Comment on the lecture

Suvi Kangasrääsiö
Senior Economist
Fiscal policy monitoring function
Independent fiscal institution
National Audit Office of Finland

Suvi.kangasraasio@vtv.fi

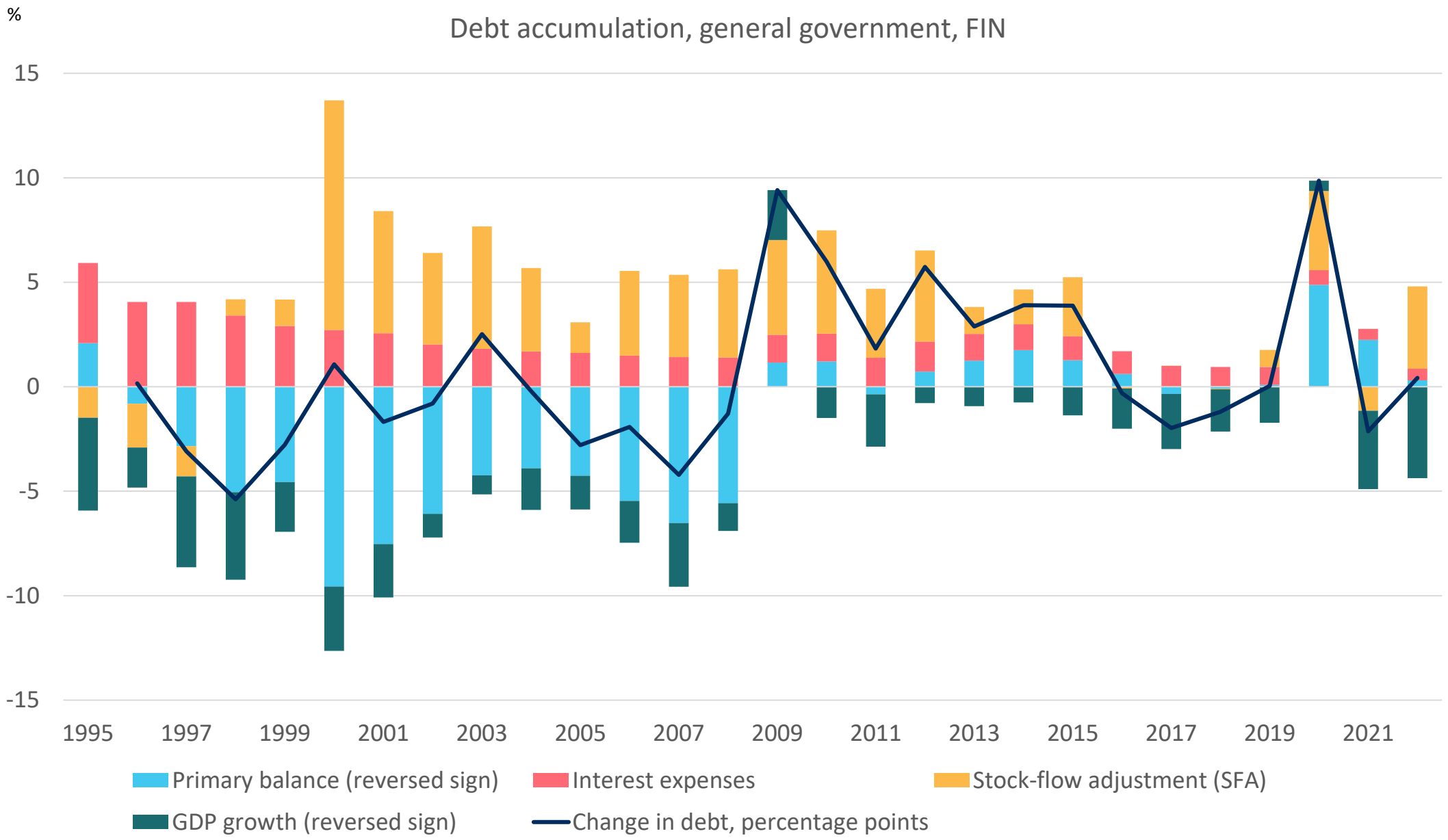
The views expressed in this presentation are those of the author's and do not necessarily represent the views of the NAOF, its IFI function, or management.

