INTERNATIONAL MONETARY FUND

IMF Country Report No. 24/292

DENMARK

September 2024

2024 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE ALTERNATE EXECUTIVE DIRECTOR FOR DENMARK

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 2024 Article IV consultation with Denmark, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its September 6, 2024 consideration of the staff report that concluded the Article IV consultation with Denmark.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on September 6, 2024, following discussions that ended on June 19, 2024, 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 July 26, 2024.
- An **Informational Annex** prepared by the IMF staff.
- A **Staff Statement** updating information on recent developments.
- A **Statement by the Alternate Executive Director** for Denmark.

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.

PRESS RELEASE

PR 24/327

IMF Executive Board Concludes 2024 Article IV Consultation with Denmark

FOR IMMEDIATE RELEASE

Washington, DC – **September 13, 2024:** The Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Denmark.

The Danish economy has continued to expand at a robust pace, driven by an exceptional surge in the pharmaceutical. In contrast, the rest of the economy has remained relatively subdued, aside from the maritime and information and communication technology industries, reflecting sluggish demand. Meanwhile, with a decline in global energy prices and lackluster domestic demand, inflationary pressures have largely dissipated in recent months.

Growth is anticipated to gradually moderate in the near term but become more balanced across industries. Output growth is projected to moderate from 2.5 percent in 2023 to 1.9 percent in 2024 and to 1.6 percent in 2025. The growth of pharmaceutical and maritime exports will taper off, while that of the rest of the economy will be bolstered by a pickup in external demand, improved consumer purchasing power, and further easing of financial conditions. The reopening of the Tyra natural gas will also contribute to growth in 2024 and 2025. Inflation might temporarily edge up in the coming months due to the lagged effect of last year's wage collective bargaining agreement before stabilizing at around 2 percent during the second half of 2025. The balance of risks to growth is skewed to the downside, with primary downside risks including a global slowdown, the possible escalation of the conflict in Gaza and Israel and Russia's war in Ukraine, and deepening geoeconomic fragmentation.

Executive Board Assessment[2]

In concluding the 2024 Article IV consultation with Denmark, Executive Directors endorsed staff's appraisal, as follows:

Executive Directors agreed with the thrust of the staff appraisal. They commended Denmark's remarkable resilience amidst multiple shocks, underpinned by sound policies, strong governance, and robust institutions. Noting a positive outlook with more balanced growth and stabilizing inflation, Directors cautioned that risks—including from a global growth slowdown, geoeconomic fragmentation, and demographic pressures—are tilted to the downside. To navigate these challenges and maintain Denmark's welfare state, they emphasized the importance of continued sound macroeconomic management, supported by structural reforms to boost productivity, and lift long-term growth.

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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] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm.

Directors commended Denmark's robust public finances. They concurred that fiscal policy should consider cyclical conditions and long-term spending needs. In this regard, Directors agreed that fiscal policy should avoid adding to capacity pressures in the short term. They supported the slight easing of the fiscal stance for 2025 and beyond to accommodate the increases in costs related to health, climate, and defense. To safeguard long-term fiscal sustainability, Directors encouraged the authorities to closely monitor fiscal pressures and take additional adjustment measures if necessary.

While noting that the financial system remains sound, Directors recommended that the authorities continue to closely monitor risks, in particular, related to the commercial real estate sector. They welcomed the recent tightening of macroprudential policies and suggested considering additional borrower-based measures to address pockets of vulnerabilities. Continued collaboration on the Nordic-wide bank stress tests would also be important. Directors encouraged the authorities to further strengthen AML/CFT and cybersecurity frameworks.

Directors agreed that systemic risks arising from nonbank financial institutions (NBFIs) warrant closer monitoring and enhanced customer protection. They encouraged the authorities to develop a systemic risk assessment encompassing banks and NBFIs and to finalize a supervisory order to enhance customer protection.

Directors emphasized the importance of continued reform efforts to increase the labor supply, address skills mismatches, and better integrate migrants. They were encouraged by the authorities' strong commitment to further enhance digitalization, innovation, and business dynamism to boost productivity growth. Directors welcomed Denmark's commitment to transparent free-trade policies within the multilateral and rules-based trading system.

Directors commended the authorities' ambitious climate change mitigation targets and the agreement to reduce emissions in the agriculture sector. They encouraged updating the estimates of the investment needs for climate adaptation.

Denmark: Selected Economic Indicators

	2023	2024	2025
		proj.	
Output			
Real GDP growth (%)	2.5	1.9	1.6
Employment			
Unemployment rate (%)	2.8	2.9	3.0
Prices			
Inflation (%, average)	3.4	1.8	2.2
General Government Finances			
Revenue (% GDP)	50.1	49.6	48.8
Expenditures (% GDP)	46.8	47.8	48.0
Fiscal balance (% GDP)	3.3	1.8	0.9
Public debt (% GDP)	29.7	28.2	27.3
Money and Credit			
Domestic credit growth (%)	3.2	…	…
3-month interbank interest rate (%)	3.4	…	…
10-year government bond yield (%)	2.4	…	…
Balance of Payments			
Current account (% GDP)	9.8	9.0	9.3
International reserves (% change)	1.3	…	…
Exchange Rate			
ULC-based REER (% change)	-0.4	…	…

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

INTERNATIONAL MONETARY FUND

DENMARK

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION

July 26, 2024

KEY ISSUES

Context. Denmark has demonstrated remarkable resilience in the face of the energy crisis, high inflation, and tighter financial conditions. In recent years, growth has been increasingly driven by an exceptional surge in the pharmaceutical sector, while the rest of the economy has largely stagnated. Staff expect robust growth to continue in the near term, driven by pharmaceutical exports, the reopening of the Tyra natural gas field, and a gradual recovery in the non-pharmaceutical sectors. With the sharp decrease in global energy prices and lackluster domestic demand, inflation has fallen sharply. The positive outlook is, however, clouded by considerable external risks, most notably geopolitical tensions. The financial system has remained stable, although risks remain due to still-high interest rates and vulnerabilities in the commercial real estate markets.

Policy recommendations. The policy priority is to manage fiscal policy in a manner consistent with near-term cyclical conditions while taking account of long-term spending pressures without risking fiscal sustainability. Other priorities include ensuring financial stability and pursuing structural reforms to lift potential growth and achieve climate goals.

- **Fiscal policy**. The planned slight easing in the fiscal stance in 2025 is appropriate, given muted capacity pressure, substantial fiscal space, and the need to accommodate an increase in aging-related costs. To ensure long-term fiscal sustainability, the government should continue to closely monitor emerging fiscal pressures, assess the effectiveness of supply-side reforms, and introduce new measures as necessary.
- **Financial sector policy**. The financial system remains sound, but risks remain. The authorities should maintain vigilance in monitoring and ensure that banks continue to closely assess how developments in financial conditions affect the balance sheets of vulnerable and leveraged borrowers, especially commercial real estate firms, and update provisions for credit risks. The authorities' recent actions to tighten macroprudential policies are appropriate. However, they should consider additional measures to address pockets of vulnerabilities.
- **Structural policy**. Continued reform efforts are necessary to boost labor supply and enhance productivity, aiming to sustain the welfare state. Reform priorities include enhancing work incentives, addressing skill mismatches by accepting more foreign talent, modernizing active labor market policies, and enhancing education outcomes for children with immigrant backgrounds. Further actions are necessary to achieve climate mitigation targets and prepare for climate change.

Approved By
Helge Berger (EUR) and Jay Peiris (SPR)

Discussions were held in Copenhagen from June 6–19, 2024. The team comprised Kotaro Ishi (head), Burcu Hacibedel, Mariusz Jarmuzek, Takuji Komatsuzaki, and Seyed Reza Yousefi (all EUR). Fuda Jiang and Jibingxin Han provided research assistance, and Rachelle Vega 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; Mr. Jorgensen, Deputy Permanent Secretary 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; Ms. Mogensen, Director General of the Danish Financial Supervisory Authority; other senior officials; and representatives from the Danish Economic Council, social partners, academics, and the financial sector.

CONTENTS

TABLES

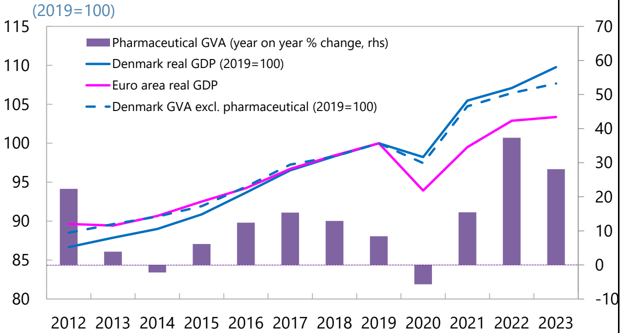
ANNEXES

CONTEXT

1. **The Danish economy has continued to expand at a robust pace, driven by an exceptional surge in the pharmaceutical and, to a lesser extent, maritime sectors**. The extraordinary boom in the pharmaceutical sector has been largely attributed to the increasing export demand for weight-loss drugs in the United States, resulting in a nearly 240 percent increase in pharmaceutical production in the past two years (Annex I).[1] A strong post-pandemic recovery in the maritime industry also added to growth. In contrast, the rest of the Danish economy has remained relatively subdued, aside from the information and communication technology (ICT) industry, reflecting sluggish demand. Meanwhile, with a decline in global energy prices and lackluster domestic demand, inflationary pressures have largely dissipated in recent months.

Real GDP and Gross Value Added Excluding the Pharmaceutical Sector

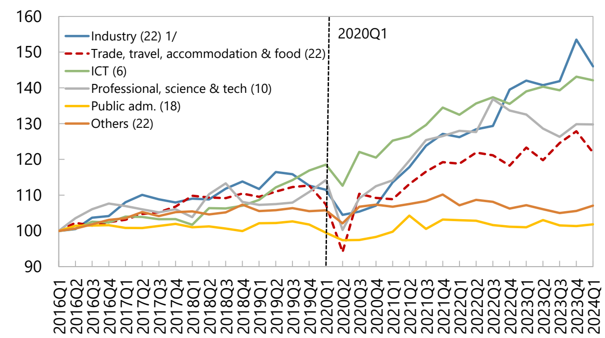
(2019=100)



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

Gross Value Added

(Index, 2016Q1=100)



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

2. **Looking ahead, Denmark encounters a number of challenges in preserving its welfare state, including an extensive social security system**. Strong institutions and governance, a competitive and relatively diversified economic structure, and a highly educated workforce continue to underpin Denmark's economic growth. However, Denmark is also confronted with demographic challenges, including a declining working-age population alongside an increasing elderly population and a structural labor shortage and mismatch. These issues are poised to impact Denmark's growth potential and the long-term viability of its welfare state. In addition, Denmark faces the challenge of further reducing its carbon footprint.

3. **Political stability**. Following the November 2022 general elections, a centrist coalition government was formed for a four-year term. The government is focusing on green policies, inflation, labor, taxation, and immigration. Progress in the structural reform agenda has been mixed, but Denmark's policy direction remains broadly consistent with past staff recommendations (Annex II).

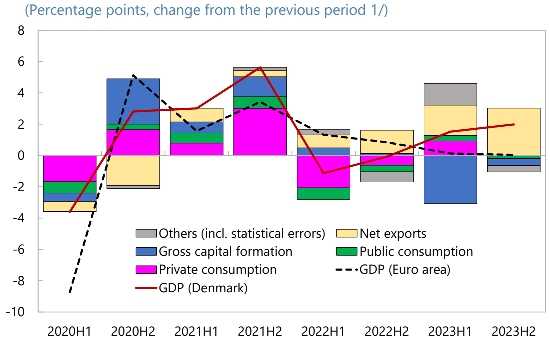
[1] See Selected Issues Chapter 1.

RECENT DEVELOPMENTS

4. The pharmaceutical and maritime industries continued to drive GDP growth (Figure 1 and Table 1). Output growth accelerated from 1.5 percent in H1 to 2 percent in 2023:H2 (seasonally adjusted). Total exports grew strongly by 7¼ percent in 2023:H2, primarily driven by pharmaceutical and maritime industries. Domestic demand remained weak. Private consumption was stagnant in 2023:H2, with real wages lower than two years ago and weak consumer sentiment, while gross capital formation continued to fall, partly reflecting tighter financial conditions. The preliminary GDP estimate indicates that the Danish economy contracted by 1.4 percent (quarter over quarter) in 2024:Q1 as support from pharmaceutical and transport industries weakened.[2]

Contributions to Real GDP Growth - Expenditure Based

(Percentage points, change from the previous period 1/)

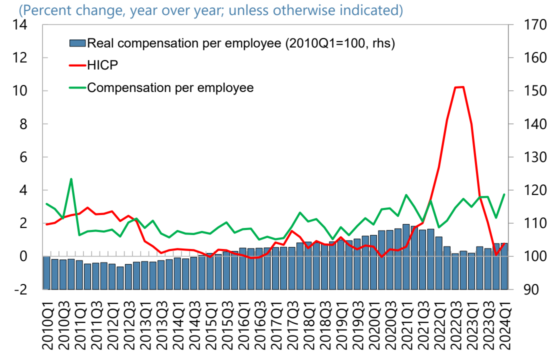


Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

1/ Stacked columns indicate percentage points contributions to Denmark's real GDP growth.

HICP Inflation and Compensation per Employee

(Percent change, year over year; unless otherwise indicated)

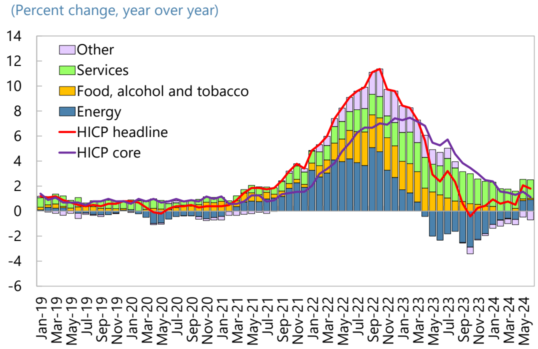


Sources: Haver Analytics; Statistics Denmark; and IMF staff calculations.

5. Inflation has seen a marked decline. The headline harmonized consumer price index (HICP) has been broadly flat since the beginning of this year. On a year-on-year basis, inflation decreased from its peak of 11.4 percent in October 2022 to around 1¾ percent in June 2024, driven by a decline in global energy prices. Similarly, core inflation (CPI excluding energy and unprocessed food) has fallen to around 1¼ percent in recent months due to lackluster domestic demand, reduced costs of importing foreign goods and services, and the indirect impacts of lower energy prices.

Inflation Decomposition

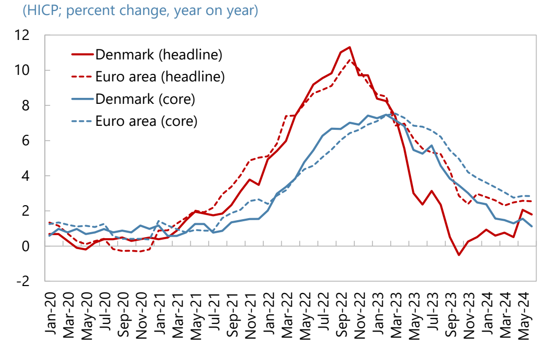
(Percent change, year over year)



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

Inflation

(HICP; percent change, year on year)



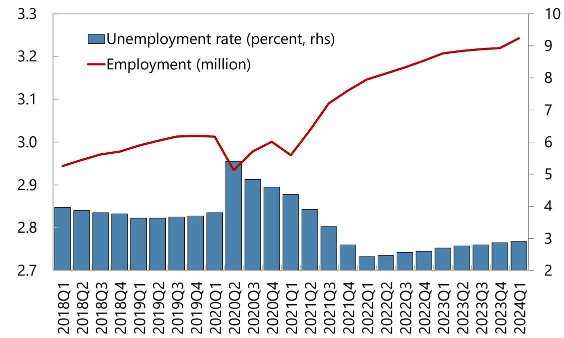
Sources: Eurostat; and Haver Analytics.

2 Pharmaceutical production is volatile in the national account estimates depending on supply chain cycles.

6. Some signs of a cooling labor market have emerged. While employment has continued to grow steadily, unemployment rates have crept up to around 3 percent, up from 2½ percent two years ago. Broader labor market indicators, including job vacancy rates and the number of businesses reporting labor "as a factor limiting production," also point to an easing of labor market tightness. Nevertheless, nominal wage growth has accelerated following the collective bargaining agreement last year.

Unemployment Rate and Employment

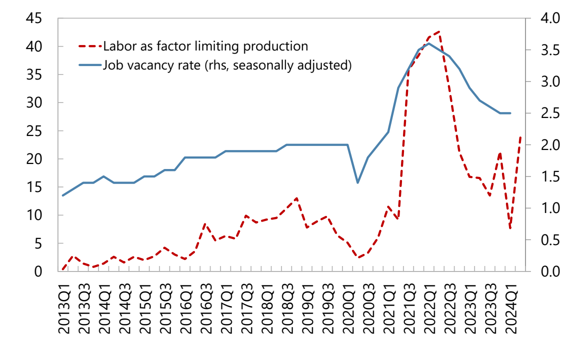
(Percent; millions of persons)



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

Labor Market

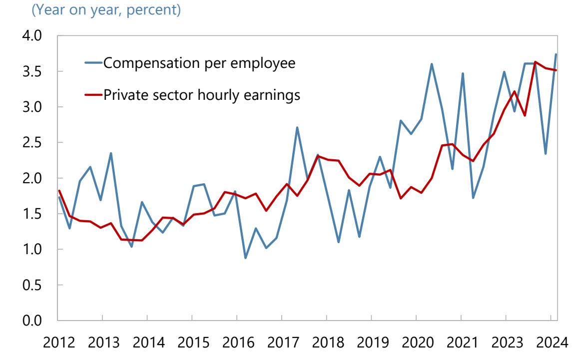
(Percent)



Sources: Eurostat; and Haver Analytics.

Nominal Wages

(Year on year, percent)



Sources: Statistics Denmark; Eurostat; and Haver Analytics.

7. The fiscal position remains strong (Tables 2–4). Since 2017, the general government has consistently achieved a fiscal surplus despite significant external shocks. In 2023, the overall fiscal surplus slightly decreased to 3¼ percent, primarily due to military support for Ukraine and increased spending on defense and social benefits despite higher revenue. The fiscal policy stance was slightly tight in 2023, with the structural balance (excluding the military aid to Ukraine that does not affect domestic demand) increasing by ½ percent of GDP. Gross debt remained around 30 percent in 2023, with net debt reaching zero.

Text Table 1. Denmark: Fiscal Budgeted versus Outturns

(In percent of GDP)

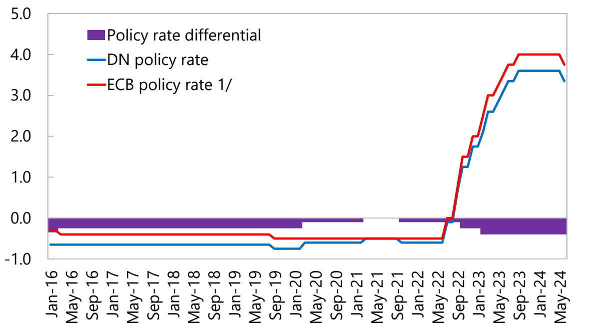
			2023	
	2021	2022	Spring Budget[1]	Outturn
Revenue	53.5	48.3	47.4	50.5
Expenditure	49.4	44.9	45.5	47.2
Overall balance	4.1	3.4	1.9	3.3
Structural balance[2]	-0.3	1.7	0.8	1.7
Public gross EMU debt	35.8	29.7	30.9	29.7
Memorandum items:				
COVID-19 related above-the-line support[3]	1.6	0.5	0.0	0.0
Military aid to Ukraine		0.1	0.5	

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

8. **Following the European Central Bank (ECB), Danmarks Nationalbank (DN) cut its policy interest rates by 25 basis points in June 2024**. The objective of Denmark's monetary policy is to ensure a fixed exchange rate against the euro.[3] Despite the policy rate cut, the monetary policy stance remains tight, with real interest rates well above the historical average. Faced with currency appreciation pressures, DN widened the monetary policy interest rate spread—i.e., the difference between DN's current account rate and the ECB's deposit facility rate—from -25 to -40 basis points on February 3, 2023. The Danish krone has since been fluctuating around the ERM II central rate without any market intervention by DN.

Policy Rate Differential with the ECB

(Percent)

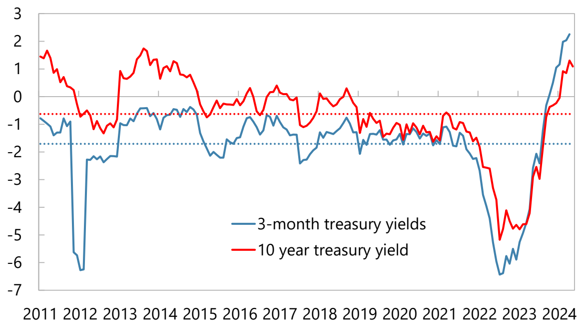


Sources: Danmarks Nationalbank; ECB; and IMF staff calculations.

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.

Real Interest Rates 1/

(Percent)



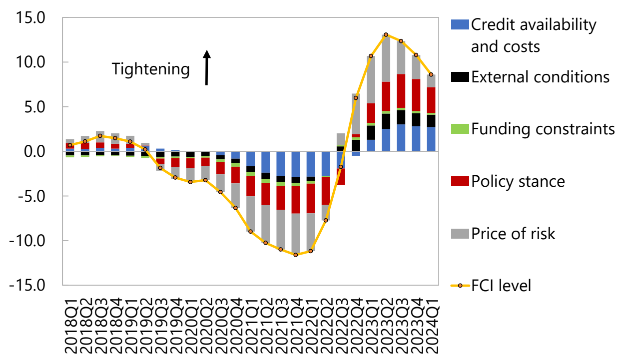
Sources: Danmarks Nationalbank; Eurostat; and Haver Analytics.

1/ Calculated as nominal interest rates minus annual core inflation rates.

9. **The growth of credit has remained moderate, given tight financial conditions and sluggish domestic demand**. Lending rates on banks' new loans have stopped rising, while overall financial conditions, including banks' credit standards, have become less tight. Credit growth to the non-financial private sector picked up but remained moderate at around 1 percent year-on-year. While mortgage loans to households continued to grow moderately, demand for credit from the non-financial corporate sector has remained subdued, reflecting the lackluster growth outside of the pharmaceutical and maritime sectors.

Financial Conditions Index (FCI)

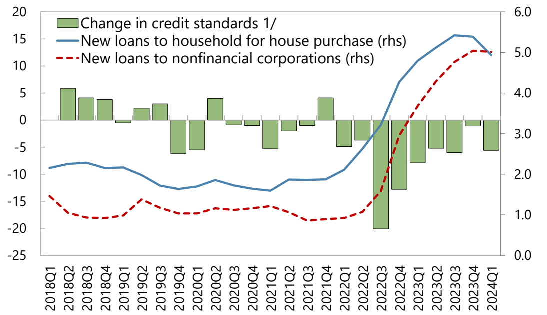
(Contribution to unscaled FCI)



Source: Borraccia et al., 2023, IMF Working Paper 23/209.

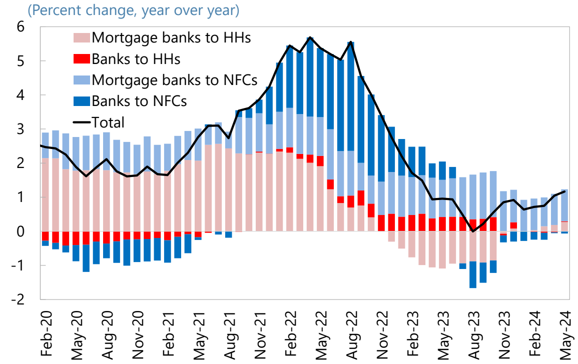
[3] European Exchange Rate Mechanism 2 remains the formal framework for Denmark's fixed exchange rate policy. The krone is allowed to fluctuate within the narrow band of +/- 2.25 percent around the central rate of DKr 746.038 per 100 euro.

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.

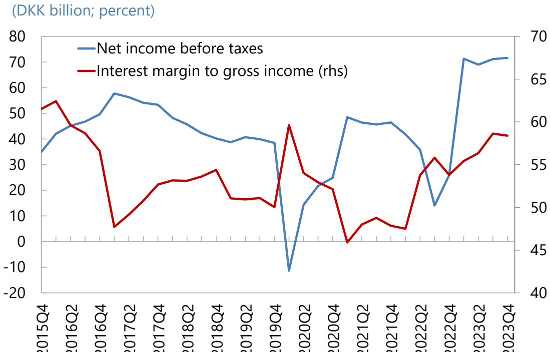
Lending Growth
(Percent change, year over year)



Sources: Danmarks Nationalbank; and IMF staff calculations.

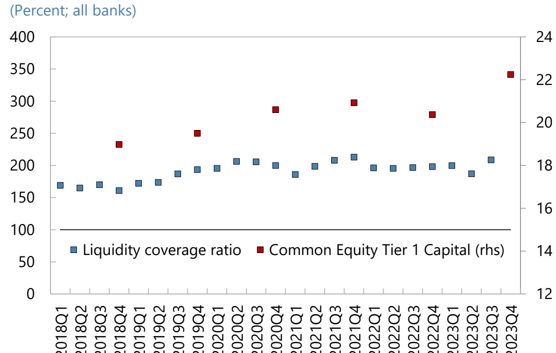
10. The financial system has demonstrated resilience in the face of high interest rates and stagnant growth in non-pharmaceutical sectors (Figures 2–4 and Table 5). The quality of bank credit portfolios has continued to be robust, with non-performing loans (NPLs) remaining at around historic lows (2½ percent). Bank profitability has been boosted by higher net interest margins and low impairment charges, with banks' return on equity reaching nearly 16 percent in 2024:Q1. The core Tier 1 capital to risk-weighted assets ratio stood at 22 percent, above the EU average. However, the leverage ratio, at 5 percent, was among the lowest in Europe, reflecting the large mortgage portfolios with low-risk weights based on internal-rated models. Banks' liquidity coverage ratio exceeds 200 percent, well above the regulatory requirements. In the non-bank financial sector, the profitability of insurance and pension companies rebounded strongly in 2023, following significant losses in 2022, which boosted their already strong solvency positions.

