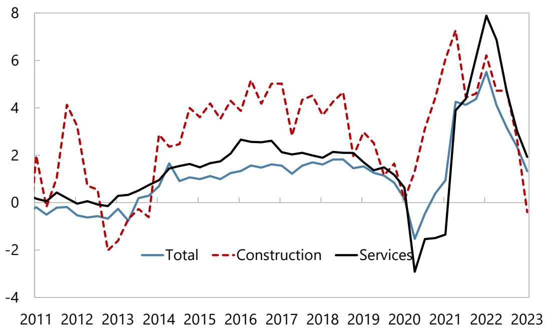
Sources: Eurostat; and Haver Analytics.

1/ Percent balance equals percent of respondents reporting an increase minus the percent of respondents reporting a decrease.

Figure 3. Denmark: Labor Market Developments

Employment growth moderated...

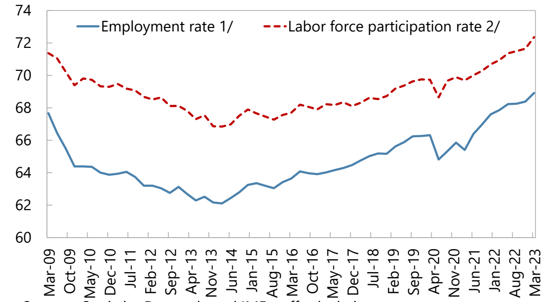
Employment Growth
(Percent change, year over year; SA)



Sources: Statistics Denmark; and IMF staff calculations.

...while employment and participation rates continued to increase.

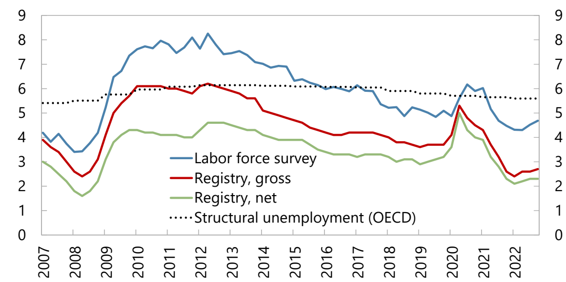
Labor Market Rates
(Percent of working age (15-64 years old) population; SA)



Sources: Statistics Denmark; and IMF staff calculations.
1/ Employment rate = Employed/working age population.
2/ Labor force participation rate = Labor force/working age population.

The unemployment rate is in the lowest range since the late 2000s....

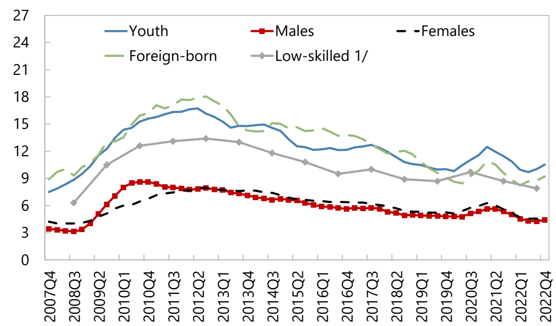
Unemployment Rates 1/
(Percent of labor force; SA)



Sources: Statistics Denmark; OECD; and IMF Staff Calculations.
1/ "Registry" refers to unemployed persons registered with the unemployment insurance funds and public job centers. Gross is the number of registered (net) unemployed plus activation program participants.

...with some differences among the young, low-skilled, and foreign-born.

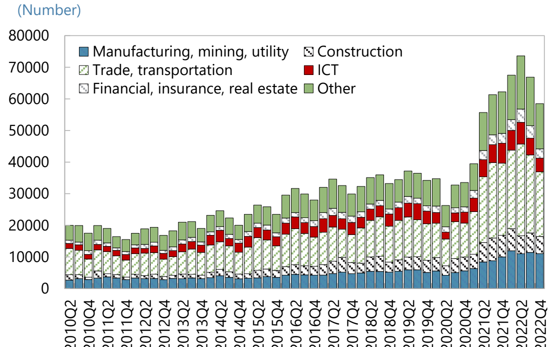
Unemployment Rates by Different Groups
(Percent of each group's labor force; 4-quarter moving average)



Sources: Eurostat; Haver Analytics; and IMF staff calculations.
1/ Unemployment rate by skill (i.e. educational attainment) is annual.

Vacancies started falling but remained high.

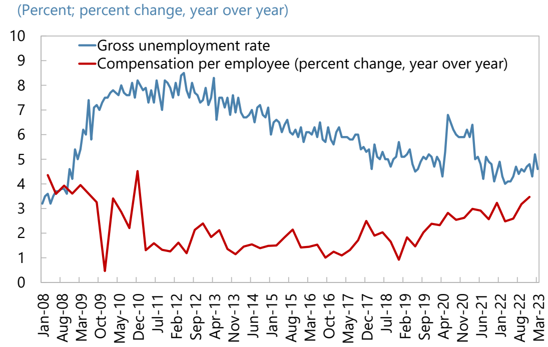
Job Vacancies by Industry
(Number)



Source: Statistics Denmark.

Compensation per employee continued to grow but at a slower pace than inflation.

Unemployment Rate and Compensation per Employee
(Percent; percent change, year over year)

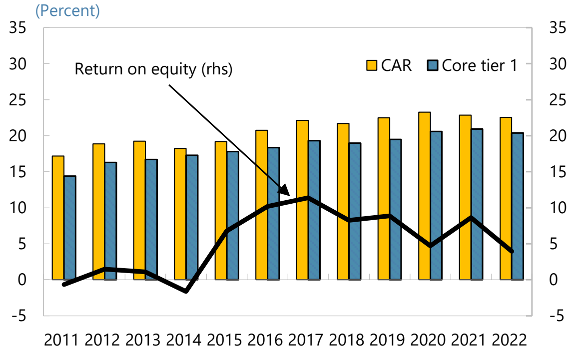


Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

Figure 4. Denmark: Financial Soundness Indicators

Risk-weighted capital ratios remained well above regulatory requirements…

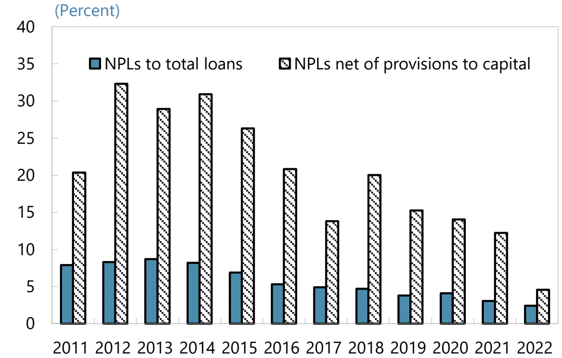
Capital Adequacy Ratios
(Percent)



Source: IMF, Financial Soundness Indicators.

…and nonperforming loans continued to fall.

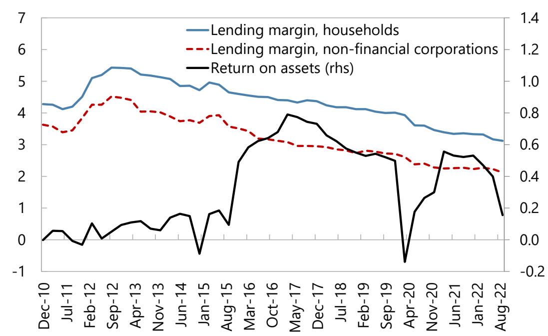
Nonperforming Loans
(Percent)



Sources: IMF, Financial Soundness Indicators; and IMF staff calculations.

Profitability dropped in 2022, partly reflecting Danske Bank's anti-money laundering settlement costs.

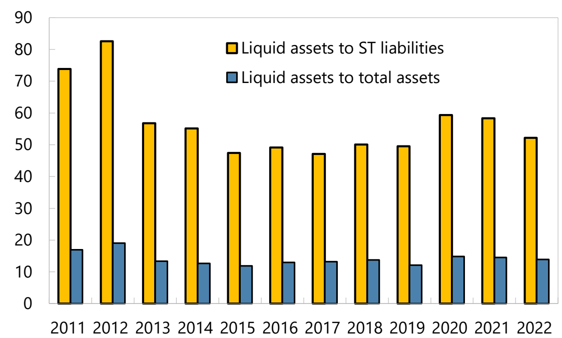
Lending Margins
(Percent)



Sources: Danmarks Nationalbank; and IMF staff calculations.

Liquid assets ratios decreased slightly…

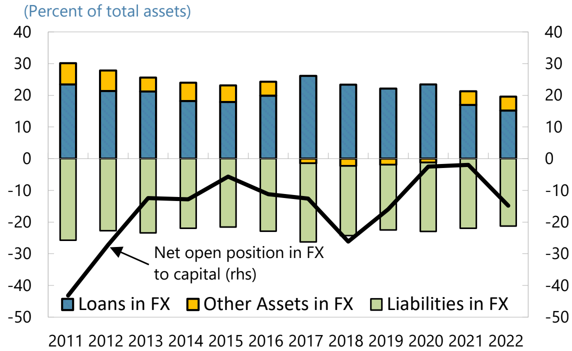
Liquid Assets Indicators
(Percent)



Sources: IMF, Financial Soundness Indicators; and IMF staff calculations.

…and so did net FX open positions.

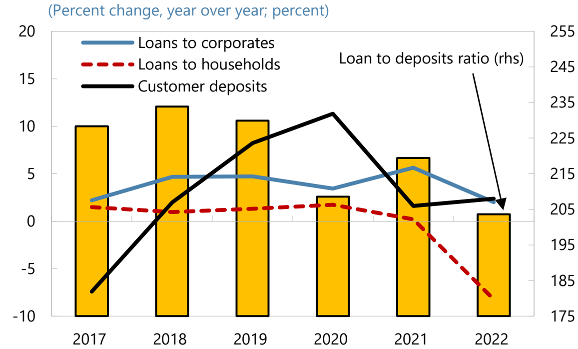
Banks Exposure to FX
(Percent of total assets)



Sources: IMF, Financial Soundness Indicators; and IMF staff calculations.

With a decline in loans to households, the loan-to-deposit ratio fell.

Loans and Deposits Growth
(Percent change, year over year; percent)



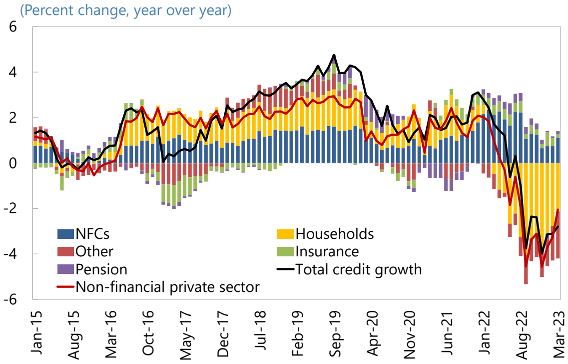
Sources: Statistics Denmark; IMF, Financial Soundness Indicators; and IMF staff calculations.

Figure 5. Denmark: Housing Market Developments

Nonfinancial private sector credit increased moderately, while household credit declined sharply in 2022.

Credit Growth

(Percent change, year over year)

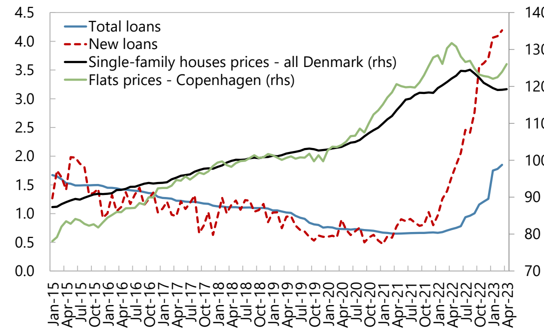


Sources: Danmarks Nationalbank; and IMF staff calculations.

House prices fell more than 3 percent in 2022:H2.

Average Mortgage Rates and House Prices

(Percent, net of administration fee; index, average 2018=100)

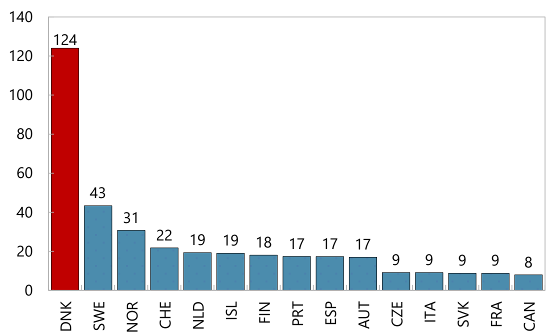


Sources: Danmarks Nationalbank; Finance Denmark; and IMF staff calculations.

Denmark has the world's largest mortgage covered bond market[1]...

Mortgage Covered Bond Markets

(Outstanding amount, 2021; percent of GDP)

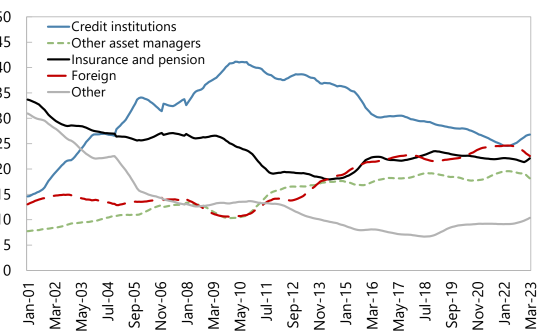


Sources: European Covered Bond Council; and IMF staff calculations.