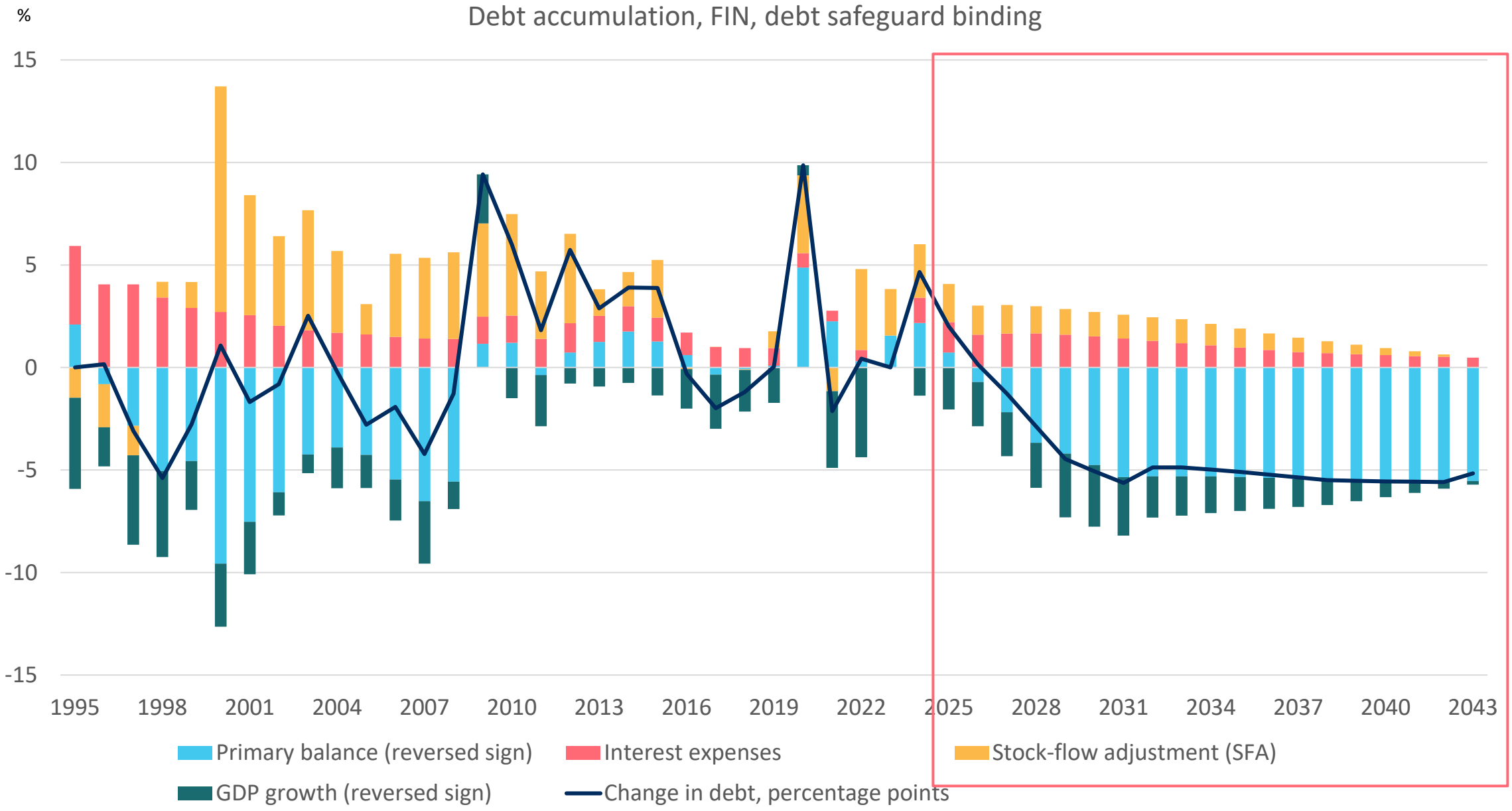
Debt accumulation equation

$$\Delta d_t = \frac{r_t - g_t}{1 + g_t} d_{t-1} - p_t + sfa_t$$

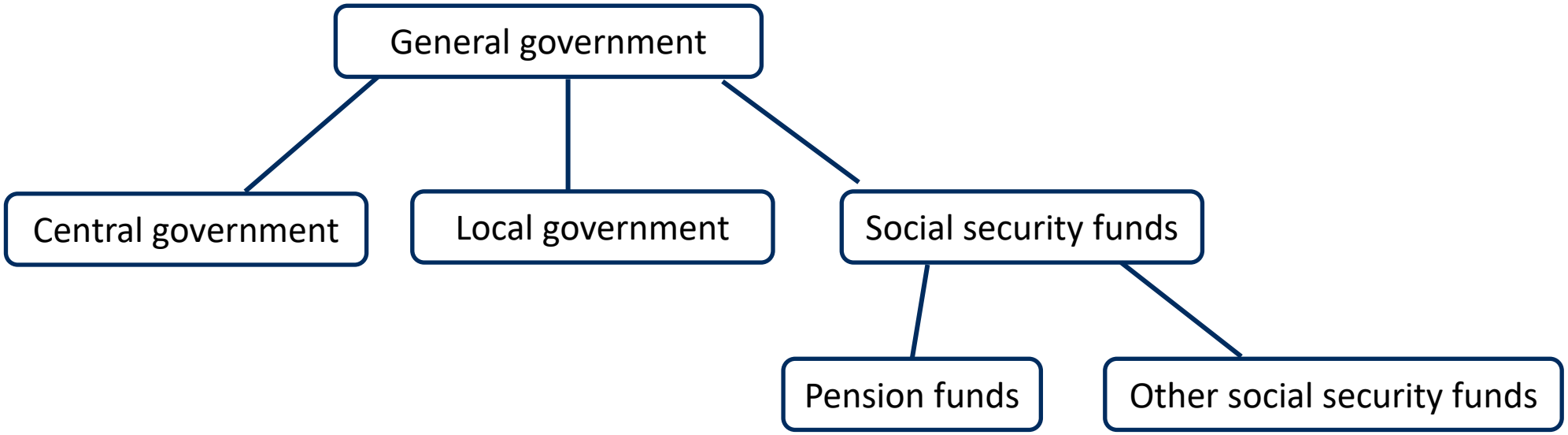
Where
d = debt
r = nominal interest expenditures
g = nominal GDP growth rate
p = primary balance
sfa = stock flow adjustment

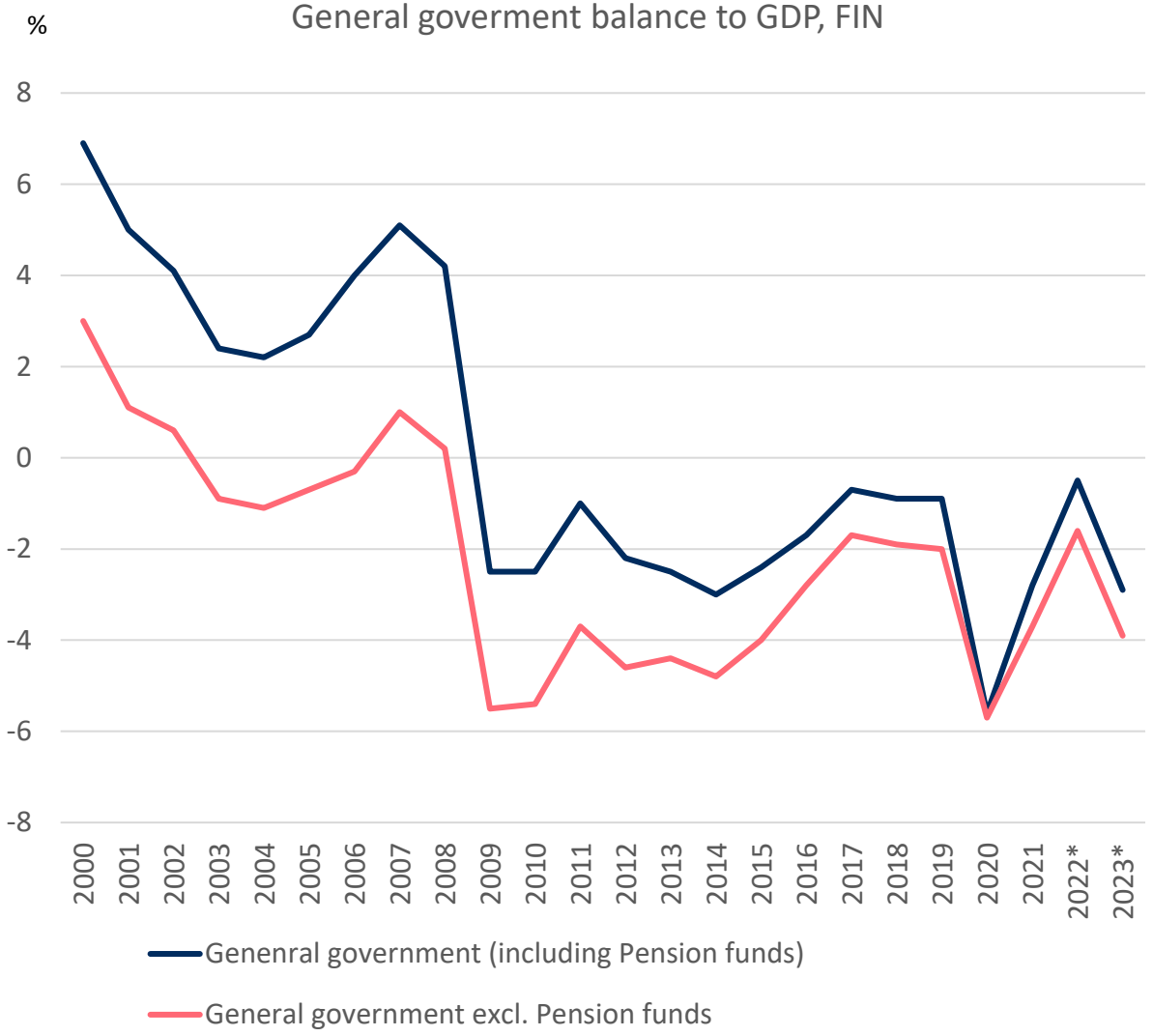
All terms are divided by nominal GDP.
The equation can be expressed likewise in real terms.