Net Income and Interest Margin
(DKK billion; percent)



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

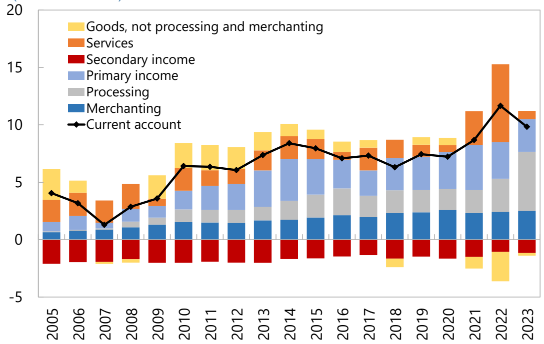
Common Equity Tier 1 and Liquidity Coverage Ratios
(Percent; all banks)



Sources: ECB; and Danish Financial Supervisory Authority.

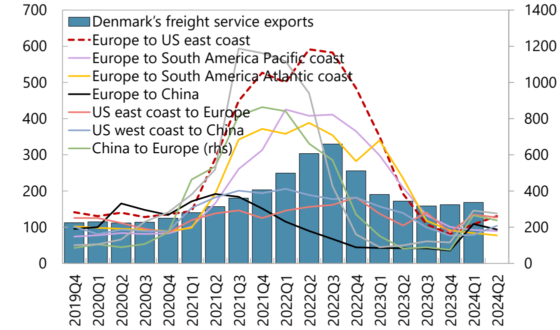
11. The current account surplus slightly shrank (Tables 6–7). The current account surplus was 9¾ percent of GDP in 2023, a decline from 11¾ percent in 2022. The goods surplus expanded from 2¾ percent of GDP in 2022 to 7½ percent in 2023, with the increased pharmaceutical exports more than offsetting the slowdown in other exports. This improvement, however, was more than offset by a worsening in the services surplus, which fell from 6¾ percent of GDP in 2022 to ¾ percent of GDP in 2023. This was primarily due to significant drops in freight and shipping rates. The external position is stronger than implied by medium-term fundamentals and desirable policies (Annex III).[4] Structural policies aimed at raising investment, including in climate, would help reduce the surplus.

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)

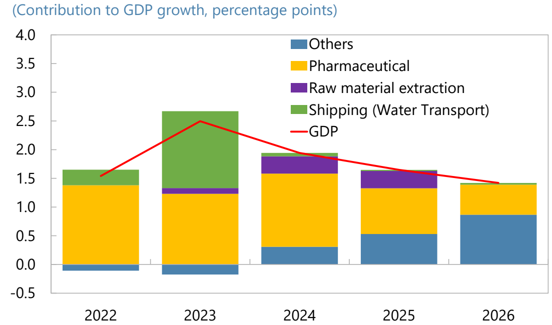


Sources: Bloomberg; Haver Analytics; Statistics Denmark; and IMF staff calculations.

OUTLOOK AND RISKS

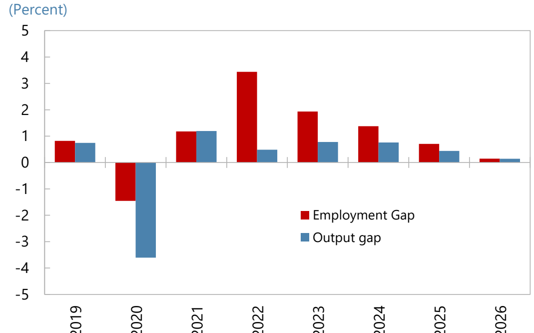
12. Growth is anticipated to gradually moderate in the near term but become more balanced across industries. Output growth is projected to moderate from 2.5 percent in 2023 to 1.9 percent in 2024 and further to 1.6 percent in 2025. The growth of pharmaceutical and maritime exports will taper off, while that of the rest of the economy will be bolstered by a pickup in external demand, improved consumer purchasing power, and further easing of financial conditions. The reopening of the Tyra natural gas field will also contribute to growth in 2024 and 2025. Capacity pressures are expected to further ease as employment growth slows, the unemployment rate edges up, and the positive employment and output gaps narrow. Sequential inflation is projected to temporarily increase in the coming months due to the lagged effect of last year's wage collective bargaining agreements. However, inflation is expected to stabilize at around 2 percent on a year-on-year basis during the second half of 2025.

GDP Growth Decomposition
(Contribution to GDP growth, percentage points)



Sources: Statistics Denmark; Danmarks Nationalbank; Haver Analytics; and IMF staff estimates.

Employment Gap and Output Gap
(Percent)



Sources: Ministry of Finance; Haver Analytics; and IMF staff estimates.

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[4] This assessment is, however, subject to uncertainty, given possible revisions to historical external sector statistics.

13. Denmark's medium-term economic outlook is crowded by structural headwinds, as in other European countries. At 1.4 percent, staff's estimate of Denmark's medium-term potential growth is about ½ percentage points of GDP below its pre-pandemic growth records (1.8 percent for the 2012–19 average). A decline in the working-age population, rising geoeconomic fragmentation, including the surge in trade restrictions, and, more generally, weaker global growth prospects will weigh on Denmark's growth perspectives.

14. The balance of risks to growth is skewed to the downside (Annex IV).

- The primary downside risks include a global slowdown, the possible escalation of the conflict in Gaza and Israel and Russia's war in Ukraine, and deepening geoeconomic fragmentation (GEF). These factors disrupt trade and supply chains, leading to renewed spikes in global commodity prices and higher imported inflation in Denmark. Additionally, given Denmark's deep integration into global value chains (with high exposure to China), the intensification of GEF will weigh on Denmark's growth. Cyberattacks or the misuse of AI technology could add to risks.

- Domestically, backward-looking wage-setting could lead to higher wage pressures as workers seek to recoup the loss in real income, resulting in higher inflation and a loss in competitiveness. Adverse shocks in other Nordic countries, including an abrupt correction in the housing and commercial real estate markets, may spill over to the Danish economy.

- Upside risks to growth include a faster-than-expected resolution of regional conflicts and a stronger external demand recovery.

POLICY DISCUSSIONS

Fiscal policy should take into account both cyclical conditions and growing long-term spending needs. Due to still-high interest rates and vulnerabilities in the commercial real estate markets, supervisors should remain vigilant in monitoring and addressing financial sector risks. To maintain the welfare state, efforts should continue to advance structural reforms aimed at increasing labor supply, enhancing productivity, and achieving Denmark's ambitious climate goals.

A. Fiscal Policy Should Take Into Account Cyclical Conditions and Growing Long-Term Spending Needs

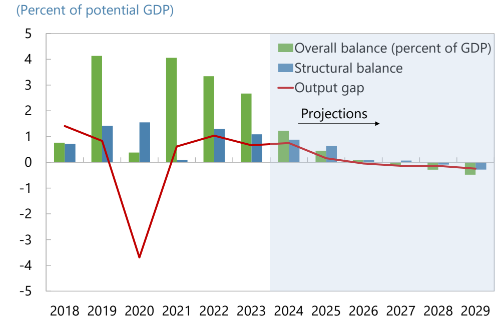
15. In the short term, fiscal policy should avoid adding to capacity pressures. The new discretionary measures in the 2024 budget were small in size. However, in April, the government decided to increase defense spending (by 0.4 percentage points of GDP), though details have yet to be announced. Depending on how the defense budget is allocated (e.g., for domestic government consumption spending versus investment in imported equipment), its implications on capacity pressures would differ. Given lingering capacity pressures and upside risks to inflation, the authorities should continue to exercise tight spending control and save any revenue above budget forecasts.

16. Over the medium term, Denmark's accumulated fiscal space can help mitigate pressures from population aging, climate change, and defense spending. In the past decades, Denmark has prepared for the anticipated increase in aging-related costs and has steadily reduced its public debt to around 30 percent of GDP, creating substantial fiscal space. In addition, to finance a part of these increases in spending, the government has launched several reform initiatives to increase expenditure efficiency and pursue supply-side reforms to enhance labor supply, thereby boosting growth and fiscal revenue (see Section C).

17. Against this backdrop, the planned slight easing of the fiscal stance in 2025 and beyond is appropriate.

- In 2025, the authorities' medium-term fiscal plan suggests a slight decline in the structural balance by around ¼–½ percent of GDP to accommodate an increase in costs related to aging, climate, and defense. This slight easing will not exacerbate demand pressures, given still-tight financial conditions and the expected closing of the positive employment and output gaps. In the event of severe negative shocks, discretionary measures should be considered, although these measures should be temporary and well-targeted at the most vulnerable.

Fiscal Balances
(Percent of potential GDP)



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

- Over the medium term, the structural balance is projected to continue to deteriorate from a surplus of 1 percent of GDP in 2024 to a deficit of ½ percent of GDP by the early 2030s—this is still consistent with Denmark's fiscal rules and a stable debt ratio.[5] The IMF's sovereign risk and debt sustainability framework suggests that Denmark has low overall sovereign stress with public gross debt projected to stay at around 30 percent of GDP through 2033 (Annex V).

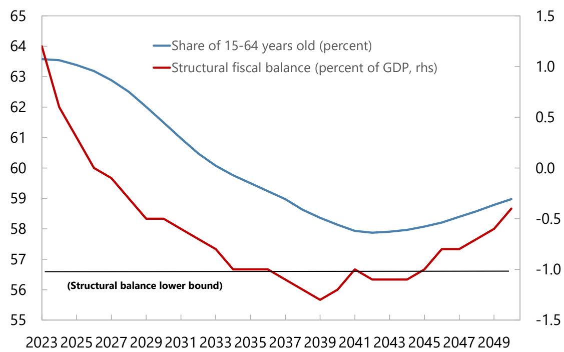
18. Nonetheless, to ensure long-term fiscal sustainability, the government should continue to closely monitor long-term fiscal pressures and identify additional fiscal adjustment measures as necessary. The longer-term fiscal trajectory is highly dependent on population projections, which are, in turn, sensitive to assumptions about fertility and mortality rates and net migrations. Because expenses for healthcare and long-term care services will rise, the authorities project that the structural balance may breach the -1 percent of GDP floor in the mid-2030s.[6] Furthermore, risks to the long-term fiscal trajectory are tilted to the downside because (i) the supply-side measures may not generate the expected revenues, (ii) climate change could accelerate at a faster-than-expected pace, requiring larger adaptation investments, and (iii) deteriorating security conditions in Europe may necessitate a further increase in defense spending. Accordingly,

[5] Denmark's fiscal rules consist of (i) a structural deficit limit of 1 percent of GDP, (ii) a 4-year expenditure ceiling, and (iii) automatic sanctions for local governments in case of overspending.

[6] See text chart. However, the authorities are currently updating the long-term fiscal projections based on new demographic projections.

the authorities should continue to evaluate emerging fiscal pressures and identify additional fiscal adjustment measures as needed.

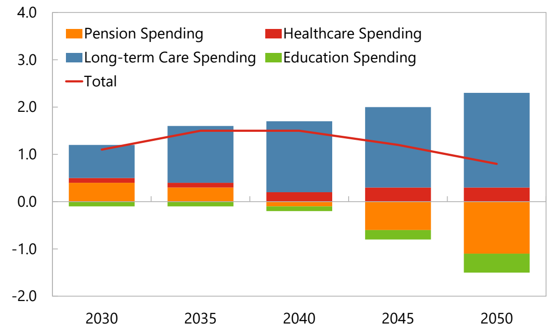
Working Age Population and Structural Balance



Sources: Ministry of finance; Statistics Denmark; and IMF staff calculations.

Aging Costs

(Increase from 2025, Percent of GDP)



Sources: 2024 EC Aging Report; and Haver Analytics.

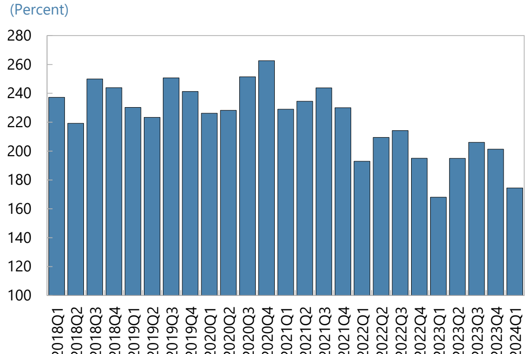
B. Safeguarding Financial Stability

19. Systemic risks have been contained, but risks remain due to still high interest rates and vulnerabilities in commercial real estate (CRE) markets.

- *Household sector risk*. Households have shown resilience to higher interest rates and cost of living, supported by strong job markets and high household wealth. Since the beginning of 2022, borrowers with fixed- and low-interest rate mortgages have refinanced their loans to variable-rate mortgages, with some opting for deferred amortization. While this has reduced their mortgage debt, it has also heightened their sensitivity to interest rate changes. This poses a direct risk to households and banks and, by extension, an indirect risk to household consumption and the overall macroeconomy.[7] The heat map suggests a reduced but still elevated housing sector risk.

Household Debt to Net Disposable Income

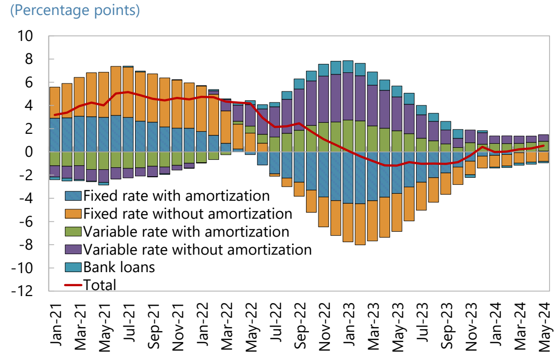
(Percent)



Sources: Haver Analytics; and Statistics Denmark.

Contribution to Annual Growth in Total Mortgage Lending

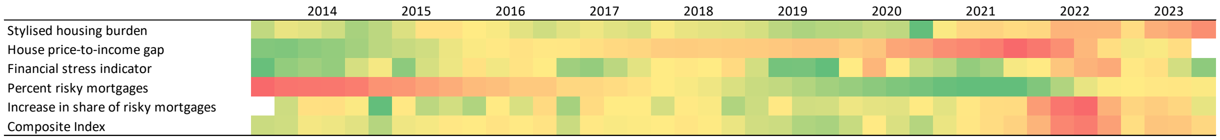
(Percentage points)



Source: Danmarks Nationalbank.

[7] The decline in household indebtedness in 2022 reflected Denmark's unique mortgage system. As interest rates rose and the market value of mortgages fell, some fixed-rate borrowers repaid their mortgages and refinanced them at a higher variable rate but at a lower market value.

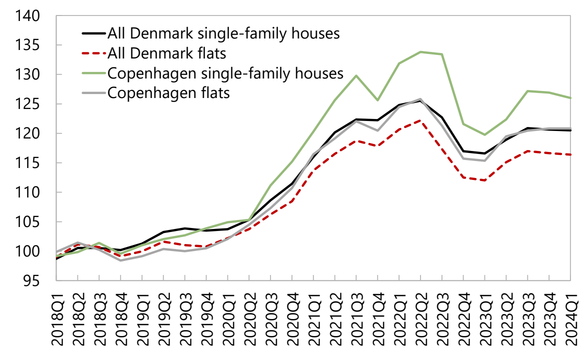
Heat Map of Housing Sector Indicators



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 2010Q1 to 2023Q4, except for the indicators pertaining to risky mortgages which span 2014Q1 to 2023Q4. Composite index is a simple average of the five measures. White cells represent unavailable or missing data.
Sources: Denmark Systemic Risk Council, Danmarks Nationalbank, Statistics Denmark, and IMF staff calculations.

- *Housing market risks*. House prices rebounded during the second half of 2023. However, the overall residential real estate activity has remained subdued, as evidenced by lower residential construction, longer time-on-market, and fewer transactions. Staff estimate that house prices remain slightly overvalued compared to their fundamental values.

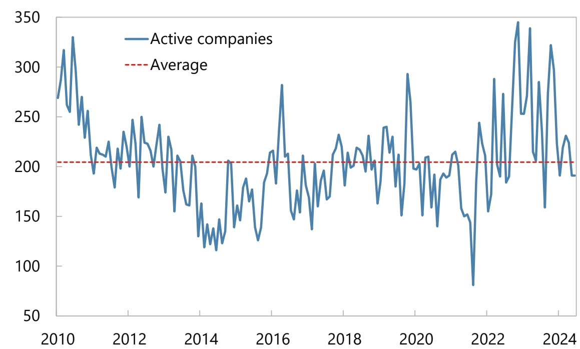
House Prices
(Index, average 2018=100)



Sources: Statistics Denmark; and IMF staff calculations.

- *Corporate sector risks*. Due to a sharp rise in interest rates, the corporate sector's debt service burden has risen. The number of bankruptcies (among active companies) exceeded 3,000 (up 9 percent year-on-year) in 2023, reaching the highest level since 2010. More recently, however, bankruptcies have begun falling.

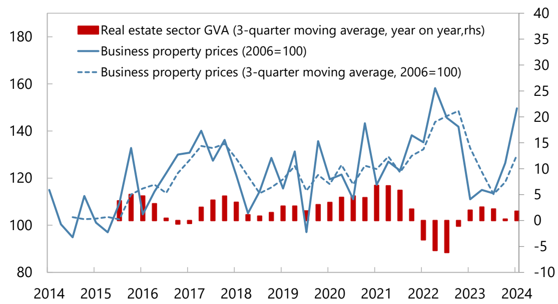
Bankruptcies
(Number)



Sources: Statistics Denmark; and Haver Analytics.

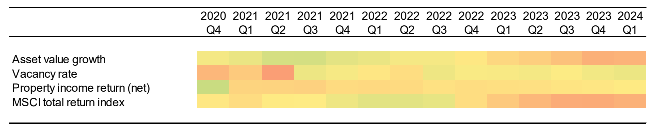
- *CRE risks*. Following the sharp increase in interest rates, the CRE sector has experienced a downturn, with business property prices falling sharply by -20 percent year-on-year in 2023 (annual average). More recently, there are signs that business property prices are recovering. However, as real estate transaction volume remains suppressed, commercial real estate markets have not yet fully recovered. Banks' stage 2 loans increased from 6.8 percent in 2022 to 8.9 percent in 2023 in the CRE sector. Furthermore, Danish systemically important banks have significant direct exposures to the CRE sector in the Nordic region. Furthermore, foreign investors, including one of the largest Swedish firms, play an important role in real estate transactions in Denmark, exposing the Danish CRE market to global CRE market volatility. The heat map suggests an elevated CRE sector risk.

Business Property Prices
(2006=100)



Sources: Statistics Denmark; and Haver Analytics.

CRE Heat Map

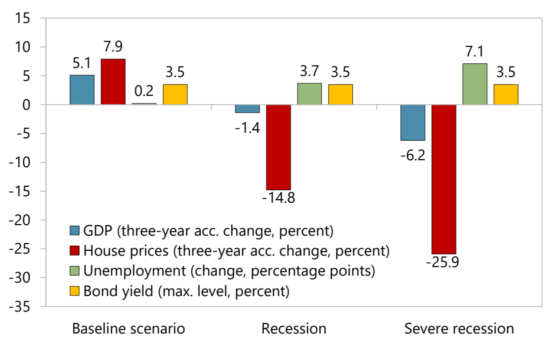


Sources: MSCI; and IMF staff calculations.

Notes: Colors are based on Z-scores. All underlying indicators are from the MSCI. The asset value growth is defined as a change in the real estate asset values held by investors. The property income return (net) is defined as the passing rent or net operating income divided by the gross property value including notional acquisition costs. The MSCI total return index measures market performance, including price performance and income from regular cash distributions (cash dividend payments).

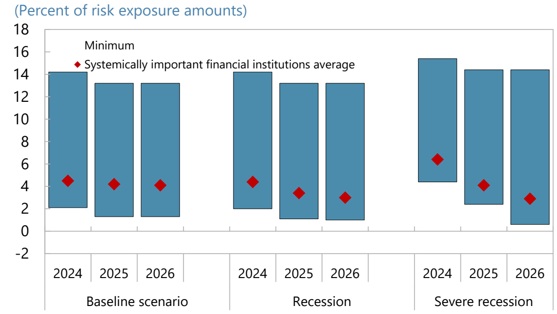
20. **Various mitigating factors and banks' ample capital and liquidity buffers contribute to financial system stability**. The households and housing market risks are mitigated by higher real wage growth and generous social safety nets. Although banks' significant and concentrated exposures to the CRE sector are of key concern, the bankruptcies in the corporate sector have started to fall from record highs, and the deterioration in banks' asset quality seems to have been relatively contained thus far. The DN's stress tests suggest that all the systemic banks have adequate capital buffers to navigate a severe recession and have liquidity buffers to survive a three-month horizon in the most severe liquidity stress scenario capital buffer.[8]

Macroeconomic Scenarios in Stress Test
(Percent)



Source: Danmarks Nationalbank, Financial Stability Analysis, No. 11, May 30, 2024.

Excess Capital in Different Scenarios
(Percent of risk exposure amounts)



Source: Danmarks Nationalbank, Financial Stability Analysis, No. 11, May 30, 2024.
Note: Excess capital is measured as additional Common Equity Tier 1 Capital relative to the capital buffer requirement, as percent of risk-weighted exposure.

21. **Against this backdrop, the authorities should continue to closely monitor financial sector risks**.

- It is imperative to maintain vigilant monitoring of households' creditworthiness. In this light, the authorities should ensure that banks continue to closely assess how developments in house

[8] 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 to nearly 10 percent, and (iii) more than 25 percent lower house prices than the baseline scenario. The liquidity stress testing under a severe scenario assumes the closure of their access to markets and deposit withdrawals ranging from 10 to 100 percent depending on the type of customer deposits.

prices, labor markets, and financial conditions affect the balance sheets of vulnerable borrowers and update provisions for credit risks accordingly.

- In line with the new supervisory guidelines on CRE, and to strengthen banks' resilience to CRE risks, the banks should maintain robust underwriting, provisioning, and appraisals when providing loans to CRE firms, and internal-ratings models adequately capture CRE risks in estimating risk weights.

- Cross-border macrofinancial risks, particularly those emanating from the CRE sector in the Nordic region, warrant scrutiny. The authorities should continue working on the Nordic-wide bank stress testing exercise in collaboration with other Nordic policymakers. In addition, the authorities should bridge the remaining data gaps to strengthen vulnerability assessment in the CRE sector.

- DFSA has recently developed a cyber stress testing framework. The authorities should maintain a heightened focus on cybersecurity risks, in light of the escalating threat of cyberattacks targeting financial entities.

22. The recent decision to tighten macroprudential policies to mitigate risks in the CRE sector is appropriate, but additional measures, focusing on borrower-based, can be explored to address pockets of vulnerabilities. Given banks' large exposure to the CRE sector, the authorities appropriately introduced a 7 percent sector-specific systemic risk buffer at the end of June 2024. In addition, the new property tax system, which links property taxes to market valuation, will help improve the stability of housing markets. [9] However, the authorities should make further efforts to tighten borrower-based measures to contain excessive risk-taking and impose more stringent conditions on new mortgages extended to highly leveraged households. This could include (i) lowering the maximum loan-to-value ratio below the current 95 percent or requiring mandatory amortization until a certain equity threshold is met and (ii) establishing a risk-weight floor for riskier mortgages. In addition, incentives for bigger mortgages should be reduced by lowering the high tax deductibility of mortgage interest expenses.

23. Systemic risks arising from NBFIs warrant closer monitoring and enhanced customer protection.[10] The NBFI sector has grown markedly over the past decades, now accounting for around 300 percent of GDP. Risks to insurance and pension companies are mitigated as they hold sizable capital and liquidity buffers with a large share of non-guaranteed market-return products, while investment funds have proved resilient to the increased interest rates. Given that insurance

[9] On January 1, 2024, the government implemented the new property tax system that links the assessment of property values for taxation to market values. To mitigate the impact on homeowners, the government also lowered the rates for the property value tax and land tax. The combined effects on the property taxes, and consequently on house prices, will vary across regions and property types, in part reflecting the degree to which property values were undervalued for taxation purposes before January 1, 2024. In general, the prices of owner-occupied flats in urban areas were expected to decrease, and the prices of single-family houses were expected to rise, assuming all other factors remain constant.

[10] See Selected Issues Chapter 2.

and pension companies still hold guaranteed products and market risks are elevated, the authorities should continue their efforts to strengthen the oversight framework for NBFIs as follows.

- Staff welcomes the development of a stress testing framework for insurance and pension firms. Building on this progress, continued efforts are needed to integrate the stress testing framework into the overall supervisory policy.
- Given the considerable size and interconnectedness, the authorities should also develop a framework for a systemic risk assessment encompassing banks and NBFIs. This will eventually pave the way to developing a system-wide stress test over time.
- Non-guaranteed products expose customers to investment and longevity risks. The authorities should finalize a supervisory order aimed at strengthening the duties of these firms to provide their clients with clear advice on the financial and longevity risks.

