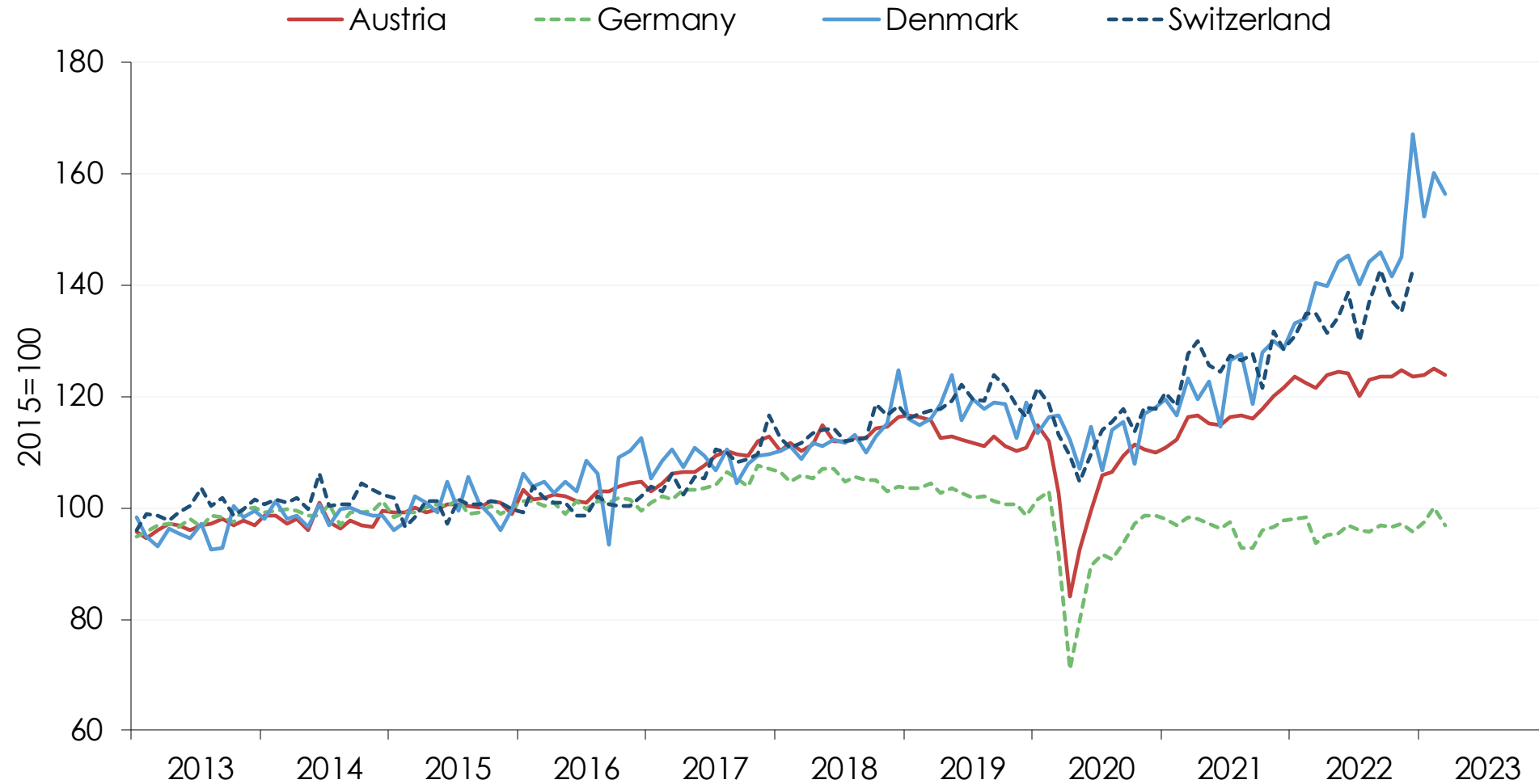


Austrian Industrial Production in a Country Comparison

Marcus Scheiblecker

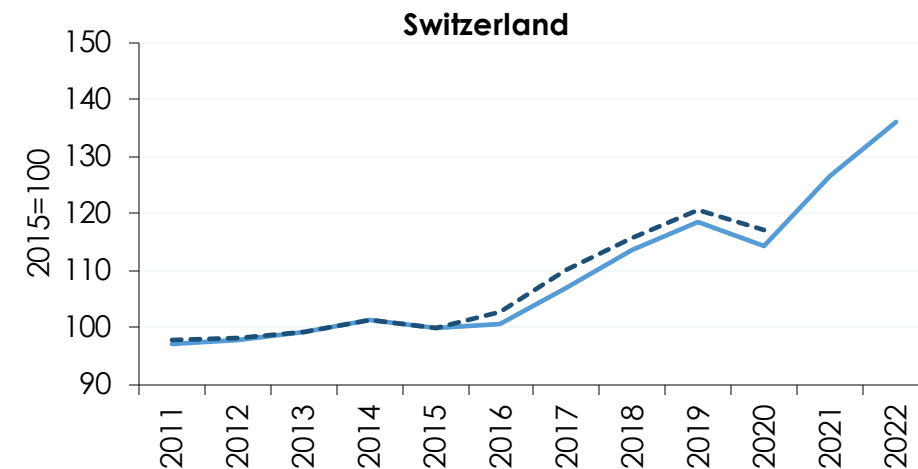
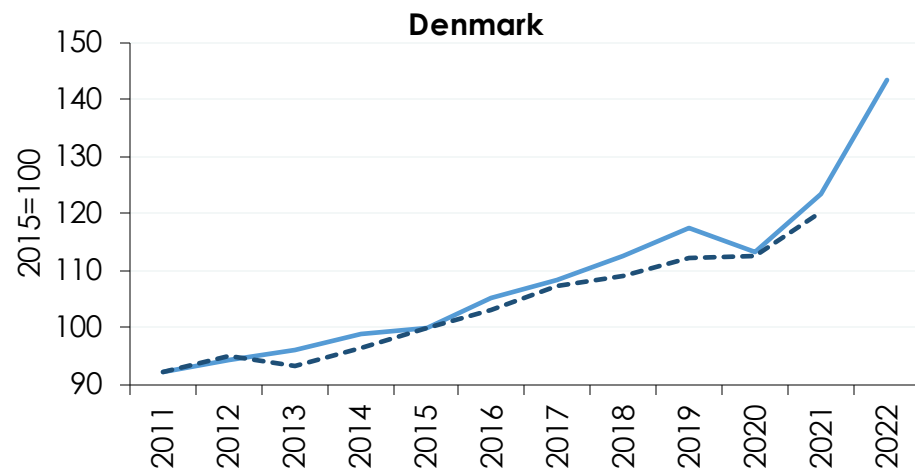
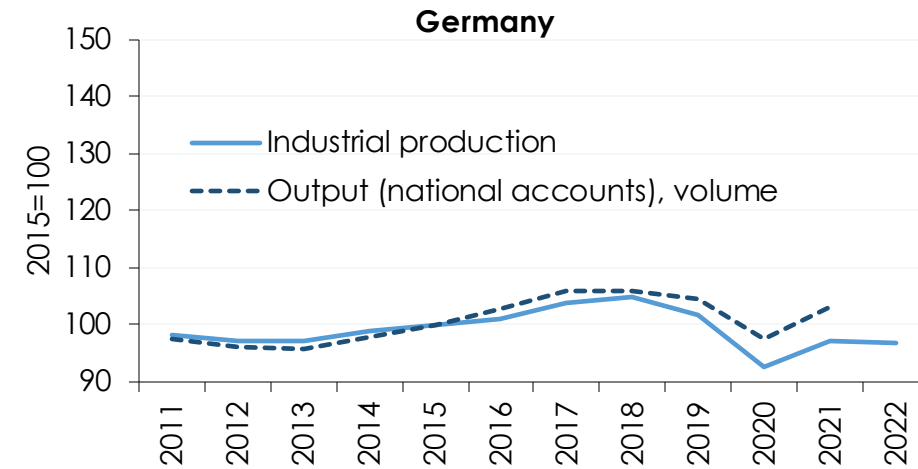
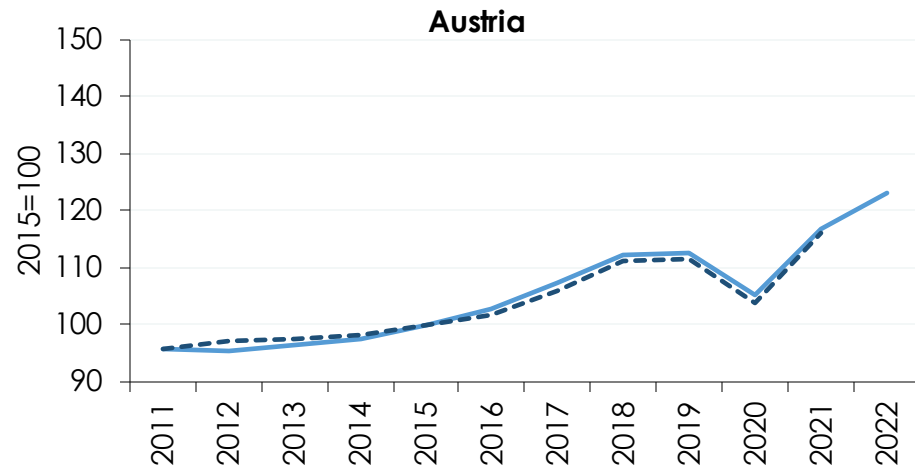
Development of production in manufacturing

Industrial production index **NACE C**, seasonally and working day adjusted



Source: Eurostat, Macrobond.

Development of output according to national accounts and industrial production in manufacturing



Source: Eurostat, Statistics Austria, WIFO calculations, Macrobond.

Differences between output in industry statistics and national accounts

- Smaller enterprises, which are not included in the industrial production index, in a given economic activity have grown more or less strongly than the larger companies covered.
- New companies have been created which are not yet included in the industrial production index but are included in the national accounts.
- The weighting in the industrial production index, which is fixed to the base year, no longer reflects the current industrial structure.
- Own account production is included in national accounts but not in the production index.