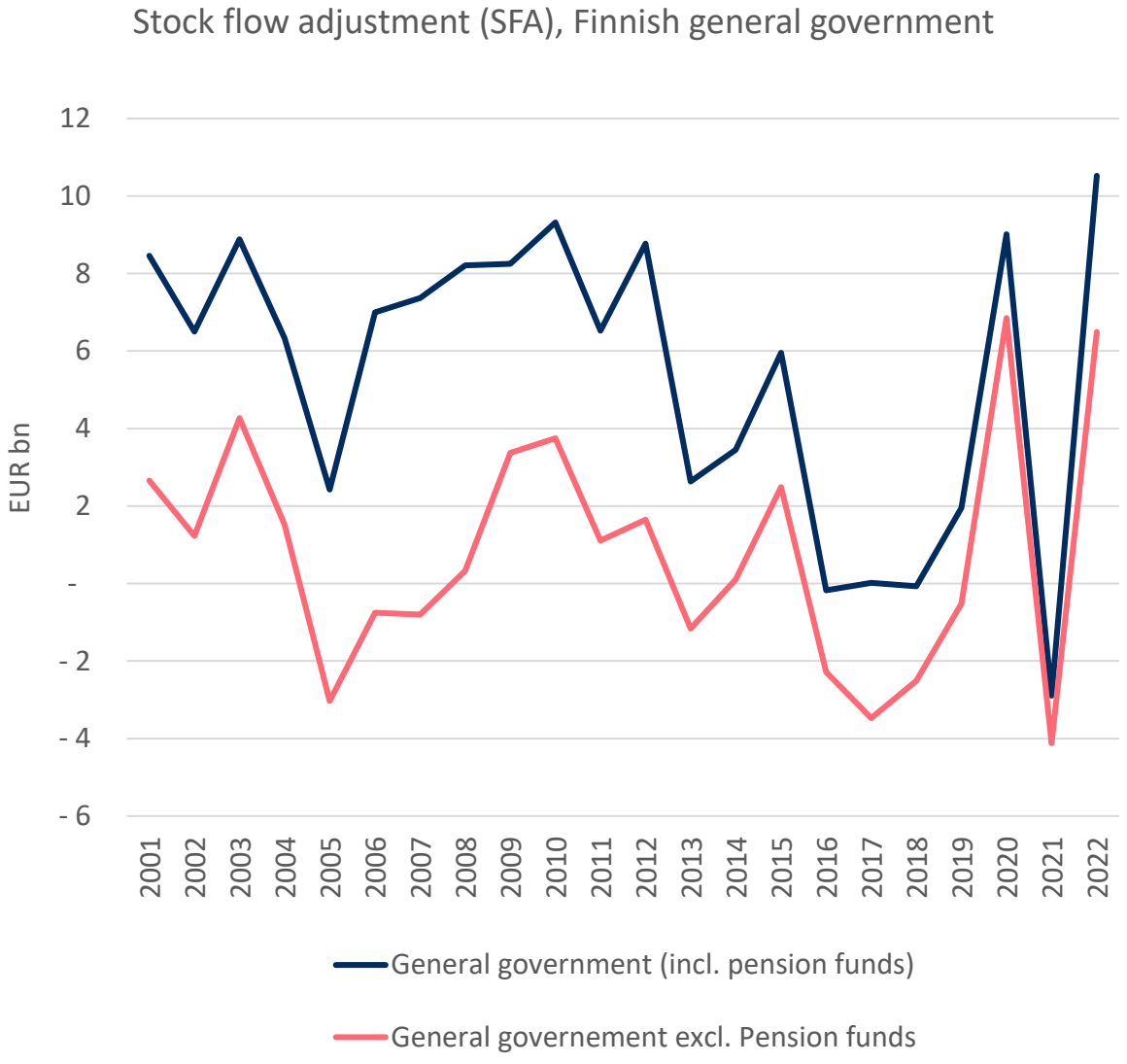

%
Debt accumulation, general government, FIN
15
10
5
0
-5
-10
-15
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
Primary balance (reversed sign)
Interest expenses
Stock-flow adjustment (SFA)
GDP growth (reversed sign)
Change in debt, percentage points



Source: Ameco online, Darvas et al. (2024) and own calculations. General government (S13). Nominal terms.


