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Manufacturing

Quarterly analysis of manufacturing activity

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Stellenbosch UNIVERSITY IYUNIVESITHI UNIVERSITEIT

EDITOR:

Nkosiphindile Shange

shange@sun.ac.za
+27 (21) 808 9774

TECHNICAL ASSISTANCE:

Nicolaas van der Wath

Please refer to the glossary on the BER's website for explanations of technical terms.

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Executive summary

According to the latest Absa Manufacturing Survey, business confidence in the sector remained flat at 28 points in Q3, the same level as in Q2. This follows a 7-point increase between Q1 and Q2. Even though confidence remains below the long-term average of 36 points, activity remained severely constrained, and the unchanged confidence reading reflects some resilience in sentiment.

Manufacturing activity was under pressure in Q3 due to weak domestic and global demand. On the export front, even though volumes were down, selling price inflation accelerated, shielding turnover somewhat. However, in general, it seems that the over 160 days of no load-shedding could not be fully exploited due to insufficient demand. Production volumes fell in most subsectors, contributing to a decline in employment and increased capacity under-utilisation.

The survey provided positive news on the investment front. Respondents reported an increase in the current level of fixed investment, and expected investment outlays in 12 months' time also significantly improved. Encouragingly, there was a meaningful improvement in the political climate constraint following the formation of the Government of National Unity (GNU). The general political constraints on business conditions and investment outlays declined to the lowest level in 12 years, with the increased investment appetite likely linked to this.

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Introduction

The South African (SA) manufacturing sector registered quarterly growth of 1.1% in the second quarter of 2024 (2024Q2). This was on the back of a solid performance in April, the first month without load-shedding, with May and June remaining reasonably weak. The latest Absa Manufacturing Survey suggests that the sector remained under pressure in 2024Q3.

This report provides an overview of the situation in the manufacturing sector as it developed during 2024Q3 and expectations for 2024Q4 and 12 months hence. The main section of the report discusses the trends in the overall manufacturing industry with the assistance of graphs, followed by a brief outlook for the sector. After this section, separate tables and graphs of the survey data are provided for each sector and province.[1]

An overview of the latest official data

SA REAL GDP EXPANDS IN Q2

According to the latest data from Statistics South Africa (Stats SA), SA's real GDP marginally expanded by 0.4% quarter-on-quarter (q-o-q) in 2024Q2. This followed flat growth in 2024Q1, revised up from a 0.1% contraction. Growth was generally broad-based, with seven (of the ten) industries growing while three contracted. The finance industry, which is the largest and contributes 23% to GDP, rose by 1.3% and contributed 0.3 percentage points (%pts) to GDP growth. This was followed by the manufacturing, electricity, and trade industries, each contributing 0.1%pts. The rebound in manufacturing and construction may be due to the uninterrupted power supply through Q2, which has started to yield positive results. However, the gains were still limited by insufficient demand. The biggest drag on GDP came from the transport industry, while agriculture and mining also contracted. From the expenditure side, a persistent worrying issue is the continued decline in gross fixed capital formation. Investment fell for a fourth consecutive quarter as investments in infrastructure and other fixed assets declined in Q2. The level of fixed investment is now about 10% below the pre-pandemic level.

The manufacturing sector grew by 1.1% in Q2, following a decline of 1.4% in Q1. This is an encouraging rebound, as six of the ten manufacturing subsectors recorded growth in Q2, with the largest contributions coming from the food, transport equipment, and metals subsectors.

According to Stats SA, manufacturing production increased by 1.7% year-on-year (y-o-y) in July, following a 5.5% decrease in June. The increase was not widely shared among subsectors, with only half of the ten subsectors increasing. Manufacturers in the food and beverages subsector recorded growth of 9.5% (contributing 2%pts) and metals (5.2%, 1.1%pts). The most considerable drag came from the transport subsector, which contracted by 12.1%, shaving off

[1] The Manufacturing Survey separately covers eight of the main subsectors of the manufacturing industry as well as the three main provinces (Gauteng, KwaZulu-Natal and the Western Cape).

1.3%pts in the sector's performance. The decline in production in the transport subsector was particularly due to a workers' strike at the Silverton Assembly Plant in Pretoria, among others. All workers returned to work in mid-July, and there were no dismissals. On a m-o-m basis, seasonally adjusted production increased by 2.1% in July 2024 compared to June 2024, following a 0.4% contraction in June. Seasonally adjusted sales also increased by 1.6% in July (m-o-m), following a 0.2% growth in June, indicative of some positive signs of recovery in the sector at the start of the third quarter.