Industrial production and output

	Austria			Germany			Denmark			Switzerland		
	Industrial production	Output ¹	Δ	Industrial production	Output ¹	Δ	Industrial production	Output ¹	Δ	Industrial production	Output ¹	Δ
	Percentage changes from previous year		Percentage points	Percentage changes from previous year		Percentage points	Percentage changes from previous year		Percentage points	Percentage changes from previous year		Percentage points
2012	-0,2	+ 1,5	- 1,6	- 1,1	- 1,6	+ 0,5	+ 2,3	+ 2,9	- 0,7	+ 0,7	+ 0,1	+ 0,6
2013	+ 1,0	+ 0,3	+ 0,7	- 0,0	- 0,3	+ 0,3	+ 1,9	- 1,6	+ 3,4	+ 1,5	+ 1,3	+ 0,2
2014	+ 1,1	+ 0,5	+ 0,6	+ 1,9	+ 2,4	- 0,4	+ 2,8	+ 3,2	- 0,4	+ 2,2	+ 1,9	+ 0,3
2015	+ 2,6	+ 1,9	+ 0,6	+ 1,1	+ 2,1	- 1,0	+ 1,3	+ 3,7	- 2,4	- 1,4	- 1,3	- 0,2
2016	+ 2,7	+ 1,7	+ 1,0	+ 1,1	+ 2,6	- 1,5	+ 5,3	+ 2,9	+ 2,4	+ 0,6	+ 2,7	- 2,1
2017	+ 4,6	+ 4,3	+ 0,4	+ 2,6	+ 3,1	- 0,5	+ 2,8	+ 4,1	- 1,3	+ 6,4	+ 7,2	- 0,8
2018	+ 4,4	+ 4,9	- 0,5	+ 1,1	- 0,0	+ 1,1	+ 4,0	+ 1,6	+ 2,4	+ 6,0	+ 4,9	+ 1,1
2019	+ 0,4	+ 0,3	+ 0,1	- 3,1	- 1,3	- 1,8	+ 4,3	+ 2,9	+ 1,5	+ 4,4	+ 4,3	+ 0,1
2020	- 6,6	- 6,9	+ 0,3	- 8,9	- 6,7	- 2,2	- 3,7	+ 0,3	- 4,0	- 3,4	- 2,8	- 0,6
2021	+ 10,9	+ 11,8	- 0,9	+ 4,8	+ 6,0	- 1,2	+ 8,9	+ 7,0	+ 2,0	+ 10,5		
2022	+ 5,6			- 0,4			+ 16,2			+ 7,4		