General government
Central government
Local government
Social security funds
Pension funds
Other social security funds


General goverment balance to GDP, FIN
%
8
6
4
2
0
-2
-4
-6
-8
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022*
2023*
Genenral government (including Pension funds)
General government excl. Pension funds


Stock flow adjustment (SFA), Finnish general government
EUR bn
12
10
8
6
4
2
-
- 2
- 4
- 6
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
General government (incl. pension funds)
General governement excl. Pension funds

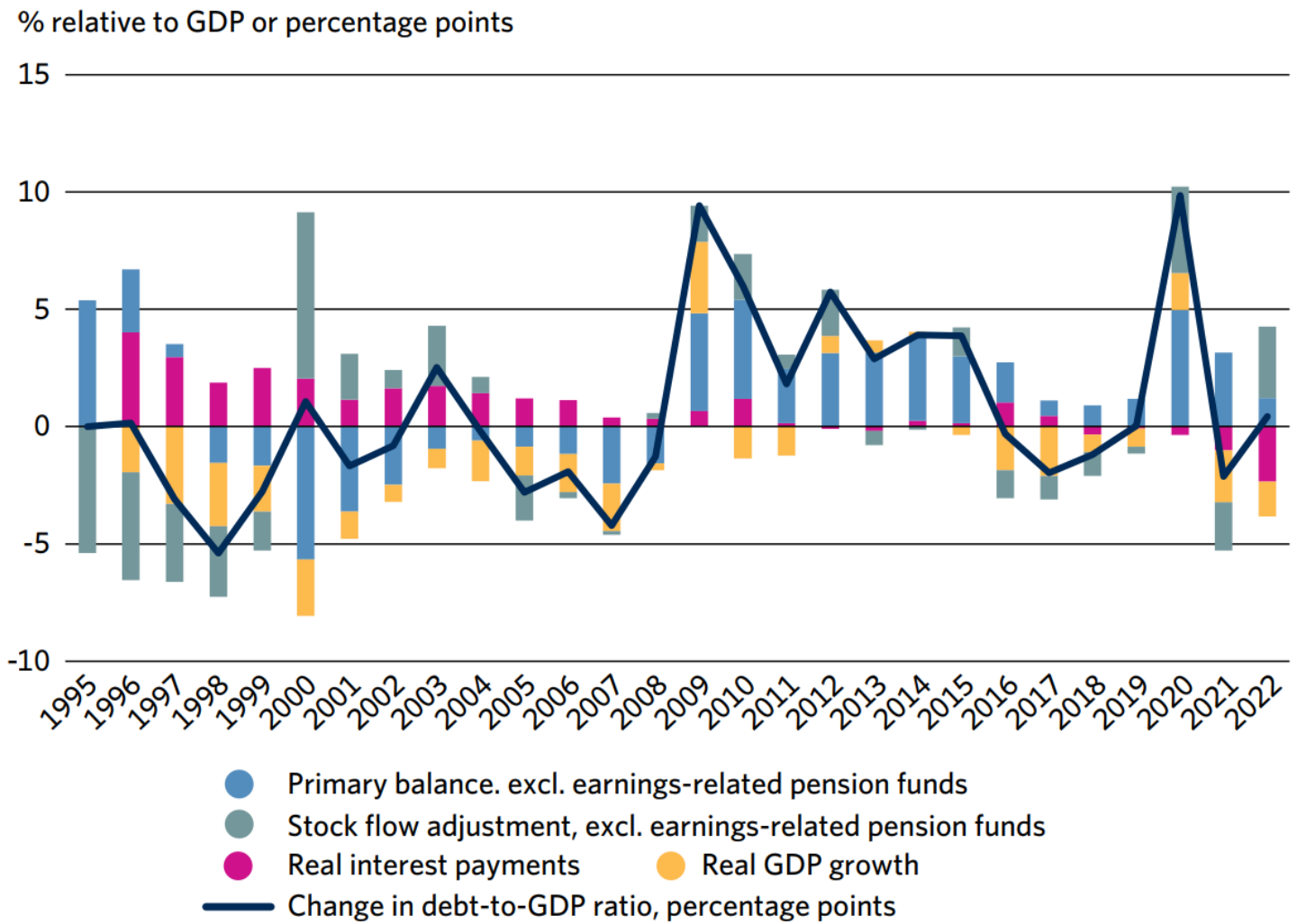
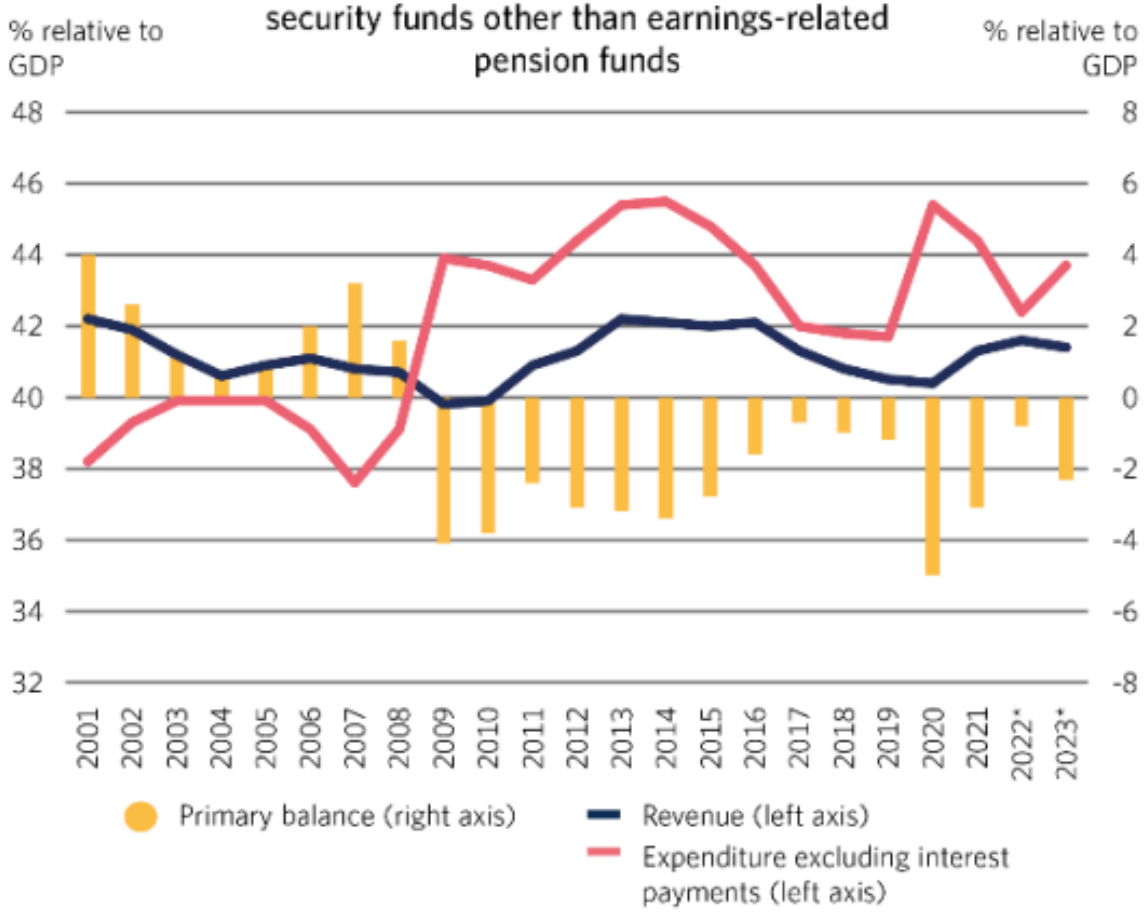
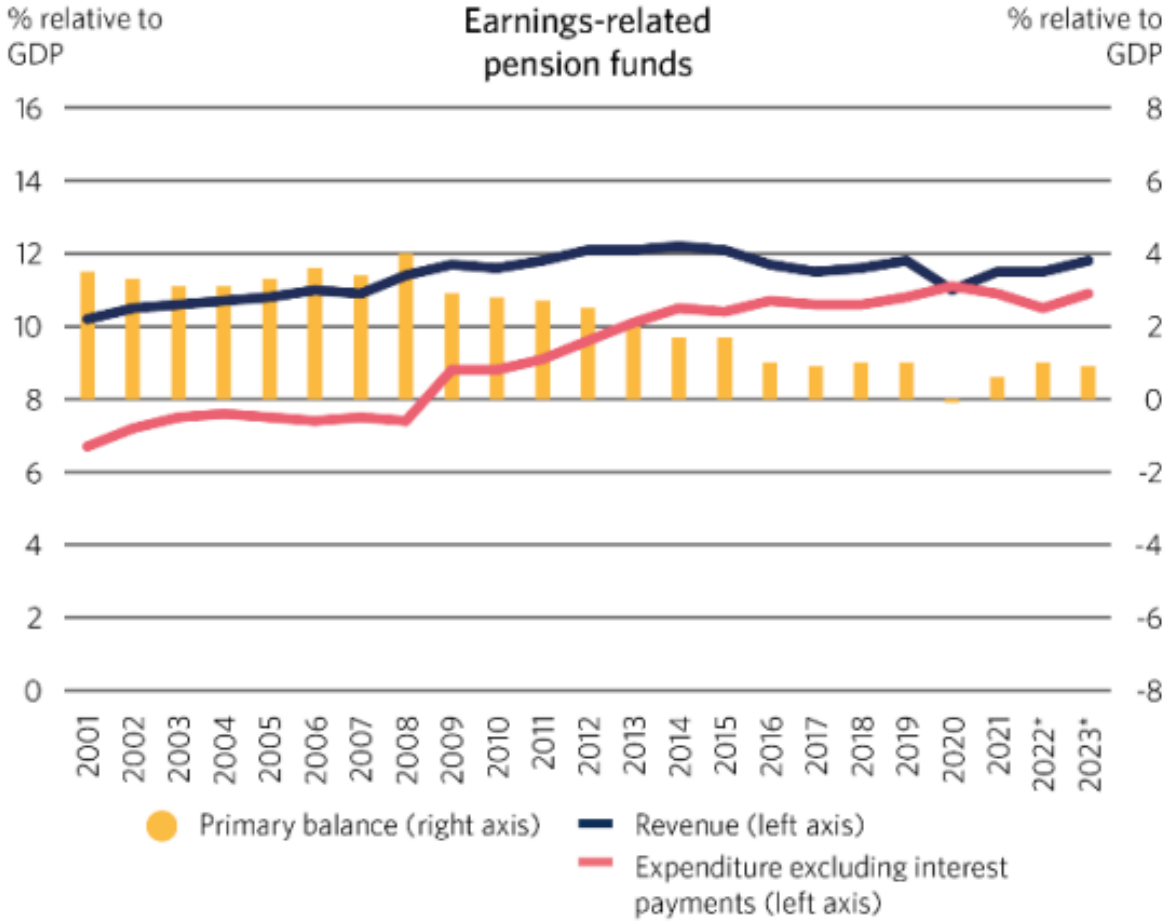