24. Further efforts are necessary to strengthen systemic oversight and crisis management by implementing recommendations from the 2020 FSAP (Annex VI). The authorities have made important progress in implementing many recommendations, particularly in the areas of bank and insurance supervision and systemic liquidity. However, several recommendations regarding systemic risk oversight and the governance of the resolution authorities are still pending.[11]

25. Progress is underway in strengthening the Anti-Money Laundering/Countering the Financing of Terrorism (AML/CFT) framework. Progress has been made in implementing recommendations from the 2023 Nordic-Baltic regional TA report.[12] Building on this, the authorities should continue efforts to (i) further enhance the collection of data and information, including cross-border financial flows, (ii) monitor and analyze new emerging threats, such as trade-based money laundering (iii) develop a more tailored methodology to establish the list of higher risk jurisdictions, (iv) ensure that supervisory resources are adequately assigned to non-bank financial institutions, and (v) further enhance the framework to assess the impact of financial integrity events on financial stability.

C. Pursuing Structural Reforms

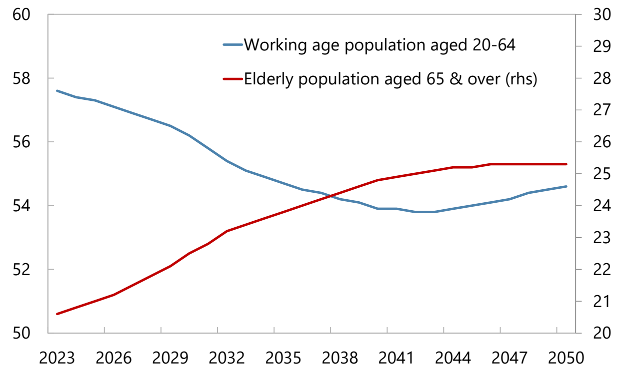
26. Continued reform efforts are necessary to boost labor supply and enhance productivity, aiming to sustain the welfare state. This need is becoming increasingly urgent as

[11] These include (i) incorporating borrower-based tools into the national legislation as part of the policy toolkit, (ii) legally empowering the chair of the Systemic Risk Council (SRC) to propose recommendations after due consultation with other SRC members without the requirement for consensus, and (iii) enhancing the autonomy of the resolution authorities, especially the Financial Stability Company, allowing for government intervention only when fiscal support is necessary.

[12] IMF (2023), "Nordic-Baltic Regional Report: Technical Assistance Report: Financial Flows Analysis, AML/CFT Supervision and Financial Stability." The authorities have (i) updated the risk-based supervision framework by giving adequate weight to the product risk factor, such as corresponding banking activities, and (ii) continued efforts to develop a minimum AML/CFT supervisory engagement model, including for virtual asset service providers.

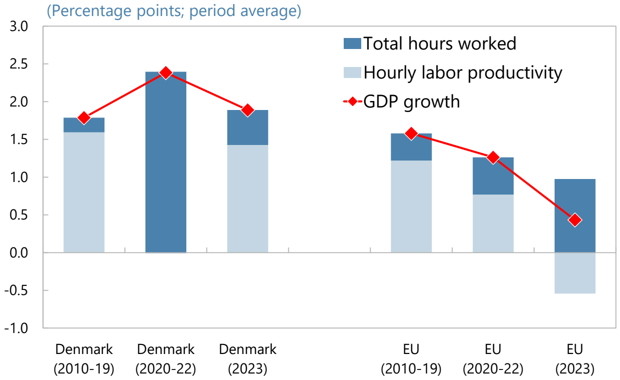
population aging is accelerating, and the growth of the working-age population is expected to turn negative starting in 2025. The aging population poses a challenge in securing a sufficient workforce to sustain growth while, at the same time, increasing demand for health and long-term care services. The demographic challenge also underscores the importance of raising productivity across broader segments of the economy. Although productivity growth has recently regained strength, in part reflecting the pharmaceutical sector, it remains weaker than pre-pandemic levels in many sectors.

Working Age and Elderly Population
(Share of total population)



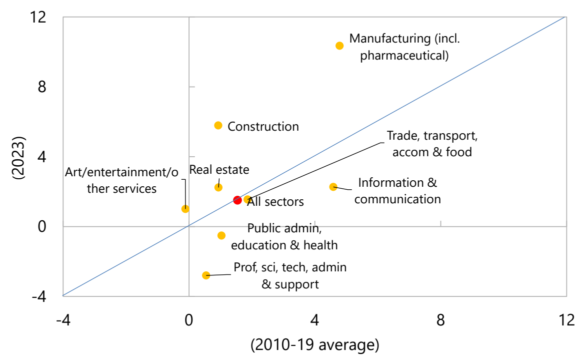
Sources: European Comission and Have Analytics.

GDP Growth Decomposition
(Percentage points; period average)



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

Hourly Labor Productivity
(Annual average growth; percent)



Source: ECB.

Boosting Labor Supply and Addressing Skills Mismatches

27. There remains room to further mobilize the labor force. Labor participation rates in Denmark are higher than the EU average across all age groups and for both men and women (Figure 5). The strong improvement in participation among the elderly groups over the past 15 years is commendable. However, Denmark's labor participation rates fall short of the EU's top performers, especially among those with low education attainment and immigrant backgrounds. Average work hours per worker are among the lowest in the EU. Although much of the recent employment growth has been driven by foreign workers, the share of the foreign labor force is much lower than the EU and Nordic averages.

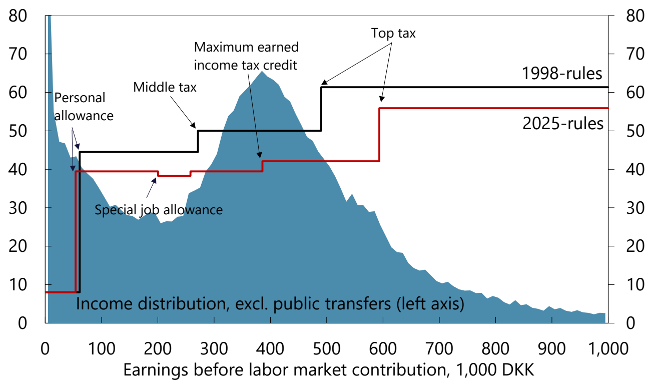
28. Various initiatives to boost labor supply are underway. The government's *DK 2030 Plan* envisages raising the number of full-time employment by 45,000 (1.8 percent) by 2030.[13] The

[13] See Ministry of Finance (2023), DK2030-Danmark rustet til fremtiden.

forthcoming personal income tax reform is a step in the right direction to enhance work incentives.[14] The other reform measures include abolishing one public holiday (already implemented), reducing incentives for early retirement, and offering shorter Master's degree programs (text table). The government is also committed to better integrating those young people who are neither in a job nor in education, as well as non-EU immigrants who have long been outside the workforce.

29. However, more efforts can be made to boost the quantity of labor and address skills mismatches while further strengthening Denmark's well-functioning flexicurity model.[15]

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



Source: Danish Ministry of Taxation.

Text Table 2. Denmark: Estimated Impacts of Labor Market Reform Measures

Measures	Increase in Full-time Employment
Abolition of a Public Holiday	8,500
Reforms of Master's program education	4,600
International Recruitment (supplemental pay-scheme)	4,500
Income Tax Reform	5,300
Senior Workers	1,000
New Social Benefits System	1,000
Others	-200
Total Implemented/Adopted	**24,700**
Student grant reform	4,300
Further measures	16,000
Total Reform Ambition	**45,000**

Source: Danish Ministry of Finance.

- *Addressing skill mismatches and increasing immigrant labor.* With demographic shifts, as well as digital and green transitions, the required skill sets will change. For example, the demand for health and long-term care workers and IT experts is expected to rise. The authorities should continue efforts to address resulting skill mismatches, including by improving the quality and attractiveness of vocational training and education. Public sector wage setting should be reformed to better address labor shortages in certain sectors, particularly health and long-term care. Furthermore, immigrants can be more effectively utilized to fill the skill gap. In this context, staff welcomes that the government has recently lowered the level of the salary requirement limit (to DKr 393,000, equivalent to US$55,000), expanded the positive list, extended job search periods for international students from 6 months to 3 years, and streamlined the administrative process. The impact of these reforms should be carefully monitored.

[14] The main elements of the personal income tax reform include: (i) increasing the rates and the ceiling of employment allowances; (ii) raising the rates and the ceiling of the top-ups for employment allowances for single parents; and (iii) lowering tax rates for the upper-middle-income segment, while increasing tax rates for the high-income segment. The reform is expected to generate an additional 5,150 full-time equivalent employment (representing 0.2 percent of the total employment). The reform is designed to be deficit-neutral—a direct revenue loss of DKr 10¾ billion (0.35 percent of GDP) will be offset by a combination of spending cuts and an increase in tax revenue, including due to increased labor supply.

[15] 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.

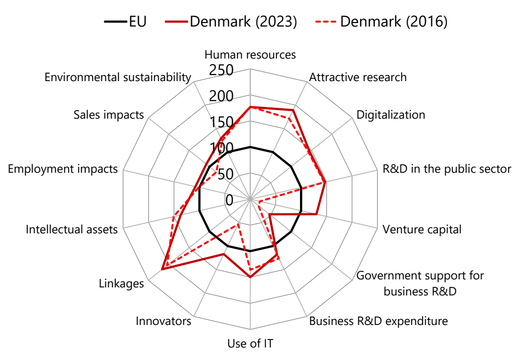
- *Modernizing active labor market policies (ALMPs).* Spending on ALMPs in Denmark at 2 percent of GDP is among the highest in the OECD. A government-commissioned expert group has recently put forward ALMP reform options to save costs, enhance customer satisfaction, and make the system simpler and more transparent. Following these recommendations, a reform plan should be carefully designed to avoid unintended effects.

- *Developing effective programs to enhance education outcomes for children with immigrant backgrounds***.** These children are, on average, less educated, earn less, and have higher unemployment rates than those with native-born parents. The authorities should continue to closely monitor the educational outcomes of these students and develop policies to improve their education outcomes, and more broadly to strengthen their integration in the Danish society, drawing lessons from other neighboring countries.

Keeping up with Strong Innovation, Digitalization, and Business Dynamism

30. Continued efforts are needed to further boost productivity growth. Denmark is recognized as a global leader in innovation and digitalization.[16] Denmark's business dynamism remains strong compared to other EU countries, with high rates of business births and deaths and a high employment share in high-growth enterprises. However, R&D spending in the business sector has shown a declining trend from high levels, and the employment share of young firms is at par with the EU average. Accordingly, continued efforts are warranted to keep Denmark at the innovation frontier.

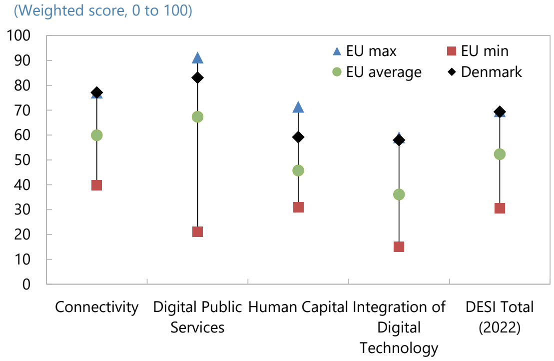
Innovation Performance Indicators 2023



Source: European Innovation Scoreboard 2023.

Digital Economy and Society Index by Main Dimensions

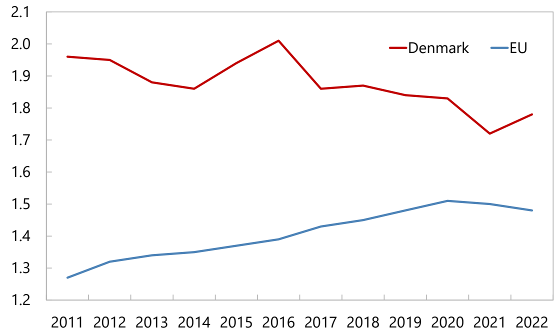
(Weighted score, 0 to 100)



Sources: European Commission; and IMF staff calculations.

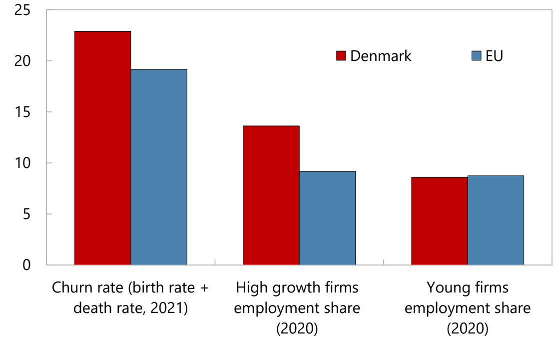
[16] Denmark is ranked first in the EU's 2023 Innovation Scoreboard and second in the EU's 2022 Digital Economy and Society Index.

Business Enterprise Expenditure on R&D
(Percent of GDP)



Sources: Eurostat.

Selected Business Dynamism Indicators
(Percent)

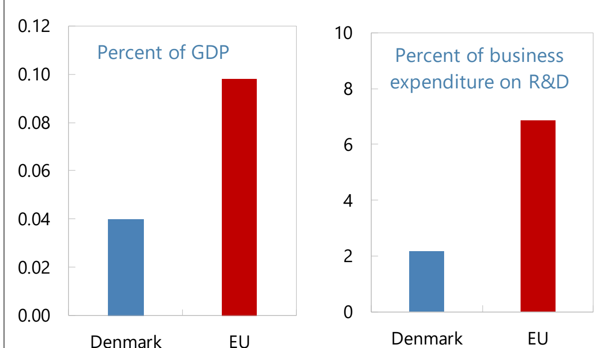


Sources: Eurostat; Haver Analytics; and IMF staff calculations.

- **Digitalization**. Denmark's Recovery and Resilience plan includes several measures aimed at accelerating digitalization, including SMEs, public administration, rural broadband, and the health sector.[17] The requirement for digital accounting systems will be phased in through 2026, enhancing the efficiency of business activity.

- **Innovation**. The authorities plan to increase the tax deduction for R&D expenditure from 108 percent today to 120 percent by 2028. Given the relatively low government support for business R&D, the authorities should continue to assess the size and effectiveness of the R&D tax incentives aimed at boosting business innovation activity.

Fiscal Support for Business R&D 1/



Source: OECD.
1/ Tax expenditure and government direct support.

- **Business dynamism**. With a strong environment for innovation and digitalization, Denmark has excelled in producing "unicorns"(i.e., tech companies with a valuation of US$ 1 billion or more). However, many of these tech companies do not remain and have moved their headquarters abroad.[18] In June 2024, the government launched a new strategy for entrepreneurship to support startups by improving their access to capital, lowering taxes, and easing the regulatory burden. In the same month, the government also announced measures to rationalize business subsidies, making them more efficient and cost-effective based on market principles. These measures are all helpful to boost business dynamism in Denmark.[19]

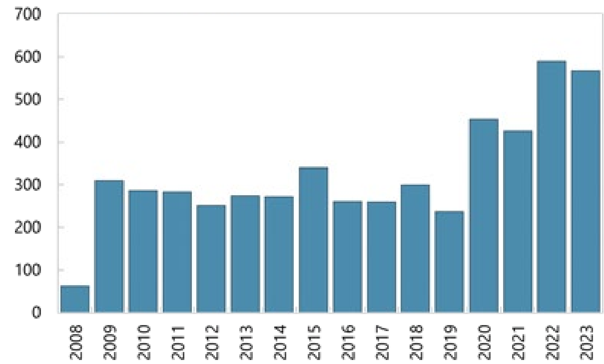
[17] See Denmark's [Recovery and Resilience Plan](#).

[18] Since 2010, 13 unicorns have been founded, but nine of them have left Denmark for the United States and the United Kingdom. See Danish Chamber of Commerce, "Denmark Unicorn Factory 2023. But Why Do They Leave?"

[19] See "The Business Support of the Future: Mapping Principles and Remediation."

31. Denmark has stepped up efforts to prepare for intensifying geoeconomic fragmentation (GEF), including higher trade barriers (Annex VII). Although its trade is well diversified in terms of products and partners, Denmark's deep integration into global value chains and reliance on specialized exports, like pharmaceuticals, make it vulnerable to geoeconomic fragmentation risks. For example, higher trade barriers will lead to shortages of critical inputs, while an abrupt regulatory change abroad could adversely impact the operations and profitability of multinational enterprises. Denmark's commitment to supporting multilateral and transparent trade policies that promote mutually beneficial cooperation on global trade, knowledge, and investment flows is welcome. At the same time, a joint effort by the public and private sectors should continue to identify critical dependencies, evaluate the effects of geoeconomic fragmentation scenarios, and develop risk mitigation strategies, with close coordination at the EU level and consistent with the WTO framework. Vigorously pursuing structural reforms will also help mitigate GEF risks.

Restrictions on Denmark Imposed by Other Countries
(Number of new restrictions)



Sources: Global Trade Alert; and IMF staff calculations.

Climate Change Policy

32. Further actions are necessary to achieve the mitigation targets and prepare for climate change. Denmark aims to reduce greenhouse gas (GHG) emissions by 70 percent by 2030 (relative to 1990 levels) and reach carbon neutrality by 2045. With the ongoing reforms, GHG emissions are projected to be reduced by 68 percent by 2030, slightly falling short of the 70 percent target. To close the gap, on June 24, 2024, the government announced the world's first carbon tax on agriculture, complemented by efforts for afforestation, removal of carbon-rich lowlands, farmland purchase, and reduction of nitrogen emissions from fertilizers (Annex VIII). A swift legislation and robust implementation of the agreement are critical to achieving the mitigation targets. Regarding climate adaptation, the government's National Climate Adaptation Plan I, presented in October 2023, appropriately focuses on coastal and groundwater protection where urgent action is needed. The next steps should include developing its implementation plan and updating the estimates of investment needs for adaptation. Furthermore, the property insurance scheme ("Storm Surge Scheme") should be reviewed to make insurance premiums risk-based.

AUTHORITIES' VIEWS

33. The authorities broadly agreed with the staff's assessment of the economic outlook. Growth in households' real wages would boost consumption, and improved foreign demand would contribute to broad-based growth across industries. These factors, along with the continued growth of the pharmaceutical industry and the reopening of the Tyra field, will support overall economic growth in 2024 and 2025. The authorities noted that the labor shortage had decreased somewhat in part due to a large influx of foreign workers. However, Danmarks Nationalbank (DN) emphasized that the labor market remained tight, with still rising employment, and higher wages will still apply inflationary pressures.

34. The Ministry of Finance indicated that an expected moderation of capacity pressures would allow the government to gradually ease the fiscal stance without raising inflationary pressures significantly. It noted that a gradual easing of fiscal policy this year and next, against the backdrop of a tight starting point, was appropriate. With continued structural and actual surpluses, fiscal policy would continue to subtract from demand, albeit gradually less so. This partly reflects increased spending on defense and other priorities, including social care. The specifics of the budget will be determined in the 2025 budget process. However, DN cautioned that fiscal policy should currently not stimulate demand given the tight labor market and the recent period of very high inflation.

35. The authorities assessed the financial system to be sound, although the risk from higher interest rates persists. Banks have adequate capital and liquidity buffers with low non-performing loan ratios. However, they acknowledged the risks associated with tighter financial conditions and heightened vulnerability in the commercial real estate (CRE) markets, underscoring the need to closely monitor developments. The authorities agreed with merits of a Nordic-wide bank stress testing exercise.

36. The authorities acknowledged the macrofinancial risks, particularly those arising from the CRE markets and riskier mortgages. They stressed that the recent introduction of a new 7 percent sector-specific systemic risk buffer would strengthen the system's resilience against CRE-related shocks. DN argued that tighter borrower-based measures would enhance the resilience of the financial system. However, ministries expressed concerns that such measures could have adverse effects on the housing market and households' ability to repay more expensive loans first and to smooth consumption over their lifetime. They saw a need for further analysis before introducing additional measures. DN also stressed the need to introduce a legal basis for binding borrower-based measures and to lower the tax deductibility of interest expense, which promotes high indebtedness. Regarding the 2020 FSAP recommendations on the institutional arrangement of the financial sector, the ministries did not see the need for legislative changes.

37. The authorities assessed that risks associated with NBFIs were contained. They stressed that insurance and pension firms have ample capital buffers and that the significant share of non-guaranteed market-return products limits their exposures to financial risks. They also highlighted that most of investment funds are closed-end and thus were less concerned about liquidity risks. The authorities agreed on the benefits of starting to develop a systemic risk assessment framework that combines both banks and non-banks. They would only consider developing a system-wide stress testing framework at a later stage.

38. The authorities are committed to pursuing structural reforms to enhance business dynamism, boost the labor supply, and reduce skill mismatches. They view securing adequate labor supply as key to ensuring sustainable growth but are not particularly concerned about weak productivity growth, attributing it to cyclical conditions. The new entrepreneurship strategy, developed in close consultation with the private sector, will boost startup activities. The ongoing reforms, including on personal income tax, master degree programs, and foreign workers, will increase the labor supply. They agreed that further reforms, including improvements in public sector wage setting and vocational training, are needed to address the shortages of specific skills, particularly in the health and long-term care sectors. They stressed that the education of immigrant descendants has constantly improved and expressed their commitment to further improving the education system.

39. **The authorities broadly agreed with the staff's views on geoeconomic fragmentation-related risks**. They emphasized Denmark's commitment to supporting free-trade policies within the framework of a multilateral and rules-based trading system.

40. **The authorities were committed to meeting the climate goals and strengthening resilience to climate change**. A tri-party agreement between the government and civil society on carbon taxation on agriculture was reached on June 24, which will help close the gap to meet the GHG emission reduction targets. Regarding climate adaptation, the authorities emphasized coastal protection and flooding as the priority. While the authorities acknowledged the merit of costing the investment needs for climate adaptation, they indicated that the responsibility for coastal protection and flooding lay with the municipalities. Regarding the property insurance scheme, they agreed that exploring reform options was necessary.

STAFF APPRAISAL

41. **The near-term economic outlook is positive, but important challenges remain over the medium term to preserve Denmark's welfare state**. The pace of growth will moderate somewhat as the maritime industry's growth normalizes and the extraordinary expansion of the pharmaceutical industry slows. However, an expected pickup in external demand, improved consumer purchasing power, and further easing of financial conditions will support the outlook. Inflation has fallen, with some signs of a cooling labor market. The balance of risks is skewed to the downside, with the primary risks including a global slowdown in growth, the possible escalation of Russia's war in Ukraine, and deepening geoeconomic fragmentation. Looking ahead, Denmark is confronted with demographic challenges, which could impact its growth potential and the long-term viability of its welfare state.

42. **The government should calibrate fiscal policy, taking into account both cyclical conditions and growing long-term spending needs**. In the short term, fiscal policy should avoid adding to capacity pressures, given upside risks to inflation. For 2025 and beyond, the anticipated slight easing of the fiscal stance will help accommodate the increase in costs related to health and long-term care, climate, and defense. However, given that risks to the long-term fiscal trajectory are tilted to the downside, the government should continue to closely monitor long-term fiscal

pressures. If fiscal trends risk breaching the structural deficit limit, thereby threatening long-term fiscal sustainability, the authorities need to implement additional fiscal adjustment measures.

43. **The financial system is sound, and systemic risks are contained, but the authorities should continue to closely monitor financial sector risks**. The authorities should ensure that banks closely monitor and assess borrowers' creditworthiness and adjust credit risk provisions accordingly. To contain CRE-related risks, it is important to ensure that banks adhere to the new CRE supervisory guidelines and maintain adequate provisioning against losses, and banks' internal-rating models adequately capture the risks. Collaboration on the Nordic-wide bank stress testing exercise should continue. Additionally, efforts to further strengthen the AML/CFT framework and resilience against cyberattacks on critical infrastructure and institutions must continue.

44. **Additional borrower-based measures are needed to address pockets of vulnerabilities and enhance the robustness of the financial system**. The implementation of the new sector-specific systemic risk buffer to strengthen banks' resilience to CRE-related risks and the reform of the property tax are welcome. To further enhance the robustness of the financial system, the authorities should consider tightening conditions on new mortgages extended to highly leveraged households. The authorities are also encouraged to reduce the high tax deductibility of mortgage interest expenses and strengthen the institutional arrangement of financial sector policymaking in line with the 2020 Financial Sector Assessment Program.

45. **Systemic risks arising from NBFIs warrant closer monitoring and enhanced customer protection**. Supervisors have developed a stress-testing framework for insurance and pension companies to identify and assess residual risks. This should be integrated into overall supervisory policy. The authorities should also develop a framework for a systemic risk assessment encompassing banks and NBFIs, and, going forward, consider developing a system-wide stress testing framework. Furthermore, the authorities should finalize a supervisory order aiming to strengthen the duties of these firms to provide their clients with clear advice on the financial and longevity risks.

46. **Continued efforts are needed to increase the quantity of labor and address skill mismatches**. The forthcoming personal income tax reform is a step in the right direction to enhance work incentives. Beyond this, the authorities should continue efforts to address skill mismatches, including in vocational training, education, and recruitment from abroad. The public sector wage setting should be reformed to better address labor shortages in certain sectors, particularly health and long-term care. Furthermore, the close monitoring of educational outcomes for students with an immigrant background should continue, with efforts to strengthen their integration into Danish society.

47. **The authorities' strong commitment to further enhance digitalization, innovation, and business dynamism to boost productivity growth is welcome**. Denmark's Recovery and Resilience Plan will help accelerate digitalization, while the government's new strategy for entrepreneurship should support startups by improving their access to capital, lowering taxes, and easing the regulatory burden. The government's plan to rationalize business subsidies would also

improve the efficiency of product markets. Beyond these initiatives, the government is encouraged to continue to review the size and effectiveness of the R&D tax incentive.

48. Concerted efforts involving both the public and private sectors should continue to prepare for the intensification of geoeconomic fragmentation. The efforts include identifying critical dependencies, assessing the impact of geoeconomic fragmentation, and developing risk mitigation strategies, consistent with the WTO framework. In this context, Denmark's commitment to supporting multilateral and transparent trade policies is welcome.