Unfortunately, the latest Absa Purchasing Managers' Index (PMI) suggests that the manufacturing sector came under pressure in August. The headline index weakened to 43.6 points in August, down from 52.4 points in July. The current average PMI for Q3 is 48 points, which is in the contractionary territory. However, the Q3 average so far is slightly higher than that of Q2 (47.8), which signals some improvement relative to the previous quarter. In August, the biggest drag came from business activity, which fell from 50.8 points in July to 38.9, while new sales orders fell from 55.4 to 34.6. This year has been characterised by political uncertainty, high but slowing inflation, elevated borrowing costs, and sluggish global and domestic demand, which has not been strong enough to fuel a sustained rebound in production.

GLOBAL MANUFACTURING UNDER PRESSURE

The J.P. Morgan global manufacturing PMI declined to an 8-month low of 49.5 in August (from 49.7 in July) to remain below the neutral 50-point mark, extending the deterioration at an increased pace. August saw global manufacturing production decrease, albeit only slightly, for the first time in 2024. Output contracted in both the intermediate and investment goods industries. Although the upturn in consumer goods continued, the growth rate was only mild and weakest during the current 13-month sequence of expansion. The continued decline in the overall index was caused by production, new orders, and employment posting mild contractions, and global trade flows deteriorated for the third month in a row. All three sub-industries covered by the survey (consumer, intermediate, and investment goods) saw new order intakes decrease. Of the 31 surveys for which August data was available, 18 registered a PMI reading consistent with a deterioration in manufacturing operating conditions. This included downturns in the US, the EZ, and Japan. Although the China PMI moved slightly back above the no-change mark, at 50.4, it remained at a subdued level. Solid growth was seen in India (57.5), the best performer by far, and in the UK (52.5) and South Korea (51.9).

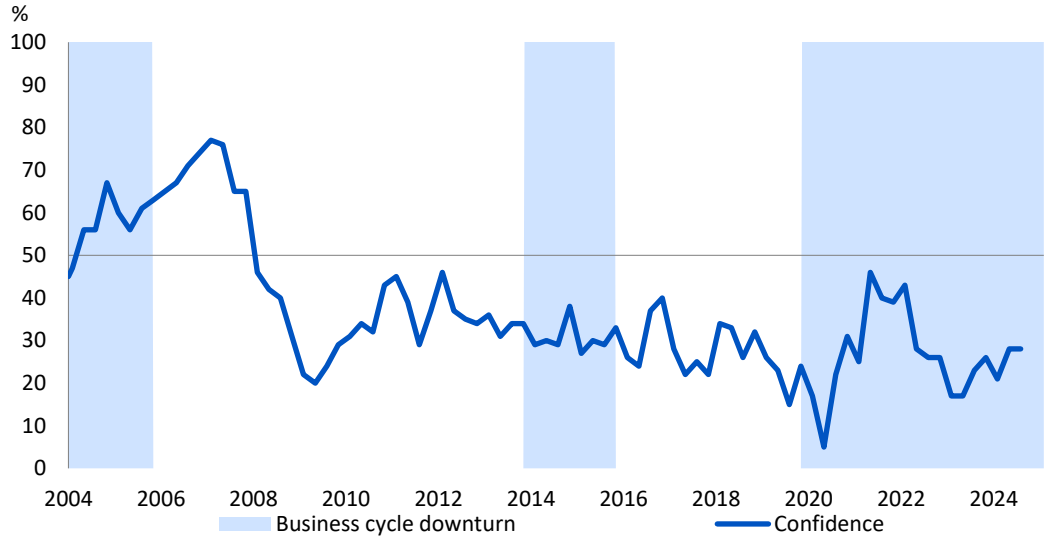
The 2024Q3 Absa Manufacturing Survey results

MANUFACTURING BUSINESS CONFIDENCE REMAINED FLAT IN Q3

Manufacturing business confidence remained flat at 28 index points in Q3, the same as in 2024Q2 and the highest level in two years. The confidence index remains below the long-term average of 36 index points, with just over 7 out of 10 respondents unsatisfied with business conditions. Taking a long-term view, confidence was last in positive terrain (above 50) before the global financial crisis (GFC) – see Figure 1 below. However, it is good to note that confidence remained flat despite a deterioration in the underlying activity and demand indicators – the last time production and demand were this weak (in 2023H1), confidence was

at 17 points. While the extended relief of load-shedding is welcome, port issues remain unresolved and affect the delivery of raw materials needed from the rest of the world. They also delay the export market, weighing on sentiment.