...and credit institutions, insurance, and pension funds are among the largest investors.

Ownership Shares of Danish Mortgage Bonds

(Percent)

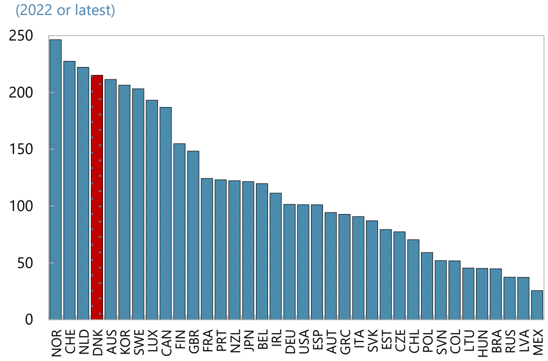


Sources: Danmarks Nationalbank; and IMF staff calculations.

Household indebtedness is high in Denmark compared to other advanced economies...

Household Debt as Percent of Net Disposable Income

(2022 or latest)

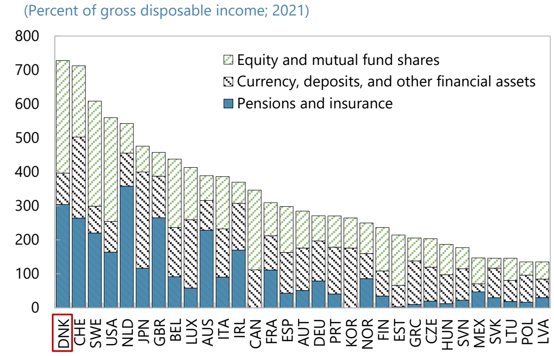


Source: OECD.

...while households hold large financial assets.

Financial Assets

(Percent of gross disposable income; 2021)



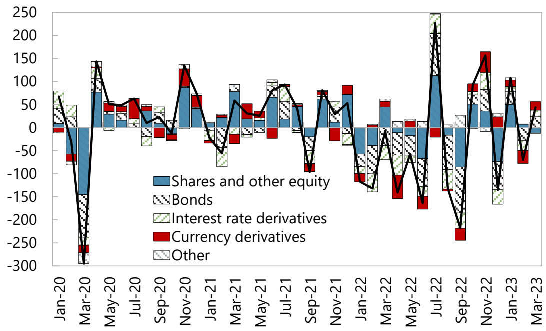
Sources: OECD; and IMF staff calculations.

1\ Covered bonds are issued by credit institutions to fund household mortgages. They are debt instruments secured against mortgages to which the investor has a preferred claim in the event of an issuer default.

Figure 6. Denmark: Pension and Insurance Sector Developments

Pension funds experienced a volatile market in 2022.

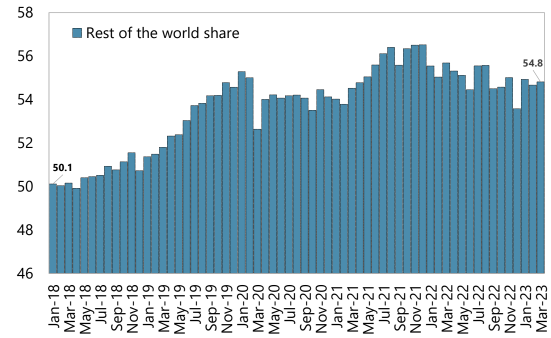
Pension Fund Performance
(Return on investments; DKK billions)



Source: Danmarks Nationalbank.

Pension and insurance companies scaled down their geographical exposures.

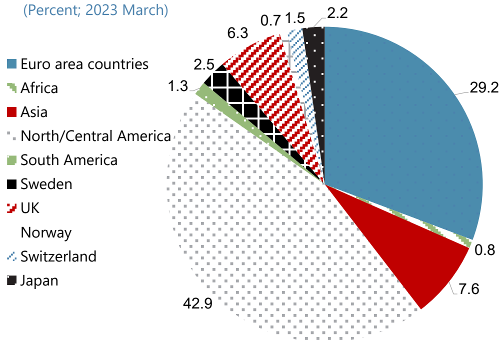
Insurance and Pension Fund Foreign Exposure Share
(Percent)



Source: Danmarks Nationalbank.

Their exposure to US markets accounts for over 40 percent of the total.

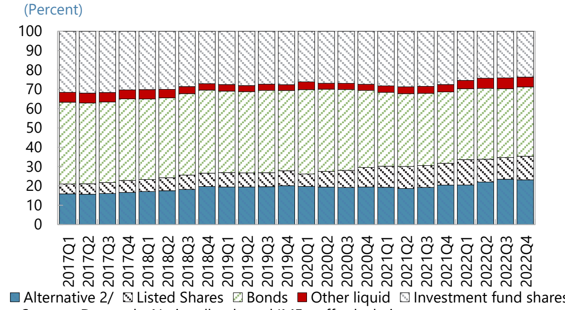
Insurance and Pension Fund Foreign Exposures
(Percent; 2023 March)



Sources: Danmarks Nationalbank; and IMF staff calculations.

The low-rate environment had pushed pension and insurance companies into alternative investments.

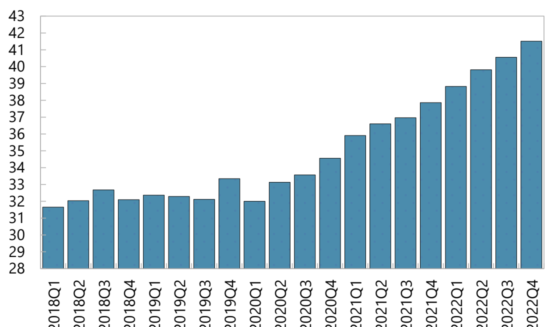
Insurance and Pension Fund Asset Composition 1/
(Percent)



Sources: Danmarks Nationalbank; and IMF staff calculations.
1/ Decomposition does not permit Danish investment fund-look through. Other liquid includes deposits and receivables.
2/ Alternatives include unlisted shares, other equity, and direct lending.

Danish insurers have transferred more of the market risk to customers by increasing market-rate products...

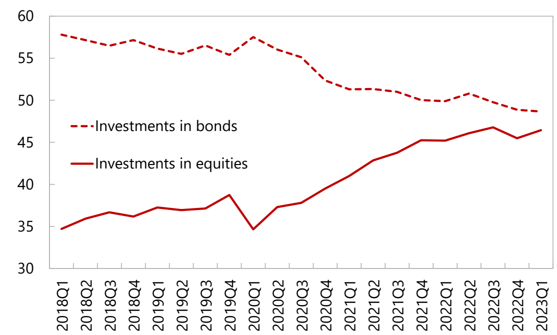
Market Rate Product Share of Insurance Provisions
(Percent)



Sources: Danmarks Nationalbank; and IMF staff calculations.

...which increased investment in equities in recent years.

Investment by Insurance and Pension Companies
(Percent)



Source: Danmarks Nationalbank.

Table 1. Denmark: Selected Economic and Social Indicators, 2020–28

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						Proj.			
Supply and Demand (change in percent)									
Real GDP	-2.0	4.9	3.8	1.3	1.4	1.2	1.3	1.3	1.3
Final domestic demand	0.1	4.6	0.0	0.1	1.2	1.6	1.8	1.8	1.8
Private consumption	-1.4	4.2	-2.3	0.7	1.9	1.9	1.8	1.8	1.8
Public consumption	-1.4	4.2	-3.5	-0.5	1.2	1.0	1.0	1.0	1.0
Gross fixed investment	5.1	6.2	8.6	-0.5	-0.1	1.8	2.6	2.6	2.6
Net exports 1/	-1.9	0.6	2.7	1.0	0.0	0.1	0.2	0.2	0.2
Gross national saving (percent of GDP)	30.5	32.0	37.7	34.4	33.2	32.9	32.7	32.6	32.4
Gross domestic investment (percent of GDP)	22.7	23.0	24.6	25.3	25.4	25.2	25.1	25.0	24.8
Potential output	1.8	1.9	2.0	1.9	1.8	1.7	1.5	1.4	1.3
Output gap (percent of potential output)	-2.7	0.1	1.9	1.3	0.9	0.4	0.2	0.0	0.0
Labor Market (change in percent) 2/									
Labor force	-0.3	0.5	2.5	0.6	-0.6	-0.5	-0.2	-0.2	0.1
Employment	-1.0	1.1	3.2	0.0	-0.6	-0.5	-0.2	-0.2	0.1
Harmonized unemployment rate (percent)	5.6	5.1	4.5	5.0	5.0	5.0	5.0	5.0	5.0
Prices and Costs (change in percent)									
GDP deflator	2.6	2.8	7.6	0.1	2.0	2.3	2.3	2.2	2.2
CPI (year average)	0.3	1.9	8.5	4.1	2.8	2.1	2.1	2.0	2.0
CPI (Q4 on Q4)	0.4	3.5	10.2	3.3	2.6	2.1	2.1	2.0	2.0
Public Finance (percent of GDP) 3/									
Total revenues	53.8	54.4	48.6	49.5	49.3	49.0	49.0	49.2	49.2
Total expenditures	53.5	50.8	45.3	47.5	48.4	48.7	49.0	49.2	49.4
Overall balance	0.2	3.6	3.3	2.0	0.9	0.3	0.0	-0.1	-0.1
Primary balance 4/	-0.1	3.2	3.1	1.5	0.4	-0.2	-0.4	-0.5	-0.6
Cyclically-adjusted balance (percent of potential GDP)	2.2	3.5	2.0	1.1	0.3	0.4	0.1	0.0	-0.1
Structural balance (percent of potential GDP) 5/	0.5	0.0	1.0	0.9	0.5	0.2	0.0	-0.1	-0.2
Gross debt	42.2	36.7	30.1	30.5	30.3	30.1	30.2	30.3	30.4
Money and Interest Rates (percent)									
Domestic credit growth (end of year)	1.3	3.1	-4.0	...	...	...	...	...	...
M3 growth (end of year)	12.3	-0.9	12.0	...	...	...	...	...	...
Short-term interbank interest rate (3 month)	-0.4	-0.5	0.3	...	...	...	...	...	...
Government bond yield (10 year)	-0.5	-0.3	1.2	...	...	...	...	...	...
Balance of Payments (percent of GDP)									
Exports of goods & services	54.9	59.7	69.3	64.2	63.2	63.1	62.9	62.9	63.0
Imports of goods & services	48.6	52.5	58.7	56.3	56.6	56.5	56.5	56.5	56.7
Trade balance, goods and services	6.3	7.1	10.6	7.9	6.6	6.5	6.4	6.4	6.4
Oil trade balance	-0.4	-0.5	-0.8	-0.8	-0.9	-1.1	-1.2	-1.4	-1.5
Current account	7.9	9.0	13.1	9.1	7.8	7.7	7.6	7.6	7.6
International reserves, changes	-0.2	3.7	1.9	...	...	...	...	...	...
Exchange Rate									
Average DKK per US$ rate	6.5	6.3	7.1	...	...	...	...	...	...
Nominal effective rate (2010=100, ULC based)	100.2	100.1	98.0	...	...	...	...	...	...
Real effective rate (2010=100, ULC based)	93.9	95.5	93.7	...	...	...	...	...	...
Memorandum Items									
Nominal GDP (Bln DKK)	2324	2504	2798	2837	2933	3036	3146	3258	3374
GDP (Bln USD)	355	398	392	...	...	...	...	...	...
GDP per capita (USD)	61006	68202	66672	...	...	...	...	...	...

Sources: Danmarks Nationalbank; Eurostat; IMF, World Economic Outlook; Statistics Denmark; and IMF staff calculations.

1/ Contribution to GDP growth.
2/ Based on Eurostat definition.
3/ General government.
4/ Overall balance net of interest.
5/ Cyclically-adjusted balance net of temporary fluctuations in some revenues (e.g., North Sea revenue, pension yield tax revenue) and one-offs. Covid-related one-offs are not excluded.