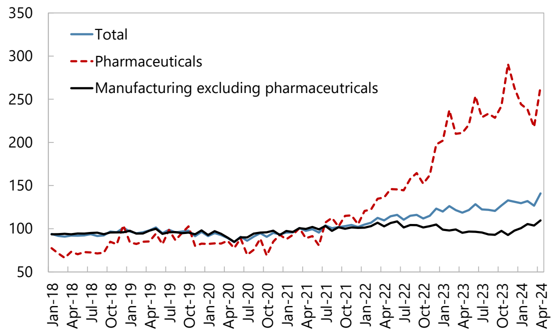
49. Further measures are needed to achieve Denmark's ambitious mitigation targets and prepare for climate change. The government's recent decision to reduce emissions in the agriculture sector is a welcome step. Regarding climate adaptation, the development of the 2023 National Climate Adaptation Plan I is welcome. A swift legislation, followed by robust implementation of the agreement, is critical to achieving the mitigation targets. The authorities should proceed with developing its implementation plan and update the estimates of the investment needs for adaptation. Furthermore, the property insurance scheme ("Storm Surge Scheme") should be reviewed to make insurance premiums risk-based.

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

Figure 1. Denmark: Recent Developments

Pharmaceutical production has been growing strongly.

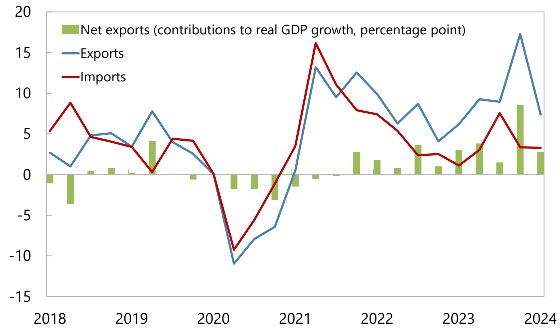
Industrial Production
(Index, 2015=100)



Sources: Haver Analytics; and Statistics Denmark.

Foreign demand continued to be strong.

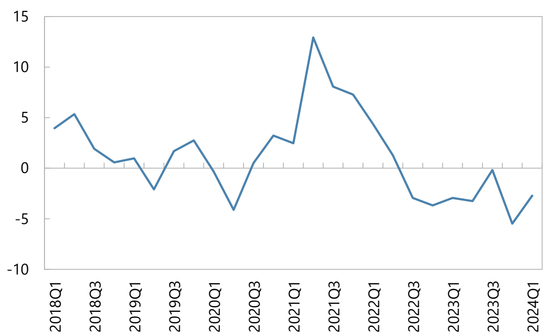
Real Exports and Imports
(Percent year-over-year; unless otherwise indicated)



Sources: Haver Analytics; and Statistics Denmark.

However, domestic demand has remained lackluster.

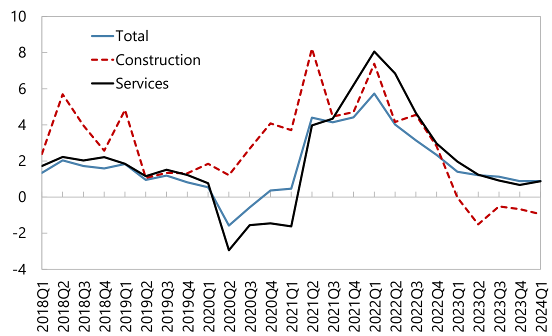
Real Domestic Total Demand
(Percent; year-over-year change)



Sources: Haver Analytics; and Statistics Denmark.

Employment growth has moderated from high levels …

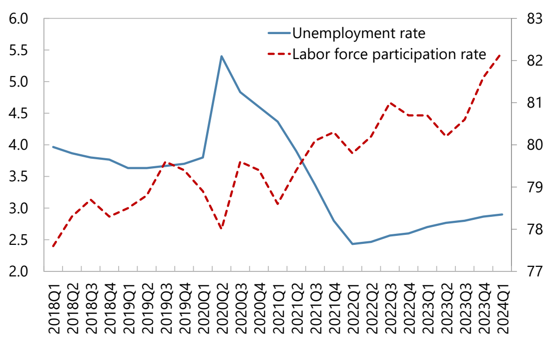
Employment Growth
(Percent; year-over-year change)



Sources: Haver Analytics; and Statistics Denmark.

…and unemployment rates are creeping up, amid increasing participation rates.

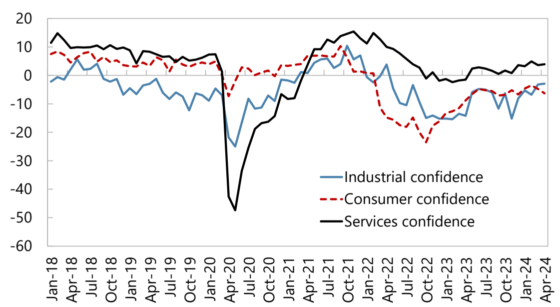
Unemployment and Labor Force Participation Rate
(Percent)



Sources: Statistics Denmark; Eurostat; and Haver Analytics.

Business and consumer confidence is recovering but only gradually.

Business and Consumer Survey
(Percent balance 1/)



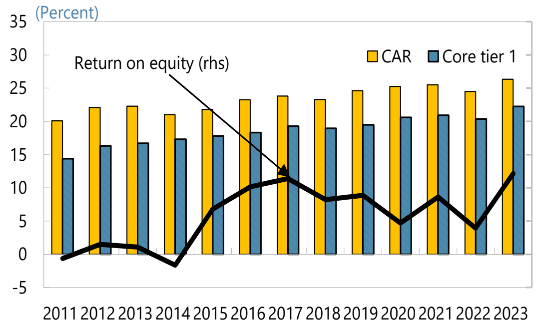
Sources: Eurostat; and Haver Analytics.
1/ Percent balance equals percent of respondents reporting an increase minus the percent of respondents reporting a decrease.

Figure 2. Denmark: Financial Soundness Indicators

Risk-weighted capital ratios remained well above regulatory requirements…

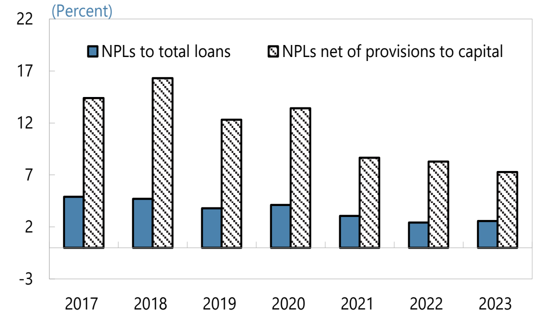
…and nonperforming loans remained low.

Capital Adequacy Ratios



Source: IMF; and Financial Soundness Indicators.

Nonperforming Loans

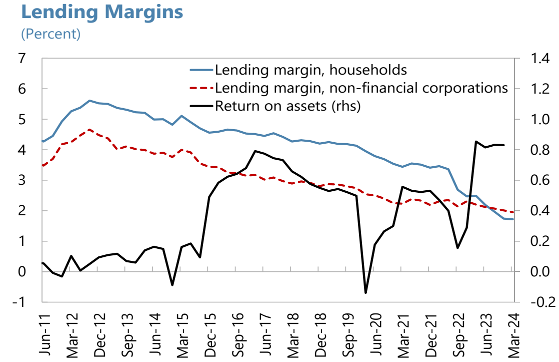


Sources: IMF; and Financial Soundness Indicators.

Higher interest rates increased earnings in 2023.

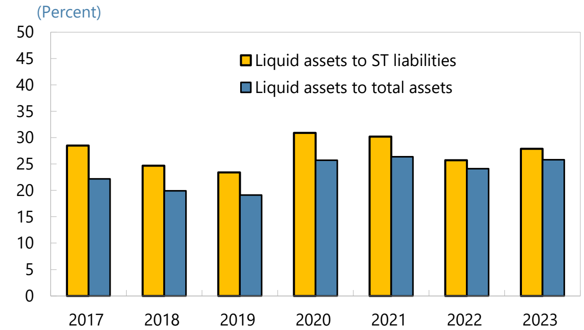
Liquid assets ratios increased slightly…

Lending Margins



Sources: Danmarks Nationalbank; and IMF staff calculations.

Liquid Assets Indicators

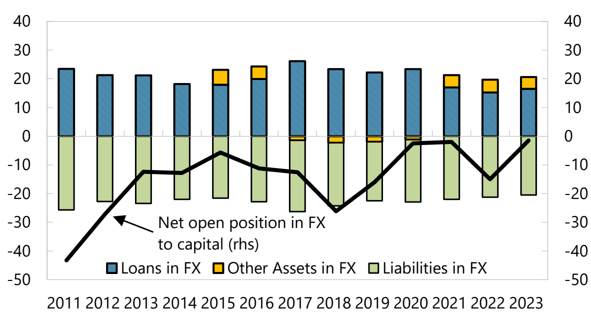


Sources: IMF; and Financial Soundness Indicators.

…while net FX open positions were balanced in 2023.

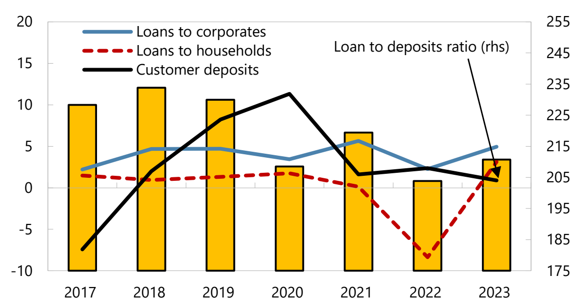
The loan-to-deposit ratio increased in 2023.

Banks Exposure to FX



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

Loans and Deposits Growth



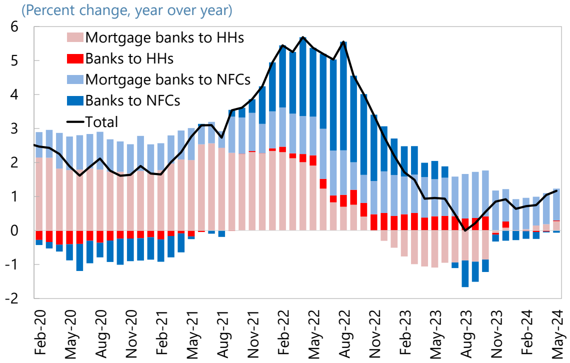
Sources: Statistics Denmark; IMF; Financial Soundness Indicators; and IMF staff calculations.

Figure 3. Denmark: Real Estate Market Developments

Mortgage loans to households stopped declining while credit to non-financial corporates slowed.

Lending Growth

(Percent change, year over year)

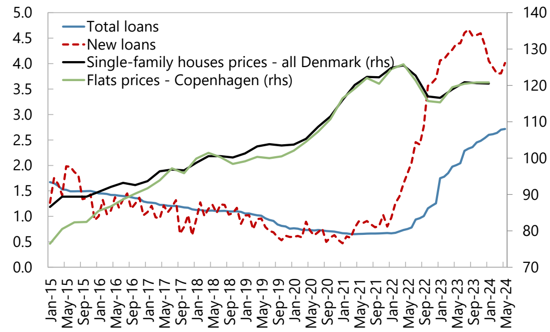


Sources: Danmarks Nationalbank; and IMF staff calculations.

Lending rates on banks' new loans declined from their peak, while house prices rebounded during 2023:H2.

Average Mortgage Rates and House Prices

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

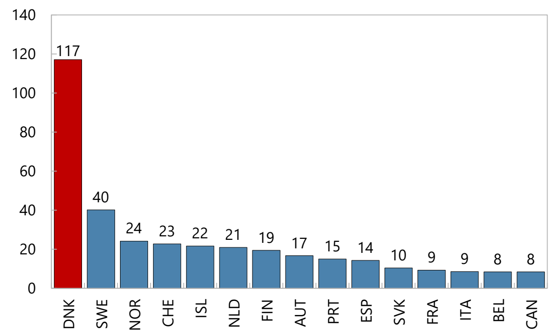


Sources: Statistics Denmark; and IMF staff calculations.

Denmark's mortgage covered bond market is among the largest in the world[1]...

Mortgage Covered Bond Markets

(Outstanding amount, 2022; percent of GDP)

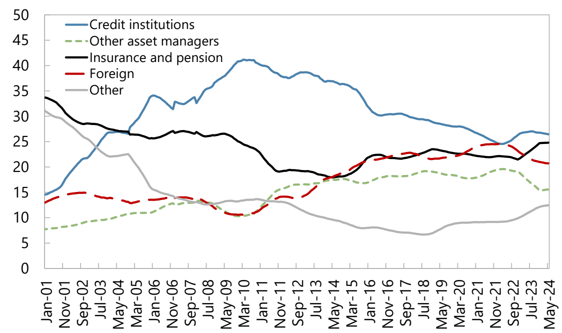


Sources: European Covered Bond Council; and Eurostat.

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

Ownership Shares of Danish Mortgage Bonds

(Percent)

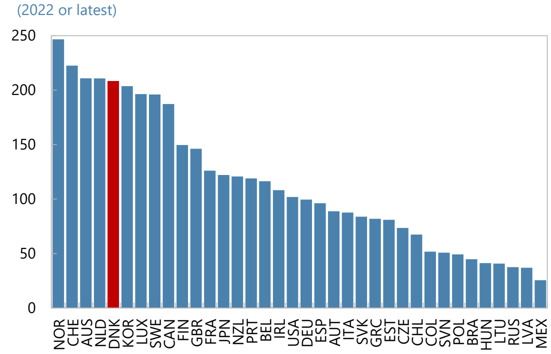


Sources: Danmarks Nationalbank; and IMF staff calculations.

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

Household Debt as Percent of Net Disposable Income

(2022 or latest)

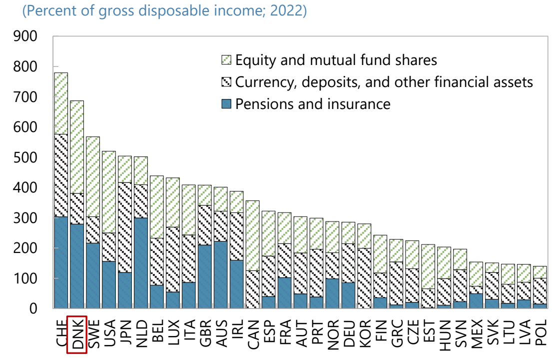


Source: OECD.

...while households hold large financial assets.

Financial Assets

(Percent of gross disposable income; 2022)



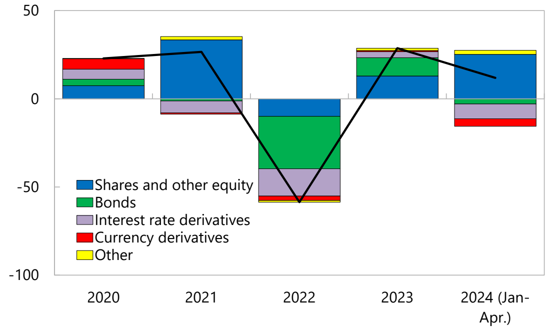
Sources: OECD; and IMF staff calculations.

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 4. Denmark: Pension and Insurance Sector Developments

Pension funds experienced a strong rebound in 2023.

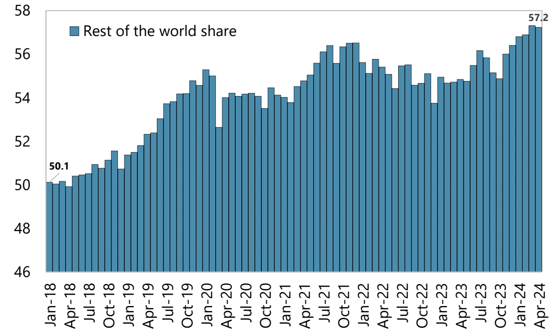
Pension Fund Performance
(Return on investments, monthly average, DKK billions)



Source: Danmarks Nationalbank.

Pension and insurance companies scaled up their geographical exposures.

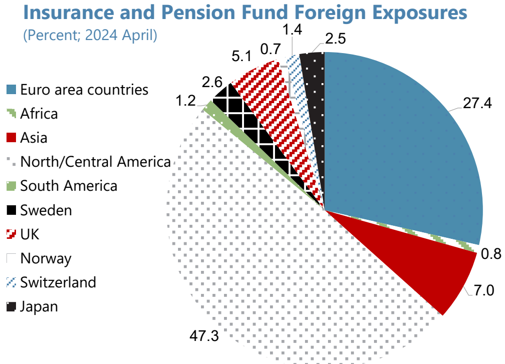
Insurance and Pension Fund Foreign Exposure Share
(Percent)



Source: Danmarks Nationalbank.

Their exposure to North/Central American markets accounts for over 40 percent of the total.

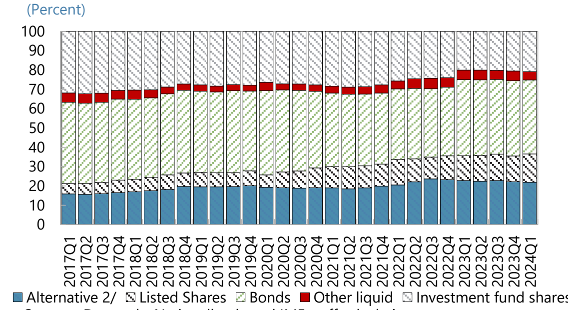
Insurance and Pension Fund Foreign Exposures
(Percent; 2024 April)



Sources: Danmarks Nationalbank; and IMF staff calculations.

During the low-rate years, pension and insurance companies increased investments in "alternatives" and listed shares.

Insurance and Pension Fund Asset Composition 1/
(Percent)



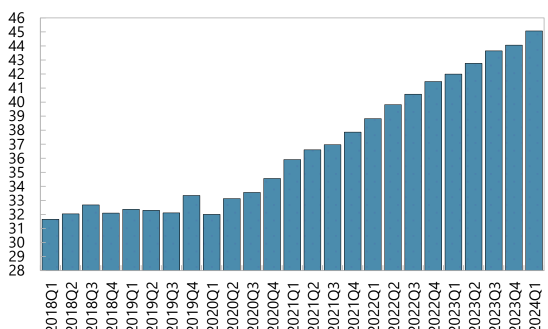
Sources: Danmarks Nationalbank; and IMF staff calculations.

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...

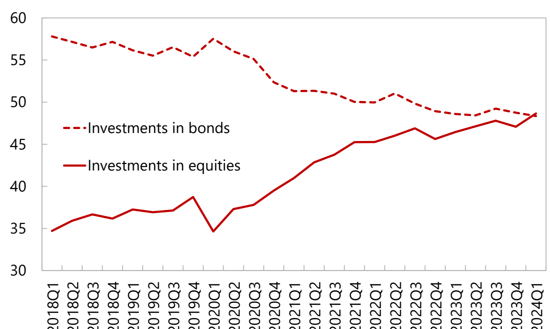
Market Rate Product Share of Insurance Provisions
(Percent)



Sources: Danmarks Nationalbank; and IMF staff calculations.

...while investment in equities increased in recent years.

Investment by Insurance and Pension Companies
(Percent of total investment)

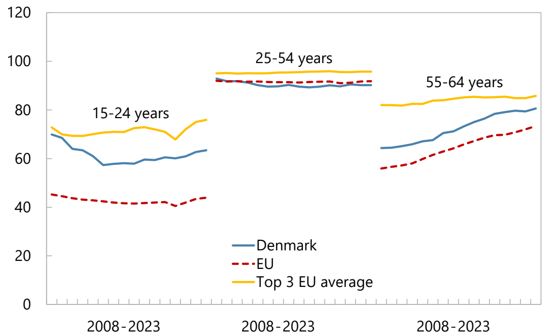


Source: Danmarks Nationalbank.

Figure 5. Denmark: Labor Market and Education Outcome Indicators

The male participation rate is higher than the EU average but falls short of the top 3 countries….

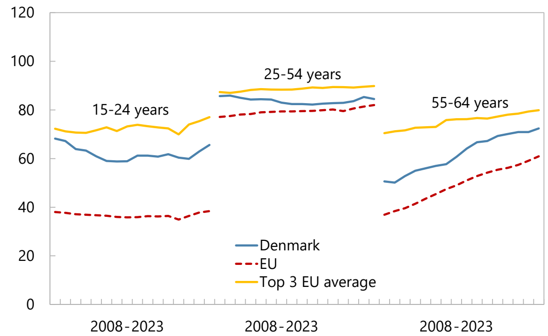
Labor Participation Rate: Male
(Percent)



Sources: Eurostat; and Haver Analytics.

…and so is the female participation rate.

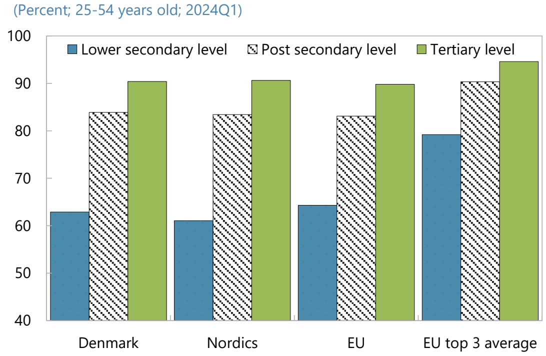
Labor Participation Rate: Female
(Percent)



Sources: Eurostat; and Haver Analytics.

The employment rate among people with low education attainment is similar to the Nordics and EU averages…

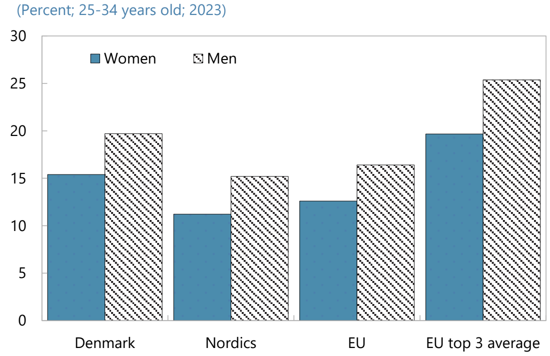
Employment Rate by Educational Attainment
(Percent; 25-54 years old; 2024Q1)



Sources: Eurostat; and Haver Analytics.

…while the share of the population with low education attainment is relatively high.

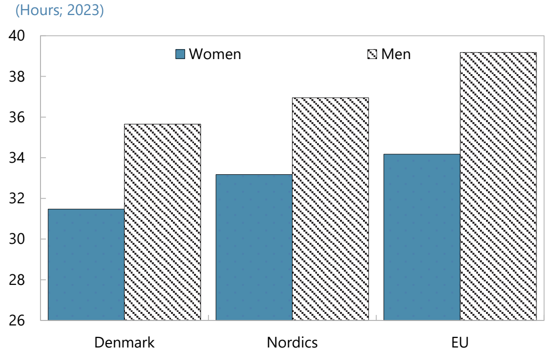
Share of Population with Low Educational Attainment
(Percent; 25-34 years old; 2023)



Sources: Eurostat; and Haver Analytics.

Average work hours per worker are among the lowest in the EU.

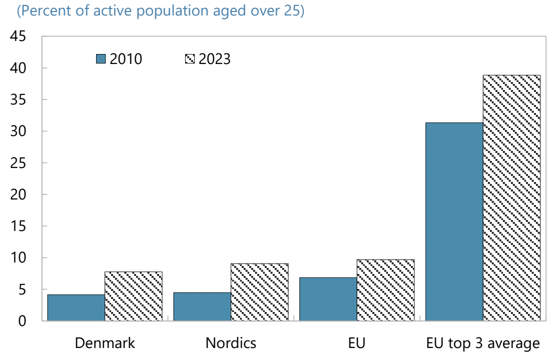
Average Weekly Hours Worked by Gender
(Hours; 2023)



Sources: Eurostat; and Haver Analytics.

The share of the foreign labor force is much lower than the EU and Nordic averages.

Share of Foreign Labor Force
(Percent of active population aged over 25)



Sources: Eurostat; and Haver Analytics.