Source: Eurostat, Statistics Austria, WIFO calculations, Macrobond. Δ . . . Difference of the respective rates of change. –¹ According to national accounts, volume.

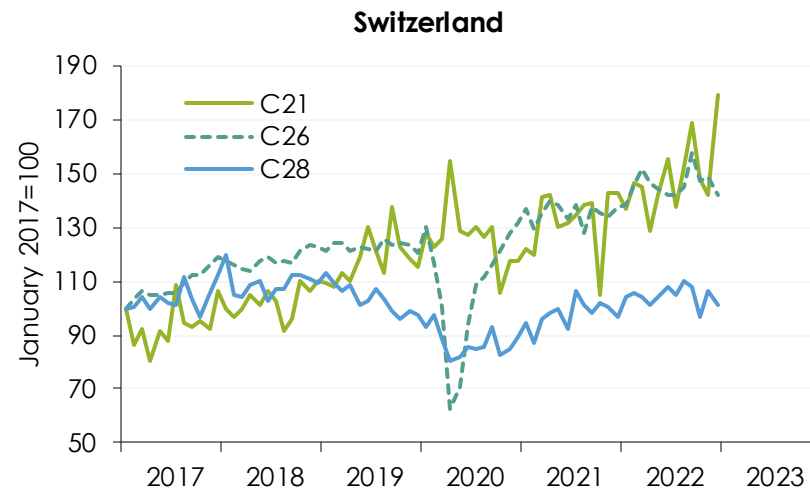
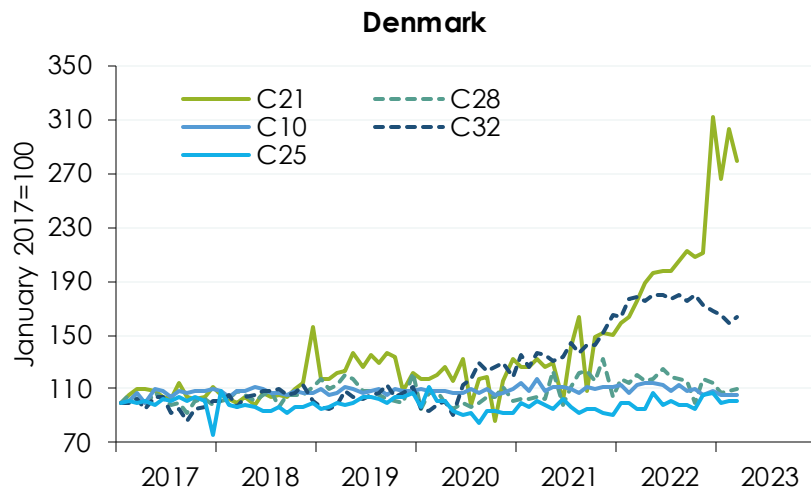
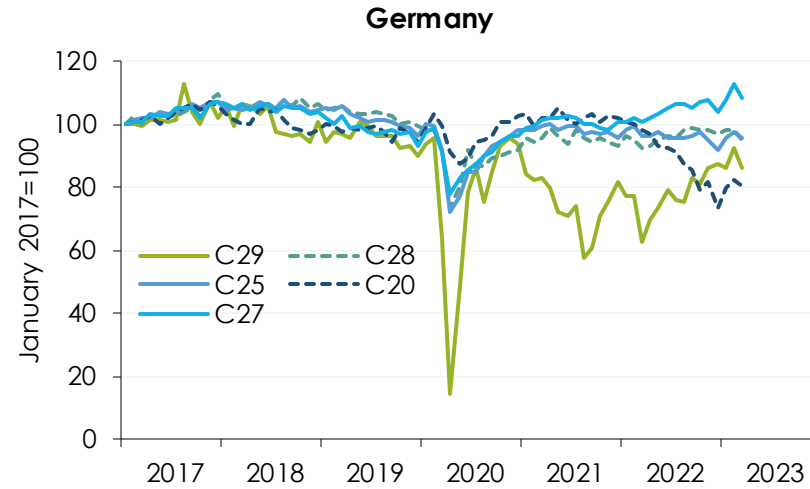
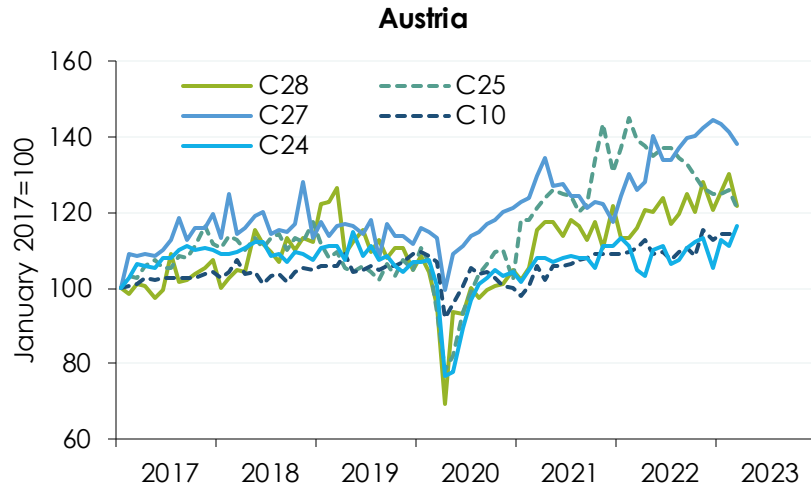
Weights of NACE divisions in manufacturing