Table 2. Denmark: GFSM 2001 Statement of Government Operations, 2020–28
(Billions of DKK)

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						proj.			
General Government									
Total revenues	1249.1	1363.2	1360.0	1402.9	1445.5	1488.7	1542.4	1601.9	1661.2
Personal income taxes	587.6	626.6	653.4	663.7	686.3	710.5	736.1	762.3	789.6
Pension return taxes	48.2	63.8	11.3	11.3	11.7	12.1	12.6	13.0	13.5
Company taxes	66.6	93.6	89.2	85.1	85.1	88.0	91.2	94.5	97.9
Taxes on goods and services	328.8	348.0	356.8	361.7	374.0	387.2	401.2	415.5	430.3
Social contributions	19.3	17.5	19.6	19.9	20.5	21.3	22.0	22.8	23.6
Interest and dividends	20.3	24.5	28.0	34.0	36.7	42.5	47.2	50.2	54.0
Other revenues	178.4	189.1	201.7	227.0	231.1	227.1	232.1	243.6	252.4
Total expenditures	1244.1	1272.2	1267.1	1346.6	1419.8	1479.3	1541.1	1603.8	1666.1
Expense	1164.3	1191.9	1184.7	1252.2	1318.1	1376.2	1431.6	1491.3	1550.2
Public consumption	564.8	599.1	606.7	631.0	668.4	694.9	721.3	748.5	776.8
Public subsidies	75.6	63.3	39.5	36.9	41.1	42.5	44.0	45.6	47.2
Interest expenditures	12.8	14.1	20.6	19.9	22.0	28.2	33.0	35.8	37.8
Social benefits	424.0	427.2	427.3	473.7	489.8	510.4	529.4	553.8	577.0
Other expenditures	87.1	88.3	90.6	90.8	96.8	100.2	103.8	107.5	111.3
Net acquisition of nonfinancial assets	79.9	80.3	82.3	94.4	101.7	103.2	109.5	112.5	115.9
Gross Operating Balance	84.9	171.3	175.3	150.7	127.4	112.5	110.8	110.6	111.0
Net Lending/Borrowing	5.0	91.0	93.0	56.3	25.7	9.3	1.3	-1.9	-4.9
Net Financial Transactions	-0.4	85.7	91.6	..	..	..	..	..	..
Net acquisition of financial assets	244.5	13.0	16.2	..	..	..	..	..	..
Currency and deposits	63.7	14.8	14.8	..	..	..	..	..	..
Securities other than shares	11.5	16.6	13.0	..	..	..	..	..	..
Loans	66.1	18.8	-8.6	..	..	..	..	..	..
Shares and other equity	19.7	7.6	5.0	..	..	..	..	..	..
Insurance technical reserves	0.0	0.0	0.0	..	..	..	..	..	..
Financial derivatives and employee stock options	-8.3	-4.1	-1.0	..	..	..	..	..	..
Other Financial Assets	91.8	-40.6	-6.9	..	..	..	..	..	..
Net incurrence of liabilities	244.9	-72.7	-75.4	..	..	..	..	..	..
Currency and deposits	0.7	-0.1	0.2	..	..	..	..	..	..
Securities other than shares	201.7	-82.7	-99.1	..	..	..	..	..	..
Loans	6.4	4.7	6.2	..	..	..	..	..	..
Shares and other equity	0.0	0.0	0.0	..	..	..	..	..	..
Insurance technical reserves	0.8	0.0	0.0	..	..	..	..	..	..
Other liabilities	35.2	5.4	17.4	..	..	..	..	..	..

Sources: Statistics Denmark; and IMF staff calculations.

Table 3. Denmark: GFSM 2001 Statement of Government Operations, 2020–28
(Percent of GDP)

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						proj.			
General Government									
Total revenues	53.8	54.4	48.6	49.5	49.3	49.0	49.0	49.2	49.2
Personal income taxes	25.3	25.0	23.4	23.4	23.4	23.4	23.4	23.4	23.4
Pension return taxes	2.1	2.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Company taxes	2.9	3.7	3.2	3.0	2.9	2.9	2.9	2.9	2.9
Taxes on goods and services	14.1	13.9	12.8	12.8	12.8	12.8	12.8	12.8	12.8
Social contributions	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Interest and dividends	0.9	1.0	1.0	1.2	1.3	1.4	1.5	1.5	1.6
Other revenues	7.7	7.5	7.2	8.0	7.9	7.5	7.4	7.5	7.5
Total expenditures	53.5	50.8	45.3	47.5	48.4	48.7	49.0	49.2	49.4
Expense	50.1	47.6	42.3	44.1	44.9	45.3	45.5	45.8	45.9
Public consumption	24.3	23.9	21.7	22.2	22.8	22.9	22.9	23.0	23.0
Public subsidies	3.3	2.5	1.4	1.3	1.4	1.4	1.4	1.4	1.4
Interest expenditures	0.6	0.6	0.7	0.7	0.8	0.9	1.1	1.1	1.1
Social benefits	18.2	17.1	15.3	16.7	16.7	16.8	16.8	17.0	17.1
Other expenditures	3.7	3.5	3.2	3.2	3.3	3.3	3.3	3.3	3.3
Net acquisition of nonfinancial assets	3.4	3.2	2.9	3.3	3.5	3.4	3.5	3.5	3.4
Gross Operating Balance	3.7	6.8	6.3	5.3	4.3	3.7	3.5	3.4	3.3
Net Lending/Borrowing	0.2	3.6	3.3	2.0	0.9	0.3	0.0	-0.1	-0.1
Net Financial Transactions	0.0	3.4	3.3	..	..	..	..	..	..
Net acquisition of financial assets	10.5	0.5	0.6	..	..	..	..	..	..
Currency and deposits	2.7	0.6	0.5	..	..	..	..	..	..
Securities other than shares	0.5	0.7	0.5	..	..	..	..	..	..
Loans	2.8	0.8	-0.3	..	..	..	..	..	..
Shares and other equity	0.8	0.3	0.2	..	..	..	..	..	..
Insurance technical reserves	0.0	0.0	0.0	..	..	..	..	..	..
Financial derivatives and employee stock options	-0.4	-0.2	0.0	..	..	..	..	..	..
Other Financial Assets	3.9	-1.6	-0.2	..	..	..	..	..	..
Net incurrence of liabilities	10.5	-2.9	-2.7	..	..	..	..	..	..
Currency and deposits	0.0	0.0	0.0	..	..	..	..	..	..
Securities other than shares	8.7	-3.3	-3.5	..	..	..	..	..	..
Loans	0.3	0.2	0.2	..	..	..	..	..	..
Shares and other equity	0.0	0.0	0.0	..	..	..	..	..	..
Insurance technical reserves	0.0	0.0	0.0	..	..	..	..	..	..
Other liabilities	1.5	0.2	0.6	..	..	..	..	..	..
Memorandum Items									
Primary balance 1/	-0.1	3.2	3.1	1.5	0.4	-0.2	-0.4	-0.5	-0.6
Structural balance 2/	0.5	0.0	1.0	0.9	0.5	0.2	0.0	-0.1	-0.2
One-off measures 2/ 3/	1.7	3.5	1.0	0.2	-0.2	0.2	0.1	0.1	0.1
Cyclically adjusted balance 2/	2.2	3.5	2.0	1.1	0.3	0.4	0.1	0.0	-0.1
Gross debt	42.2	36.7	30.1	30.5	30.3	30.1	30.2	30.3	30.4
Gross domestic product (Bln. Kroner)	2,324	2,504	2,798	2,837	2,933	3,036	3,146	3,258	3,374

Sources: Statistics Denmark; and IMF staff calculations.

1/ Overall balance net of interest.

2/ In percent of potential GDP.

3/ One-off items relate to vehicle registration tax, pension yield tax, North Sea oil and gas revenue, net interest payments, and other special items.

Table 4. Denmark: Public Sector Balance Sheet, 2013–21

	2013	2014	2015	2016	2017	2018	2019	2020	2021
					Billions of DKK				
Assets	1,959	2,034	1,977	2,017	2,116	2,191	2,397	2,797	2,784
Financial assets	1,015	1,074	993	998	1,056	1,094	1,279	1,646	1,583
Monetary gold and SDR	0	0	0	0	0	0	0	0	0
Currency and deposits	218	272	228	156	182	155	108	172	186
Securities other than shares	102	67	68	70	70	108	170	186	199
Loans	176	180	184	189	188	202	215	281	302
Shares and other equity	416	425	420	470	491	526	589	729	658
Insurance technical reserves	2	1	2	1	1	1	1	1	1
Financial derivatives and employee stock options	6	5	5	4	4	7	8	6	6
Other financial assets	95	125	87	107	119	94	187	271	230
Capital stock net of depreciation	944	959	984	1,019	1,060	1,097	1,118	1,151	1,202
Liabilities	1,095	1,172	1,088	1,091	1,079	1,068	1,125	1,368	1,267
Financial liabilities	1,095	1,172	1,088	1,091	1,079	1,068	1,125	1,368	1,267
Monetary gold and SDR	0	0	0	0	0	0	0	0	0
Currency and deposits	15	23	24	24	20	20	20	21	20
Securities other than shares	764	831	737	733	718	696	732	928	826
Loans	163	165	170	173	176	180	181	186	187
Other financial assets	152	153	157	155	159	167	185	220	225
Net Worth	864	862	889	926	1,036	1,123	1,272	1,429	1,517
Financial Net Worth	-80	-98	-95	-93	-23	26	154	278	315
					Percent of GDP				
Assets	101.5	102.6	97.1	95.7	96.5	97.2	103.7	120.4	111.2
Financial assets	52.6	54.2	48.8	47.3	48.2	48.6	55.3	70.8	63.2
Monetary gold and SDR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency and deposits	11.3	13.7	11.2	7.4	8.3	6.9	4.7	7.4	7.4
Securities other than shares	5.3	3.4	3.4	3.3	3.2	4.8	7.4	8.0	7.9
Loans	9.1	9.1	9.0	9.0	8.6	9.0	9.3	12.1	12.1
Shares and other equity	21.5	21.4	20.6	22.3	22.4	23.4	25.5	31.4	26.3
Insurance technical reserves	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Financial derivatives and employee stock options	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2
Other financial assets	4.9	6.3	4.3	5.1	5.4	4.2	8.1	11.7	9.2
Capital stock net of depreciation	48.9	48.4	48.3	48.4	48.3	48.7	48.4	49.5	48.0
Liabilities	56.7	59.1	53.4	51.8	49.2	47.4	48.7	58.9	50.6
Financial liabilities	56.7	59.1	53.4	51.8	49.2	47.4	48.7	58.9	50.6
Monetary gold and SDR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency and deposits	0.8	1.2	1.2	1.1	0.9	0.9	0.9	0.9	0.8
Securities other than shares	39.6	41.9	36.2	34.8	32.8	30.9	31.7	39.9	33.0
Loans	8.5	8.3	8.3	8.2	8.0	8.0	7.9	8.0	7.5
Other financial assets	7.9	7.7	7.7	7.3	7.2	7.4	8.0	9.5	9.0
Net Worth	44.8	43.5	43.6	43.9	47.3	49.8	55.1	61.5	60.6
Financial Net Worth	-4.1	-4.9	-4.7	-4.4	-1.1	1.2	6.7	12.0	12.6
Memorandum Items:									
Nominal GDP (in billions of DKK)	1,930	1,981	2,036	2,108	2,193	2,253	2,311	2,324	2,504

Sources: Eurostat; Statistics Denmark; and IMF staff calculations.

Table 5. Denmark: Financial Soundness Indicators, 2013–22[1]

(Percent)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Deposit-taking Institutions: Total										
Regulatory capital to risk-weighted assets	22.3	21.0	21.8	23.2	23.8	23.3	24.6	25.3	25.5	24.5
Regulatory tier I capital to risk-weighted assets	19.5	18.5	19.5	20.7	21.4	21.5	22.0	22.5	22.9	22.0
Core / common equity tier 1 capital to risk-weighted assets	16.7	17.3	17.8	18.3	19.3	19.0	19.5	20.6	20.9	20.4
Nonperforming loans net of provisions to capital	22.4	22.0	17.8	14.2	11.0					
Nonperforming loans net of provisions to capital (new IFRS9)					14.4	16.3	12.3	13.4	8.6	8.3
Bank provisions to Nonperforming loans	51.0	50.3	50.5	51.0	54.3					
Bank provisions to Nonperforming loans (new IFRS9)					46.9	42.2	44.7	38.3	44.1	37.9
Nonperforming loans to total gross loans	8.7	8.2	6.9	5.3	4.3					
Nonperforming loans to total gross loans (new IFRS9)					4.9	4.7	3.8	4.1	3.1	2.4
Sectoral distribution of loans to total loans, of which										
Nonfinancial corporation	37.0	37.3	39.5	39.4	41.2	41.6	38.1	41.2	42.4	45.5
Households (including individual firms)	32.0	32.5	32.8	34.2	33.4	31.0	32.8	32.8	32.7	29.3
ROA (aggregated data on a parent-company basis) 2/	0.4	0.4	0.8	1.0	1.2	0.9	0.7	0.4	0.9	0.3
ROA (main groups on a consolidated basis) 3/	0.4	0.3	0.5	0.7	0.7	0.6	0.5	0.3	0.5	0.3
ROE (aggregated data on a parent-company basis) 2/	5.7	5.6	9.1	14.1	14.2	10.2	8.2	4.8	10.3	4.0
ROE (main groups on a consolidated basis) 3/	6.9	6.4	10.2	13.2	14.0	10.2	9.4	5.5	9.9	4.8
Interest margin to gross income	64.2	60.0	54.4	50.8	46.9	50.0	48.4	47.7	41.5	52.5
Noninterest expenses to gross income	47.2	55.5	55.2	49.4	46.7	52.5	55.0	60.4	57.4	68.0
Liquid assets to total assets	30.9	27.3	31.4	32.8	34.4					
Liquid assets to total assets (new IFRS9)					22.2	19.9	19.1	25.7	26.4	24.1
Liquid assets to short-term liabilities	49.8	42.0	50.3	51.9	54.8					
Liquid assets to short-term liabilities (new IFRS9)					28.5	24.7	23.4	30.9	30.2	25.7
Foreign currency position	1.2	1.7	1.5	1.5	1.6	1.4	1.1	0.6	0.6	0.4

Source: Danish Financial Supervisory Authority.

1/ These may be grouped in different peer groups based on control, business lines, or group structure.