Table 1. Denmark: Selected Economic and Social Indicators, 2021–29

	2021	2022	2023	2024	2025	2026	2027	2028	2029
						Proj.			
Supply and Demand (change in percent)									
Real GDP	7.4	1.5	2.5	1.9	1.6	1.4	1.4	1.4	1.4
Final domestic demand	7.0	-1.0	-0.9	0.4	1.7	1.5	1.5	1.5	1.5
Private consumption	6.8	-2.1	1.4	1.8	1.8	1.7	1.6	1.6	1.6
Public consumption	4.9	-2.5	0.2	1.0	1.4	1.1	1.1	1.2	1.2
Gross fixed investment	9.8	2.8	-6.6	-3.3	1.6	1.5	1.5	1.5	1.5
Net exports 1/	0.2	1.8	4.2	2.6	0.9	0.2	0.2	0.2	0.2
Gross national saving (percent of GDP)	32.3	36.4	32.7	31.0	31.0	30.7	30.5	30.3	30.1
Gross domestic investment (percent of GDP)	23.6	24.7	22.8	21.9	21.7	21.7	21.7	21.8	21.8
Potential output	2.3	2.3	2.2	2.0	2.0	1.8	1.6	1.4	1.6
Output gap (percent of potential output)	1.2	0.5	0.7	0.7	0.4	0.1	-0.1	-0.1	-0.2
Labor Market (change in percent) 2/									
Labor force	2.9	2.4	-0.1	0.5	0.2	0.2	0.2	0.2	0.2
Employment	4.0	3.5	-0.4	0.4	0.2	0.2	0.2	0.2	0.2
Harmonized unemployment rate (percent)	3.6	2.5	2.8	2.9	3.0	3.0	3.0	3.0	3.0
Prices and Costs (change in percent)									
GDP deflator	2.8	9.1	-3.8	-0.6	2.6	2.0	1.9	2.0	2.0
HICP (year average)	1.9	8.5	3.4	1.8	2.2	2.0	2.0	2.0	2.0
HICP (Q4 on Q4)	3.5	10.2	0.1	2.6	1.8	2.0	2.0	2.0	2.0
Public Finance (percent of GDP) 3/									
Total revenues	53.5	48.3	50.1	49.6	48.8	48.7	48.9	48.9	48.9
Total expenditures	49.4	44.9	46.8	47.8	48.0	48.3	48.6	48.8	49.0
Overall balance	4.1	3.4	3.3	1.8	0.9	0.4	0.3	0.1	-0.1
Primary balance 4/	3.7	3.1	2.5	1.1	0.1	-0.5	-0.7	-0.9	-1.1
Cyclically-adjusted balance (percent of potential GDP)	3.2	3.1	2.8	1.3	0.6	0.4	0.3	0.1	-0.1
Structural balance (percent of potential GDP) 5/	-0.3	1.7	1.7	1.2	0.8	0.4	0.3	0.1	-0.1
Gross debt	35.8	29.7	29.7	28.2	27.3	27.1	27.1	27.1	27.3
Money and Interest Rates (percent)									
Domestic credit growth (end of year)	3.1	-4.0	3.2	...	...	...	...	...	...
M3 growth (end of year)	0.3	10.5	4.9	...	...	...	...	...	...
Short-term interbank interest rate (3 month)	-0.5	0.3	3.4	...	...	...	...	...	...
Government bond yield (10 year)	-0.3	1.2	2.4	...	...	...	...	...	...
Balance of Payments (percent of GDP)									
Exports of goods & services	58.8	70.5	68.0	68.9	69.4	69.1	68.8	68.6	68.4
Imports of goods & services	52.6	61.0	59.8	61.7	62.0	61.9	61.9	61.9	61.9
Trade balance, goods and services	6.2	9.6	8.2	7.2	7.5	7.2	6.9	6.7	6.5
Oil trade balance	-0.5	-0.9	-1.0	-1.2	-1.3	-1.4	-1.6	-1.7	-1.8
Current account	8.7	11.7	9.8	9.0	9.3	9.0	8.8	8.5	8.3
International reserves, changes	3.6	1.8	1.3	...	...	...	...	...	...
Exchange Rate									
Average DKK per US$ rate	6.3	7.1	6.9	...	...	...	...	...	...
Nominal effective rate (2010=100, ULC based)	100.1	98.9	101.0	...	...	...	...	...	...
Real effective rate (2010=100, ULC based)	96.8	96.8	96.4	...	...	...	...	...	...
Memorandum Items									
Nominal GDP (Bln DKK)	2568	2844	2805	2842	2964	3067	3171	3281	3395
GDP (Bln USD)	408	402	407	...	...	...	...	...	...
GDP per capita (USD)	69927	68435	68619	...	...	...	...	...	...

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, 2021–29
(Billions of DKr)

	2021	2022	2023	2024	2025	2026	2027	2028	2029
						proj.			
General Government									
Total revenues	1374.3	1374.8	1406.3	1408.6	1447.7	1494.6	1549.8	1605.5	1661.5
Personal income taxes	629.5	658.5	686.0	684.9	702.5	723.7	748.3	774.3	801.3
Pension return taxes	63.4	11.2	13.0	11.4	17.8	18.4	19.0	19.7	20.4
Company taxes	102.1	94.3	106.1	110.8	100.8	104.3	107.8	111.5	115.4
Taxes on goods and services	348.6	356.5	338.5	343.1	357.8	370.2	382.7	396.0	409.8
Social contributions	20.8	19.9	19.6	19.9	20.7	21.5	22.2	23.0	23.8
Interest and dividends	23.4	29.9	42.2	35.5	41.5	46.0	48.8	52.5	54.3
Other revenues	186.5	204.6	200.8	203.0	206.6	210.5	220.9	228.5	236.5
Total expenditures	1269.1	1276.9	1313.5	1357.6	1422.1	1481.5	1541.0	1601.0	1663.4
Expense	1192.8	1193.1	1227.5	1261.0	1318.4	1374.1	1430.1	1486.2	1544.6
Public consumption	592.5	611.9	624.1	655.6	687.0	714.8	742.0	770.9	801.0
Public subsidies	63.4	39.9	36.0	39.8	41.5	42.9	44.4	45.9	47.5
Interest expenditures	12.7	20.3	18.6	17.1	17.8	18.4	19.0	19.7	20.4
Social benefits	435.2	430.1	443.1	454.7	477.2	496.8	520.0	541.3	563.6
Other expenditures	88.9	90.9	105.7	93.8	94.9	101.2	104.6	108.3	112.0
Net acquisition of nonfinancial assets	76.4	83.8	86.0	96.6	103.7	107.3	111.0	114.8	118.8
Gross Operating Balance	181.6	181.8	178.7	147.6	129.4	120.4	119.7	119.3	116.9
Net Lending/Borrowing	105.2	97.9	92.7	51.0	25.6	13.1	8.7	4.5	-1.9
Net Financial Transactions	94.8	109.1	..	..	..	..	..	..	..
Net acquisition of financial assets	26.6	-7.4	..	..	..	..	..	..	..
Currency and deposits	14.9	14.5	..	..	..	..	..	..	..
Securities other than shares	31.5	11.3	..	..	..	..	..	..	..
Loans	22.2	-6.2	..	..	..	..	..	..	..
Shares and other equity	7.7	13.0	..	..	..	..	..	..	..
Insurance technical reserves	0.0	0.0	..	..	..	..	..	..	..
Financial derivatives and employee stock options	-6.2	12.7	..	..	..	..	..	..	..
Other Financial Assets	-43.6	-52.8	..	..	..	..	..	..	..
Net incurrence of liabilities	-68.2	-116.5	..	..	..	..	..	..	..
Currency and deposits	-0.1	0.1	..	..	..	..	..	..	..
Securities other than shares	-54.3	-93.8	..	..	..	..	..	..	..
Loans	-3.1	7.4	..	..	..	..	..	..	..
Shares and other equity	0.0	0.0	..	..	..	..	..	..	..
Insurance technical reserves	0.0	0.0	..	..	..	..	..	..	..
Other liabilities	-10.8	-30.2	..	..	..	..	..	..	..

Sources: Statistics Denmark; and IMF staff calculations.

Table 3. Denmark: GFSM 2001 Statement of Government Operations, 2021–29
(Percent of GDP)

	2021	2022	2023	2024	2025	2026	2027	2028	2029
						proj.			
General Government									
Total revenues	53.5	48.3	50.1	49.6	48.8	48.7	48.9	48.9	48.9
Personal income taxes	24.5	23.2	24.5	24.1	23.7	23.6	23.6	23.6	23.6
Pension return taxes	2.5	0.4	0.5	0.4	0.6	0.6	0.6	0.6	0.6
Company taxes	4.0	3.3	3.8	3.9	3.4	3.4	3.4	3.4	3.4
Taxes on goods and services	13.6	12.5	12.1	12.1	12.1	12.1	12.1	12.1	12.1
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	1.1	1.5	1.3	1.4	1.5	1.5	1.6	1.6
Other revenues	7.3	7.2	7.2	7.1	7.0	6.9	7.0	7.0	7.0
Total expenditures	49.4	44.9	46.8	47.8	48.0	48.3	48.6	48.8	49.0
Expense	46.5	41.9	43.8	44.4	44.5	44.8	45.1	45.3	45.5
Public consumption	23.1	21.5	22.3	23.1	23.2	23.3	23.4	23.5	23.6
Public subsidies	2.5	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4
Interest expenditures	0.5	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Social benefits	17.0	15.1	15.8	16.0	16.1	16.2	16.4	16.5	16.6
Other expenditures	3.5	3.2	3.8	3.3	3.2	3.3	3.3	3.3	3.3
Net acquisition of nonfinancial assets	3.0	2.9	3.1	3.4	3.5	3.5	3.5	3.5	3.5
Gross Operating Balance	7.1	6.4	6.4	5.2	4.4	3.9	3.8	3.6	3.4
Net Lending/Borrowing	4.1	3.4	3.3	1.8	0.9	0.4	0.3	0.1	-0.1
Net Financial Transactions	3.7	3.8	..	..	..	..	..	..	..
Net acquisition of financial assets	1.0	-0.3	..	..	..	..	..	..	..
Currency and deposits	0.6	0.5	..	..	..	..	..	..	..
Securities other than shares	1.2	0.4	..	..	..	..	..	..	..
Loans	0.9	-0.2	..	..	..	..	..	..	..
Shares and other equity	0.3	0.5	..	..	..	..	..	..	..
Insurance technical reserves	0.0	0.0	..	..	..	..	..	..	..
Financial derivatives and employee stock options	-0.2	0.4	..	..	..	..	..	..	..
Other Financial Assets	-1.7	-1.9	..	..	..	..	..	..	..
Net incurrence of liabilities	-2.7	-4.1	..	..	..	..	..	..	..
Currency and deposits	0.0	0.0	..	..	..	..	..	..	..
Securities other than shares	-2.1	-3.3	..	..	..	..	..	..	..
Loans	-0.1	0.3	..	..	..	..	..	..	..
Shares and other equity	0.0	0.0	..	..	..	..	..	..	..
Insurance technical reserves	0.0	0.0	..	..	..	..	..	..	..
Other liabilities	-0.4	-1.1	..	..	..	..	..	..	..
Memorandum Items									
Primary balance 1/	3.7	3.1	2.5	1.1	0.1	-0.5	-0.7	-0.9	-1.1
Structural balance 2/	-0.3	1.7	1.7	1.2	0.8	0.4	0.3	0.1	-0.1
One-off measures 2/ 3/	3.5	1.4	1.1	0.1	-0.2	0.0	0.0	0.0	0.0
Cyclically adjusted balance 2/	3.2	3.1	2.8	1.3	0.6	0.4	0.3	0.1	-0.1
Gross debt	35.8	29.7	29.7	28.2	27.3	27.1	27.1	27.1	27.3
Gross domestic product (Bln. Kroner)	2,568	2,844	2,805	2,842	2,964	3,067	3,171	3,281	3,395

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, 2014–22

	2014	2015	2016	2017	2018	2019	2020	2021	2022
					Billions of DKK				
Assets	2,034	1,977	2,017	2,116	2,191	2,397	2,826	2,828	2,890
Financial assets	1,074	993	998	1,056	1,094	1,279	1,648	1,589	1,488
Monetary gold and SDR	0	0	0	0	0	0	0	0	0
Currency and deposits	272	228	156	182	155	108	171	186	201
Securities other than shares	67	68	70	70	108	170	184	196	184
Loans	180	184	189	188	202	215	281	302	287
Shares and other equity	425	420	470	491	526	589	731	660	626
Insurance technical reserves	1	2	1	1	1	1	1	1	1
Financial derivatives and employee stock options	5	5	4	4	7	8	6	6	10
Other financial assets	125	87	107	119	94	187	273	237	179
Capital stock net of depreciation	959	984	1,019	1,060	1,097	1,118	1,177	1,240	1,402
Liabilities	1,172	1,088	1,091	1,079	1,068	1,125	1,368	1,254	987
Financial liabilities	1,172	1,088	1,091	1,079	1,068	1,125	1,368	1,254	987
Monetary gold and SDR	0	0	0	0	0	0	0	0	0
Currency and deposits	23	24	24	20	20	20	21	20	21
Securities other than shares	831	737	733	718	696	732	928	826	596
Loans	165	170	173	176	180	181	186	187	187
Other financial assets	153	157	155	159	167	185	220	212	177
Net Worth	862	889	926	1,036	1,123	1,272	1,457	1,574	1,903
Financial Net Worth	-98	-95	-93	-23	26	154	280	334	501
					Percent of GDP				
Assets	102.7	97.4	96.0	96.6	97.7	104.1	121.5	110.2	101.6
Financial assets	54.2	48.9	47.5	48.2	48.8	55.5	70.8	61.9	52.3
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	13.7	11.2	7.4	8.3	6.9	4.7	7.4	7.3	7.1
Securities other than shares	3.4	3.4	3.4	3.2	4.8	7.4	7.9	7.6	6.5
Loans	9.1	9.1	9.0	8.6	9.0	9.3	12.1	11.8	10.1
Shares and other equity	21.4	20.7	22.3	22.4	23.5	25.6	31.4	25.7	22.0
Insurance technical reserves	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Financial derivatives and employee stock options	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.3
Other financial assets	6.3	4.3	5.1	5.5	4.2	8.1	11.8	9.2	6.3
Capital stock net of depreciation	48.5	48.5	48.5	48.4	48.9	48.5	50.6	48.3	49.3
Liabilities	59.2	53.6	51.9	49.3	47.6	48.8	58.8	48.8	34.7
Financial liabilities	59.2	53.6	51.9	49.3	47.6	48.8	58.8	48.8	34.7
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	1.2	1.2	1.1	0.9	0.9	0.9	0.9	0.8	0.7
Securities other than shares	41.9	36.3	34.9	32.8	31.0	31.8	39.9	32.2	21.0
Loans	8.3	8.4	8.2	8.0	8.0	7.9	8.0	7.3	6.6
Other financial assets	7.7	7.7	7.4	7.3	7.4	8.0	9.5	8.3	6.2
Net Worth	43.5	43.8	44.1	47.3	50.1	55.2	62.6	61.3	66.9
Financial Net Worth	-4.9	-4.7	-4.4	-1.1	1.2	6.7	12.0	13.0	17.6
Memorandum Items:									
Nominal GDP (in billions of DKK)	1,980	2,030	2,102	2,190	2,244	2,304	2,327	2,568	2,844

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

Table 5. Denmark: Financial Soundness Indicators, 2013–23[1]

(Percent)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
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	26.3
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	23.8
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	22.2
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	7.3
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	39.4
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	2.6
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	49.0
Households (including individual firms)	32.0	32.5	32.8	34.2	33.4	31.0	32.8	32.8	32.7	29.3	24.3
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	1.4
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	0.8
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	15.5
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	14.8
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	65.0
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	35.3
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	25.8
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	27.9
Foreign currency position	1.2	1.7	1.5	1.5	1.6	1.4	1.1	0.6	0.6	0.4	0.5

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, 2021–29

	2021	2022	2023	2024	2025	2026	2027	2028	2029
						proj.			
				Billions of DKK					
Current Account	222.8	331.6	275.9	257.1	275.8	276.2	277.5	280.2	283.3
Balance on goods	85.0	78.4	208.3	267.6	283.7	286.3	290.3	295.9	302.0
Merchandise exports f.o.b.	887.1	1056.1	1106.5	1210.3	1265.1	1295.0	1328.1	1366.1	1406.8
Merchandise imports f.o.b.	802.1	977.6	898.2	942.7	981.4	1008.7	1037.9	1070.3	1104.8
Balance on services	75.1	193.3	20.3	-63.1	-62.7	-66.9	-71.5	-76.4	-81.5
Exports of services, total	623.3	950.5	799.6	746.9	793.4	822.7	852.8	884.1	916.4
Imports of services, total	548.2	757.2	779.3	810.0	856.1	889.5	924.3	960.4	997.9
Balance on income	62.7	59.9	47.3	52.6	54.9	56.8	58.7	60.7	62.8
Capital and Financial Account	280.4	335.1	195.7	236.7	254.6	254.2	254.8	256.7	259.0
Capital transfer, net	1.8	1.0	-10.0	-10.2	-10.6	-11.0	-11.3	-11.7	-12.2
Financial account	278.6	334.1	205.7	246.9	265.2	265.2	266.1	268.5	271.2
Direct investment, net	121.2	-6.2	28.7	18.9	26.5	17.5	8.7	-15.2	-17.2
Abroad	228.4	236.1	75.7	95.4	107.3	120.2	131.0	109.5	85.2
In Denmark	107.2	242.3	47.0	76.5	80.8	102.7	122.3	124.8	102.4
Portfolio investment, net	75.0	31.9	150.2	38.4	-22.3	-9.2	-31.2	-33.4	-27.5
Assets	99.0	-87.7	124.8	95.1	89.9	101.6	79.0	74.3	80.3
Liabilities	24.0	-119.6	-25.4	56.8	112.2	110.8	110.3	107.7	107.8
Financial derivatives, net	-30.8	130.8	-50.3	311.3	324.7	335.9	347.3	359.4	371.9
Other investment, net	20.8	125.3	41.8	-121.7	-63.6	-79.0	-58.7	-42.3	-56.0
Reserve assets	92.4	52.3	35.3	0.0	0.0	0.0	0.0	0.0	0.0
Net Errors and Omissions	-57.5	-3.5	80.2	20.3	21.2	22.0	22.7	23.5	24.3
				Percent of GDP					
Current Account	8.7	11.7	9.8	9.0	9.3	9.0	8.8	8.5	8.3
Balance on goods	3.3	2.8	7.4	9.4	9.6	9.3	9.2	9.0	8.9
Merchandise exports f.o.b.	34.5	37.1	39.5	42.6	42.7	42.2	41.9	41.6	41.4
Merchandise imports f.o.b.	31.2	34.4	32.0	33.2	33.1	32.9	32.7	32.6	32.5
Balance on services	2.9	6.8	0.7	-2.2	-2.1	-2.2	-2.3	-2.3	-2.4
Exports of services, total	24.3	33.4	28.5	26.3	26.8	26.8	26.9	26.9	27.0
Imports of services, total	21.4	26.6	27.8	28.5	28.9	29.0	29.2	29.3	29.4
Balance on income	2.4	2.1	1.7	1.9	1.9	1.9	1.9	1.9	1.9
Capital and Financial Account	10.9	11.8	7.0	8.3	8.6	8.3	8.0	7.8	7.6
Capital transfer, net	0.1	0.0	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
Financial account	10.8	11.7	7.3	8.7	8.9	8.6	8.4	8.2	8.0
Direct investment, net	4.7	-0.2	1.0	0.7	0.9	0.6	0.3	-0.5	-0.5
Abroad	8.9	8.3	2.7	3.4	3.6	3.9	4.1	3.3	2.5
In Denmark	4.2	8.5	1.7	2.7	2.7	3.3	3.9	3.8	3.0
Portfolio investment, net	2.9	1.1	5.4	1.3	-0.8	-0.3	-1.0	-1.0	-0.8
Assets	3.9	-3.1	4.5	3.3	3.0	3.3	2.5	2.3	2.4
Liabilities	0.9	-4.2	-0.9	2.0	3.8	3.6	3.5	3.3	3.2
Financial derivatives, net	-1.2	4.6	-1.8	11.0	11.0	11.0	11.0	11.0	11.0
Other investment, net	0.8	4.4	1.5	-4.3	-2.1	-2.6	-1.9	-1.3	-1.6
Reserve assets	3.6	1.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Net Errors and Omissions	-2.2	-0.1	2.9	0.7	0.7	0.7	0.7	0.7	0.7
Memorandum Items:									
Net oil and oil-related exports	-0.5	-1.0	-0.9	...	...	...	...	...	...
Net sea transportation receipts	5.6	9.7	3.5	...	...	...	...	...	...
Current account net of items above	3.6	3.0	7.2	...	...	...	...	...	...
Reserves coverage (months of imports)	4.6	4.1	...	...	...	...	...	...	...
Gross external debt	145.0	...	...	...	...	...	...	...	...
Gross domestic product	2,568	2,844	2,805	2,842	2,964	3,067	3,171	3,281	3,395

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

Table 7. Denmark: International Investment Position, 2015–23

	2015	2016	2017	2018	2019	2020	2021	2022	2023
				Billions of DKK					
Assets	6,384	6,979	7,246	7,172	8,342	9,230	10,049	10,214	10,380
Direct investment	1,669	1,829	1,875	2,035	2,068	2,159	2,442	2,563	2,577
Equity	1,184	1,321	1,367	1,491	1,444	1,505	1,766	1,893	...
Debt instruments	443	464	466	507	599	635	674	724	...
Portfolio investment	2,664	2,889	3,056	3,098	3,705	3,998	4,717	4,049	4,513
Equity	1,181	1,316	1,519	1,527	1,866	2,057	2,727	2,260	2,599
Investment fund shares	263	308	354	356	420	480	506	482	540
Debt securities	1,221	1,266	1,183	1,215	1,419	1,461	1,484	1,307	1,374
Fin. deriv. (other than reserves)	501	523	405	389	841	1,136	804	1,510	1,091
Other investment	1,109	1,290	1,446	1,189	1,282	1,472	1,521	1,478	1,545
Reserve assets	442	449	465	461	446	465	564	614	654
Liabilities	5,817	6,003	6,162	5,860	6,733	7,835	8,362	8,799	8,993
Direct investment	1,059	1,235	1,230	1,355	1,363	1,455	1,576	1,741	1,698
Equity	663	823	830	935	867	896	906	905	...
Debt instruments	352	364	353	368	438	496	603	721	...
Portfolio investment	3,121	3,041	3,304	2,904	3,395	4,094	4,668	4,290	4,946
Equity	1,351	1,176	1,404	1,178	1,537	2,022	2,616	2,559	3,131
Investment fund shares	66	86	109	85	107	118	144	114	122
Debt securities	1,704	1,779	1,791	1,642	1,751	1,955	1,908	1,616	1,693
Financial derivatives	438	490	352	370	781	991	768	1,553	1,094
Other investment	1,200	1,237	1,276	1,232	1,193	1,295	1,351	1,216	1,255
Net Investment Position	567	976	1,084	1,311	1,609	1,395	1,686	1,415	1,387
Direct investment	610	593	645	680	705	704	867	822	878
Portfolio investment	-457	-152	-248	194	310	-97	49	-241	-433
Other investment	-91	53	169	-43	89	177	170	263	290
				Percent of GDP					
Assets	314.5	332.1	330.9	319.7	362.1	396.7	391.4	359.1	370.1
Direct investment	82.2	87.0	85.6	90.7	89.8	92.8	95.1	90.1	91.9
Equity	58.3	62.9	62.4	66.4	62.7	64.7	68.8	66.5	...
Debt instruments	21.8	22.1	21.3	22.6	26.0	27.3	26.3	25.4	...
Portfolio investment	131.2	137.5	139.6	138.1	160.8	171.8	183.7	142.3	160.9
Equity	58.2	62.6	69.4	68.1	81.0	88.4	106.2	79.5	92.7
Investment fund shares	13.0	14.6	16.2	15.9	18.2	20.6	19.7	16.9	19.3
Debt securities	60.1	60.2	54.0	54.1	61.6	62.8	57.8	46.0	49.0
Fin. deriv. (other than reserves)	24.7	24.9	18.5	17.3	36.5	48.8	31.3	53.1	38.9
Other investment	54.6	61.4	66.0	53.0	55.7	63.3	59.3	52.0	55.1
Reserve assets	21.8	21.3	21.2	20.5	19.4	20.0	22.0	21.6	23.3
Liabilities	286.5	285.6	281.4	261.2	292.3	336.8	325.7	309.4	320.6
Direct investment	52.1	58.8	56.2	60.4	59.2	62.5	61.4	61.2	60.6
Equity	32.7	39.2	37.9	41.7	37.6	38.5	35.3	31.8	...
Debt instruments	17.3	17.3	16.1	16.4	19.0	21.3	23.5	25.4	...
Portfolio investment	153.7	144.7	150.9	129.5	147.4	176.0	181.8	150.8	176.3
Equity	66.6	56.0	64.1	52.5	66.7	86.9	101.9	90.0	111.6
Investment fund shares	3.2	4.1	5.0	3.8	4.6	5.1	5.6	4.0	4.4
Debt securities	83.9	84.7	81.8	73.2	76.0	84.0	74.3	56.8	60.4
Financial derivatives	21.6	23.3	16.1	16.5	33.9	42.6	29.9	54.6	39.0
Other investment	59.1	58.8	58.3	54.9	51.8	55.7	52.6	42.7	44.7
Net Investment Position	27.9	46.4	49.5	58.4	69.9	60.0	65.7	49.7	49.5
Direct investment	30.0	28.2	29.5	30.3	30.6	30.3	33.8	28.9	31.3
Portfolio investment	-22.5	-7.2	-11.3	8.6	13.4	-4.1	1.9	-8.5	-15.4
Other investment	-4.5	2.5	7.7	-1.9	3.9	7.6	6.6	9.2	10.3

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

Annex I. The Danish Pharmaceutical Sector and Its Macroeconomic Implications

1. **Pharmaceutical production has more than doubled over the past two years**. This reflects the success of a leading company, Novo Nordisk, in developing new diabetes and obesity drugs. The bulk of the pharmaceutical production, however, takes place abroad under Danish ownership in the form of "merchanting and processing." Accordingly, the pharmaceutical industry's impact on the domestic economy is relatively limited.

- **Trade**. Pharmaceutical exports accounted for 24 percent of total goods export in 2023, up from 18 percent a decade ago. However, most of the exports don't cross the border as these are produced abroad under merchanting and processing.

- **Employment**. As the bulk of the production takes place abroad, the pharmaceutical sector's direct contribution to employment remains small at less than one percent of total employment.

- **Investment**. The pharmaceutical sector invests globally, while some investments take place in Denmark. Novo Nordisk plans to invest DKr 42 billion (1.7 percent of GDP) over the next five years.

Pharmaceutical Sector's Economic Contributions

	2013	2023
Gross value added (% of total)	2.9	6.7
Exports		
% of total exports	10.4	11.9
% of GDP	5.7	8.2
Employment		
Thousand persons	19.0	29.0 1/
% of total	0.7	0.9 1/
Investment in Denmark 2/	…	(2023-28)
% of GDP	…	1.7
Tax payment 2/		
% of GDP	…	0.7
% of total income tax	…	2.0
% of total corp. income tax	…	15.3

Sources: Danmarks Statistik, Haver Analytics, and Novo Nordisk
1/ Data for 2022.
2/ Refers to Novo Nordisk.