		Austria	Germany	Denmark	Switzerland
		Gross value added at factor cost 2015 in percent			
C10	Manufacture of food products	7.9	6.2	12.8	8.4
C11	Manufacture of beverages	2.8	1.0	1.1	0.8
C12	Manufacture of tobacco products	–	0.3	0.2	–
C13	Manufacture of textiles	1.0	0.7	0.8	0.6
C14	Manufacture of wearing apparel	0.5	0.4	–	0.3
C15	Manufacture of leather and related products from other materials	0.5	0.1	0.0	0.1
C16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	4.2	1.2	1.6	3.2
C17	Manufacture of paper and paper products	3.4	1.9	1.2	0.9
C18	Printing and reproduction of recorded media	1.7	1.3	1.2	1.5
C19	Manufacture of coke and refined petroleum products	0.8	0.8	–	0.1
C20	Manufacture of chemicals and chemical products	5.2	7.4	6.3	5.3
C21	Manufacture of basic pharmaceutical products and pharmaceutical preparations	3.5	3.0	20.1	21.9
C22	Manufacture of rubber and plastics products	4.1	4.8	3.5	2.6
C23	Manufacture of other non-metallic mineral products	4.5	2.9	3.5	2.3
C24	Manufacture of basic metals	7.5	3.6	1.1	1.4
C25	Manufacture of fabricated metal products, except machinery and equipment	10.7	9.3	7.5	8.2
C26	Manufacture of computer, electronic and optical products	4.2	5.5	6.0	18.4
C27	Manufacture of electrical equipment	8.0	6.9	3.4	4.0
C28	Manufacture of machinery and equipment n.e.c.	13.9	15.9	14.0	10.2
C29	Manufacture of motor vehicles, trailers and semi-trailers	6.3	17.7	0.9	0.6
C30	Manufacture of other transport equipment	1.4	2.3	0.6	1.6
C31	Manufacture of furniture	2.5	1.3	2.2	1.0
C32	Other manufacturing	2.2	2.7	8.2	2.7
C33	Repair, maintenance and installation of machinery and equipment	3.3	2.7	2.6	1.6
HHI _n	Herfindahl-Hirschman Index ¹	2.85	5.15	6.30	7.61

Source: Eurostat, WIFO calculations, Macrobond. The 5 largest divisions in each case are highlighted in bold. For Switzerland, missing values in C15, C18, C23 were imputed with the mean of the next available annual values. ¹ Measure of sector concentration, normalised and multiplied by 100.