Figure 7: Factors affecting the development of the debt ratio in the general government (excluding earnings-related pension funds), presented in accordance with equation (2). Sources: European Commission (2023a), Eurostat (2023), Statistics Finland (2023c), fiscal policy monitoring function.

Central government, local government, social security funds other than earnings-related pension funds



Earnings-related pension funds



- Stock-flow adjustment is non-zero also in many other countries

- See our autumn report: (Separate report R 21/2023 vp: Fiscal policy monitoring report 2023)

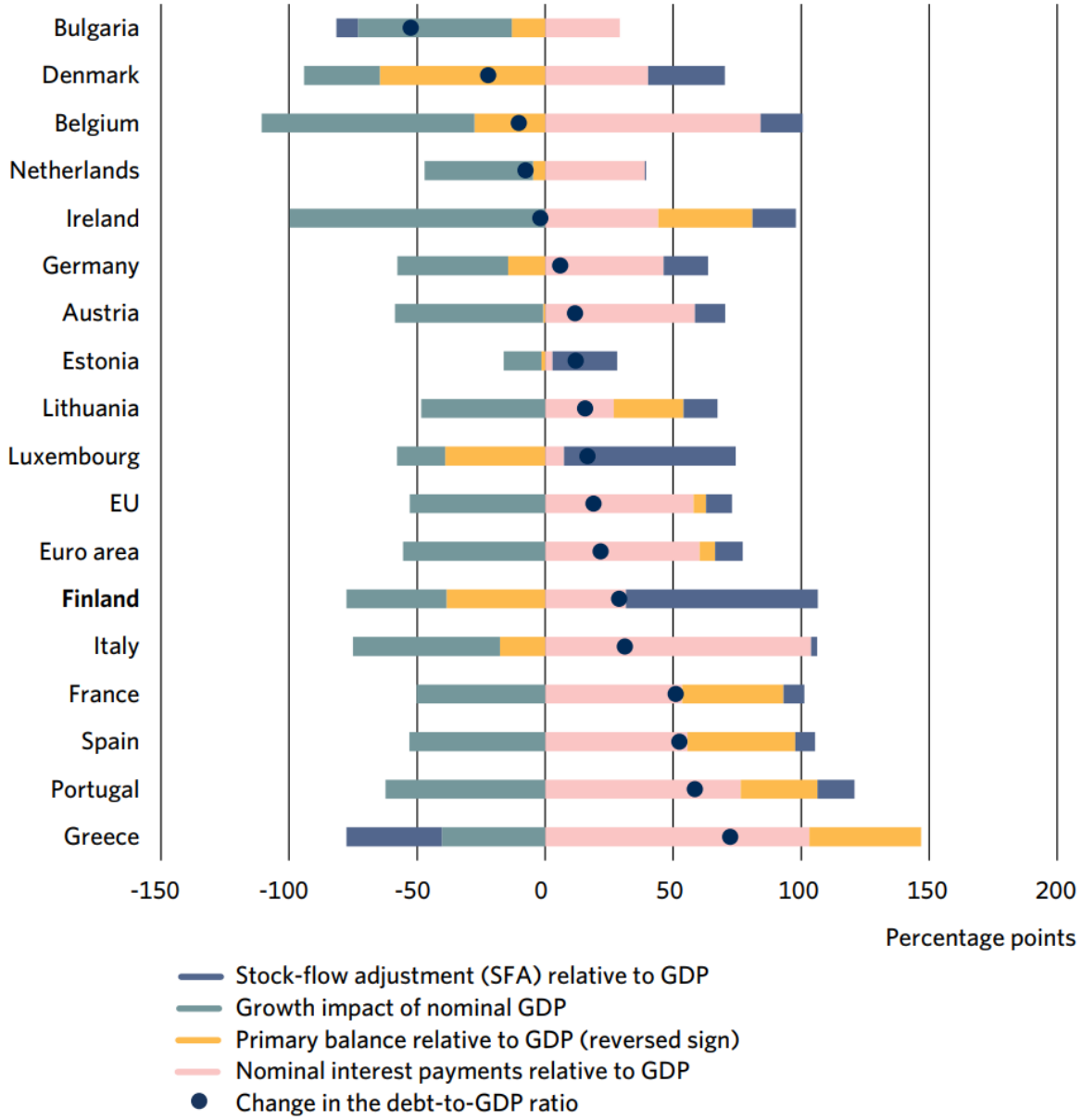
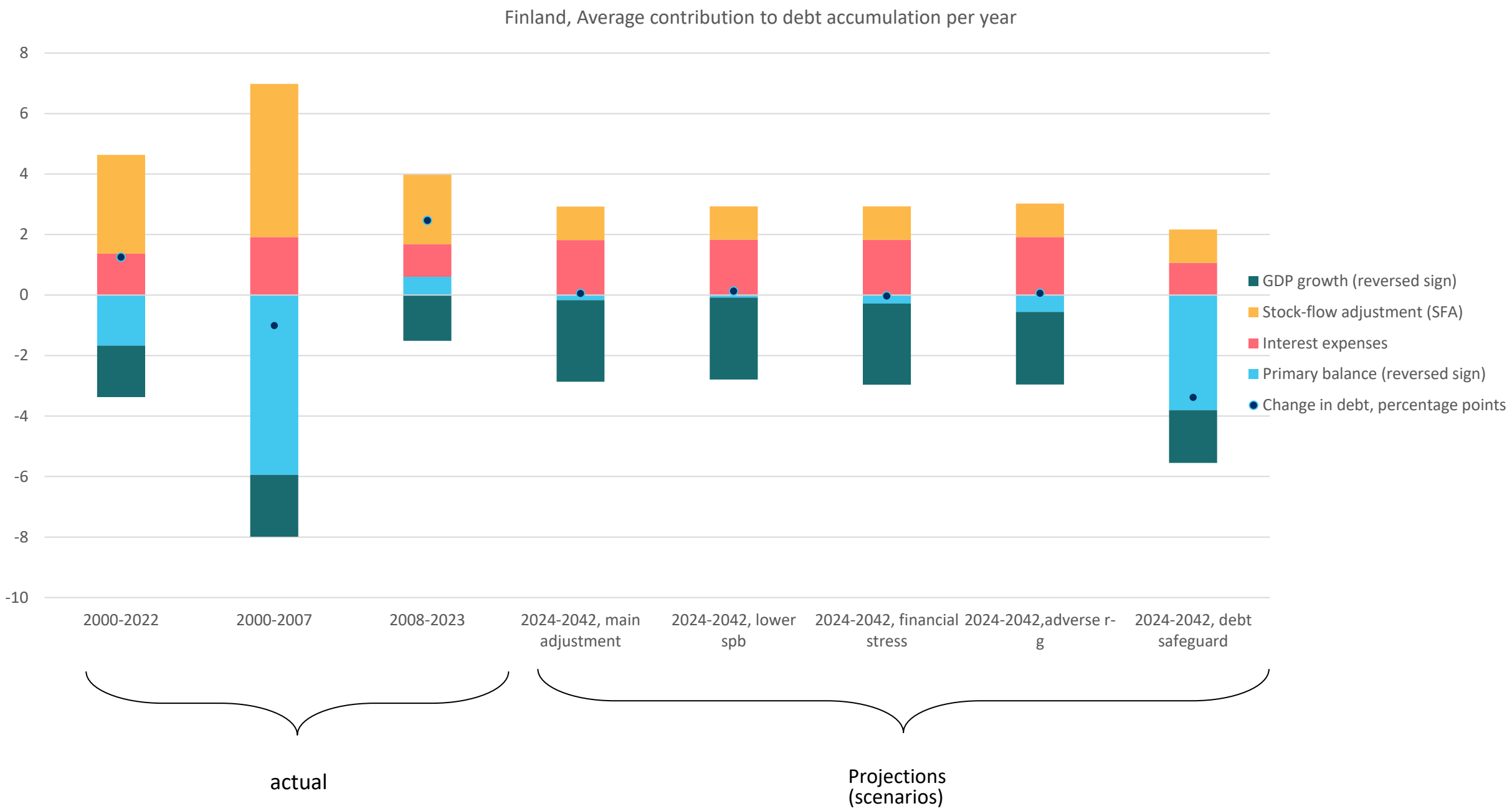
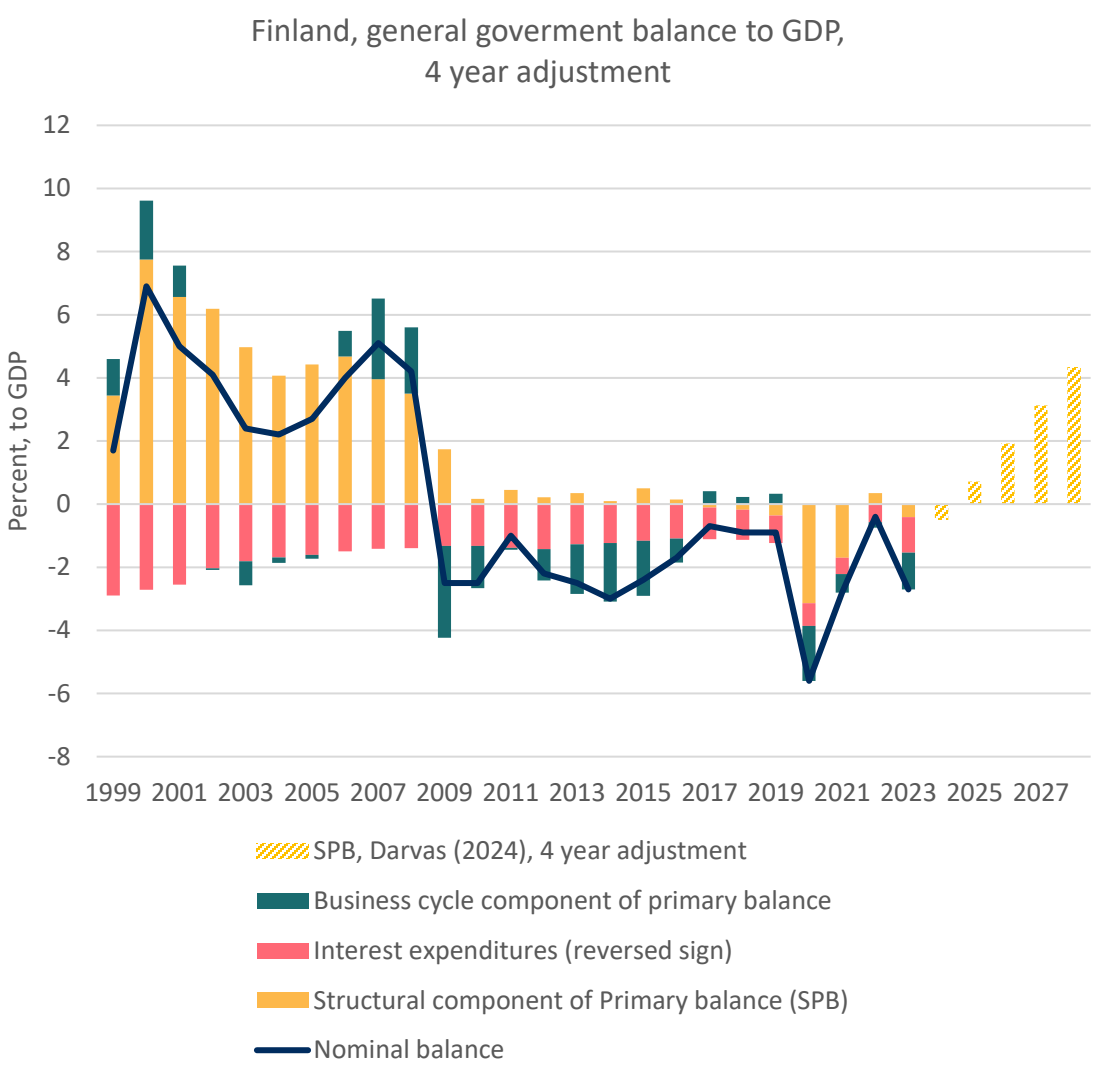
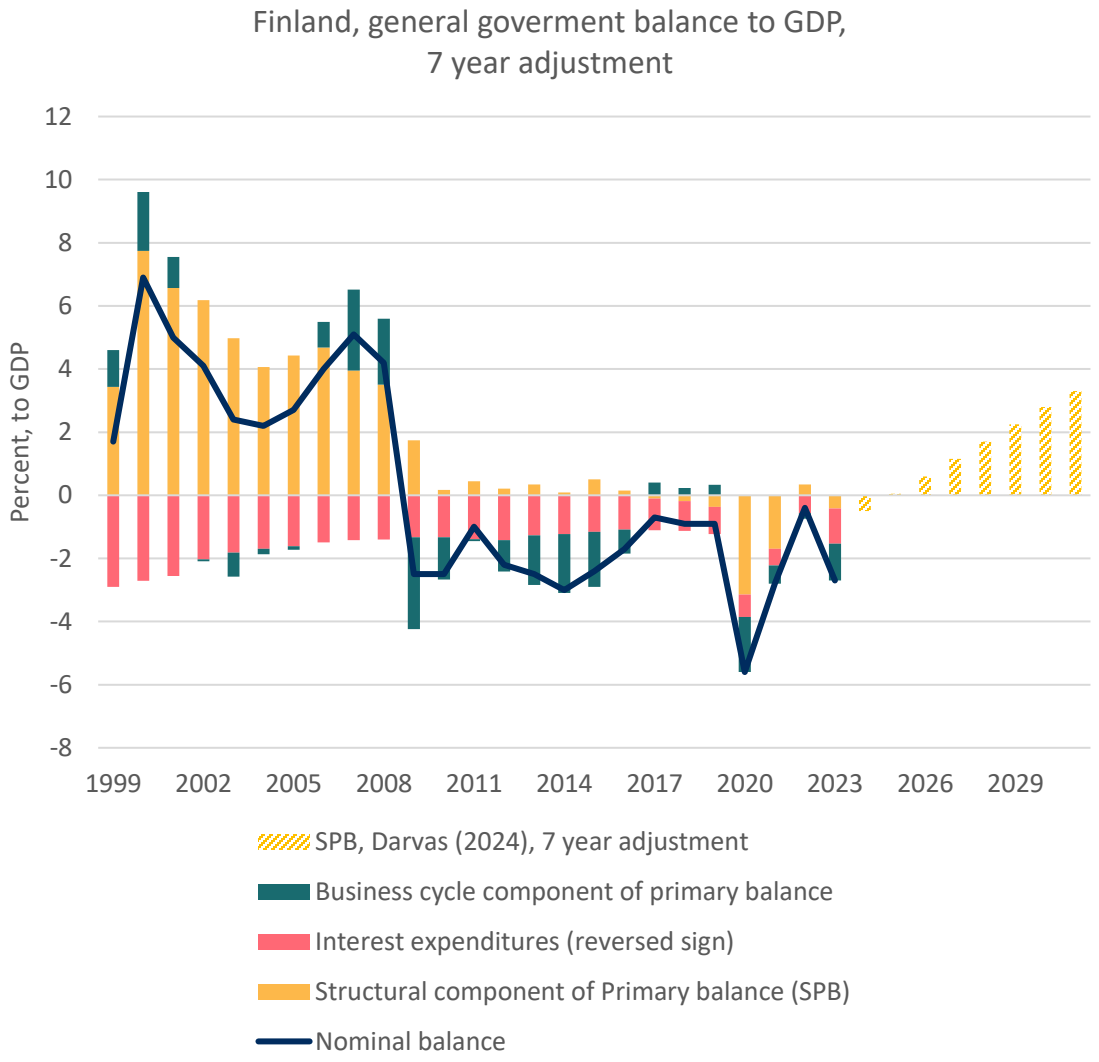