- **Fiscal**. Although the pharmaceutical industry's impact on the domestic economy is relatively limited, it has become an important taxpayer. For example, Novo Nordisk paid DKr 16 billion in corporate tax in 2023, which is equivalent to 0.7 percent of GDP and represents 15 percent of the total corporate tax revenue.

Implications for Measuring Capacity Pressures

2. **The increase in merchanting and processing (M&P) activities (e.g., in pharmaceuticals) with limited domestic resource use, poses questions about the usefulness of GDP-based output gap measures for assessing capacity pressures**. This is because M&P-driven changes in the output gap may not accurately indicate changes in capacity pressures in Denmark.

3. **Alternatively, the output gap could be calculated by excluding industries heavily reliant on M&P activities, like pharmaceuticals**. However, this approach may not be suitable because production factors are mobile across sectors and these industries still have some footprint (e.g., headquarters functions and R&D activities) in Denmark.

4. The employment gap, the difference between the actual employment and the structural employment (consistent with zero capacity pressure), may offer a complementary measure of capacity pressures.[1] Yet, structural employment is not directly observable, subjecting estimates of the employment gap to considerable uncertainty. For example, the increase in immigration in Denmark adds to the estimation challenge, as it is highly uncertain how much of the increase in labor supply from the immigrants is permanent.

5. Taking all these into consideration, to obtain an accurate reading of capacity pressures, it is important to consider a broader set of indicators. These include the output and employment gaps, along with labor market, wage, and price indicators.

[1] See Danish Economic Councils, Productivity Report 2024.

Annex II. Implementation of Past IMF Policy Recommendations

2023 Article IV Advice	Actions Since 2023 Article IV
Fiscal Policy	
Near-term fiscal policy should support disinflation. Consider keeping tight spending control and saving any revenue above budget forecasts, aiming to improve the structural balance by ½ percentage points of GDP.	The fiscal stance was tighter in 2023, with the structural balance improved (excluding the military aid to Ukraine) by ½ percentage points of GDP.
Recalibrate medium-term fiscal policy as needed to adhere to fiscal rules.	The structural balance is expected to deteriorate from a surplus to a deceit of 0.5 percent of GDP by 2030, consistent with the medium-term objective. The expected increase in spending for the elderly and defense spending will be in part funded by fiscal savings from supply-side measures.
Complement the proposed strengthening of carbon prices by fiscal incentives at the sectoral level, including feebates in agriculture.	On June 24, 2024, the government announced the world's first carbon tax on agriculture, complemented by efforts for afforestation, removal of carbon-rich lowlands, farmland purchase, and reduction of nitrogen emissions from fertilizers.
Financial Sector	
Consider an increase in risk weights on CRE exposures or the introduction of a sectoral systemic risk buffer.	The authorities implemented a 7 percent sector-specific systemic risk buffer at the end of June 2024.
Consider tightening borrower-based macroprudential measures to contain riskier mortgages, especially variable-rate mortgages with deferred amortization.	There are no plans to implement these measures.
Continue efforts to increase the use of cross-border data and technological solutions in the assessment of money laundering and terrorist financing (MF/TF) risks.	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.	Ongoing. The authorities are planning to increase the earned income credit and reduce the marginal tax rate for the upper-middle income segment.
Tighten early retirement conditions.	Ongoing. The government is reviewing the early retirement scheme.
Utilize immigrant labor more effectively. Support for on-the-job training programs and further efforts to enhance Danish language training should help.	Ongoing.
Enhancing education outcomes for students with immigrant backgrounds. Closely monitor the educational outcomes and consider policy measures to address issues that may be contributing to gaps in school performance, including school segregation.	Ongoing.
Make more efforts to save energy and update the Danish Strategy for Adaptation to Climate Change.	The government presented National Climate Adaptation Strategy I in November 2023.
Increase the resilience of the housing sector by i) lowering mortgage interest deductibility, ii) linking property taxes to market valuations, and iii) reducing rental controls.	The housing taxation agreement was enacted in January 2024, linking property taxes to market valuations.

Annex III. External Sector Assessment

<table>
<tr><td colspan="7">Overall assessment: The external position in 2023 is assessed as stronger than the level implied by medium-term fundamentals and desirable policies. The current account (CA) surplus was 9.8 percent of GDP in 2023, down from 11.7percent of GDP in 2022. The goods surplus expanded from 2.8 percent of GDP in 2022 to 7.4 percent of GDP in 2023, with the increased demand for Danish pharmaceutical products more than offsetting the slowdown in demand for other export products. This improvement was however outweighed by a worsening in the services surplus, which fell from 6.8 percent of GDP in 2022 to 0.7 percent of GDP in 2023, driven primarily by a decline in sea transport exports originating from significant drops in freight and shipping rates.

Potential policy responses: Structural policies aimed at raising investment, including in climate, would help reduce the surplus.</td></tr>
<tr><td>Foreign Asset and Liability Position and Trajectory</td><td colspan="6">Background. The net international investment position (NIIP) did not change compared to the previous year, stabilizing at 50 percent of GDP in 2023. Gross liabilities increased by 11 percentage points of GDP to 321 percent of GDP in 2023, with less than half accounting for gross external debt (132 percent of GDP). Financial institutions hold the bulk of net foreign assets (131 percent of GDP): insurance/pension funds (64 percent of GDP) and investment funds (50 percent of GDP) are net external lenders, while mortgage institutions are net external debtors (22 percent of GDP). Households are also external lenders in net assets (9 percent of GDP), while nonfinancial corporations (-85 percent of GDP) and the government (-6 percent of GDP) are net external debtors.

Assessment. The NIIP is expected to improve further in the medium term, reflecting the outlook for continued CA surpluses. Although rollovers of external debt may present some vulnerability, risks are moderated by banks' ample liquidity and large capital buffers. The NIIP level and trajectory do not raise sustainability concerns.</td></tr>
<tr><td>2023 (% GDP)</td><td>NIIP: 49.5</td><td>Gross Assets: 370.1</td><td>Debt Assets: 104.1</td><td>Gross Liab.: 320.6</td><td colspan="2">Debt Liab.: 131.7</td></tr>
<tr><td>Current Account</td><td colspan="6">Background. The CA surplus declined by 1.9 percentage points to 9.8 percent of GDP in 2023. This decline was driven primarily by a drop in international freight and shipping rates, which more than offset a surge in exports of pharmaceutical products. With sea transport services accounting for a substantial part of Denmark's service exports and imports, the decline in international freight and shipping rates to pre-pandemic levels resulted in a marked shrinkage of the services balance. Reflecting the acceleration of Denmark's pharmaceutical industry expansion, which has largely taken place abroad under Danish ownership in the form of "merchanting and processing", exports of goods not crossing Danish borders soared in 2023. Meanwhile primary income surpluses continued to be strong. The CA surplus reflected positive saving-investment (S-I) balances for corporates, households, and the public sector. The private and public S-I balances in 2023 were about 7 and 4 percent of GDP, respectively. Over the medium term, the CA is projected to stabilize at around 8 percent of GDP, close to its long-term average.

Assessment. The EBA CA norm is estimated at 6.3 percent of GDP with the estimation range between 5.7 percent of GDP and 6.9 percent of GDP. The cyclically-adjusted CA surplus is estimated at 10.2 percent of GDP. This implies the EBA CA gap of 3.9 percent of GDP in 2023, of which 3.6 percent of GDP was attributed to policy gaps (largely reflecting a relatively tighter fiscal stance and a negative credit gap). Adjustments can be made for Denmark's specific factors not accounted for appropriately in the model such as valuation losses on fixed-income securities due to inflation (0.4 percent of GDP) and those for retained earnings on portfolio equity investment (0.5 percent of GDP). After taking account of these adjustments, the EBA CA gap is estimated at 3 percent of GDP. Note that the estimated EBA norm for Denmark is low, for example, when compared to the average surplus of 8 percent of GDP over the past 10 years. This suggests that the EBA model does not fully capture other factors relevant for Denmark, such as a significant increase in Denmark's merchanting and offshore processing activities associated with the rapidly expanding pharmaceutical industry, as well as Denmark's large pension contributions arising from the ongoing transition to the fully-funded retirement system. Complementary EBA tools suggest that Denmark's pension system could explain potentially about 2.5 percentage point of the gap.</td></tr>
<tr><td>2023 (% GDP)</td><td>CA: 9.8</td><td>Cycl. Adj. CA: 10.2</td><td>EBA Norm: 6.3</td><td>EBA Gap: 3.9</td><td>Staff Adj.: 0.9</td><td>Staff Gap: 3.0</td></tr>
<tr><td>Real Exchange Rate</td><td colspan="6">Background. The exchange rate arrangement is a conventional peg regime, with Denmark's currency pegged to the euro. The real effective exchange rate (REER) based on relative unit labor costs (ULCs) appreciated by 0.6 percent, and the REER based on CPI by 1.5 percent in 2023 compared to the previous year.

Assessment. Based on the CA gap model applying an estimated elasticity of -0.5, staff estimate a REER undervaluation of -11 percent in 2023. The REER level and index models for 2023 suggest an overvaluation of 2.4 percent and 10.3 percent, respectively. Taking a longer-term perspective and comparing two different measures of REER to their 28-year averages in 2023, the REER ULC-based index indicated an overvaluation of 2.9 percent, whereas the REER CPI-based index pointed to an undervaluation of 2.7 percent.</td></tr>
<tr><td>Capital and Financial Accounts: Flows and Policy Measures</td><td colspan="6">Background. The capital and financial account balance in 2023 was 7.0 percent of GDP compared to 11.8 percent in 2022, with capital transfer (-0.4 percent of GDP), financial derivatives (-1.8 percent of GDP), portfolio investment (5.4 percent of GDP), other investments (1.5 percent of GDP), and reserve assets (1.3 percent of GDP), while FDI flows turned positive (1.0 percent of GDP) after an immaterial outflow in 2022.

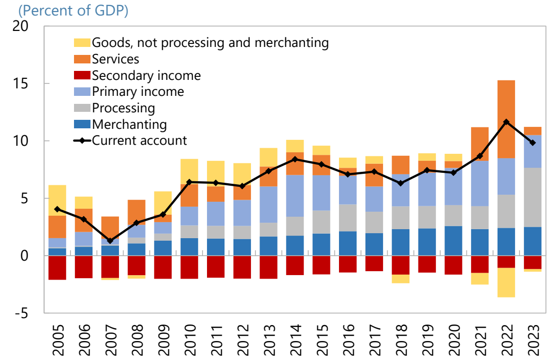
Assessment. The strong external position limits vulnerabilities to capital outflows, which are inherent in countries with a large financial sector. While this volatility is a potential source of vulnerability, it is mitigated by sound financial regulation and supervision, as well as ensuing high capitalization and ample liquidity buffers of Danish banks.</td></tr>
<tr><td>FX Intervention and Reserves Level</td><td colspan="6">Background. Given the Danish krone is pegged to the euro, Danmarks Nationalbank (DN) adjusts the interest rate spread relative to the ECB's monetary policy rate in response to krone pressures, but also occasionally shapes the exchange rate using interventions financed via its FX reserves. While raising its policy rate six times in 2023, DN has been maintaining it below the ECB rate amid appreciation pressures, with no FX intervention since February 2023.

Assessment. International reserves increased by DKr66 billion in 2023, reaching DKr655 billion in December 2023. Reserves were equivalent to about 23 percent of GDP and 4.7 months of imports.</td></tr>
</table>

Annex III. Figure 1. Denmark: External Sector Assessment

The CA surplus declined to 10 percent of GDP due to a decline in the services surplus.

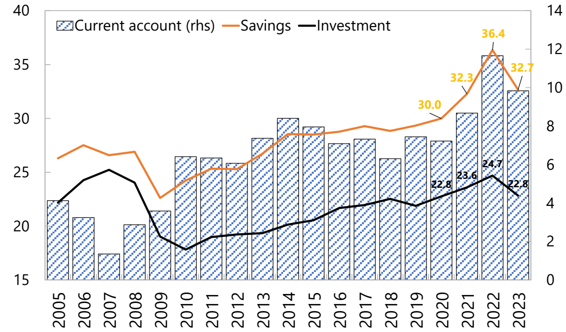
Current Account
(Percent of GDP)



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

Savings fell more than investment…

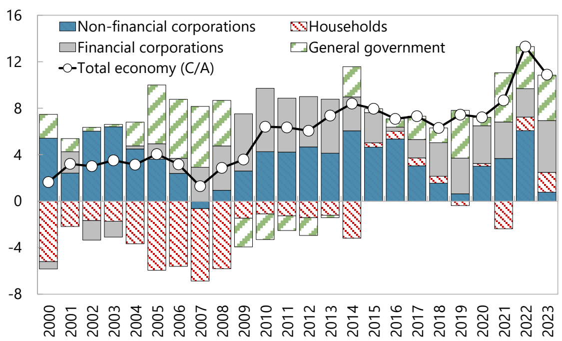
External Balance, Savings and Investment
(Percent of GDP)



Sources: Statistics Denmark; and IMF staff calculations.

…with a deterioration in non-financial corporates' saving-investment balances.

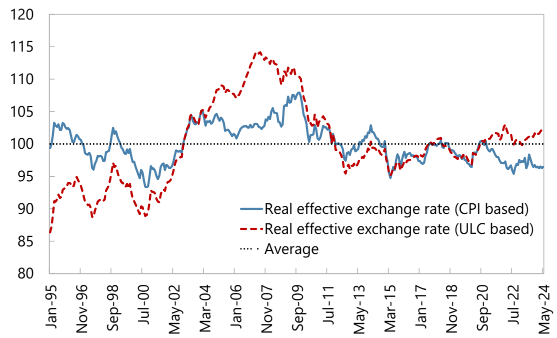
Saving - Investment Balances by Sector
(Percent of GDP)



Sources: Statistics Denmark; and IMF staff calculations.

The REER (CPI-based) has appreciated, while the REER (unit labor cost- based) slightly weakened recently.

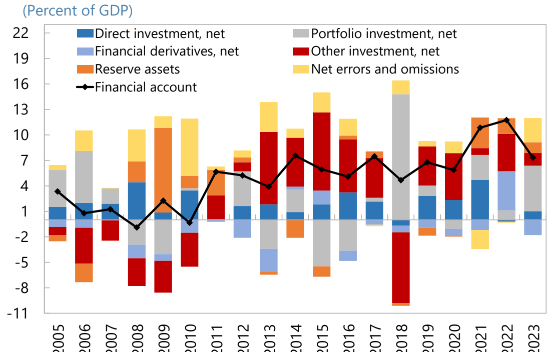
Real Effective Exchange Rate
(Index average; 1995 January-2024 May =100)



Source: IMF staff calculations.

The financial account decreased due to lower other investment and financial derivatives.

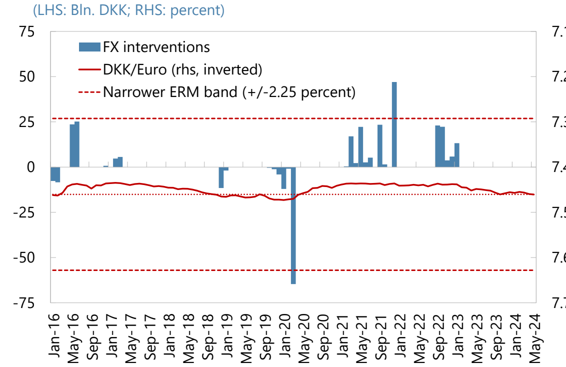
Financial Account
(Percent of GDP)



Sources: Statistics Denmark; and IMF staff calculations.

DN has not intervened in the FX market since February 2023.

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



Sources: Danmarks Nationalbank;Haver Analytics; and IMF staff calculations.

Annex IV. 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 or spread of the conflict in Gaza and Israel, Russia's war in Ukraine, and/or other regional conflicts or terrorism disrupt trade, remittances, FDI and financial flows, payment systems, and increase refugee flows.	Medium Denmark's direct exposure to the countries in conflict is limited. Nevertheless, intensification of the conflicts would weigh on activity in trading partners reducing external demand.	Step up structural reforms and let flexicurity operate to facilitate reallocation from sectors exposed to shocks and regional labor mobility. Allow automatic stabilizers to operate. Fiscal policy space should be used to provide targeted support to vulnerable households and businesses.
Medium **Abrupt global slowdown**. Global and idiosyncratic risk factors cause a synchronized sharp growth downturn, with recessions in some countries and adverse spillovers through trade and financial channels. In **Europe**, intensifying fallout from Russia's war in Ukraine, supply disruptions, tight financial conditions, and real estate market corrections exacerbate economic downturn.	Medium The shocks would lead to slowdown in trading partners' growth, weakening external demand. An increase in corporate bankruptcies and a weakening of confidence will reduce consumption and investment, with higher unemployment. Pressure on bank capital adequacy would trigger credit tightening.	
Medium **Monetary policy miscalibration**. Amid high economic uncertainty, major central banks loosen policy stance prematurely, hindering disinflation, or keep it tight for longer than warranted, causing abrupt adjustments in financial markets.	Medium A vicious wage-price spiral could result from higher and persistent inflation. A tight-for-too long monetary policy would deter a recovery in the non-pharmaceutical sector.	Fiscal policy should be calibrated consistent with cyclical conditions. Deploy macroprudential prudential tools to mitigate financial stability risks.
High **Deepening geoeconomic fragmentation**. Broader conflicts, inward-oriented policies, and weakened international cooperation result in a less efficient configuration of trade and FDI, supply disruptions, protectionism, technological fragmentation, rising shipping and input costs, financial instability, and lower growth.	High Although its trade is well diversified in terms of products and partners, Denmark's deep integration into global value chains and reliance on specialized products make it vulnerable to geopolitical fragmentation risks.	In collaboration with partners, continue to support global cooperation and multilateralism. Develop risk mitigation strategies, with close coordination at the EU level.
Medium **Cyberthreats**. Cyberattacks on physical or digital infrastructure and service providers or misuse of AI technologies trigger financial and economic instability.	Medium Economic activity is disrupted, leading to weaker confidence.	Continue to promote public awareness and preparedness campaigns and to invest in cyber defense. For the financial sector, utilize the recently developed cyber stress testing framework.
Regional and Domestic		
Medium **Adverse shock in a neighboring Nordic country**, leading to a correction in the housing market and/or CRE markets, and distress in the financial sector. Systemic financial sector risks rises given close interlinkages across the Nordic financial system.	High Financial sector sees declining asset quality and funding difficulties. A marked reversal of real estate prices in Denmark or the Nordics would adversely affect financial conditions, given high household debt, high share of risky mortgages, and close linkages of the banking system.	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. Conduct regular Nordic-wide stress tests, encompassing banks and non-bank financial institutions.

[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 V. Debt Sustainability Analysis

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

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.
Fanchart	**Low**	...	
GFN	**Low**	...	
Stress test		...	
Long term	...	**Low**	Long-term risks are assessed as low. Demographic-related expenditures are projected to increase by 1 percent of GDP by 2040. Health-care and long-term care expenditure is the main driver, while pension expenditures will be contained by the indexation of statutory retirement age to life expectancy.
Sustainability assessment 2/	Not required for surveillance countries	Not required for surveillance countries	
Debt stabilization in the baseline			No

DSA Summary Assessment

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 debt-to-GDP ratio is projected to remain around 30 percent in the medium term. 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, the government should continue to closely monitor long-term fiscal pressures and identify additional fiscal adjustment measures as necessary.

Source: Fund staff.
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.

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

1. Debt coverage in the DSA: 1/

CG	GG	NFPS	CPS	Other
	✓ (GG)			

1a. If central government, are non-central government entities insignificant? n.a.

2. Subsectors included in the chosen coverage in (1) above:

	Subsectors captured in the baseline	Inclusion
1	Budgetary central government	Yes
2	Extra budgetary funds (EBFs)	Yes
3	Social security funds (SSFs)	Yes
4	State governments	No
5	Local governments	Yes
6	Public nonfinancial corporations	No
7	Central bank	Yes
8	Other public financial corporations	No

(CPS: rows 1–8; NFPS: rows 1–6; GG: expected: rows 1–5; CG: rows 1–3)

Comments: Not applicable

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

	Issuer \ Holder	Budget. central govt	Extra-budget. funds (EBFs)	Social security funds (SSFs)	State govt.	Local govt.	Nonfin. pub. corp.	Central bank	Oth. pub. fin corp	Total
1	Budget. central govt		0.440753	3.57E-05		-0.013548			0.163758	0.590999
2	Extra-budget. funds									0
3	Social security funds									0
4	State govt.									0
5	Local govt.									0
6	Nonfin pub. corp.									0
7	Central bank	5.721059	0.026027							5.747086
8	Oth. pub. fin. corp									0
	Total	5.721059	0.466781	3.57E-05	0	-0.013548	0	0	0.163758	6.338085

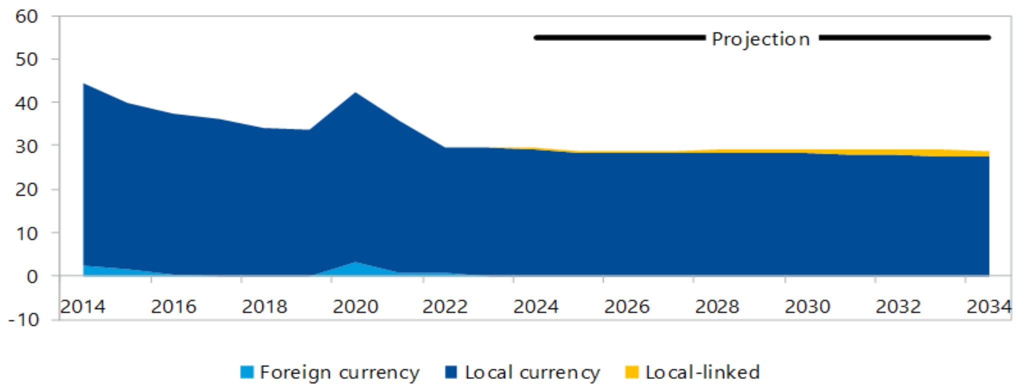
1/ CG=Central government; GG=General government; NFPS=Nonfinancial public sector; PS=Public sector.
2/ Stock of arrears could be used as a proxy in the absence of accrual data on other accounts payable.
3/ Insurance, Pension, and Standardized Guarantee Schemes, typically including government employee 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 V. Figure 3. Denmark: Public Debt Structure Indicators

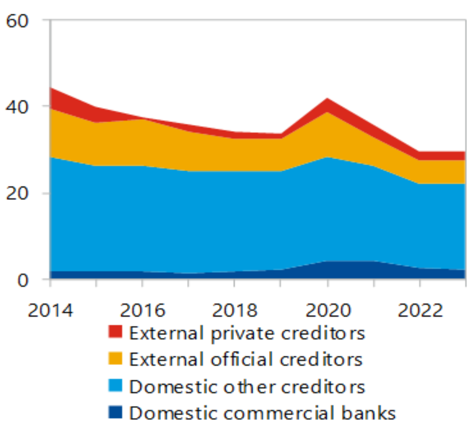
(Percent of GDP)

Debt by Currency (Percent of GDP)



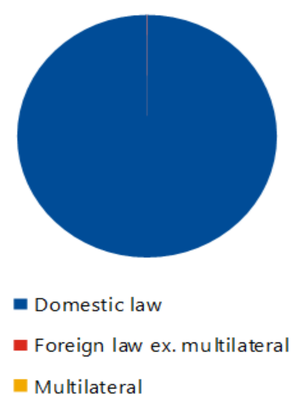
Note: The perimeter shown is general government.

Public Debt by Holder (Percent of GDP)



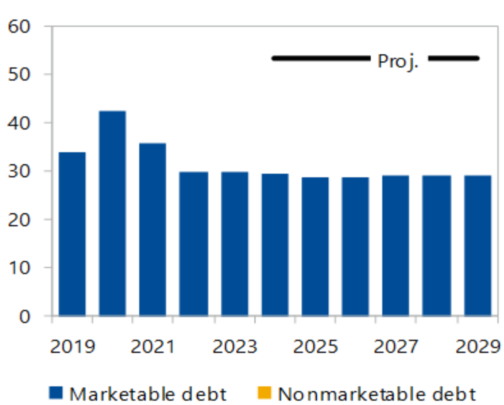
Note: The perimeter shown is general government.

Public Debt by Governing Law, 2023 (percent)



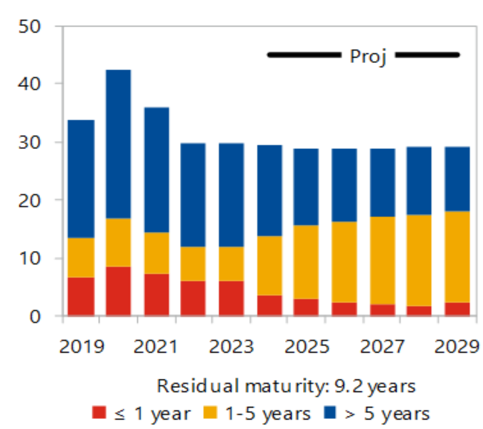
Note: The perimeter shown is general government.

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.