2/ All credit institutions' aggregated data on a parent-company basis.

3/ Consolidated data for the five main banking groups (IFRS).

Table 6. Denmark: Balance of Payments, 2020–28

	2020	2021	2022	2023	2024	2025	2026	2027	2028
						proj.			
					Billions of DKK				
Current Account	183.1	226.2	367.2	256.7	229.8	234.5	240.2	247.1	254.9
Balance on goods	122.8	101.1	91.3	117.7	121.6	123.0	124.9	127.9	131.6
Merchandise exports f.o.b.	780.5	893.4	1045.2	1040.8	1084.5	1117.0	1150.4	1188.1	1234.3
Merchandise imports f.o.b.	657.7	792.4	953.9	923.1	963.0	994.0	1025.5	1060.1	1102.6
Balance on services	24.7	77.6	206.1	105.1	73.2	75.2	77.7	80.2	82.9
Exports of services, total	496.0	600.5	894.2	779.5	769.3	798.0	828.2	859.5	892.0
Imports of services, total	471.3	522.9	688.1	674.4	696.1	722.8	750.5	779.3	809.2
Balance on income	35.6	47.5	69.8	33.9	35.1	36.3	37.6	39.0	40.4
Capital and Financial Account	134.8	306.5	276.7	267.8	241.2	246.3	252.5	259.8	268.0
Capital transfer, net	-0.8	2.6	5.5	5.5	5.7	5.9	6.1	6.4	6.6
Financial account	135.6	303.9	271.2	262.2	235.5	240.4	246.3	253.5	261.4
Direct investment, net	54.1	142.6	1.0	-81.4	-77.6	-67.2	-54.0	-56.0	-58.0
Abroad	60.4	225.5	200.0	120.3	130.9	148.6	169.6	175.7	181.9
In Denmark	6.3	82.9	198.9	201.7	208.5	215.9	223.7	231.6	239.9
Portfolio investment, net	-25.4	72.3	31.1	26.0	16.9	-49.9	-42.2	-70.4	-79.2
Assets	232.6	97.0	-85.1	105.3	94.3	87.6	98.8	74.6	68.6
Liabilities	258.1	24.8	-116.3	79.4	77.4	137.4	141.0	145.1	147.8
Financial derivatives, net	-17.3	-31.7	90.0	91.2	94.3	97.6	101.2	104.8	108.5
Other investment, net	127.9	28.3	96.7	226.4	201.8	259.8	241.4	275.1	290.1
Reserve assets	-3.7	92.4	52.3	0.0	0.0	0.0	0.0	0.0	0.0
Net Errors and Omissions	48.3	-80.3	90.5	-11.1	-11.4	-11.8	-12.3	-12.7	-13.2
					Percent of GDP				
Current Account	7.9	9.0	13.1	9.1	7.8	7.7	7.6	7.6	7.6
Balance on goods	5.3	4.0	3.3	4.1	4.1	4.1	4.0	3.9	3.9
Merchandise exports f.o.b.	33.6	35.7	37.4	36.7	37.0	36.8	36.6	36.5	36.6
Merchandise imports f.o.b.	28.3	31.6	34.1	32.5	32.8	32.7	32.6	32.5	32.7
Balance on services	1.1	3.1	7.4	3.7	2.5	2.5	2.5	2.5	2.5
Exports of services, total	21.3	24.0	32.0	27.5	26.2	26.3	26.3	26.4	26.4
Imports of services, total	20.3	20.9	24.6	23.8	23.7	23.8	23.9	23.9	24.0
Balance on income	1.5	1.9	2.5	1.2	1.2	1.2	1.2	1.2	1.2
Capital and Financial Account	5.8	12.2	9.9	9.4	8.2	8.1	8.0	8.0	7.9
Capital transfer, net	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Financial account	5.8	12.1	9.7	9.2	8.0	7.9	7.8	7.8	7.7
Direct investment, net	2.3	5.7	0.0	-2.9	-2.6	-2.2	-1.7	-1.7	-1.7
Abroad	2.6	9.0	7.1	4.2	4.5	4.9	5.4	5.4	5.4
In Denmark	0.3	3.3	7.1	7.1	7.1	7.1	7.1	7.1	7.1
Portfolio investment, net	-1.1	2.9	1.1	0.9	0.6	-1.6	-1.3	-2.2	-2.3
Assets	10.0	3.9	-3.0	3.7	3.2	2.9	3.1	2.3	2.0
Liabilities	11.1	1.0	-4.2	2.8	2.6	4.5	4.5	4.5	4.4
Financial derivatives, net	-0.7	-1.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Other investment, net	5.5	1.1	3.5	8.0	6.9	8.6	7.7	8.4	8.6
Reserve assets	-0.2	3.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0
Net Errors and Omissions	2.1	-3.2	3.2	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Memorandum Items:									
Net oil and oil-related exports	-0.4	-0.5	-1.2	...	...	...	...	...	
Net sea transportation receipts	3.0	5.3	9.2	...	...	...	...	...	
Current account net of items above	5.4	4.2	5.1	...	...	...	...	...	
Reserves coverage (months of imports)	5.1	4.7	...	...	...	...	...	...	
Gross external debt	154.8	146.6	...	...	...	...	...	...	
Gross domestic product	2,324	2,504	2,798	2,837	2,933	3,036	3,146	3,258	3,374

Sources: National Bank of Denmark; Statistics Denmark; and IMF staff calculations.

Table 7. Denmark: International Investment Position, 2014–22

	2014	2015	2016	2017	2018	2019	2020	2021	2022
					Billions of DKK				
Assets	5,832	5,956	6,503	6,912	6,812	7,610	8,303	9,305	8,779
Direct investment	1,516	1,627	1,785	1,833	1,997	2,043	2,141	2,422	2,614
Equity	1,089	1,184	1,321	1,367	1,491	1,444	1,508	1,762	1,900
Debt instruments	427	443	464	466	507	599	633	659	714
Portfolio investment	2,643	2,704	2,935	3,100	3,137	3,766	4,073	4,762	4,120
Equity	1,061	1,180	1,315	1,521	1,526	1,876	2,075	2,725	2,277
Investment fund shares	264	271	317	363	364	431	492	515	493
Debt securities	1,319	1,253	1,303	1,217	1,246	1,459	1,506	1,522	1,351
Fin. deriv. (other than reserves)	100	68	40	59	25	69	156	45	-37
Other investment	1,113	1,114	1,295	1,456	1,192	1,285	1,468	1,512	1,467
Reserve assets	460	442	449	465	461	446	465	564	614
Liabilities	4,974	5,275	5,395	5,697	5,369	5,813	6,677	7,376	6,986
Direct investment	987	1,015	1,187	1,183	1,303	1,305	1,380	1,448	1,604
Equity	655	663	823	830	935	867	891	890	899
Debt instruments	332	352	364	353	368	438	490	558	705
Portfolio investment	2,649	3,072	2,985	3,251	2,849	3,331	4,023	4,602	4,204
Equity	958	1,314	1,133	1,363	1,135	1,488	1,966	2,563	2,494
Investment fund shares	55	64	83	107	82	104	114	141	111
Debt securities	1,636	1,695	1,769	1,781	1,631	1,739	1,943	1,898	1,599
Financial derivatives	0	0	0	0	0	0	0	0	0
Other investment	1,338	1,188	1,223	1,263	1,218	1,178	1,274	1,326	1,178
Net Investment Position	858	680	1,108	1,216	1,443	1,797	1,626	1,928	1,792
Direct investment	529	612	598	650	694	738	761	973	1,010
Portfolio investment	-5	-368	-51	-151	288	436	50	160	-84
Other investment	-225	-73	72	192	-25	108	194	186	289
					Percent of GDP				
Assets	294.4	292.5	308.5	315.2	302.3	329.3	357.3	371.6	313.8
Direct investment	76.5	79.9	84.7	83.6	88.6	88.4	92.1	96.7	93.4
Equity	55.0	58.1	62.7	62.4	66.2	62.5	64.9	70.4	67.9
Debt instruments	21.5	21.8	22.0	21.2	22.5	25.9	27.2	26.3	25.5
Portfolio investment	133.4	132.8	139.2	141.4	139.2	163.0	175.3	190.2	147.3
Equity	53.6	57.9	62.4	69.3	67.7	81.2	89.3	108.8	81.4
Investment fund shares	13.3	13.3	15.0	16.6	16.2	18.6	21.2	20.6	17.6
Debt securities	66.6	61.6	61.8	55.5	55.3	63.1	64.8	60.8	48.3
Fin. deriv. (other than reserves)	5.0	3.3	1.9	2.7	1.1	3.0	6.7	1.8	-1.3
Other investment	56.2	54.7	61.4	66.4	52.9	55.6	63.2	60.4	52.4
Reserve assets	23.2	21.7	21.3	21.2	20.5	19.3	20.0	22.5	21.9
Liabilities	251.0	259.1	256.0	259.8	238.3	251.6	287.3	294.6	249.7
Direct investment	49.8	49.9	56.3	53.9	57.8	56.5	59.4	57.8	57.3
Equity	33.1	32.6	39.0	37.8	41.5	37.5	38.3	35.6	32.1
Debt instruments	16.7	17.3	17.3	16.1	16.3	18.9	21.1	22.3	25.2
Portfolio investment	133.7	150.9	141.6	148.2	126.4	144.1	173.1	183.8	150.3
Equity	48.4	64.5	53.8	62.2	50.4	64.4	84.6	102.3	89.1
Investment fund shares	2.8	3.1	3.9	4.9	3.7	4.5	4.9	5.6	4.0
Debt securities	82.6	83.2	83.9	81.2	72.4	75.3	83.6	75.8	57.1
Financial derivatives	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other investment	67.5	58.3	58.0	57.6	54.0	51.0	54.8	53.0	42.1
Net Investment Position	43.3	33.4	52.6	55.4	64.0	77.7	70.0	77.0	64.1
Direct investment	26.7	30.0	28.4	29.7	30.8	32.0	32.7	38.9	36.1
Portfolio investment	-0.3	-18.1	-2.4	-6.9	12.8	18.8	2.2	6.4	-3.0
Other investment	-11.3	-3.6	3.4	8.8	-1.1	4.7	8.3	7.4	10.3

Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

Annex I. Implementation of Past IMF Policy Recommendations

2022 Article IV Advice	Actions Since 2022 Article IV
Fiscal Policy	
Fiscal policy should be tightened in 2022. Additional compensation for higher energy prices must be well targeted and fiscally neutral.	Fiscal policy was tightened in 2022. Additional energy-related measures were fully funded (fiscally neutral), but some were not well targeted.
A broadly neutral fiscal stance in the medium term would help protect buffers, while relaxation of the structural deficit limit would provide fiscal flexibility.	New permanent spending priorities—notably, defense—are planned to be funded by fiscal savings from supply-side measures. The government decided to lower the structural deficit limit to 1 percent of GDP in March 2022.
A comprehensive climate mitigation strategy—enhanced carbon prices reinforced by fiscal incentives across sectors, including the use of feebates—is required to meet Denmark's emission targets.	Carbon pricing in the industrial sector (Phase 2 of the Green Tax Reform) is envisaged to start in 2025. The authorities do not support feebates, as there are other policies in place to incentivize emission reduction.
Financial Sector	
Tighten macroprudential tools: i) subject new mortgages to highly-leveraged households to minimum down-payment or mandatory amortization; ii) extend the "growth area guidelines" across Denmark; and iii) consider debt-service-to-income caps.	There are no plans to implement these measures for now.
Mortgage interest deductibility should be reduced, and legislation should include borrower-based tools in the policy toolkit.	There are no plans to implement these measures.
Review the efficacy of institutional arrangements where independent authorities are provided with a legal mandate to implement macroprudential policy.	There are no plans to implement these measures.
Intensify AML/CFT on-site inspections of higher-risk financial institutions and strengthen the AML/CFT regulatory framework for virtual asset providers.	The authorities have made progress in enhancing the risk-based supervision of banks and the supervisory assessment of ML/TF risks.
Structural Reforms	
Reduce marginal and participation tax rates to promote labor supply.	The authorities are planning to reduce the marginal tax rate except for very high-income earners and increase the earned income credit.
Maintain indexation of the retirement age to life expectancy. Review the adequacy of routes to early retirement.	The indexation of the retirement age to life expectancy has been maintained. The government has initiated a review of the early retirement scheme.
Permanently lower the threshold under the pay-limit scheme, increase the job search period for international students, and expand the Fast-Track Scheme for foreign workers by increasing the number of eligible firms	Implemented
Further improve immigrant integration by ensuring that best practices across municipalities are implemented more broadly.	Ongoing

Annex II. External Sector Assessment

<table>
<tr><td colspan="8">Overall Assessment: The external position in 2022 is assessed as stronger than the level implied by medium-term fundamentals and desirable policies. The current account (CA) surplus surged to 13.1 percent of GDP in 2022 from 9 percent in 2021 as a further sharp increase in sea transport prices led to the services balance surplus widening by 4.3 percent of GDP while the goods balance narrowed by 0.7 percent of GDP. The CA surplus is expected to decline to around 7.5 percent of GDP over the medium term, close to its historical average.