Figure 1: Only 3 out of 10 respondents are satisfied with prevailing business conditions



Source: BER, SARB

Total confidence in the sector held steady at 28 points, but disparities between subsectors remain. Of the eight major manufacturing subsectors surveyed, half saw an increase in confidence, while the other half saw a drop in confidence. The furniture and other manufacturing subsector recorded the highest confidence level at 50 points, despite a 9-point decline in Q3. The textile and clothing subsector gained the most points (32) in Q3, reaching a confidence level of 49 points, the highest in years for this sector.

Confidence in the transport subsector rebounded significantly, gaining 23 points to 28 in Q3. This is the highest confidence level since 2021Q1 (41 points), and the first time the confidence level has been above 20 points since 2023 (21 points). Improvements in the political climate likely motivated increases in actual fixed and planned investments in 12 months.

BOTH DOMESTIC AND GLOBAL DEMAND ARE CONSTRAINED

A net majority of 21% reported a decline in domestic sales volumes in Q3, the worst level since 2023Q2 when 39% experienced a decrease in sales. The good news is that consumer goods sales improved slightly, which has been maintained since the start of this year. Following declines in Q1 and Q2, sales of capital goods also improved this quarter, starting to tick up for the first time this year. However, sales of intermediate goods deteriorated this quarter and dragged total sales lower. Both consumers and corporations are cash-strapped and experiencing high debt servicing costs, weighing on demand.

The indicator tracking domestic selling price inflation ticked down slightly (by -2 points). From a consumer perspective, this is welcomed as a sign of inflation still moving downwards, having peaked last quarter. The latest official data from Stats SA showed that the annual increase in the producer price index (PPI) was 4.2%, the lowest this year, which will positively affect overall inflation. Some respondents mentioned that no orders were coming from their regular customers, with a harsh trading environment worsened by tough competition from cheaper imports.

Figure 2: Sales volumes

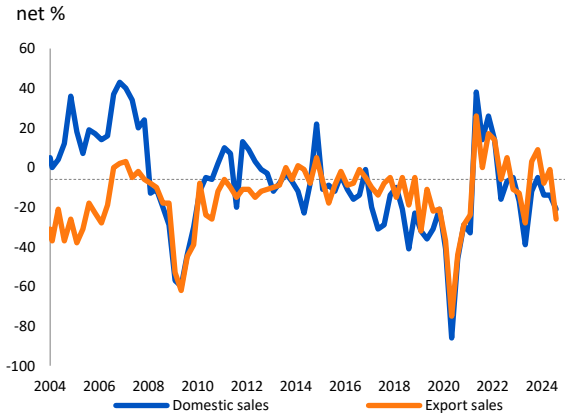
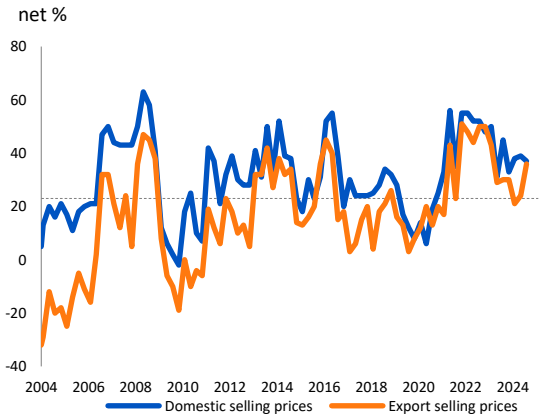


Figure 3: Selling prices



Source: BER

Following some improvements in Q2, export sales worsened in Q3, as a net majority of 26% reported decreased sales volumes. This level is significantly below the long-term average of -14%. The decline in exports was across subsectors, with significant decreases in the three largest subsectors: metals, transport, and chemicals. The largest subsector, metals, had a net 41% of producers reporting a decline in export sales, followed by transport (49%), chemicals (21%), and wood (40%). There were, however, improvements in the export sales of other subsectors, even though they are relatively smaller. The food and beverages subsector experienced improvements in export sales and reported positive export sales for the first time this year. The glass subsector also performed well, bouncing back from all producers experiencing declining sales in Q2 to reporting increased sales in Q3.