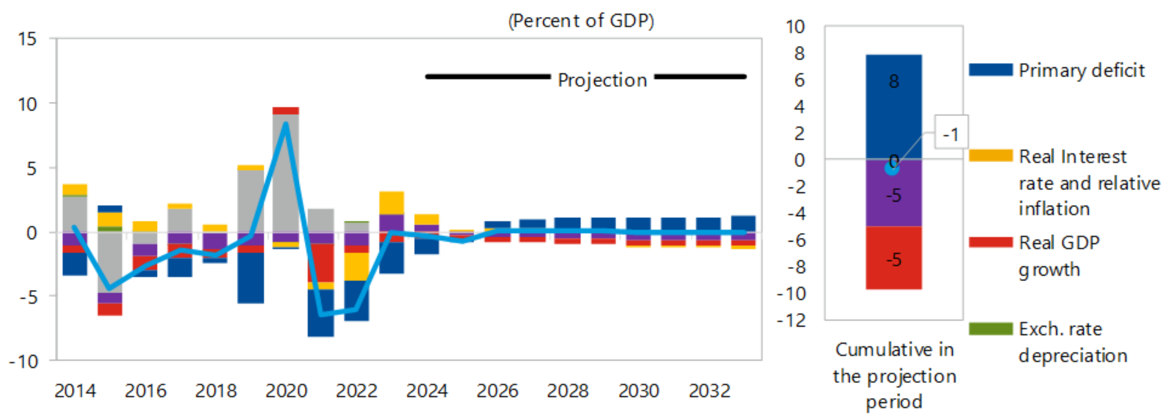
Commentary: Public debt mainly comprises of longer-maturity bonds. Debt is mostly in local currency.

Annex V. Figure 4. Denmark: Baseline Scenario

(Percent of GDP unless indicated otherwise)

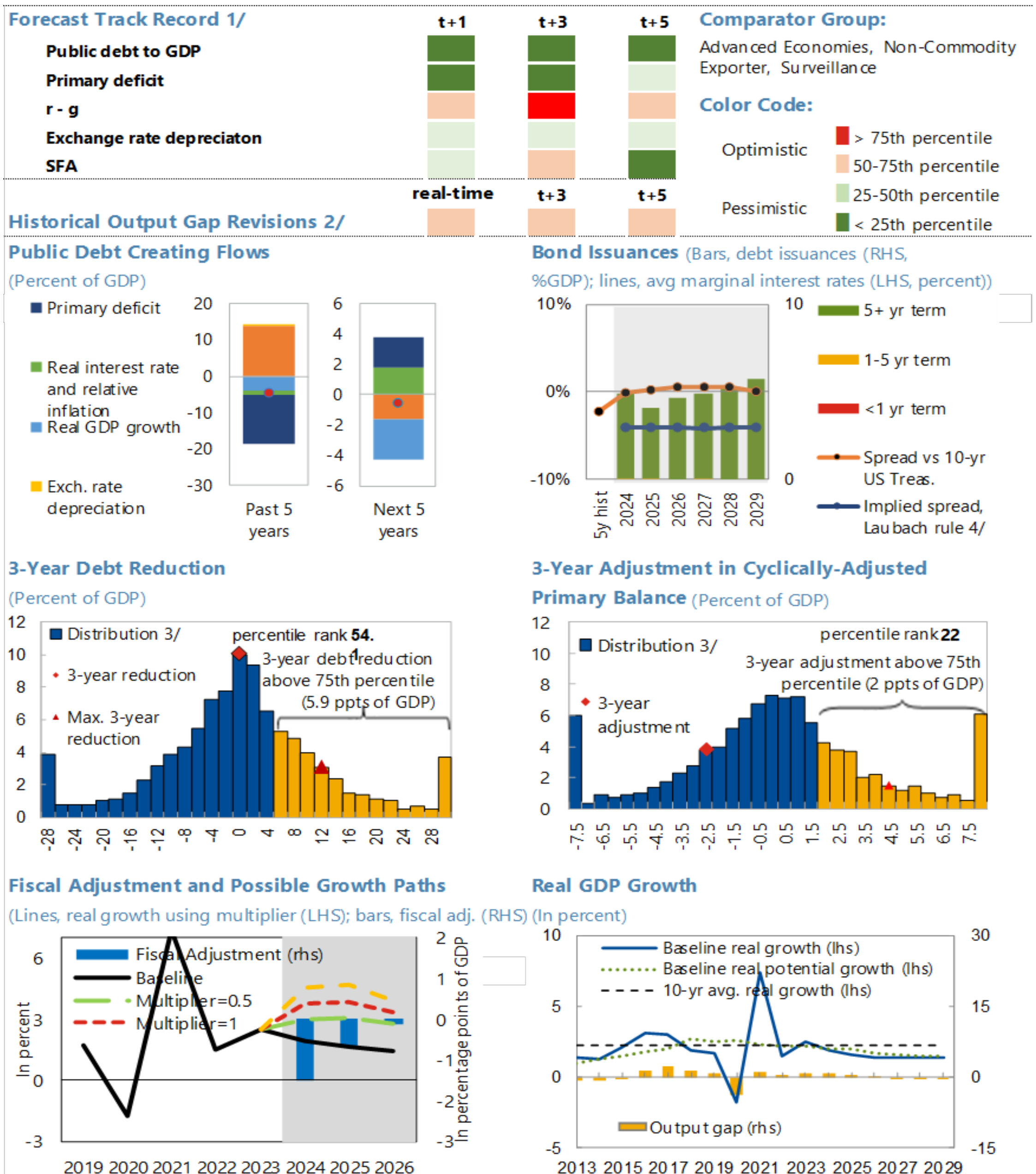
	Actual	Medium-term projection						Extended projection			
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Public debt	29.7	29.4	28.7	28.8	28.9	29.0	29.1	29.1	29.1	29.0	28.9
Change in public debt	0.0	-0.3	-0.7	0.0	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.1
Contribution of identified flows	-0.1	-0.3	-0.7	0.0	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.1
Primary deficit	-2.5	-1.1	-0.1	0.5	0.7	0.9	1.1	1.1	1.1	1.2	1.2
Noninterest revenues	48.6	48.3	47.4	47.2	47.3	47.3	47.3	47.3	47.3	47.3	47.3
Noninterest expenditures	46.2	47.2	47.4	47.7	48.0	48.2	48.4	48.4	48.4	48.5	48.6
Automatic debt dynamics	1.1	0.4	-0.4	-0.1	-0.1	-0.2	-0.4	-0.5	-0.5	-0.6	-0.6
Real interest rate and relative inflat	1.8	0.9	0.1	0.3	0.3	0.2	0.0	-0.1	-0.1	-0.2	-0.2
Real interest rate	1.8	0.9	0.1	0.3	0.3	0.2	0.0	-0.1	-0.1	-0.2	-0.2
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	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.4 .	-0.4	-0.4	-0.4	-0.4
Real exchange rate	0.0	...	...	...	...	...	... .	...	...	...	...
Other identified flows	1.3	0.5	-0.2	-0.4	-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
(minus) Interest Revenues	-1.5	-1.3	-1.4	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6
Other transactions	2.9	1.8	1.2	1.1	1.1	1.1	1.0	1.0	1.0	0.9	0.9
Contribution of residual	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs	4.4	3.2	2.9	3.6	3.8	4.2	4.7	5.2	5.1	5.4	5.5
of which: debt service	8.4	5.5	4.3	4.6	4.7	4.9	5.2	5.7	5.6	5.8	5.9
Local currency	8.4	5.5	4.3	4.6	4.7	4.9	5.2	5.7	5.6	5.8	5.8
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)	2.5	1.9	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Inflation (GDP deflator; percent)	-3.8	-0.7	2.6	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Nominal GDP growth (percent)	-1.4	1.3	4.3	3.4	3.4	3.5	3.5	3.5	3.5	3.5	3.5
Effective interest rate (percent)	2.2	2.5	2.9	3.1	2.9	2.7	2.0	1.8	1.6	1.5	1.3

Contribution to Change in Public Debt



Commentary: Public debt will decrease slightly over the projection horizon. The fiscal balace path will 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 V. Figure 5. Denmark: Realism of Baseline Assumptions



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.

Source: IMF Staff.

1/ Projections made in the October and April WEO vintage.

2/ Calculated as the percentile rank of the country's output gap revisions (defined as the difference between real time/period ahead estimates

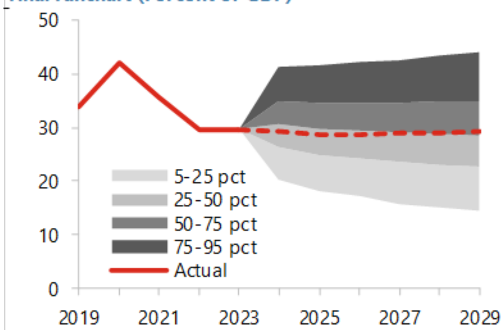
3/ Data cover annual obervations from 1990 to 2019 for MAC advanced and emerging economies. Percent of sample on vertical

4/ The Laubach (2009) rule is a linear rule assuming bond spreads increase by about 4 bps in response to a 1 ppt increase in the projected debt-to-GDP ratio.

Annex V. Figure 6. Denmark: Medium-Term Risk Analysis

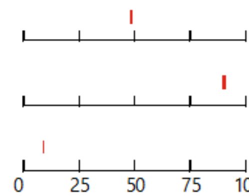
	Value	Contrib 1/	Percentile in peer group 2/

Final Fanchart (Percent of GDP)

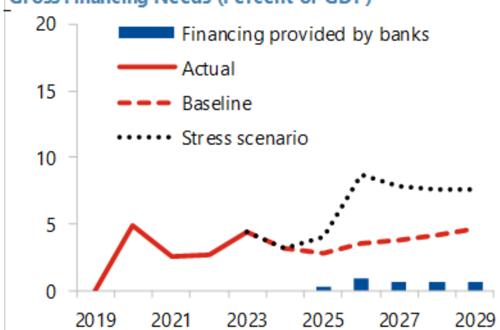


Debt fanchart module

	Value	Contrib 1/
Fanchart width *(percent of GDP)*	29.4	0.4
Probability of debt non-stabilizaiton *(percent)*	74.6	0.6
Terminal debt-to-GDP x institutions index	2.5	0.1
Debt fanchart index (DFI)		1.1
Risk signal: 3/		Low

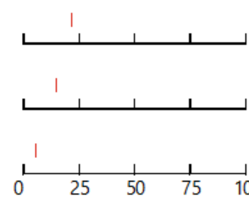


Gross Financing Needs (Percent of GDP)



Gross financing needs (GFN) module

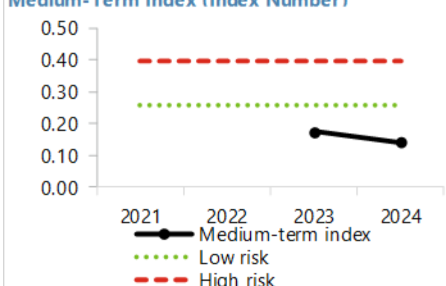
	Value	Contrib 1/
Average baseline GFN *(percent of GDP)*	3.7	1.3
Initial Banks' claims on the gen. govt *(pct bank assets)*	2.2	0.7
Chg. In banks' claims in stress *(pct banks' assets)*	0.1	0.0
GFN financeability index (GFI)		2.0
Risk signal: 4/		Low



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

	Value	Value (normalized)	Weight	Contribution
Debt fanchart index	1.1	0.2	0.5	0.1
GFN finaceability index	2.0	0.0	0.5	0.0
Medium-term index		0.1		
Risk signal: 5/		Low		
Final assessment:		Low		

Prob. of missed crisis, 2024-2029, if stress not predicted: 0.0 pct.

Prob. of false alarms, 2024-2029, if stress predicted: 73.9 pct.

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.

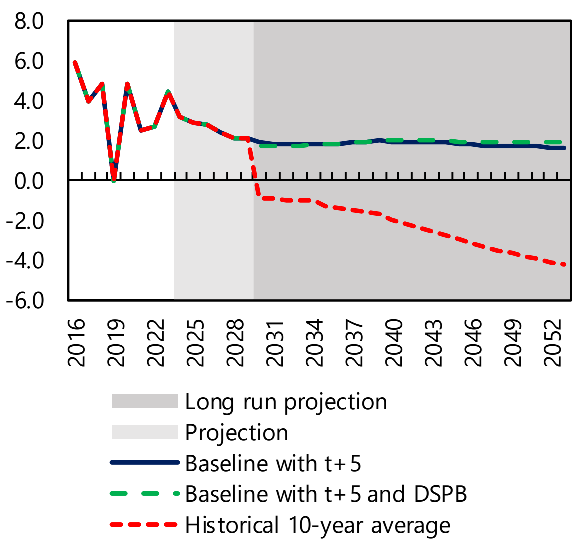
Source: IMF staff estimates and projections.

1/ See Annex IV of IMF, 2022, Staff Guidance Note on the Sovereign Risk and Debt Sustainability Framework for details on index calculation.
2/ The comparison group is advanced economies, non-commodity exporter, surveillance.
3/ The signal is low risk if the DFI is below 1.13; high risk if the DFI is above 2.08; and otherwise, it is moderate risk.
4/ The signal is low risk if the GFI is below 7.6; high risk if the DFI is above 17.9; and otherwise, it is moderate risk.
5/ The signal is low risk if the GFI is below 0.26; high risk if the DFI is above 0.40; and otherwise, it is moderate risk.

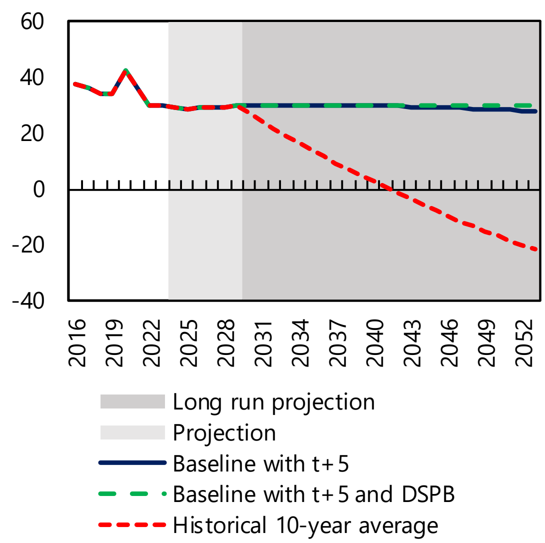
Annex V. Figure 7. Denmark: Long-Term Risk Analysis

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



Commentary: Long-term risks from large amortizations are not observed.

Annex VI. Authorities' Response to Past FSAP Recommendations[1]

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 There are no plans to introduce such legislation.
Introduce national legislation to include borrower-based tools (limits on LTVs, DTIs, and DSTIs) in the policytoolkit (MIBFA).	MT	Not Implemented There are no plans to introduce such legislation.
Introduce a stricter LTV limit to safeguard against large house price shocks (MIBFA).	MT	Not Implemented There are no plans to introduce such legislation.
Introduce a binding income-based macroprudential measure that limits lending to households above a certain DTI (MIBFA).	MT	Not Implemented There are no plans to introduce such legislation.
Issue recommendations to responsible authorities to reduce debt bias, simplify rental regulations, and relax supply constraints on housing (SRC).	MT	Not Implemented There are no plans to introduce such legislation.
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 the authorities have better data on commercial real estate (CRE)-related debt and information on the credit institutions' property valuations. Statistics Denmark is also working on improving their CRE price index. In addition, 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 In 2021, DN started working on developing a macroprudential stress test model. However, due to a prioritization of other stress test related projects, this recommendation has been given a lower priority and paused.
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 reasons for the dismissal of a DFSA Director General (MIBFA).	MT	Not Implemented There are no plans to introduce such legislation.

Recommendations and Authority Responsible for Implementation	Time[1]	Authorities' Actions
Expand the budget envelop for the DFSA to recruit and retain quality staff across a full range of skills and experience 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 consistent outcomes (DFSA).	ST	Implemented Internal guidelines for the Supervisory Review and Evaluation Process have been expanded significantly, providing further guidance for line supervisors.
Enhance approaches to confirm explicitly the veracity of supervisory data and information received (DFSA).	MT	Implemented The DFSA policy for supervisory reactions, as well as the underlying procedures, has been updated to formalize the verification of information received. Validation of supervisory reporting has been improved, to include more automated controls. In addition, regular data-quality reporting has been introduced, to track validation of individual companies.
Increase the number of insurance on-site inspections guided by a finalized risk assessment framework and strengthen 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, internal procedures have been revised to improve supervision of cross-border business.
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 The new manual for AML/CFT risk assessment has been implemented and is in regular use.
Intensify AML/CFT on-site inspections of higher-risk financial institutions (DFSA).	ST	Implemented The strategy for AML/CFT-supervision has been revised to allow for deep-dives into the most important risk areas.
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 DN has successfully implemented the IT-system, BMPANT, in August 2023, which allows banks to pledge non-standardized collateral in the form of credit claims through an automated process.
Seek greater domestic interagency information sharing and collaboration to enhance the operational preparedness for non-standard liquidity support (DN, DFSA).	ST	Implemented Intensified collaboration between liquidity experts at DN and the DFSA has been established, the process was based on lessons learned from the market turmoil during COVID-19. Relevant data are being shared between the institutions and bilateral meetings biannual between liquidity experts is setup.

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 DFSA (in collaboration with the FSC and DN) has finalized and improved resolution plan for all SIFIs. The Danish resolution authority expects to fully develop resolution plans for all systemically important institutions in place by the end of 2024.
Define strategies for liquidity assistance to institutions in resolution (DN,DFSA,FSC,MIBFA,MOF).	ST	Implemented The DFSA, the FSC and DN have formally described existing access to liquidity assistance for SIFIs before and after resolution.
Develop and test a system-wide contingency and crisis communication plan (DFSA,DN,FSC,MIBFA,MOF).	ST	Implemented The Coordination Committee on Financial Stability conducted a crisis simulation exercise in 2021, this formed the basis for ongoing work to develop a contingency plan.

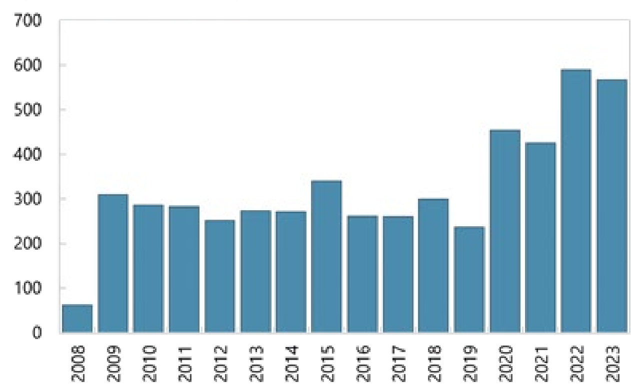
1/ Please refer to Denmark Financial System Stability Assessment 2020 for the full set of FSAP recommendations. The description of authorities' actions in this table was based on inputs from the Danish authorities. I = Immediate (within 1 year); ST = Short Term (within 1–2 years); MT = Medium Term (within 3–5 years). MIBFA stands for Ministry of Industry, Business, and Financial Affairs; SRC, Systemic Risk Council; DN, Danmarks Nationalbank; and DFSA, Danish Financial Supervisory Authority.

Annex VII. Geoeconomic Fragmentation and Trade in Denmark

The global economy is experiencing an intensification of geoeconomic fragmentation (GEF). Within this context, Denmark is particularly exposed to GEF, given its high degree of trade openness. Conventional trade metrics tend to underestimate the size of Denmark's exposure to GEF. An alternative trade metric, the "Total Foreign Production Exposure (FPE)" metric, which captures both direct and indirect inputs[1] through trade, suggests that Denmark faces more pronounced risks of GEF. Denmark should continue preparing for the intensification of GEF risks.

1. GEF, a policy-induced shift towards deglobalization, involves the systematic disconnection of trade and investment between nations. This trend, largely spurred by national security considerations, has accelerated since 2020, leading to increased restrictions in global trade and investment. The economic implications of GEF could be profound, posing substantial welfare costs and adverse effects on international trade. These include labor market inefficiencies, reduced productivity, increased import prices, fragmented markets, and constrained access to technology. The main objective of this annex is to present the estimates of Denmark's exposure to GEF using the "Total Foreign Production Exposure (FPE)" metric (see below). Because China is Denmark's major trading partner among non-aligned countries ("*the other bloc*"),[2] this annex uses its trade exposure to China as an example.

Restrictions on Denmark Imposed by Other Countries
(Number of new restrictions)



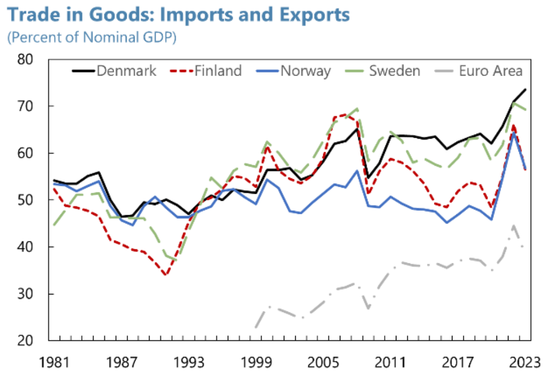
Sources: Global Trade Alert; and IMF staff calculations.

2. Denmark is vulnerable to GEF as a small open economy that is dependent on international trade and large multinational enterprises. Trade in goods (the sum of exports and imports) in Denmark has grown over the past four decades, exceeding 70 percent of GDP by 2023. Denmark is home to a few large multinational enterprises with deep integration into global value chains and reliance on specialized exports, such as pharmaceutical products. Danish multinational enterprises have a dominant share in the domestic economy, with the top ten multinational enterprises (ranked by asset size) accounting for nearly 80 percent of the total assets of all publicly listed Danish firms. An abrupt change in trade and regulatory policies abroad could adversely impact their operations and profitability, which would affect the overall Danish economy. IMF research find

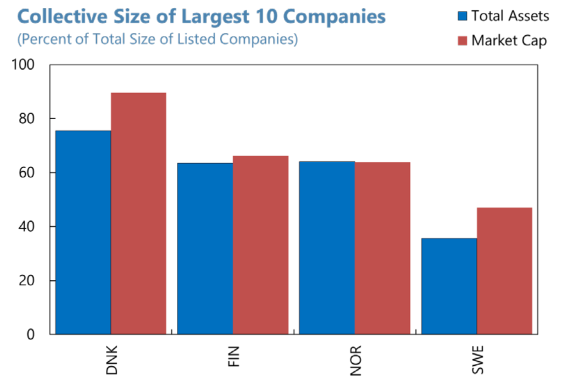
[1] In this annex, the term "Input" is used broadly and may refer to intermediate goods imported not only directly from the source country but also through indirect channels. These indirect channels include imports of goods from a third country that uses intermediate goods from the source country in its production process.

[2] *The other bloc* represents nations that did not align with Denmark in the 2022 United Nations vote concerning Russia's war in Ukraine.

that the GDP impact from a moderate global fragmentation scenario[3] would range between -0.9 and -1.0 percent of GDP on the Danish economy.



Sources: World Economic Outlook; and IMF staff calculations.



Source: Bloomberg, and IMF Staff Calculations.

3. "Conventional trade metrics" suggest that Denmark is less prone to fragmentation risks. One common conventional metrics to gauge the foreign trade dependence is the share of the intermediate imports in total intermediate imports. In the manufacturing sector, the share of intermediate imports from China in the total increased from 0.1 percent in 1995 to 1.9 percent in 2022, while in the high-tech sector, it rose from 0.2 percent to 1.6 percent. The magnitude of the increase, as well as the levels in 2022, were small. This conventional trade metric indicated that Denmark's dependence on Chinese intermediate imports is not significant.

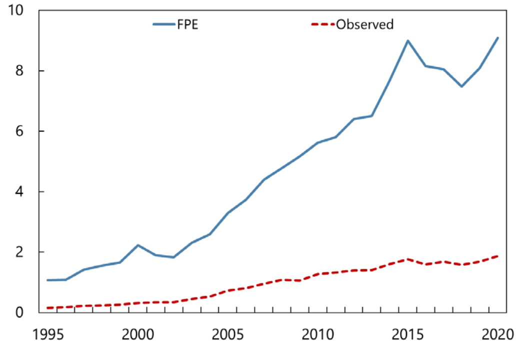
4. However, an alternative metric, "Total Foreign Production Exposure (FPE)," suggests that Denmark faces more pronounced risks of GEF. The FPE traces every sequence of input to input, providing a more accurate perspective on foreign trade dependencies (Box 1).[4] Over the past two decades, Denmark's FPE to Chinese inputs has significantly increased across most industries, underscoring the deep integration of Chinese inputs into the supply chain in Denmark. FPEs have increased by 8 percentage points to 9 percent in the manufacturing sector and by 2.5 percentage points to 4.5 percent in the high-tech sector. The magnitude of the increase, as well as the levels in 2022, are larger than those indicated by the conventional trade metric (i.e., the share of the intermediate imports in total intermediate imports).

[3] The scenario assumes: (i) prohibition of all trade with Russia by the United States and the European Union; and (ii) increased trade barriers between China (or non-aligned countries) and the other countries including Denmark. See World Economic Outlook (April 2023 and October 2023), Bolhuis et al. (2023), and Hakobyan et al. (2023).

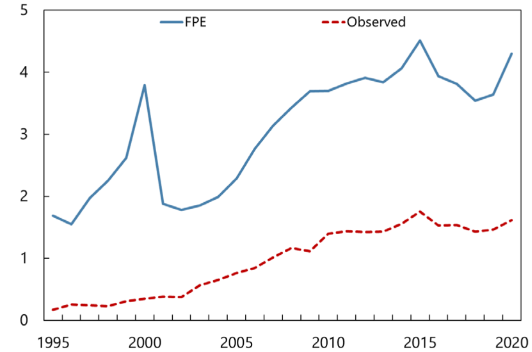
[4] Total foreign production exposure is based on the Leontief gross trade matrix calculated from the OECD country input-output table. The matrix represents the required amount of total gross output from any source country to produce an additional $1 in any sector of the destination-country. The methodology was developed by Baldwin et al. (2022).