Potential Policy Responses: Structural policies aimed at raising investment, including climate- and digital-related, would help reduce the surplus.</td></tr>
<tr><td>Foreign Asset and Liability Position and Trajectory</td><td colspan="7">Background. The net international investment position (NIIP) is estimated to have decreased by 13 percentage points to reach 64.1 percent of GDP in 2022, mainly driven by declining portfolio equity as well as lower foreign direct investment (FDI). Because of large gross assets and liabilities relative to GDP, valuation swings were large, leading the NIIP and the current account to move in different directions. Relatively large BOP errors and omissions are also a characteristic for Denmark. In the medium term, the NIIP is expected to increase, reflecting the outlook for continued CA surpluses.

Assessment. Gross liabilities decreased by 45 percentage points of GDP to 250 percent of GDP in 2022, with half being gross external debt (125 percent of GDP). Financial institutions hold the bulk of net foreign assets (116 percent of GDP): Insurance/Pension Funds (58 percent of GDP) and Investment Funds (49 percent of GDP) hold the largest shares, whereas mortgage institutions are net external debtors (22 percent of GDP). Households are also external lenders in net assets (8 percent of GDP), while nonfinancial corporations (-54 percent of GDP) and the government (-6 percent of GDP) are net external debtors.</td></tr>
<tr><td>2022 (% GDP)</td><td colspan="2">NIIP: 64.1</td><td>Gross Assets: 313.8</td><td>Debt Assets: 100.9</td><td colspan="2">Gross Liab.: 249.7</td><td>Debt Liab.: 99.5</td></tr>
<tr><td>Current Account</td><td colspan="7">Background. The CA surplus rose by 4.1 percentage points to 13.1 percent of GDP in 2022, driven mainly by a surge in international freight rates. Sea transport services account for about half of Denmark's service exports and about a third of service imports (the largest container shipping company in the world is headquartered in Denmark). Merchanting and processing, as well as primary income surpluses, continued to be strong, while other goods' trade deficits widened slightly. The CA surplus also reflected positive saving-investment (S-I) balances for corporates, households, and the public sector. The private and public S-I balances in 2022 were 9.6 and 3.5 percent of GDP, respectively. The impact of the surge in international freight rates on the current account is estimated at about 6.6 percent of GDP in 2022 and is assessed to be temporary —freight rates have already started to moderate, contributing to a decline in the current account surplus.[1] Over the medium term, the CA is projected to stabilize around 7.5 percent of GDP, close to its long-term average.

Assessment. The cyclically adjusted CA is estimated at 14.3 percent of GDP in 2022, while the impact of the transport price shock is estimated at 6.6 percent. The adjusted CA is 7.7 percent of GDP, 2.9 percentage points above the cyclically adjusted EBA norm of 4.8 percent of GDP. However, the estimated EBA norm for Denmark is low, for example, as compared to the average surplus of 8.6 percent of GDP over the past 10 years, suggesting that the model does not fully capture Denmark-specific factors, such as Denmark's large pension contributions arising from the ongoing transition to the fully-funded retirement system and measurement issues related to merchanting and offshore processing trade (which play a substantial role in Denmark's trade balance). The EBA model identifies policy gaps at 2.1 percent of GDP, of which domestic policy gaps are 1.3 percent of GDP, in part due to Denmark's tighter cyclically adjusted fiscal stance than the rest of the world. The model also estimates a relatively large negative private credit to GDP gap. Measurement error analysis shows that the CA may have been overstated by 0.6 to 1.4 percent of GDP over the last 5 years,[2] consistent with the estimated measurement bias of 0.7 percent of GDP for Denmark in EBA's cross country analysis.</td></tr>
<tr><td>2022 (% GDP)</td><td>CA: 13.1</td><td>Cycl. Adj. CA: 14.3</td><td>EBA Norm: 4.8</td><td>EBA Gap: 9.5</td><td>Transport Price Adj.: −6.6</td><td>Other Adj.: —</td><td>Staff Gap: 2.9</td></tr>
<tr><td>Real Exchange Rate</td><td colspan="7">Background. The exchange rate arrangement is a conventional pegged arrangement. Denmark's currency is pegged to the euro. The Danish krone depreciated by 2.6 percent in real effective terms (ULC based) in 2022.

Assessment. Based on the CA gap model, staff estimates a REER undervaluation of −20 percent in 2022 (applying an estimated elasticity of -0.46). The REER index and level models suggest an overvaluation of 15.5 percent and 11.4 percent, respectively, in 2022. Meanwhile, the REER index based on ULC in 2022 was higher than its 27-year average by 2.2 percent (indicating an overvaluation), whereas the REER CPI-based index pointed to an undervaluation of 2.3 percent.</td></tr>
<tr><td>Capital and Financial Accounts: Flows and Policy Measures</td><td colspan="7">Background. The capital and financial account balance in 2022 was 9.9 percent of GDP (compared to -12.2 percent in 2021), driven by financial derivatives (3.2 percent of GDP), portfolio investment (1 percent of GDP), and other investments (5.5 percent of GDP), while FDI flows were near zero down from a 6 percent of GDP surplus in 2021. International reserves increased by 1.9 percent of GDP, following a 3.7 percentage points increase in 2021.

Assessment. Large fluctuations in capital flows are inherent to countries with a large financial sector. This volatility is a potential source of vulnerability, although it is mitigated by sound financial regulation and supervision. Danish banks remain highly capitalized and liquid.</td></tr>
<tr><td>FX Intervention and Reserves Level</td><td colspan="7">Background. The exchange rate arrangement is a conventional pegged arrangement. Denmark's currency is pegged to the Euro. The peg has served Denmark well. The DN adjusts the interest rate spread relative to the ECB's monetary policy rate in response to krone pressures but also influences the exchange rate using interventions financed via its FX reserves. In response to large capital inflows, the DN purchased an equivalent of EUR 7.4 billion in 2022. While raising its policy rate four times in 2022, the DN has been maintaining it below the ECB rate amid appreciation pressures.

Assessment. Despite increasing by DKK52 billion in 2022, foreign currency reserves declined in USD terms by 4.3 billion to US$81.4 billion in December 2022. Reserves were equivalent to 45.1 percent of the short-term external debt, about 22 percent of GDP, and 4.5 months of imports.</td></tr>
<tr><td colspan="8">[1] The impact of the shock is estimated as the difference between the transport service trade balance in percent of GDP in 2022 versus the benchmark year of 2019.

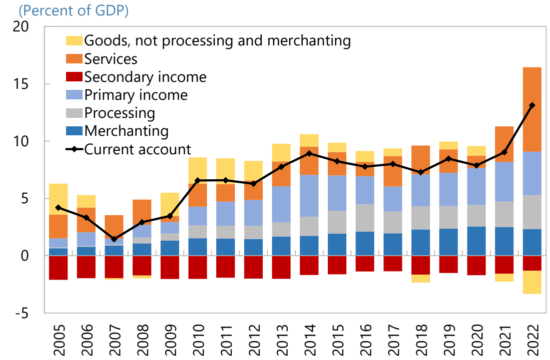
[2] See Denmark: Selected Issues (2022)</td></tr>
</table>

Annex II. Figure 1. Denmark: External Sector Assessment

The current account surplus widened to 12.8 percent of GDP due to record-high services balance....

Current Account

(Percent of GDP)

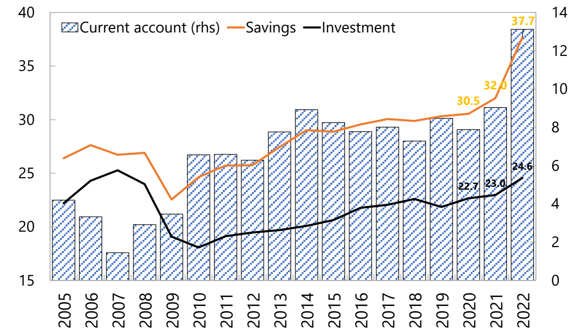


Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

...as savings growth exceeded that of investment.

External Balance, Savings and Investment

(Percent of GDP)

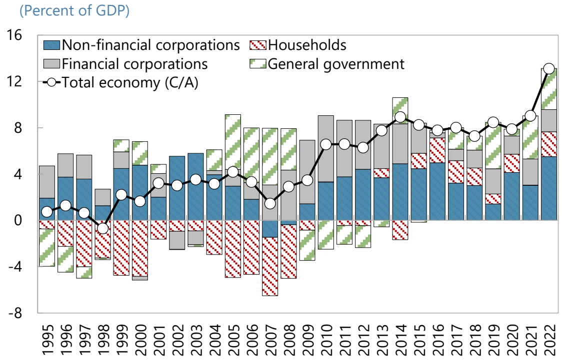


Sources: Statistics Denmark; and IMF staff calculations.

Non-financial corporations' and households' saving-investment balances increased in 2022.

Saving - Investment Balances by Sector

(Percent of GDP)

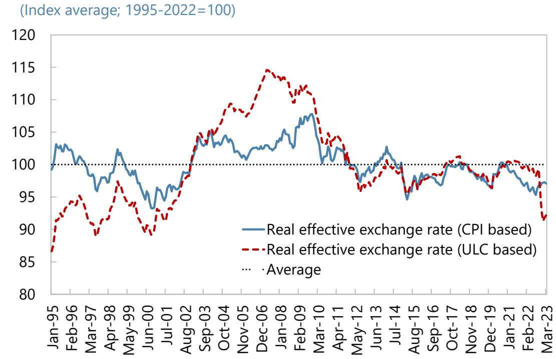


Sources: Statistics Denmark; and IMF staff calculations.

The real effective exchange rate depreciated due to the depreciation of the euro against the US Dollar.

Real Effective Exchange Rate, 1995-2022

(Index average; 1995-2022=100)

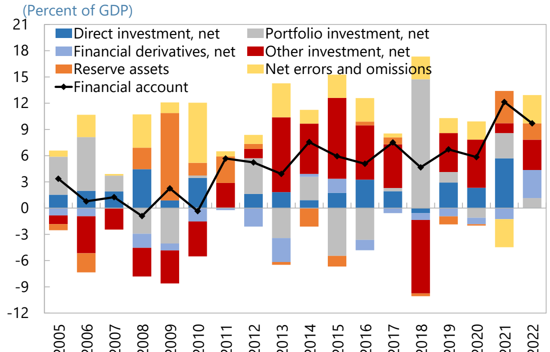


Source: IMF staff calculations.

The financial account decreased due to lower foreign direct investment.

Financial Account

(Percent of GDP)

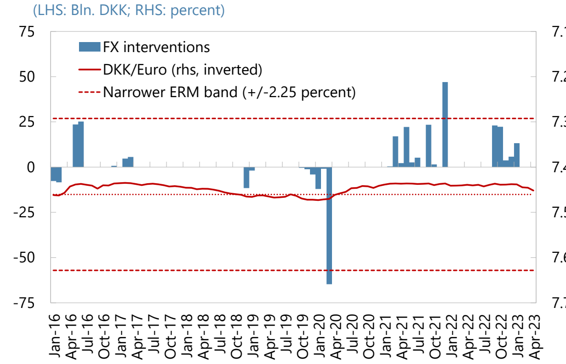


Sources: Statistics Denmark; and IMF staff calculations.

DN intervened in the FX market to stem continuing appreciation pressures.

FX Interventions and the Exchange Rate

(LHS: Bln. DKK; RHS: percent)



Sources: Haver Analytics; and IMF staff calculations.