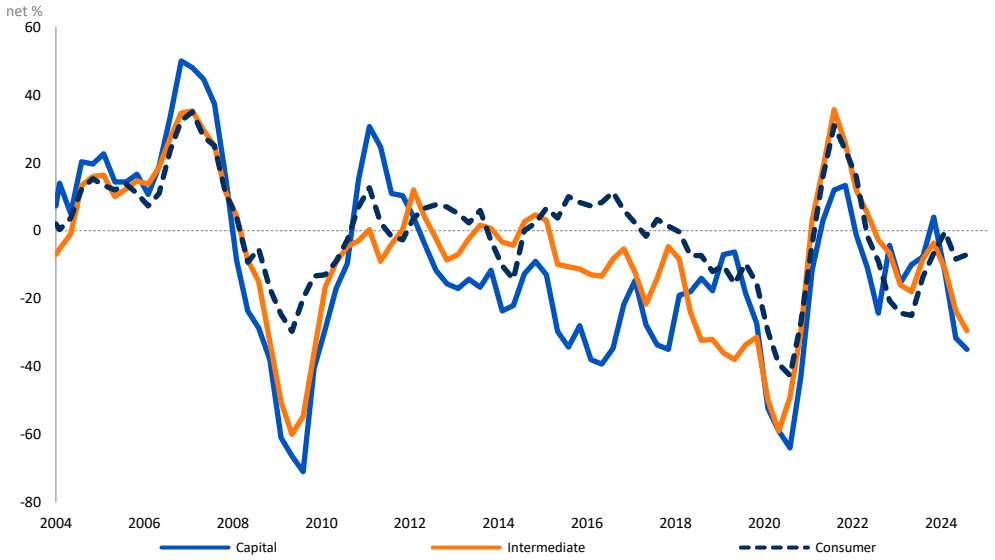
Looking ahead, the JP Morgan Global Composite PMI increased to 52.8 in August from 52.5 in July. The acceleration was due to a strong services sector, with manufacturing remaining weak. Over time, this is expected to spill over to the revival of global trade as consumer goods demand improves, which could also support SA exports.

PRODUCTION VOLUMES WORSEN FURTHER DUE TO INSUFFICIENT DEMAND

A seasonally adjusted net majority of 26% reported decreased production volumes in Q3 compared to the same quarter last year. This follows a 9% majority that reported declines in production volumes in the previous quarter. Production declines were broad-based, with most manufacturing sectors reporting declines due to constrained demand and, in some subsectors, tough competition from cheaper imports. Consumer goods fared better than the other segments amid higher sales supporting output. The good news is that only 1% of the respondents see a continuous decline in production levels going forward.

There was an increase in capacity under-utilisation (i.e., more slack capacity), and employment also ticked downwards as activity was constrained. On a provincial level, production was down in all three provinces: the Western Cape, Gauteng, and KwaZulu-Natal (KZN). Of the three, KZN fared relatively better.

Figure 4: Production volumes by segment (smoothed)



Source: BER

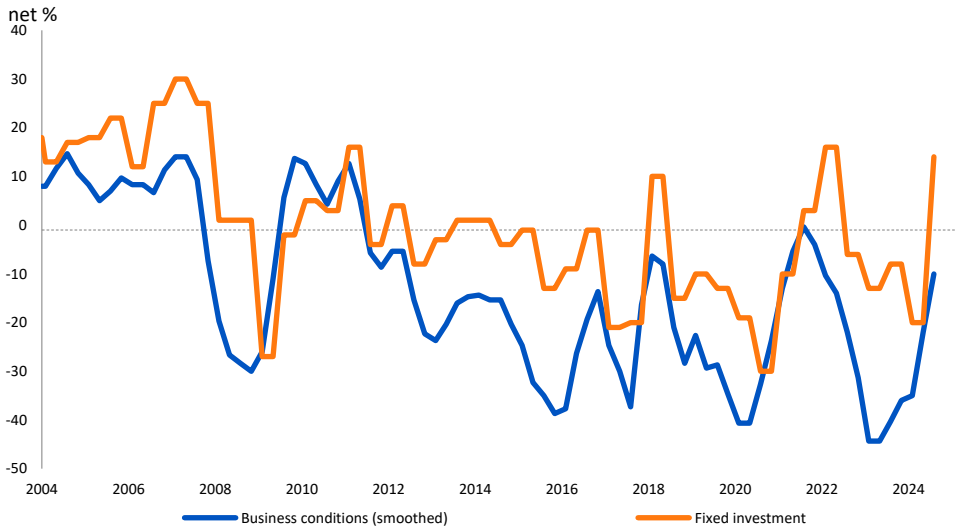
The indicator tracking the average rate of increase in per unit production costs increased in Q3, after a decline in 2024Q2. The indicator reached 75 in Q3, the highest reading since the 77 points in 2023Q3. It is helpful to note here that this bump-up in production costs is likely due to the fixed expenses that manufacturers incur even with lower production volumes. There was an uptick in the average hours worked, which may also have contributed slightly to the rising costs. Manufacturers are more optimistic about future labour costs, as they expect per-unit costs to decline as production picks up again when demand improves.