Development of each of the 5 most important manufacturing divisions since 2017

Production index, seasonally and working day adjusted

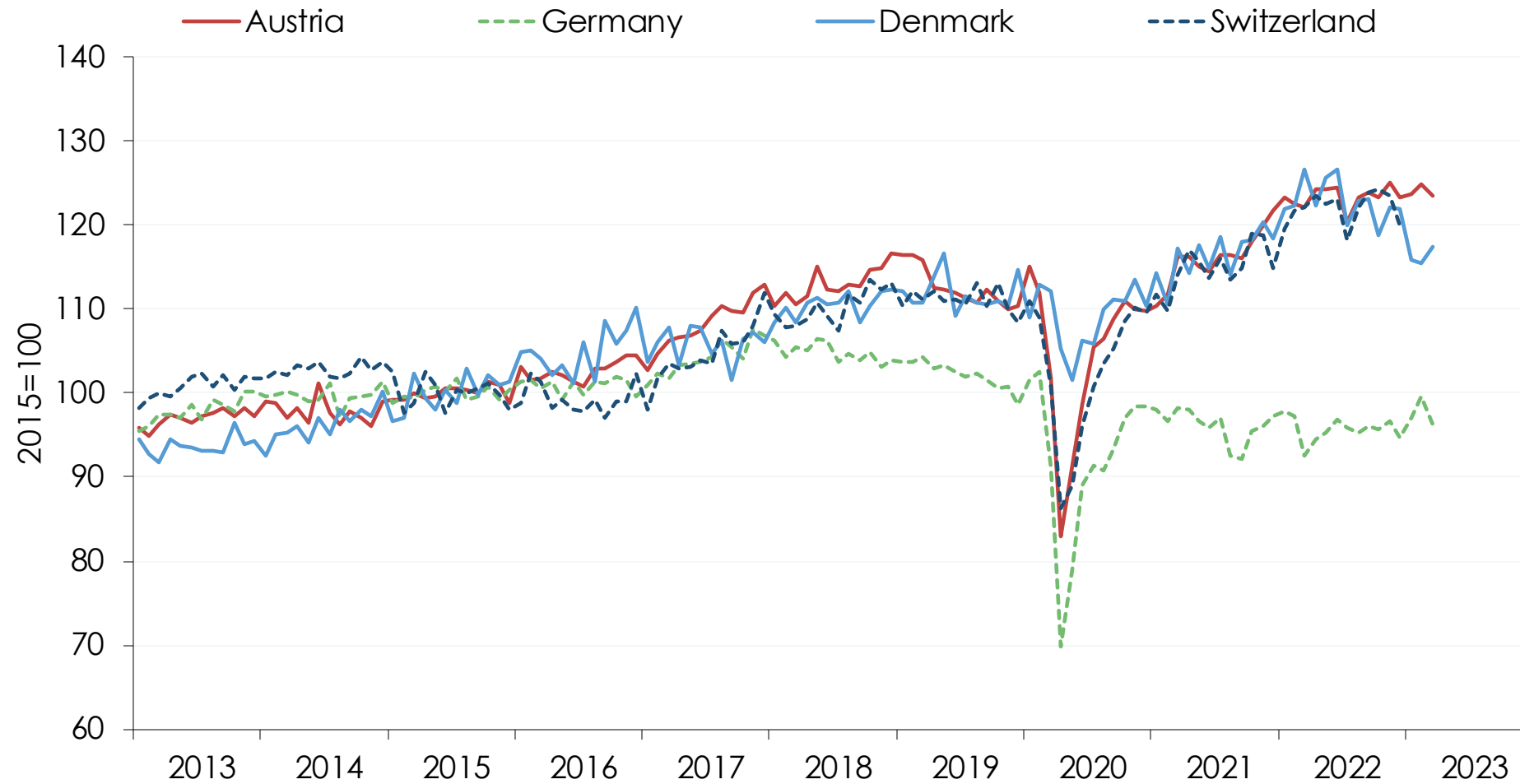


- C10 . . . manufacture of food products
- C20 . . . manufacture of chemicals and chemical products
- C21 . . . manufacture of basic pharmaceutical products and pharmaceutical preparations
- C24 . . . manufacture of basic metals
- C25 . . . manufacture of fabricated metal products, except machinery and equipment
- C26 . . . manufacture of computer, electronic and optical products
- C27 . . . manufacture of electrical equipment
- C28 . . . manufacture of machinery and equipment n.e.c.
- C29 . . . manufacture of motor vehicles, trailers and semi-trailers
- C32 . . . Other manufacturing.

Source: Eurostat, Statistics Austria, WIFO calculations, Macrobond. No production indices are available for Switzerland in the divisions C10 and C25.

Industrial production excluding C21

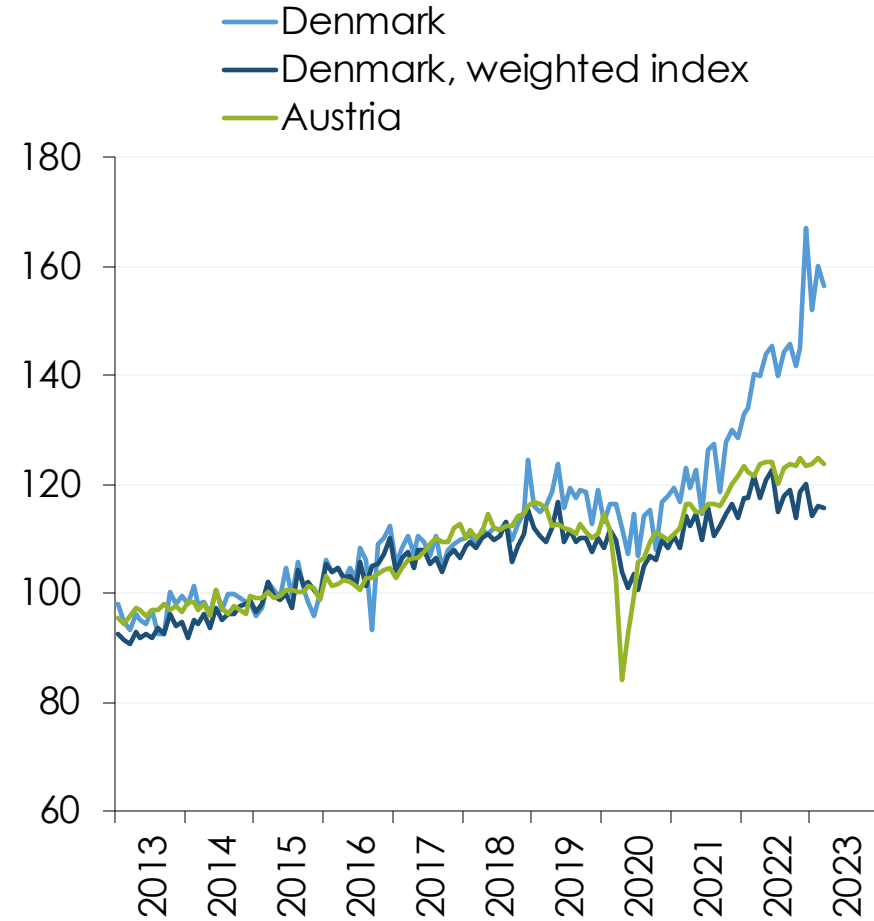
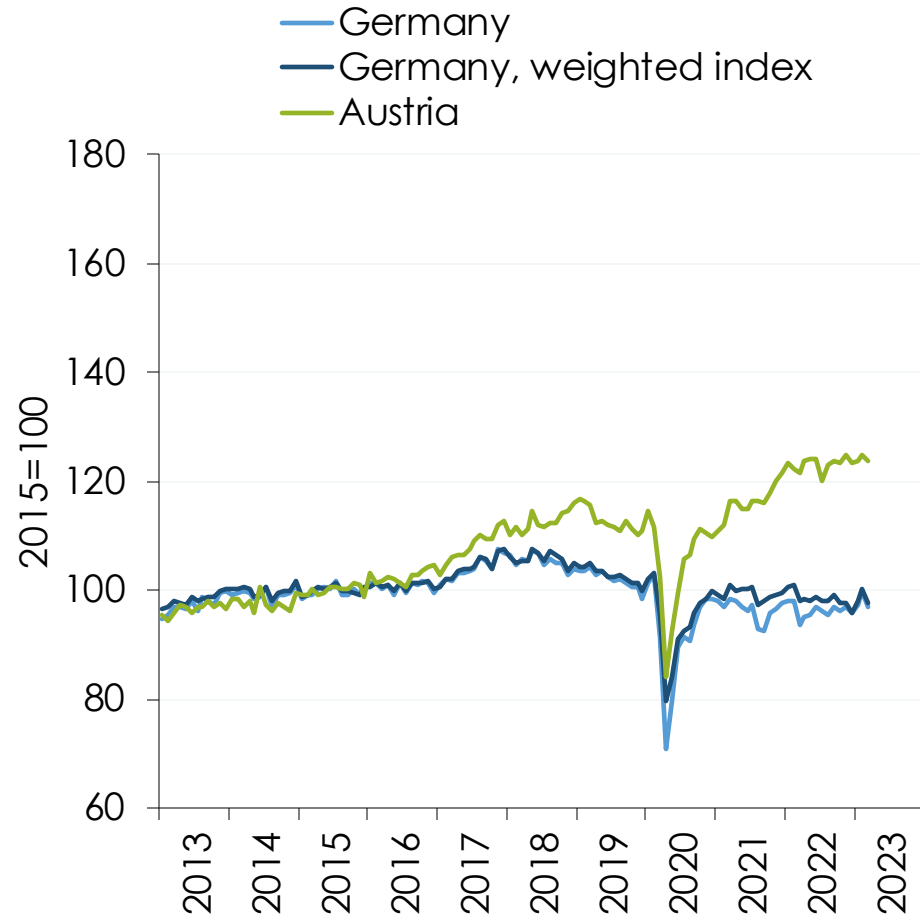
Seasonally and working day adjusted