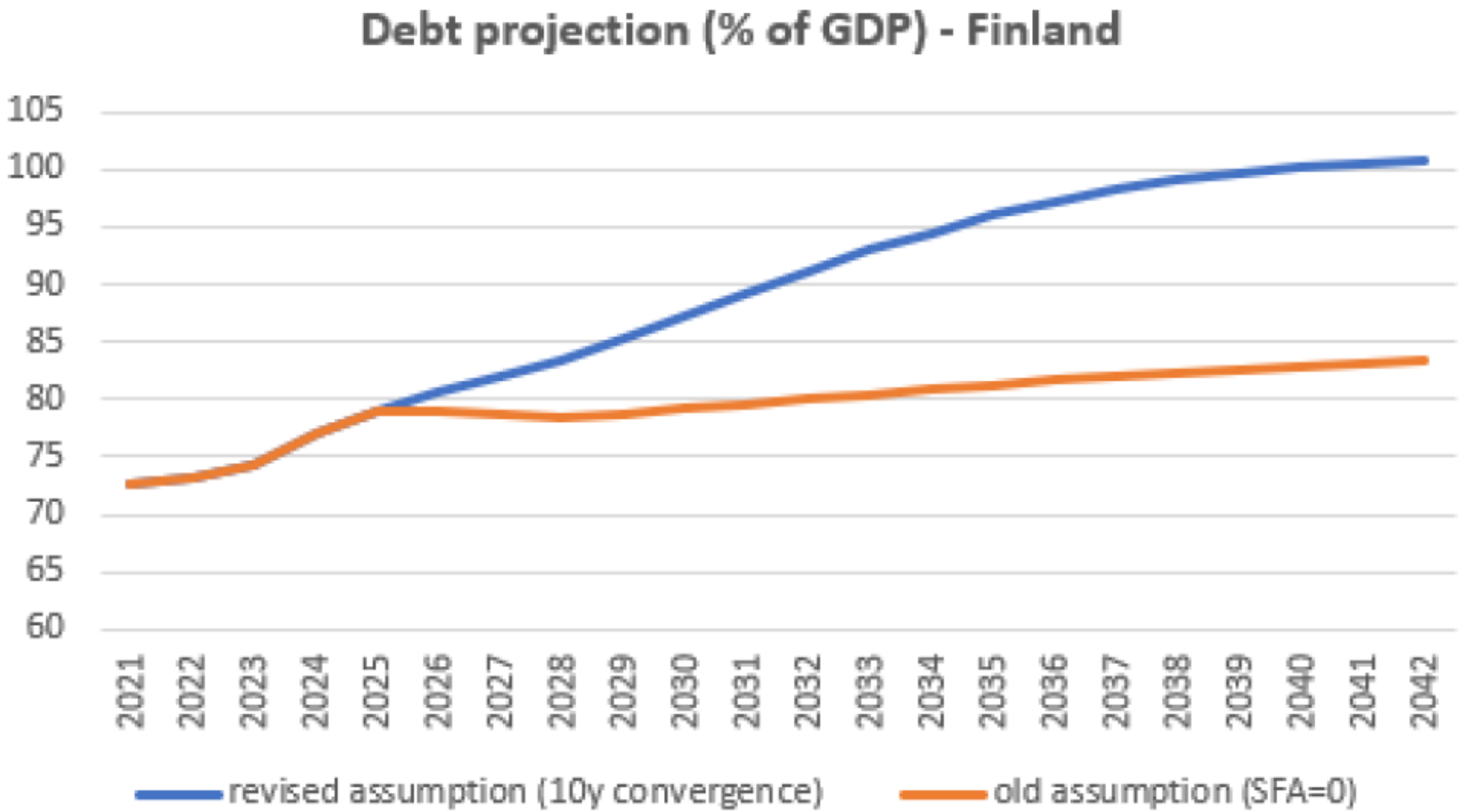
Figure 5: The change in the debt-to-GDP ratio in certain EU Member States between 2000 and 2022. Source: Eurostat (2023), European Commission (2023a), calculations by the fiscal policy monitoring function.


Finland, Average contribution to debt accumulation per year
8
6
4
2
0
-2
-4
-6
-8
-10
2000-2022
2000-2007
2008-2023
2024-2042, main adjustment
2024-2042, lower spb
2024-2042, financial stress
2024-2042,adverse r-g
2024-2042, debt safeguard
GDP growth (reversed sign)
Stock-flow adjustment (SFA)
Interest expenses
Primary balance (reversed sign)
Change in debt, percentage points
actual
Projections (scenarios)

Scale of the adjustment for Finland (Darvas et al., 2024)







Source: European Commission (2024). Debt Sustainability Monitor. Institutional Paper 271.

Thank You!

VALTIONTALOUDEN TARKASTUSVIRASTO
NATIONAL AUDIT OFFICE OF FINLAND