Annex III. Risk Assessment Matrix[1]

Source of Risks and Relative Likelihood (High, medium, or low)	**Impact if Risk is Realized** (High, medium, or low)	**Policy Response**
Global		
High **Intensification of regional conflicts.** Escalation of Russia's war in Ukraine or other regional conflicts and resulting economic sanctions disrupt trade (e.g., energy, food, tourism, and/or critical supply chain components), remittances, refugee flows, FDI and financial flows, and payment systems.	**Medium** Denmark's direct exposure to Russia is limited. Nevertheless, a protracted war in Ukraine would weaken confidence, weigh on activity in trading partners reducing external demand, and worsen supply disruptions, adding to inflationary pressures.	Step up structural reforms and let flexicurity operate to facilitate reallocation from sectors exposed to shocks and regional labor mobility.
Medium/High **Abrupt global slowdown or recession.** Global and idiosyncratic risk factors combine to cause a synchronized sharp growth downturn, with recessions in some countries, adverse spillovers through trade and financial channels, and markets fragmentation. **Europe:** Intensifying fallout from the war in Ukraine, worsening energy crisis and supply disruptions, and monetary tightening exacerbate economic downturns and housing market corrections.	**Medium** The shocks would lead to slowdown in trading partners' growth, hence weakening external demand and net exports, and deterring investment. Bankruptcies and further weakening of confidence weighs on consumption, investment, and unemployment. Pressure on bank capital adequacy would trigger credit tightening.	Allow automatic stabilizers to operate. Fiscal policy space should be used to provide targeted support to vulnerable households and businesses but offset by other measures to avoid stimulating the economy if wage and inflation pressures persist.
Medium **Monetary policy miscalibration.** Amid high economic uncertainty and volatility, major central banks slow monetary policy tightening or pivot to loosen monetary policy stance prematurely, de-anchoring inflation expectations and triggering a wage-price spiral in tight labor markets.	**Medium** A vicious wage-price spiral could result from higher and persistent inflation. A need for aggressive tightening may have adverse spillovers to corporate and household sectors through higher debt service, liquidity shortfalls, and reduced demand.	Stand ready to tighten fiscal policy while protecting the vulnerable. Deploy prudential tools to mitigate financial stability risks.
High **Deepening geo-economic fragmentation.** Broader and deeper conflicts and weakened international cooperation lead to a more rapid reconfiguration of trade and FDI, supply disruptions, rising input costs, financial instability, a fracturing of international monetary and financial systems, and lower potential growth.	**High** Higher input costs, supply disruptions and changed trade patterns generate transition costs and ultimately may result in lower real incomes and lower firm profitability.	In collaboration with partners, continue to support global cooperation and multilateralism. Step up the envisaged structural reforms to enhance flexibility and help sectors cope with shocks in a targeted manner.
Medium **Cyberthreats.** Cyberattacks on critical domestic or international physical or digital infrastructure (including digital currency and crypto ecosystems) trigger financial and economic instability.	**Medium** Economic activity is disrupted, leading to weaker confidence, and capital outflows.	Continue to promote awareness and preparedness campaigns to inform the public. Continue to invest in cyber defense.
Domestic		
Medium **Systemic financial instability.** Systemic risks rise further given lower growth, elevated inflation, and tightening financial conditions. Correction in the housing and CRE markets and/or adverse shock in a neighboring Nordic country could distress the financial sector given close interlinkages across the Nordic financial system.	**High** A marked reversal of real estate prices in Denmark or the Nordics would adversely affect financial conditions, given high household debt, increasing share of risky mortgages, and close linkages of the banking system. Financial sector sees declining asset quality, and lending will be curtailed if doubts about the quality of covered bonds rise elevating bank funding costs.	Continue to be vigilant in monitoring risks, including those around households' creditworthiness, cross-border macrofinancial exposures, and liquidity. Macroprudential policies should target known pockets of vulnerability.

[1] The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path. The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly.

Annex IV. Debt Sustainability Analysis

Annex IV. Figure 1. Denmark: Risk of Sovereign Stress

Horizon	Mechanical signal	Final assessment	Comments
Overall	…	Low	The overall risk of sovereign stres is low, reflecting a relatively low level of vulnerability in the near- and medium-term and low levels of vulnerability over the long-term horizon.
Near term 1/			
Medium term	Low	Low	Medium-term risks are assessed as low. This is consistent with the mechanical singal from the GFN. The mechnical signal from the fanchart suggests a moderate risk, largely driven by the risk of debt not stabilizing. But the signal is only borderline with respect to the threshold, and the increase in debt over the medium term is not only small but also from a very low starting position.
Fanchart	Moderate	…	
GFN	Low	…	
Stress test	...	…	
Long term	…	Low	Long-term risks are assesed as low. Demographic-related expenditures will increase in the long term like in many other advanced economies. But the indexation of statutory retirement age to life expectancy in Denmark is a mitigating factor.
Sustainability assessment 2/	Not required for surveillance countries	Sustainable	
Debt stabilization in the baseline			No

DSA Summary Assessment

Source: IMF staff calculations.

Note: The risk of sovereign stress is a broader concept than debt sustainability. Unsustainable debt can only be resolved through exceptional measures (such as debt restructuring). In contrast, a sovereign can face stress without its debt necessarily being unsustainable, and there can be various measures—that do not involve a debt restructuring—to remedy such a situation, such as fiscal adjustment and new financing.

1/ The near-term assessment is not applicable in cases where there is a disbursing IMF arrangement. In surveillance-only cases or in cases with precautionary IMF arrangements, the near-term assessment is performed but not published.

2/ A debt sustainability assessment is optional for surveillance-only cases and mandatory in cases where there is a Fund arrangement. The mechanical signal of the debt sustainability assessment is deleted before publication. In surveillance-only cases or cases with IMF arrangements with normal access, the qualifier indicating probability of sustainable debt ("with high probability" or "but not with high probability") is deleted before publication.

Commentary: Denmark is at a low overall risk of sovereign stress and debt is sustainable. Fiscal balances remained in surplus in recent years and would weaken to a small deficit over the medium term, broadly consistent with the MTO set for 2030. The latter will increase gross debt, but it will remain at a low level. Liquidity risks as analyzed by the GFN Financeability Module are also low. The long-term module assesses fiscal risk to be low. That said, over the longer run, ensuring adequate labor supply is key for fiscal sustainability. Policy should maintain an adequate indexation of statutory retirement age to life expectancy.

Annex IV. Figure 2. Denmark: Debt Coverage and Disclosures

						Comments
1. Debt coverage in the DSA: 1/	CG	GG	NFPS	CPS	Other	
1a. If central government, are non-central government entities insignificant?					n.a.	
2. Subsectors included in the chosen coverage in (1) above:						

Sector grouping	#	Subsectors captured in the baseline	Inclusion	Comments
CPS / NFPS / GG: expected / CG	1	Budgetary central government	Yes	
CPS / NFPS / GG: expected / CG	2	Extra budgetary funds (EBFs)	Yes	Not applicable
CPS / NFPS / GG: expected / CG	3	Social security funds (SSFs)	Yes	
CPS / NFPS / GG: expected	4	State governments	No	
CPS / NFPS / GG: expected	5	Local governments	Yes	
CPS / NFPS	6	Public nonfinancial corporations	No	
CPS	7	Central bank	Yes	
CPS	8	Other public financial corporations	No	

3. Instrument coverage:	Currency & deposits	Loans	Debt securities	Oth acct. payable 2/	IPSGSs 3/
4. Accounting principles:	Basis of recording		Valuation of debt stock		
	Non-cash basis 4/	Cash basis	Nominal value 5/	Face value 6/	Market value 7/
5. Debt consolidation across sectors:		Consolidated		Non-consolidated	

Color code: chosen coverage; Missing from recommended coverage; Not applicable

Reporting on Intra-government Debt Holdings

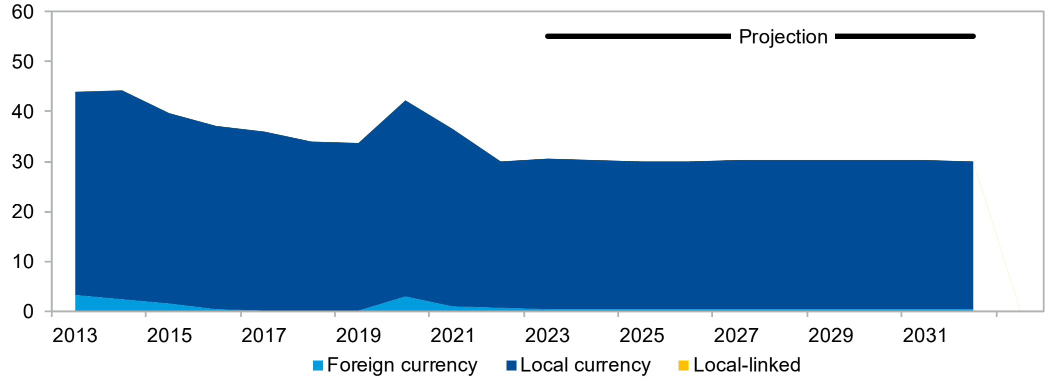
Sector grouping	#	Issuer \ Holder	Budget. central govt	Extra-budget. funds	Social security funds	State govt.	Local govt.	Nonfin. pub. corp.	Central bank	Oth. pub. fin corp	Total
CPS / NFPS / GG: expected / CG	1	Budget. central govt	101.0	12.2	0.4	0.0	4.5	0.0	0.0	0.0	17.1
CPS / NFPS / GG: expected / CG	2	Extra-budget. funds	31.4	11.2	0.0	0.0	0.2	0.0	0.0	0.0	31.7
CPS / NFPS / GG: expected / CG	3	Social security funds	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
CPS / NFPS / GG: expected	4	State govt.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CPS / NFPS / GG: expected	5	Local govt.	5.8	0.0	0.0	0.0	0.3	0.0	0.0	0.0	5.8
CPS / NFPS	6	Nonfin pub. corp.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CPS	7	Central bank	163.8	8.5	0.0	0.0	0.0	0.0	0.0	0.0	172.3
CPS	8	Oth. pub. fin. corp	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Total	201.5	20.7	0.4	0.0	4.7	0.0	0.0	0.0	227.4

Sources: Danish Authorities; and IMF staff calculations.
1/ CG=Central government; GG=General government; NFPS=Nonfinancial public sector; PS=Public sector.
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee pension liabilities.
4/ Includes accrual recording, commitment basis, due for payment, etc.
5/ Nominal value at any moment in time is the amount the debtor owes to the creditor. It reflects the value of the instrument at creation and subsequent economic flows (such as transactions, exchange rate, and other valuation changes other than market price changes, and other volume changes).
6/ The face value of a debt instrument is the undiscounted amount of principal to be paid at (or before) maturity.
7/ Market value of debt instruments is the value as if they were acquired in market transactions on the balance sheet reporting date (reference date). Only traded debt securities have observed market values.

Commentary: Denmark does not have state governments.

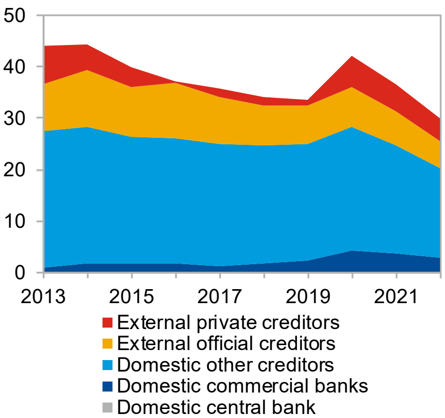
Annex IV. Figure 3. Denmark: Public Debt Structure Indicators
(Percent of GDP)

Debt by Currency (percent of GDP)



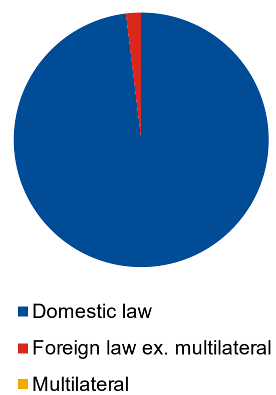
Note: The perimeter shown is general government.

Public Debt by Holder (percent of GDP)



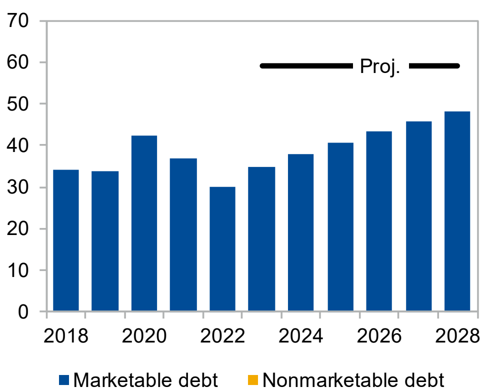
Note: The perimeter shown is general government.

Public Debt by Governing Law, 2022 (percent)



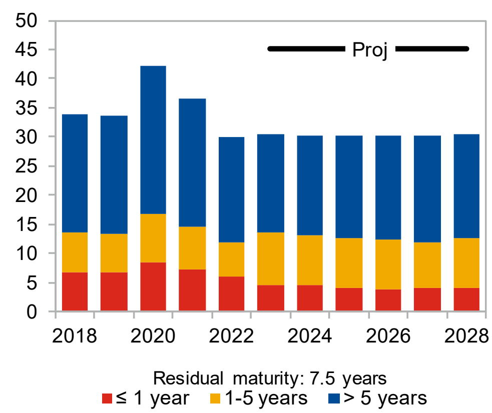
Note: The perimeter shown is general government.

Debt by Instruments (percent of GDP)



Note: The perimeter shown is general government.

Public Debt by Maturity (percent of GDP)



Note: The perimeter shown is general government.

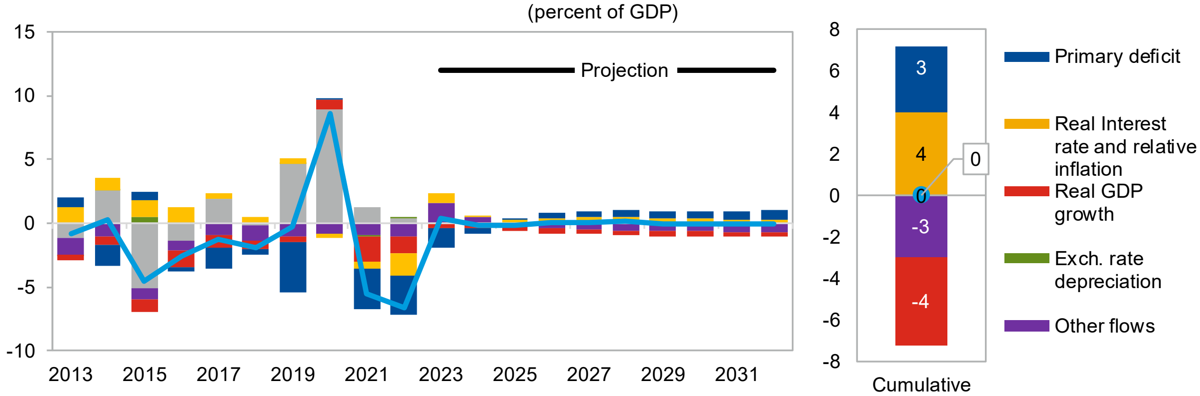
Sources: Danish Authorities; and IMF staff calculations.