FIXED INVESTMENT SHOWS SIGNS OF RECOVERY

A net 5% reported growing fixed investments in Q3 and an increase in fixed capital stock for the first time in two years. Furthermore, this is the first time the reading exceeds the long-term average of 0 since 2022Q4 (2%). The chemicals subsector had the most significant proportion of respondents reporting increased fixed investments at 32%, followed by respondents in the food and beverages subsector at 4%. This is a considerable improvement compared to the persistent decline reported in the previous months. At a provincial level, KZN reported significantly more respondents with increased fixed investments (14%), followed by GP (7%), and then WC (1%). These fixed investments were mainly due to planned factory refurbishments rather than for new plants. Investments in machinery and equipment in 12 months have improved, turning positive for the first time since 2022Q1.

Encouraging news came on the political front, as the political climate constraint lost 21 points and is at the lowest level in over a decade. In other words, the general political climate was considered a less severe constraint than before. The rating was 63%, the lowest since the 59% reported in 2012Q3, and below the long-term average of 65%. This is the first survey after the election, and the GNU was agreed upon with the hope that the government will pursue the structural reform required to boost SA's economic growth. With the economy still scarred from the COVID-19 pandemic, investments are needed to improve rail, roads, and energy infrastructure.

Figure 5: Expected business conditions and fixed investments in 12 months



Source: BER

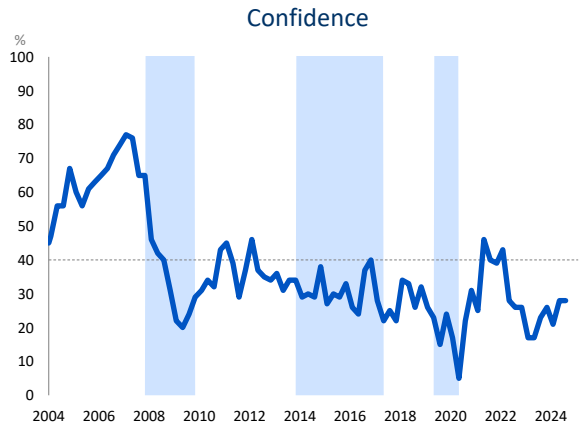
OUTLOOK

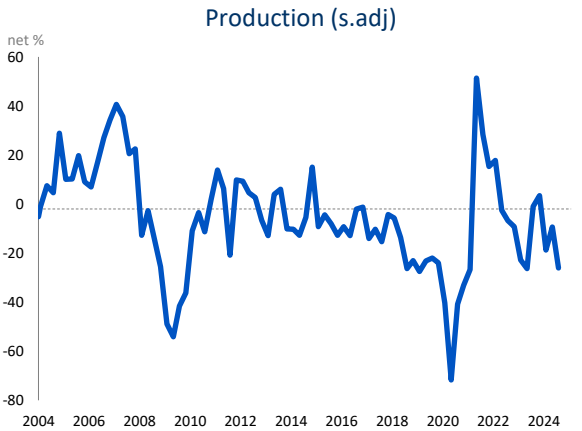
Manufacturers are upbeat about future business conditions given the improved political climate and expected increase in demand. A net majority of manufacturers expect an improvement in conditions. This is the first time the forward-looking indicator has been positive since 2021Q3, and at 6 points, it is currently at its highest level since 2021Q2. Conditions remain constrained by insufficient demand, with global manufacturing and local demand struggling in Q3. However, expected relief from lower interest rates should support some recovery in demand. There is a high probability of a rate cut as inflation has been trending downward, and the official inflation rate is currently hovering around the midpoint target. As global economies recover, international trade is expected to improve. With the Chinese government on a drive to boost the manufacturing sector, this could spill over to a high demand for SA commodities, which will boost the domestic environment. The improving political climate is a positive for fixed investment, which is starting to tick up and will help build more capacity in the sector.