Source: Eurostat, WIFO calculations, Macrobond. The weighted production index of the manufacture of basic pharmaceutical products and pharmaceutical preparations (NACE 2008, division C21) was subtracted from the production index for manufacturing (NACE 2008, section C). The calculated index was rebased to 2015 = 100.

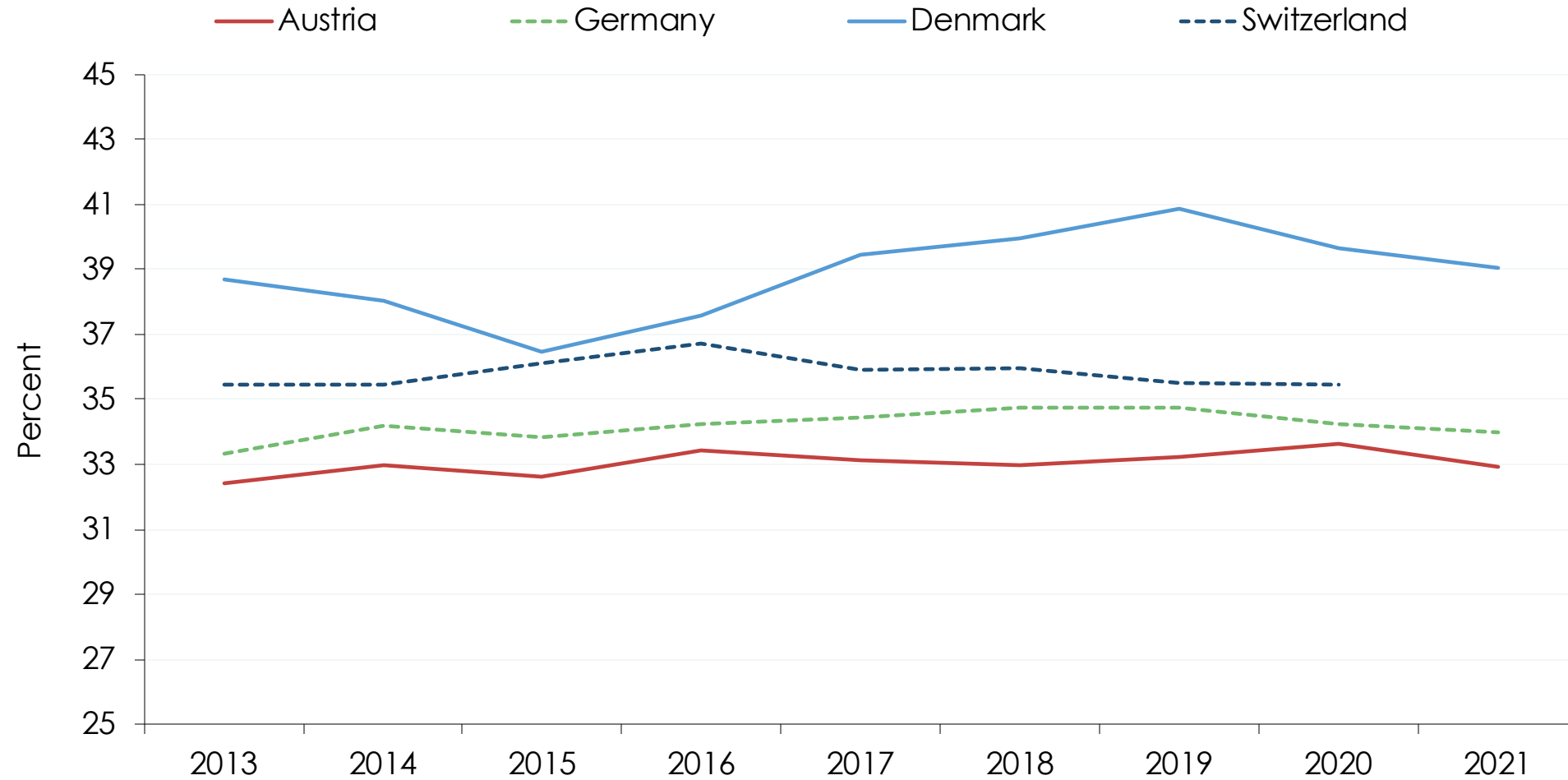
(Austrian) Weighted production indices for Germany and Denmark

Manufacturing (NACE C)



Source: Eurostat, WIFO calculations, Macrobond. The weighted indices were calculated with the Austrian value added shares. Denmark: excluding manufacture of leather and related products of other materials (C15) and coke and refined petroleum products (C19).