Commentary: Public debt mainly comprises of longer-maturity bonds. Debt is mostly in local currency.

Annex IV. Figure 4. Denmark: Baseline Scenario
(Percent of GDP unless indicated otherwise)

	Actual	Medium-term projection						Extended projection			
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Public Debt	30.1	30.5	30.3	30.1	30.1	30.2	30.4	30.4	30.3	30.2	30.1
Change in Public Debt	-6.6	0.4	-0.2	-0.2	0.0	0.1	0.1	0.0	-0.1	-0.1	-0.1
Contribution of identified flows	-7.0	0.4	-0.2	-0.2	0.0	0.1	0.1	0.0	-0.1	-0.1	-0.1
Primary deficit	-3.1	-1.5	-0.4	0.2	0.4	0.5	0.6	0.6	0.6	0.7	0.7
Noninterest revenues	47.6	48.3	48.0	47.6	47.5	47.6	47.6	47.6	47.6	47.6	47.6
Noninterest expenditures	44.5	46.8	47.7	47.8	47.9	48.1	48.3	48.3	48.3	48.3	48.3
Automatic debt dynamics	-3.0	0.3	-0.3	-0.1	0.0	0.1	0.1	0.0	-0.1	-0.1	-0.1
Real interest rate and relative inflatio	-1.7	0.7	0.2	0.3	0.4	0.5	0.5	0.3	0.3	0.3	0.3
Real interest rate	-1.8	0.7	0.2	0.3	0.4	0.5	0.5	0.3	0.3	0.3	0.3
Relative inflation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Real growth rate	-1.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Real exchange rate	0.1	…	…	…	…	…	…	…	…	…	…
Other identified flows	-1.0	1.6	0.5	-0.2	-0.4	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other transactions	-1.0	1.6	0.5	-0.2	-0.4	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7
Contribution of residual	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross Financing Needs	2.9	1.5	3.5	4.0	3.9	3.7	4.1	4.1	4.0	4.6	4.1
of which: debt service	6.9	4.2	5.1	5.3	5.0	4.7	5.1	5.0	5.0	5.6	5.0
Local currency	6.9	4.2	5.1	5.3	5.0	4.7	5.1	5.0	5.0	5.6	5.0
Foreign currency	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Memo:											
Real GDP growth (percent)	3.8	1.3	1.4	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Inflation (GDP deflator; percent)	7.6	0.1	2.0	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2
Nominal GDP growth (percent)	11.7	1.4	3.4	3.5	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Effective interest rate (percent)	2.2	2.4	2.5	3.2	3.6	3.8	3.8	3.4	3.4	3.3	3.3

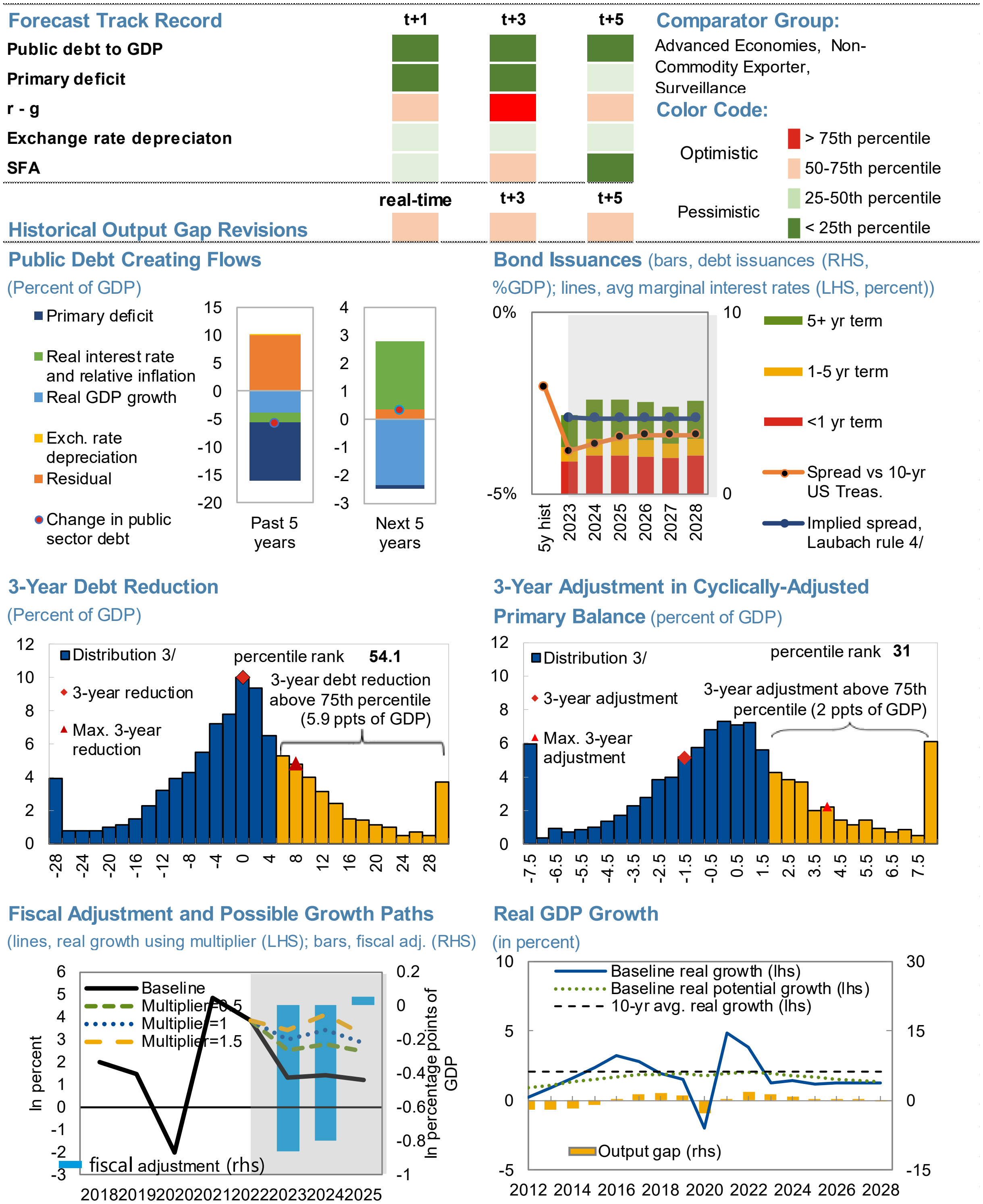
Contribution to Change in Public Debt
(percent of GDP)



Sources: Danish Authorities; and IMF staff calculations.

Staff commentary: Public debt will rise slightly over the projection horizon, mainly driven by primary deficits as some of the demographic-related spending begin to be realized. The defitcit path will, however, be broadly consistent with the medium-term objective set for 2030. In net terms, real growth and interest differential will have a smaller contribution to debt accumulation.

Annex IV. Figure 5. Denmark: Realism of Baseline Assumptions



Sources: Danish Authorities; and IMF staff calculations.

Commentary: Realism analysis does not point to major concerns: past forecast errors do not reveal any systematic biases and the projected fiscal adjustment and debt reduction are well within norms.

Annex IV. Figure 6. Denmark: Medium-term Risk Analysis

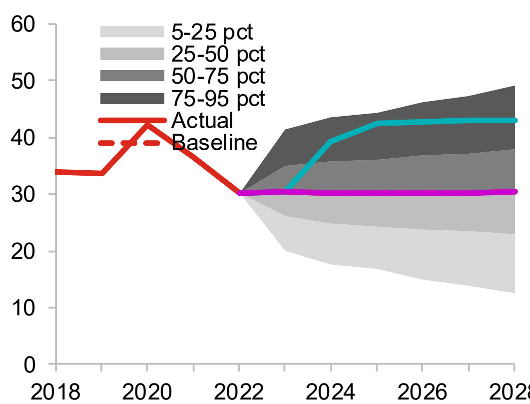
Debt Fanchart and GFN Financeability Indexes

(percent of GDP unless otherwise indicated)

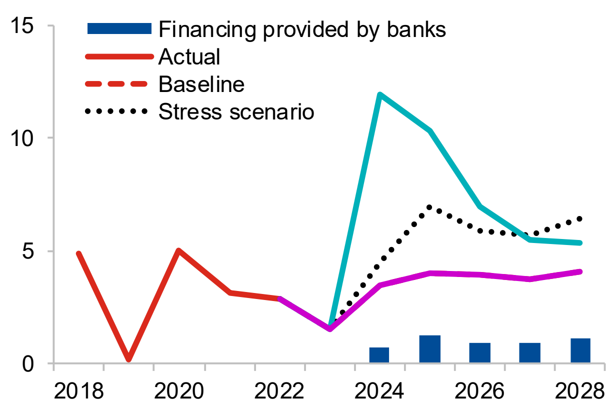
Module	Indicator	Value	Risk index	Risk signal	Adv. Econ., Non-Com. Exp, Program (0 – 25 – 50 – 75 – 100)
Debt fanchart module	Fanchart width	36.7	0.5	…	
	Probability of debt not stabilizing (pct)	96.2	0.8	…	
	Terminal debt level x institutions index	2.7	0.1	…	
	Debt fanchart index	…	**1.4**	**Moderate**	
GFN finance-ability module	Average GFN in baseline	3.5	1.2	…	
	Bank claims on government (pct bank assets)	3.0	1.0	…	
	Chg. in claims on govt. in stress (pct bank assets)	0.1	0.0	…	
	GFN financeability index	…	**2.2**	**Low**	

Legend: Interquartile range; Denmark

Final Fanchart (percent of GDP)



Gross Financing Needs (percent of GDP)

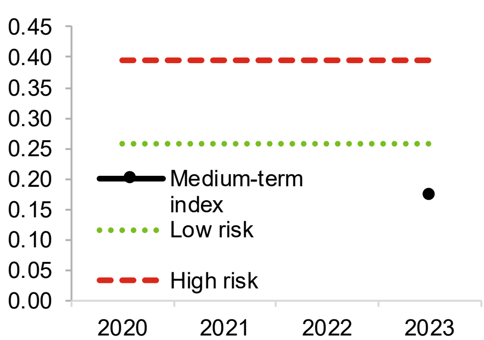


Triggered stress tests (stress tests not activated in gray)

Banking crisis | Commodity prices | Exchange rate | Contingent liab. | Natural disaster

Medium-term Index

(index number)



Medium-term Risk Analysis

	Low risk threshold	High risk thresholsd	Weight in MTI	Normalized level
Debt fanchart index	1.1	2.1	0.5	0.3
GFN finaceability index	7.6	17.9	0.5	0.0
Medium-term index (MTI)	0.3	0.4	…	0.2, Low

Prob. of missed crisis, 2023-2028 (if stress not predicted): 9.1 pct.

Prob. of false alarm, 2023-2028 (if stress predicted): 58.0 pct.

Sources: Danish Authorities; and IMF staff calculations.

Commentary: Of the two medium-term tools, the Debt Fanchart Module is pointing to moderate level of risk, while the GFN Financeability Module suggests low level of risk. In the banking stress scenario, debt and GFN would increase relatve to the baseline, given Denmark's large banking sector (as share of GDP). But still, they would remain at relatively low levels.

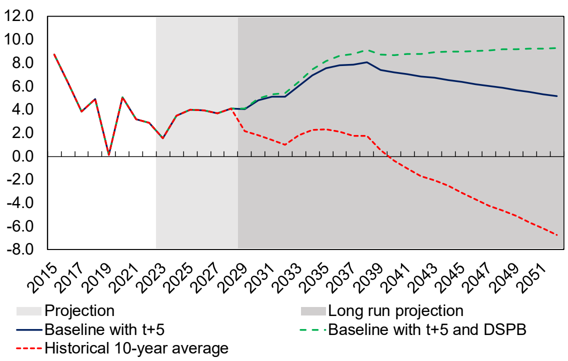
Annex IV. Figure 7. Denmark: Long-term Risk Analysis

Large Amortization

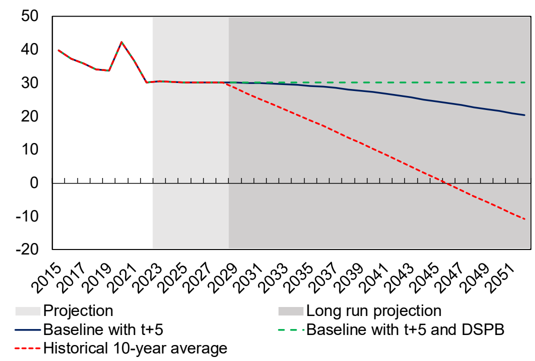
Projection	Variable	Risk Indication
Medium-term extrapolation	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Medium-term extrapolation with debt stabilizing primary balance	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	
Historical average assumptions	GFN-to-GDP ratio	
	Amortization-to-GDP ratio	
	Amortization	

Overall Risk Indication	

GFN-to-GDP ratio



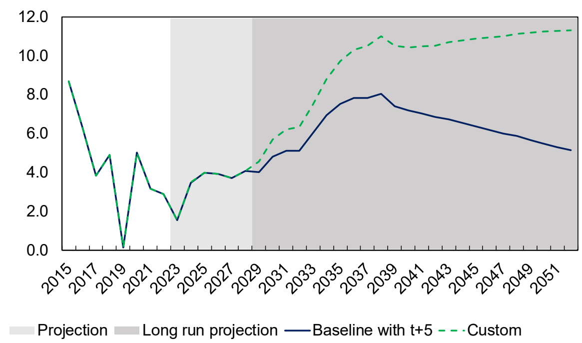
Total Public Debt-to-GDP Ratio



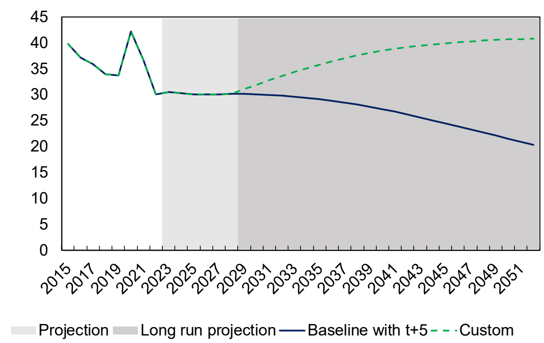
Custom

	Baseline Extension of Fifth Projection Year	Custom Baseline
Real GDP growth	1.3%	1.3%
Primary Balance-to-GDP ratio	-0.6%	-1.1%
Real depreciation	-2.7%	0.0%
Inflation (GDP deflator)	2.2%	2.0%

GFN-to-GDP Ratio



Total Public Debt-to-GDP Ratio



Sources: Danish Authorities; and IMF staff calculations.