Denmark Industries' Reliance on Chinese Inputs

Denmark Foreign Production Exposure to Chinese Inputs: Manufacturing (Percent)



Denmark Foreign Production Exposure to Chinese Inputs: High Tech (Percent)

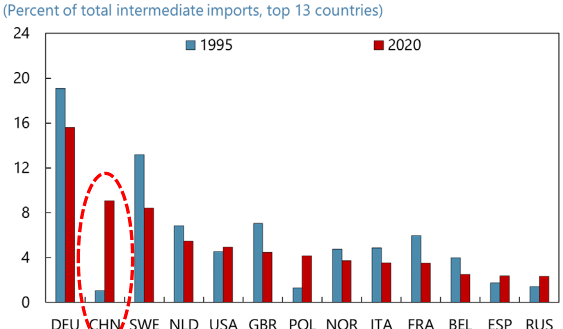


Sources: OECD Inter-Country Input-Output (ICIO) Tables 2020; IMF staff calculations following Baldwin and Freeman (2022).

5. **The increase in Denmark's FPE in the manufacturing and high-tech sectors to China over the past two decades is noteworthy, particularly because its FPE to other major trading partners has declined**. The text charts below plot Denmark's FPE to the top 13 countries in 1995 and 2020. In the manufacturing sector, Denmark's FPE to China was very small in 1995, but by 2020, China's ranking had risen to the second position. While Denmark's FPE to Germany remained the highest in 2020, the size of its FPE had decreased. Similarly, Denmark's FPE to Sweden, the United Kingdom, and France fell notably between 1995 and 2020. In the high-tech sector, Denmark's FPE to China has yet to exceed that of major trading partners like Germany, Sweden, the United Kingdom, and the United States, although as discussed earlier, Denmark's dependence on China has grown significantly.

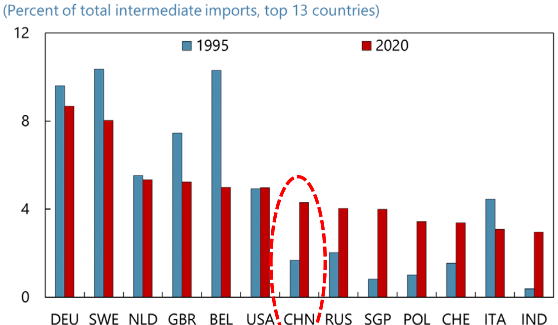
Denmark's FPE to Top 13 Countries

Foreign Production Exposure - Manufacturing
(Percent of total intermediate imports, top 13 countries)



Sources: OECD Inter-Country Input-Output (ICIO) Tables 2020; and author's calculations following Baldwin and Freeman (2022).

Foreign Production Exposure - High Tech Industries
(Percent of total intermediate imports, top 13 countries)



Sources: OECD Inter-Country Input-Output (ICIO) Tables 2020; and author's calculations following Baldwin and Freeman (2022).

6. **Denmark should, therefore, continue to prepare for intensifying GEF risks with policy measures**. The authorities established the "Business Forum for Global Risks" in 2023, a step towards preparing a globalization strategy for Danish businesses. The strategy aims to support Danish companies' competitiveness and offer policy recommendations to reduce their vulnerability to global risks. Continued joint efforts by the public and private sectors are crucial for identifying critical dependencies, evaluating the effects of GEF scenarios, and developing risk mitigation

strategies, with close coordination at the EU level and in alignment with the WTO framework. These could further be complemented with structural reforms that address labor shortages and skill mismatches and enhance technological developments and innovation.

Annex VII. Box 1. Denmark: Foreign Production Exposure (FPE)

The FPE traces every sequence of input to input, providing a more accurate perspective on foreign trade dependencies evaluated on a gross production basis. It provides a comprehensive evaluation of the extent to which a country is influenced by foreign production, considering both direct and indirect effects. Total foreign production exposure is based on the Leontief gross trade matrix calculated from the OECD country input-output table.

An illustrative table, where nations A and B each contain two sectors, 1 and 2, is presented below. The outputs of each sector serve as intermediate inputs for the other sectors. This table connects sectoral gross output to the requirements for producing goods. Each row demonstrates that an economy's gross output (X) is calculated by the sum of the sales of intermediate goods (T) and services, as well as the sale of final goods and services (F).

Based on the methodology developed by Baldwin et al. (2022), the FPE represents the required amount of total gross output from any source-country to produce an additional 1 dollar in any sector of the destination-country. This metric measures the extent to which, for example, importing sector 1 in nation B relies on inputs from sector 2 in nation A. In other words, it indicates the additional intermediate inputs that sector 1 in nation B would require from sector 2 in nation A to increase its output by one dollar.

Simplest World Input-Output Table

		Intermediate use (T)				Final demand (F)		Gross output (X)
		Nation A		Nation B		Nation A	Nation B	
		Sector 1	Sector 2	Sector 1	Sector 2			
Nation A	Sector 1	T_{1A1A}	T_{1A2A}	T_{1A1B}	T_{1A2B}	$F_{1,AA}$	$F_{1,AB}$	$X_{1,A}$
	Sector 2	T_{2A1A}	T_{2A2A}	T_{2A1B}	T_{2A2B}	$F_{2,AA}$	$F_{2,AB}$	$X_{2,A}$
Nation B	Sector 1	T_{1B1A}	T_{1B2A}	T_{1B1B}	T_{1B2B}	$F_{1,BA}$	$F_{1,BB}$	$X_{1,B}$
	Sector 2	T_{2B1A}	T_{2B2A}	T_{2B1B}	T_{2B2B}	$F_{2,BA}$	$F_{2,BB}$	$X_{2,B}$
Value Added (V)		$V_{1,A}$	$V_{2,A}$	$V_{1,B}$	$V_{2,B}$			
Gross output (X)		$X_{1,A}$	$X_{2,A}$	$X_{1,B}$	$X_{2,B}$			

Source: Baldwin et al. (2022).

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Annex VIII. Proposal of Carbon Taxation on the Agricultural Sector

Background

1. **Denmark has an ambitious target of reducing greenhouse gas (GHG) emissions by 70 percent by 2030, according to the Climate Act of 2019**. However, there are gaps in achieving this target under the current baseline projections. Given that the agricultural and forestry sectors account for 46 percent of GHG emissions in Denmark, policy measures to reduce GHG emission in these sectors are key for Denmark to meet its target. These measures will also contribute to achieving the sectoral GHG emission reduction targets for the agricultural and land-use, land-use change and forestry (LULUCF) sectors set by the European Union (EU).

2. **In this context, in February 2024, the expert group published a proposal on measures to address emissions by the agricultural sector**. The proposal includes carbon taxation on the agriculture sector.

The Expert Group's Proposed Options

3. **The expert group's proposal balances economic efficiency, impact on the existing industry structure, and the risk of leakage**. Three options are offered, differentiated by the trade-offs between cost-effectiveness and the preservation of business structures.

Annex VIII. Table 1. Denmark: Comparison of Options Proposed by the Experts' Group

	CO2e Taxation on livestock (Effective tax rate in 2030)	Fiscal Impact (Billion DKr)	Output Impact (Percent of Denmark's Total Gross Value Added)	Relation to the Climate Act target (Percent of Gap to 2030 Target Filled)
Option 1	DKr750 per tonne	+1.2	0.3	124
Option 2	DKr375 per tonne	-0.5	<0.3	113
Option 3	DKr125 per tonne	-2	<0.3	106

Source: Green tax reform final report by the expert group.
Note: Options 2 and 3 have two variants on the treatment of fertilizers, whether to tax them or subsidize to reduce their use. This table shows the estimation for the former.

- Option 1 with a uniform tax on all CO2 equivalent (CO2e) emissions across all economic sectors would be the most efficient in reducing emissions, as reduction efforts would be distributed according to their marginal costs. However, the Climate Act also mandates considerations for avoiding large industrial shifts and the leakage where production and the associated emissions move abroad, which were also taken into account.

- The level of taxation on livestock is the highest for option 1 and the lowest for option 3. Option 1 sets the tax rates at DKr750 per tonne, equal to the industries outside the EU's emission trading system. In option 2, the rate is Dkr375 per tonne, equal to the industries covered by the EU's emission trading system. In option 3, the rate is Dkr125 per tonne, equal to the mineralogical processes including cement production, where the concern on leakage is large.[1]

- Option 1 is the most cost-effective as the reduction efforts will be directed to areas where it is cheapest to do so. However, this option entails the most significant reduction in domestic agricultural production, especially in cattle farms. It may also lead to the relocation of agricultural production abroad.

- For options 2 and 3, achieving the carbon reduction targets increasingly relies on technological progress, incentivized by tax deductions, regulations, and subsidies, since the reduction in agricultural activities is smaller.

- Fiscal implications are most favorable for option 1, which generates net revenue, while options 2 and 3 result in a net revenue loss.

- All options are combined with taxation of fertilizers and measures to expand the wetting of carbon-rich agricultural land and afforestation, which will also contribute to reaching the reduction targets.

June 2024 Political Agreement

4. **On June 24, 2024, following extensive consultations with stakeholders, the coalition government reached a political agreement**. After the expert committee published its report in February 2024, the government initiated the consultations by inviting representatives from industries, including agriculture and food, trade unions, environmentalists, and municipalities. These consultations lasted about four months before an agreement was reached. The parties have agreed to start with a model close to Option 3 and shift to a model close to Option 2 over time. The key measures include the introduction of a carbon tax on the agricultural sector and non-carbon tax measures, such as boosting afforestation, removing carbon-rich lowland, increasing farmland purchases, and reducing nitrogen emissions from fertilizers. These measures are projected to reduce GHG emissions by 1.8 million tons by 2030, which is more than sufficient to close the remaining gap of 1.5 million tons to reach the 70 percent GHG emission reduction target by 2030.

5. **The government will begin to implement non-carbon tax measures first, including providing fiscal incentives**. Dkr 40 billion will be allocated to a new Green Area Fund to support the afforestation of 250,000 hectares by 2045 and the removal of 140,000 hectares of carbon-rich lowland soils by 2030, among other measures. In addition, subsidies will be provided for

[1] New carbon taxes on other industries were agreed in June 2022.

technological transition. A subsidy of Dkr 750 per ton will be introduced to reduce fertilizer use, starting in 2028.

6. **The carbon tax will be introduced in phases, with the revenues to be recycled back to the agricultural sector in the initial years of the implementation**. The tax will be introduced in 2030 at a marginal rate of Dkr 300 per ton of CO2 emissions, with a basic deduction of 60 percent. Subsequently, the tax rate will linearly increase to Dkr 750 per ton of CO2 emissions in 2035 with the same rates of basic deduction. The proceeds from the tax in 2030–31 will be allocated to investments in climate technology, green initiatives, and production transition, specially targeting farmers who are most affected by the tax and struggle to adapt. Both the tax rates and the allocation of the tax revenue will be reviewed in 2032.

Annex IX. Data Issues

Annex IX. Figure 1. Denmark: Data Adequacy Assessment for Surveillance

Data Adequacy Assessment Rating 1/							
A							
Questionnaire Results 2/							
Assessment	National Accounts	Prices	Government Finance Statistics	External Sector Statistics	Monetary and Financial Statistics	Inter-sectoral Consistency	Median Rating
	A	A	A	A	A	A	A
Detailed Questionnaire Results							
Data Quality Characteristics							
Coverage	A	A	A	A	A		
Granularity 3/	A		A	A	A		
			A		A		
Consistency			A	A		A	
Frequency and Timeliness	A	A	A	A	A		

Note: When the questionnaire does not include a question on a specific dimension of data quality for a sector, the corresponding cell is blank.
1/ The overall data adequacy assessment is based on staff's assessment of the adequacy of the country's data for conducting analysis and formulating policy advice, and takes into consideration country-specific characteristics.
2/ The overall questionnaire assessment and the assessments for individual sectors reported in the heatmap are based on a standardized questionnaire and scoring system (see IMF *Review of the Framework for Data Adequacy Assessment for Surveillance*, January 2024, Appendix I).
3/ The top cell for "Granularity" of Government Finance Statistics shows staff's assessment of the granularity of the reported government operations data, while the bottom cell shows that of public debt statistics. The top cell for "Granularity" of Monetary and Financial Statistics shows staff's assessment of the granularity of the reported Monetary and Financial Statistics data, while the bottom cell shows that of the Financial Soundness indicators.

A	The data provided to the Fund is adequate for surveillance.
B	The data provided to the Fund has some shortcomings but is broadly adequate for surveillance.
C	The data provided to the Fund has some shortcomings that somewhat hamper surveillance.
D	The data provided to the Fund has serious shortcomings that significantly hamper surveillance.

Rationale for staff assessment. Data provision is adequate for surveillance purposes. Recognizing the importance of the pharmaceutical sector, the authorities provide extra data such as expedited preparation of gross value added estimates for the sector ahead of the rest of the economy. The government's desire to maintain liquidity in the government debt market despite fiscal surpluses leads to accumulation of financial assets. This accounts for the relatively high level of stock-flow adjustments in Denmark. Regarding monetary and financial statistics, it should be noted that Denmark does not report data for other financial corporations.

Changes since the last Article IV consultation. National account, balance of payment, and public finance data were revised in June 2024. The data revisions have significantly lowered net errors and omissions in the balance of payment statistics.

Corrective actions and capacity development priorities. Not applicable.

Use of data and/or estimates in Article IV consultations in lieu of official statistics available to staff. Staff does not use any data and/or estimates in the staff report in lieu of official statistics.

Other data gaps. Enhancement of CRE data, including transactions, stock, CRE owners, property types and property quality, would strengthen vulnerability assessment of the sector.

Annex IX. Figure 2. Denmark: Data Standards Initiatives

Denmark adheres to the Special Data Dissemination Standard (SDDS) Plus since January 2017 and publishes the data on its National Summary Data Page. The latest SDDS Plus Annual Observance Report is available on the Dissemination Standards Bulletin Board (https://dsbb.imf.org/).

Annex IX. Figure 3. Denmark: Table of Common Indicators Required for Surveillance

(As of July 3, 2024)

	Data Provision to the Fund				Publication under the Data Standards Initiatives through the National Summary Data Page			
	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Expected Frequency[6,7]	Denmark[8]	Expected Timeliness[6,7]	Denmark[8]
Exchange Rates	3-Jul-24	3-Jul-24	D	D	D	...	...	...
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	May-24	Jun-24	M	M	M	M	1W	NLT 1W
Reserve/Base Money	May-24	Jun-24	M	M	M	M	2W	NLT 1W
Broad Money	May-24	Jun-24	M	M	M	M	1M	NLT 1M
Central Bank Balance Sheet	May-24	Jun-24	M	M	M	M	2W	NLT 1W
Consolidated Balance Sheet of the Banking System	May-24	Jun-24	M	M	M	M	1M	NLT 1M
Interest Rates[2]	3-Jul-24	3-Jul-24	D	D	D	...	...	...
Consumer Price Index	Jun-24	Jun-24	M	M	M	M	1M	NLT 2W
Revenue, Expenditure, Balance and Composition of Financing[3]–General Government[4]	2023	Jun-24	A	A	A/Q	Q	2Q/12M	12M
Revenue, Expenditure, Balance and Composition of Financing[3]–Central Government	2023	Jun-24	A	A	M	M	1M	NLT 1M
Stocks of Central Government and Central Government-Guaranteed Debt[5]	Mar-24	Jun-24	M	M	Q	M	1Q	NLT 1M
External Current Account Balance	Apr-24	Jun-24	M	M	Q	M	1Q	NLT 7W
Exports and Imports of Goods and Services	Apr-24	Jun-24	M	M	M	M	8W	40D
GDP/GNP	2024Q1	Jun-24	Q	Q	Q	Q	1Q	60D
Gross External Debt	2024Q1	Jun-24	Q	Q	Q	Q	1Q	1Q
International Investment Position	2024Q1	Mar-24	Q	Q	Q	Q	1Q	1Q

[1] Includes reserve assets pledged or otherwise encumbered, as well as net derivative positions.

[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 funds) and state and local governments.

[5] Including currency and maturity composition.

[6] Frequency and timeliness: ("D") daily; ("W") weekly or with a lag of no more than one week after the reference date; ("M") monthly or with lag of no more than one month after the reference date; ("Q") quarterly or with lag of no more than one quarter after the reference date; ("A") annual.; ("SA") semiannual; ("I") irregular; ("NA") not available or not applicable; and ("NLT") not later than.

[7] Encouraged frequency of data and timeliness of reporting under the e-GDDS and required frequency of data and timeliness of reporting under the SDDS and SDDS Plus. Any flexibility options or transition plans used under the SDDS or SDDS Plus are not reflected. For those countries that do not participate in the IMF Data Standards Initiatives, the required frequency and timeliness under the SDDS are shown for New Zealand, and the encouraged frequency and timeliness under the e-GDDS are shown for Eritrea, Nauru, South Sudan, and Turkmenistan.

[8] Based on the information from the Summary of Observance for SDDS and SDDS Plus participants, and the Summary of Dissemination Practices for e-GDDS participants, available from the IMF Dissemination Standards Bulletin Board (https://dsbb.imf.org/). For those countries that do not participate in the Data Standards Initiatives, as well as those that do have a National Data Summary Page, the entries are shown as "..."

INTERNATIONAL MONETARY FUND

DENMARK

July 26, 2024

STAFF REPORT FOR THE 2024 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By | European Department

CONTENTS

FUND RELATIONS

As of June 30, 2024

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)	2,535.04	73.71
Reserve Tranche Position	904.37	26.29
Lending to the Fund		

SDR Department:	**SDR Million**	**Percent Allocation**
Net cumulative allocation	4,827.98	100.00
Holdings	5,045.73	104.51

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			
	2025	2026	2027	2028
Principal	…	…	…	…
Charges/Interest	0.04	0.04	0.04	0.04
Total	0.04	0.04	0.04	0.04

[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 Rate Arrangements: The currency of Denmark is the Danish krone. The de jure and de facto exchange rate arrangement are 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 16, 2023. The staff report (IMF Country Report No. 23/227) was published with Press Release No. 23/236 (June 26, 2023).

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.

Statement by the IMF Staff Representative
September 6, 2024

This statement provides information that has become available since the staff report was issued to the Executive Board. This information does not alter the thrust of the staff appraisal.

1. **Recently released GDP and CPI data align with staff expectations**. The preliminary GDP estimate for 2024:Q2 indicates that the Danish economy grew by 0.6 percent (quarter over quarter), largely driven by pharmaceutical exports. At the same time, the GDP growth rate for the first quarter was revised to -1.0 percent, up from -1.4 percent, due to upward revisions in public consumption and gross fixed capital formation. Regarding price developments, headline inflation decelerated to 1.0 percent (year on year) in July, down from 1.8 percent in June, primarily due to base effects. Month-on-month inflation (seasonally adjusted) increased to 0.5 percent in July, up from 0.1 percent in June, reflecting price increases across broader categories. These latest data are consistent with staff's forecasts of GDP growth and inflation in 2024, as stated in the staff report.

Statement by Ms. Anne Brolev Marcussen, Alternate Executive Director for Denmark
September 6, 2024

On behalf of the Danish authorities, we would like to thank staff for the candid and constructive policy discussions during the 2024 Article IV mission. The authorities appreciate staff's high-quality report and analytical work on relevant issues.

Macroeconomic outlook and risks

The Danish economy is in a sound position and the outlook remains positive. Following the pandemic, overall GDP growth has been robust driven in large part by export growth, especially in pharmaceuticals. While domestic demand has fallen due to reduced purchasing power during the period of high inflation and increasing interest rates, both the labor market and the housing market have fared well with employment rising further. During the past year, inflation has been around or below 2 percent.

For 2024 and 2025, growth in domestic demand is set to recover, propelled by higher real wages and a high level of employment as well as less tight fiscal policies. Strengthened demand in European countries is expected to contribute to higher growth in non-pharmaceutical exports, while pharmaceutical exports will continue to grow as well. Employment is expected to moderate over the coming years, as companies seek to restore productivity.

Notwithstanding the positive outlook, downside risks remain, in particular relating to the global outlook. These include upside risks to inflation and interest rates and weaker-than-expected growth in export markets due to geopolitical tensions, Russia's war against Ukraine, and fragmentation of international trade. Denmark remains committed to free-trade policies within the multilateral and rules-based trading system. Domestically, households may prove less eager to increase spending than currently expected. On the other hand, Danish companies and households are generally in a strong financial position, so domestic demand could also pick up more than expected, possibly adding to labor market pressures.

Fiscal policy

For more than two decades, Danish fiscal policy has been conducted within a forward-looking fiscal framework. The framework entails an operational target for the medium-term structural budget balance as well as an overarching objective of long-term fiscal sustainability. The 2030-plan of November 2023 aims at a structural budget deficit of 0.5 percent of GDP in 2030. The target is within the limits set in the Danish Budget Law and the EU's Stability and Growth Pact. In 2024, the structural budget balance of 0.6 percent of GDP is considerably above the target for 2030 as well as the deficit limit of -1 percent of GDP in the Budget Law. Overall, responsible economic policy and a robust economy have contributed to healthy public finances with low public gross debt, and the public net financial wealth position has been positive since 2018.

In light of high capacity pressures in the Danish economy, fiscal policy was tightened substantially in 2022 and 2023. The outlook for a gradual easing of capacity pressures in 2024 and 2025 allows for a gradual easing of fiscal policy. In 2025, fiscal policy is expected to stimulate demand growth with a positive one-year fiscal effect. However, overall fiscal and structural policy changes since before Covid are estimated to have a net dampening impact on economic activity as measured by the multi-year fiscal effects. The structural budget balance also remains above its medium-term target. Thus, the tight level of fiscal policy is maintained but will be gradually eased over the coming years.

Military spending has been increased to 2 percent of GDP and is planned to exceed that level this year and next, including to provide continued support for Ukraine after Russia's invasion.

Financial sector and real estate markets

Overall, the Danish financial sector is assessed to be sound and resilient, although risks from higher interest rates persist. In general, banks have sufficient capital and liquidity buffers and earnings are high. Impairments and the NPL-ratio remain low reflecting the credit standards in banks, the strong performance of the Danish economy, and solid balance sheets in households and businesses.

Interest rate increases have diverse effects on the financial sector. The shift in the level of interest rates has loosened the squeeze on banks' margins with considerable impact on profitability. On the other hand, higher interest rates tighten financial conditions for households and businesses, which tends to lower profitability in the banking sector in the longer term. Additionally, higher interest rates reduce the value of both real and financial assets, to the detriment of investors.

Risks from higher interest rates, vulnerabilities in commercial real estate markets (CRE), and riskier mortgages require vigilant monitoring. The level of transactions in CRE markets has plummeted, making the assessment of price developments difficult. A prolonged period of higher interest rates and increased recognition of losses for real estate companies could have implications for the economy and banks. These risks are addressed by the recent introduction of the sector-specific systemic risk buffer to strengthen the banking sector's resilience to CRE-related shocks.

The authorities continuously monitor developments in the housing market. From Q1 2022 to Q1 2023, house prices declined by nearly 7 percent in nominal terms, reflecting the impact from higher interest rates. Since the beginning of 2023, prices have been gradually increasing again.

Danmarks Nationalbank (DN) finds that tighter borrower-based measures would enhance the resilience of the financial system and have the potential to stabilize housing prices. DN also finds it beneficial to introduce a legal basis for binding borrower-based measures and to lower the tax deductibility of interest expenses which promotes high indebtedness. However, ministries are concerned that such measures could have adverse effects on the housing market and households' ability to repay more expensive loans first and to smooth consumption over their lifetime. Therefore, further analysis is needed before considering additional measures.

Risks related to non-bank financial institutions (NBFIs) appear contained. The NBFI sector has grown markedly over the past decades. But in Denmark, the NBFI sector does not have significant direct credit exposures and both insurance and pension firms have ample capital buffers. The authorities acknowledge that the large balances of the NBFI sector can influence the stability of financial markets (possibly in a pro-cyclical way), although the significant share of non-guaranteed market-return products limits NBFIs' exposures to financial risks. However, the risk is instead borne by the companies' customers. Most investment funds are closed-ended which reduces liquidity risks markedly.

Productivity, labor supply, and structural reforms

Wide-ranging reforms of retirement rules, labor market policies, and taxation have been key in increasing labor supply over the past decades. The current government has passed reforms which will increase structural employment by more than 1 percent (29,000 FTEs) by 2030, including an income tax reform, an education reform of the master's program, changes to student grants and the supplemental pay-scheme for international workers, etc. The government aims to further increase structural employment by a total of 45,000 FTEs by 2030.

The authorities agree with staff on the need for continued focus on reforms to strengthen labor supply and enhance productivity, especially as the declining working-age population and increasing age-related expenses will put pressure on public finances in the coming decades.

In 2020, Denmark passed the Climate Act, which legally binds the government to reduce greenhouse gas emissions by 70 percent relative to 1990 levels by 2030, with the goal of achieving climate neutrality by 2045. A central element of this strategy is the Green Tax Reform agreed in 2022, which introduces more harmonized CO_2 taxes for the industrial sector from 2025, alongside significant support for investments in the green transition.

Furthermore, with the recent historic tripartite agreement between the government and partners from agricultural, environmental, and industrial organizations, an agreement has been reached for a long-term transition of Danish food and agricultural production, including land use. The 'Agreement on a Green Denmark' from June 2024 establishes a framework for reducing greenhouse gas emissions in the agri-food sector. A CO_2e tax on livestock will be introduced in phases from 2030, alongside efforts to increase afforestation and improve conditions for nature, biodiversity, the aquatic environment, and drinking water. The establishment of the Green Area Fund of approximately DKK 40 billion (EUR 5.4 billion) will support these efforts through afforestation, the rewetting of drained peatlands in agricultural use, and strategic land acquisitions etc. related to managing nitrogen reductions. This will change 15 percent of existing agricultural area to forests, rewetted areas, etc.