Share of real value added in manufacturing output

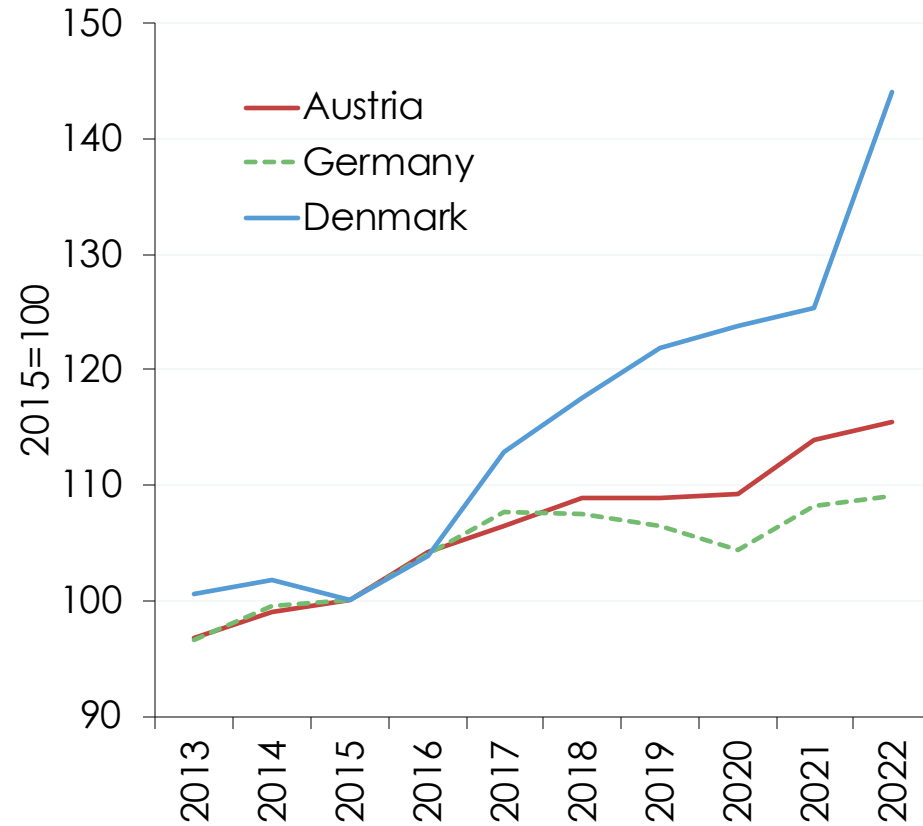


Source: Eurostat, Statistics Austria, WIFO calculations, Macrobond.