Annex V. Authorities’ Response to Past FSAP Recommendations

Denmark: Key FSAP Recommendations		
Recommendations and Authority Responsible for Implementation	**Time[1]**	**Authorities’ Actions**
Systemic Risk Oversight and Macroprudential Policy		
Give the chair of the SRC the ability, enshrined in law, to make proposals for a recommendation after due consultation with other SRC members without the need to strive for consensus (MIBFA).	MT	Not Implemented
Introduce national legislation to include borrower-based tools (limits on LTVs, DTIs, and DSTIs) in the policytoolkit (MIBFA).	MT	Not Implemented
Introduce a stricter LTV limit to safeguard against large house price shocks (MIBFA).	MT	Not Implemented
Introduce a binding income-based macroprudential measure that limits lending to households above a certain DTI (MIBFA).	MT	Not Implemented
Issue recommendations to responsible authorities to reduce debt bias, simplify rental regulations, and relax supply constraints on housing (SRC).	MT	Not Implemented
Close data gaps, including by enhancing the coverage and quality of commercial real estate data (DN).	MT	Partially Implemented With the implementation of the credit register some critical data gaps are closed and authorities have better data on CRE related debt. Further, the credit register also provides information on the credit institutions’ property valuations. This will in time be supplemented by data from Statistics Denmark who are working on improving their CRE price index. In addition to this, DN has initiated a project aiming to acquire CRE transaction data and information on the CRE stock, including data on CRE owners, property type and property quality.
Develop macroprudential stress tests that take feedback loops between financial system and real economymore fully into account while incorporating contagion effects across financial institutions (DN).	MT	Not Implemented
Banking and Insurance Supervision		
Enhance the operational independence of the DFSA including by, for example, by lengthening the terms of the Board members and clearly stating in law the reasonsfor the dismissal of a DFSA Director General (MIBFA).	MT	Not Implemented

[1/] Please refer to Denmark Financial System Stability Assessment 2020 for the full set of FSAP recommendations. The description of authorities’ actions in this table was based on inputs from the Danish authorities. I = Immediate (within 1 year); ST = Short Term (within 1–2 years); MT = Medium Term (within 3–5 years).

Denmark: Key FSAP Recommendations		
Recommendations and Authority Responsible for Implementation	**Time[1]**	**Authorities' Actions**
Banking and Insurance Supervision		
Enhance the operational independence of the DFSA including by, for example, by lengthening the terms of the Board members and clearly stating in law the reasonsfor the dismissal of a DFSA Director General (MIBFA).	MT	Not Implemented
Expand the budget envelop for the DFSA to recruit and retain quality staff across a full range of skills andexperience and with a focus on non-financial risks (MIBFA).	ST	Partially Implemented Since the FSAP recommendations in 2020 the general budget of the DFSA has been increased.
Develop more detailed guidance on risk assessments to support supervisory judgement and ensure consistentoutcomes (DFSA).	ST	Implemented
Enhance approaches to confirm explicitly the veracity of supervisory data and information received (DFSA).	MT	Partially Implemented The DFSA is continually improving the verification of quantitative data. A formalization of internal procedures for verification of data received during inspections and continuous supervision is in process.
Increase the number of insurance on-site inspections guided by a finalized risk assessment framework andstrengthen the supervision of cross-border business (DFSA).	ST	Partially Implemented Risk assessment framework has been expanded to include more non-financial risks, and internal processes have been changed to allow for more frequent inspections. However, more specialized inspections and further increasing their frequencies would require more resources. Moreover, intensified supervision of cross-border businesses has been implemented in internal procedures.
Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT)		
Test, finalize, and implement the DFSA's new institutional risk assessment model (DFSA).	ST	Implemented
Intensify AML/CFT on-site inspections of higher-risk financial institutions (DFSA).	ST	Implemented
Consider, select, and pursue next-stage options for the regional consolidation of AML/CFT supervision (MIBFA).	MT	Partially Implemented The regional consolidation of AML/CFT supervision group-Nordic-Baltic Stability Group - has been established and is functioning.
Systemic Liquidity		
Complete the framework for accepting credit claims as non-standard collateral (DN).	ST	Implemented (Expected: Summer 2023)
Seek greater domestic interagency information sharing and collaboration to enhance the operationalpreparedness for non-standard liquidity support (DN, DFSA).	ST	Implemented

Denmark: Key FSAP Recommendations		
Recommendations and Authority Responsible for Implementation	**Time[1]**	**Authorities' Actions**
Financial Crisis Management and Safety Nets		
Strengthen the autonomy of FSC, including by limiting the decision power of the MIBFA in resolution tosituations when fiscal support is needed (MIBFA).	ST	Not Implemented There are no plans to introduce such legislation.
Expedite the resolvability of SIFIs, particularly by finalizing the priority areas for resolution planning (DFSA,FSC).	ST	Partially Implemented The Danish resolution authority expects to have fully developed resolution plans for all systemically important institutions in place at the end of 2024. EBA guidelines for institutions and resolution authorities on improving banks' resolvability are currently under implementation. In addition, the resolution plans have been supplemented by several dry run testing with the perspective of making them operational in crisis situations.
Define strategies for liquidity assistance to institutions in resolution (DN,DFSA,FSC,MIBFA,MOF).	ST	Implemented
Develop and test a system-wide contingency and crisis communication plan (DFSA,DN,FSC,MIBFA,MOF).	ST	Implemented

INTERNATIONAL MONETARY FUND

DENMARK

June 1, 2023

STAFF REPORT FOR THE 2023 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By	European Department

CONTENTS

FUND RELATIONS

As of April 30, 2023

Membership Status: Joined: March 30, 1946; Article VIII.

General Resources Account:	**SDR Million**	**Percent Quota**
Quota	3,439.40	100.00
Fund holdings of currency (Exchange Rate)	2,545.77	74.02
Reserve Tranche Position	893.64	25.98
Lending to the Fund		
New Arrangements to Borrow	14.00	

SDR Department:	**SDR Million**	**Percent Allocation**
Net cumulative allocation	4,827.98	100.00
Holdings	4,991.83	103.39

Outstanding Purchases and Loans: None

Latest Financial Commitments: None

Projected Payments to Fund[1]
(SDR Million; based on existing use of resources and present holdings of SDRs):

	Forthcoming			
	2024	2025	2026	2027
Principal	…	…	…	…
Charges/Interest	0.06	0.06	0.06	0.06
Total	0.06	0.06	0.06	0.06

[1] When a member has overdue financial obligations outstanding for more than three months, the amount of such arrears will be shown in this section.

Exchange Arrangements: The currency of Denmark is the Danish krone. The exchange rate arrangement is a conventional pegged arrangement. The formal framework for the Danish fixed exchange rate policy is the European Exchange Rate Mechanism (ERM II). Denmark participates in ERMII with a central rate at DKr 746.038 per 100 euro. The standard width of the fluctuation band in ERM II is +/-15 percent. However, due to its high degree of convergence, Denmark has entered into an agreement with the European Central Bank (ECB) and the euro area member states on a narrower fluctuation band of +/- 2.25 percent. This means that the krone can only fluctuate between DKr 762.824 per 100 euro and DKr 729.252 per 100 euro.

Denmark has accepted the obligations under Article VIII, Sections 2(a), 3, and 4 and maintains an exchange system free of multiple currency practices and restrictions on the making of payments and transfers for current international transactions, apart from those imposed solely for the preservation of national or international security, as notified to the Fund by the National Bank of Denmark in accordance with Executive Board Decision No. 144-(52/51).

Article IV Consultation: The last Article IV consultation was concluded by the Executive Board on June 12, 2022. The staff report (IMF Country Report No. 22/169) was published with Press Release No. 22/197 (June 16, 2022).

Outreach: The team met with representatives of the private sector, academics, labor and financial institutions.

Press conference: None.

Publication: The staff report will be published.

Technical Assistance: None.

Resident Representative: None.

STATISTICAL ISSUES

Data Provision is adequate for surveillance. The country has a full range of statistical publications, many of which are on the internet. The quality and timeliness of the economic database are generally very good. The country subscribes to the Fund's Special Data Dissemination Standard Plus. Metadata are posted on the Dissemination Standards Bulletin Board.

National Accounts: Denmark adopted the *European System of Accounts 2010 (ESA 2010)* in September 2014. Parallel to the transition to the new international guidelines, a revision of data and methods has been carried out as well, improving the quality of the statistics. Historical data were revised going back to the initial year of 1966.

Government Finance Statistics: Starting from September 2014, government finance statistics data is based on the *ESA 2010* methodology, which includes revisions of the general government deficit and debt levels from 1995 onwards. Revised data series was published in October 2014.

External Statistics: Starting in 2014, external sector statistics are compiled according to the *Balance of Payments and International Investment Position Manual, sixth edition (BPM6)* and in accordance with legal requirements of the ECB and Eurostat.

Monetary and Financial Statistics: Monetary data reported for International Financial Statistics are based on the European Central Bank's (ECB) framework for collecting, compiling, and reporting monetary data. The data are reported to STA through the ECB and largely accords to the *Monetary and Financial Statistics Manual and Compilation Guide (MFSMCG)*. Data for Other Financial Corporations are currently not available.

Danmarks Nationalbank also reports some data and indicators of the Financial Access Survey (FAS), including the two indicators adopted by the UN to monitor Target 8.10 of the Sustainable Development Goals (SDGs).

Financial Sector Surveillance: Danmarks Nationalbank reports all of the 12 core Financial Soundness Indicators (FSIs) and 12 of the 13 encouraged FSIs for deposit takers, two FSIs for OFCs, one FSI for households, and 4 FSIs on real estate markets—on a quarterly basis—for posting on the IMF's FSI website.

Denmark: Common Indicators Required for Surveillance
(As of May 18, 2023)

	Date of latest observation	Date received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of publication[7]
Exchange Rates	5/18	5/18	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	2023:M3	4/28	M	M	M
Reserve/Base Money	2023:M3	5/2	M	M	M
Broad Money	2023:M3	5/2	M	M	M
Central Bank Balance Sheet	2023:M4	5/2	M	M	M
Consolidated Balance Sheet of the Banking System	2023:M3	5/2	M	M	M
Interest Rates[2]	5/18	5/18	D	D	D
Consumer Price Index	2023:M4	5/10	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3]––General Government[4]	2022	3/24	A	A	A
Revenue, Expenditure, Balance, and Composition of Financing[3]––Central Government	2023: M3	3/24	Q	Q	Q
Stocks of Central Government and Central Government-Guaranteed Debt[5]	2023: M3	4/27	M	M	M
External Current Account Balance[8]	2023: M3	5/9	M	M	M
Exports and Imports of Goods and Services	2023: M3	5/9	M	M	M
GDP/GNP	2023:Q1	5/15	Q	Q	Q
Gross External Debt	2022:Q2	2/17	Q	Q	Q
International Investment Position[6,8]	2022:Q4	3/31	Q	Q	Q

1/ Any reserve assets that are pledged or otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivative to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.
2/ Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.
3/ Foreign, domestic bank, and domestic nonbank financing.
4/ The general government consists of the central government (budgetary funds, extra budgetary funds, and social security fun and state and local governments.
5/ Including currency and maturity composition.
6/ Includes external gross financial asset and liability positions vis-à-vis nonresidents.
7/ Daily (D), weekly (W), monthly (M), quarterly (Q), annual (A), irregular (I); and not available (NA).
8/ Starting with data for 2014, external sector statistics are compiled according to the sixth edition of the *Balance of Payments and International Investment Position Manual* (*BPM6*) and in accordance with legal requirements of the ECB and Eurostat.