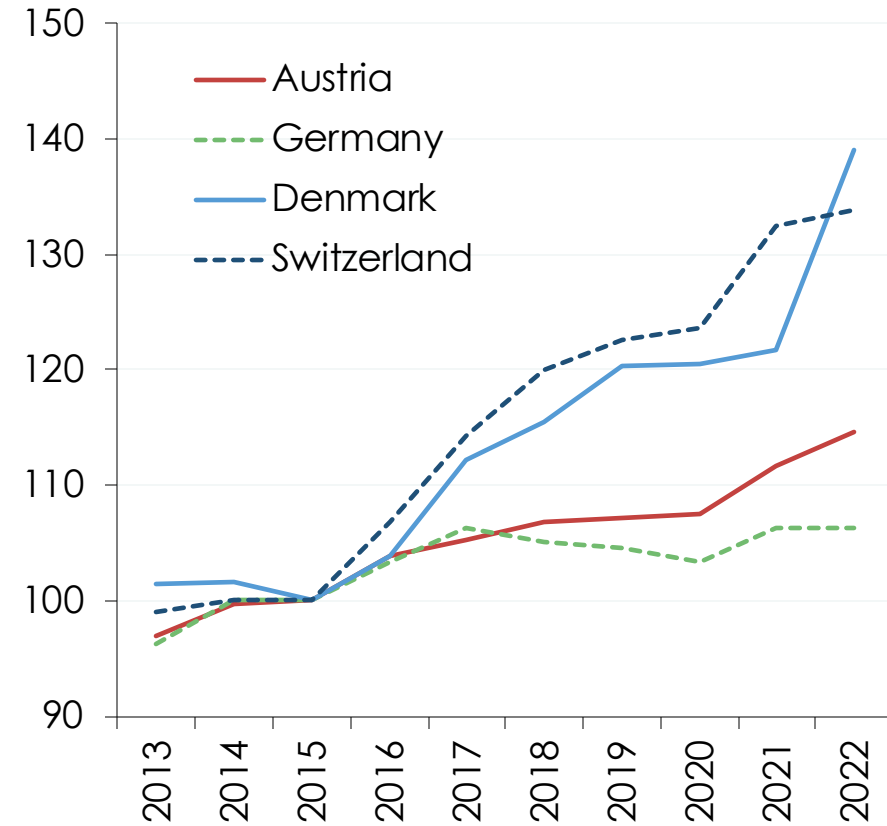
Hourly productivity in manufacturing

Gross value added per hour worked

Based on hours worked according to national accounts



Based on hours worked according to short-term statistics

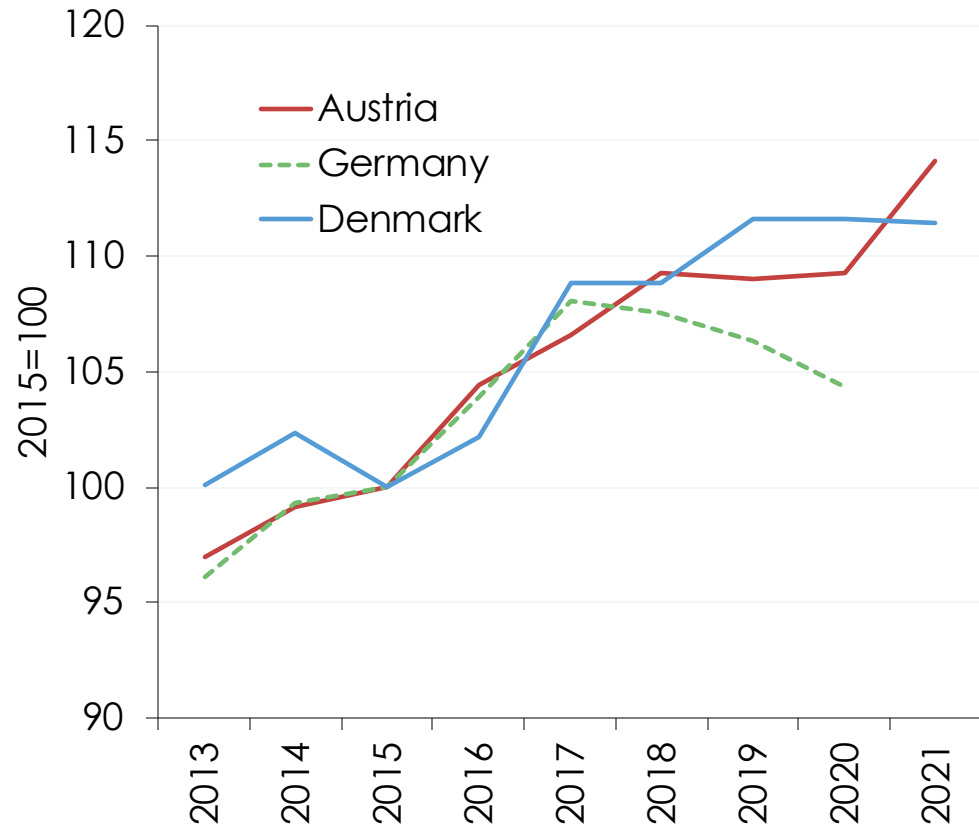


Source: Eurostat, Statistics Austria, WIFO calculations, Macrobond.

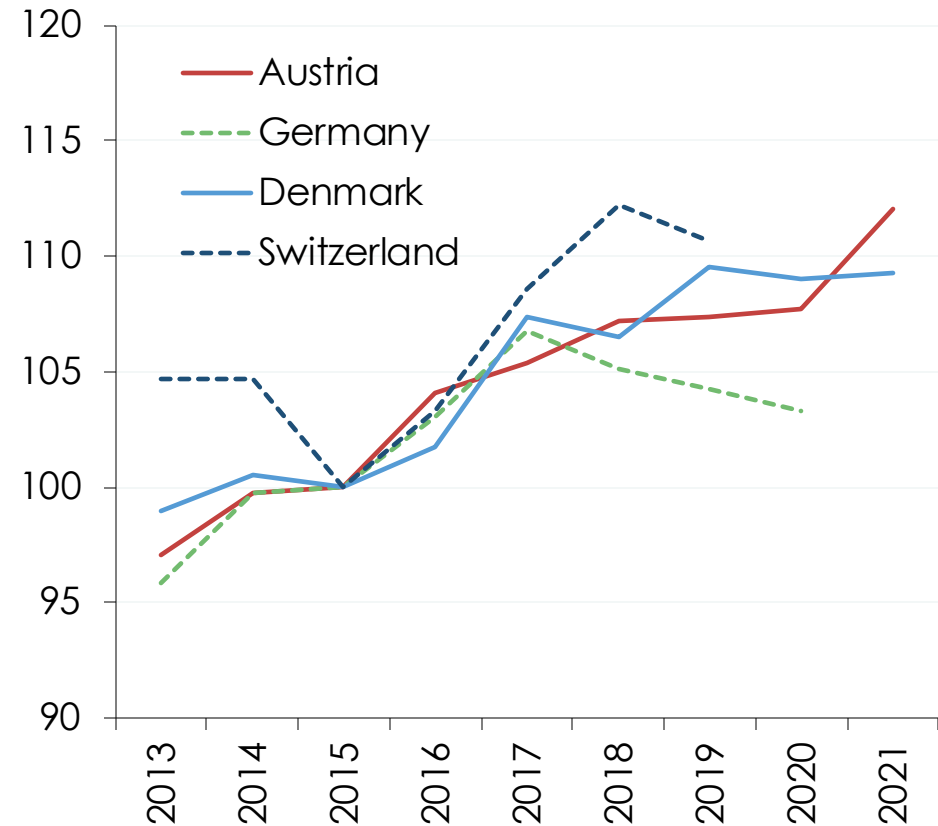
Hourly productivity in manufacturing excluding C21

Gross value added per hour worked

Based on hours worked according to national accounts



Based on hours worked according to short-term statistics



Source: Eurostat, WIFO calculations, Macrobond. Manufacturing (NACE 2008, section C) excluding manufacture of basic pharmaceutical products and pharmaceutical preparations (NACE 2008, division C21); Gross value added was calculated using chain-linking, and the volume of hours worked according to national accounts by difference. The index of hours worked according to short-term statistics was subtracted on a weighted basis and the result rebased to 2015 = 100.

Conclusions

- The better performance of the Austrian industry compared to Germany since 2017 is less a reflection of the strength of the domestic economy than of Germany's industrial weakness.
- In Denmark and Switzerland, output grew even more dynamically than in Austria in recent years. However, the lead of these countries is exclusively due to the boom in the pharmaceutical industry. If this industry is excluded, Austria's lag dissolves.
- The weakness of the German industry is also evident when the Austrian industrial structure is transferred to the sectoral development in the countries compared. Denmark even performs worse than Austria in this calculation variant.
- Industrial labour productivity has been declining in Germany since 2017. Austria, Denmark and Switzerland show similar increases if the pharmaceutical industry is excluded

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