Survey results

MANUFACTURING: TOTAL[2]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	σ Δ
Confidence	%	20	36	52	26	17	17	23	26	21	28	**28**	0	7
Activity & prices														
Production	Net %	-28	-6	17	-3	-18	-34	-4	9	-14	-17	**-29**	-12	18
Seasonally adjusted	Net %	-28	-6	16	-9	-23	-26	-1	4	-19	-9	**-26**	-17	16
Employment	Net %	-29	-16	-2	-11	-17	-19	-18	-2	-21	-23	**-28**	-5	10
Average hours worked / worker	Net %	-29	-13	2	-16	-20	-32	-16	5	-5	-27	**-24**	3	13
Domestic sales	Net %	-33	-8	16	-5	-17	-39	-12	-5	-14	-14	**-21**	-7	18
Domestic selling prices	Net %	17	32	47	48	50	31	45	33	38	39	**37**	-2	12
Export sales	Net %	-30	-14	3	-11	-13	-28	3	9	-8	-1	**-26**	-25	14
Export selling prices	Net %	0	18	37	50	43	29	30	30	21	24	**36**	12	13
Production costs	Net %	49	63	78	89	85	84	77	68	68	65	**75**	10	11
Stocks & investment														
Finished goods rel. to demand	Net %	1	9	18	1	-4	-4	3	2	-5	11	**19**	8	7
Smoothed	Net %	2	9	17	1	-2	-2	0	0	3	8	**15**	7	5
Capacity underutilisation	%	65	72	79	68	74	78	69	73	74	63	**73**	10	5
Smoothed	%	66	72	78	70	73	74	73	72	70	70	**68**	-2	4
Fixed investment	Net %	-15	0	14	2	-15	-20	-12	-13	-17	-5	**5**	10	10
Constraints														
Insufficient demand	Net %	54	62	70	65	61	58	60	61	65	60	**68**	8	5
Political climate	Net %	46	65	83	83	91	86	84	82	85	84	**63**	-21	6
Expected in 12 months														
Business conditions	Net %	-34	-14	6	-29	-45	-59	-29	-33	-46	-26	**6**	32	16
Smoothed	Net %	-31	-14	3	-31	-44	-44	-40	-36	-35	-22	**-10**	12	12
Fixed investment	Net %	-16	-1	13		-13		-8		-20		**14**	34	14



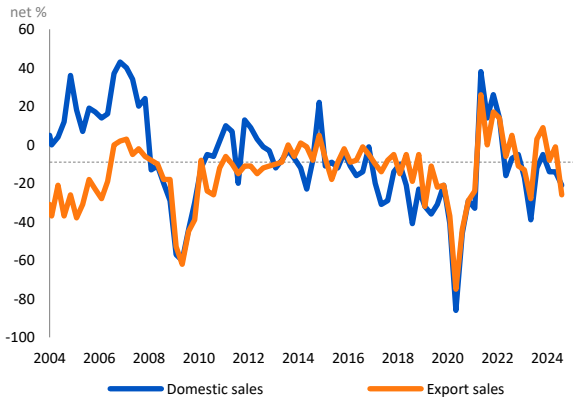


[2] The total consists of 1) food & beverages, 2) textiles, clothing, leather & footwear, 3) wood, paper, printing & publishing, 4) chemical products, rubber & plastics, 5) glass & non-metallic mineral products, 6) basic metals, metal products & machinery, 7) electrical machinery, radio, TV and professional equipment, 8) motor vehicles, parts & transport equipment and 9) furniture & other. Although the BER covers the electrical machinery etc. sector and includes it in the total, it does not publish the results of this sector separately. The BER does not cover petroleum refining (which is part of the chemical etc. sector) and scrap metal (which is part of "other") and they are therefore not included in the total.

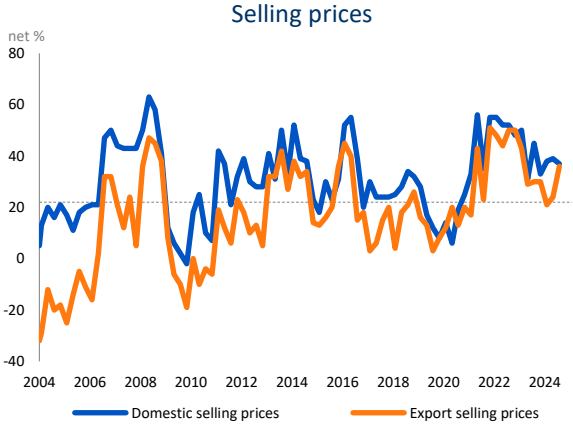
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

MANUFACTURING: TOTAL

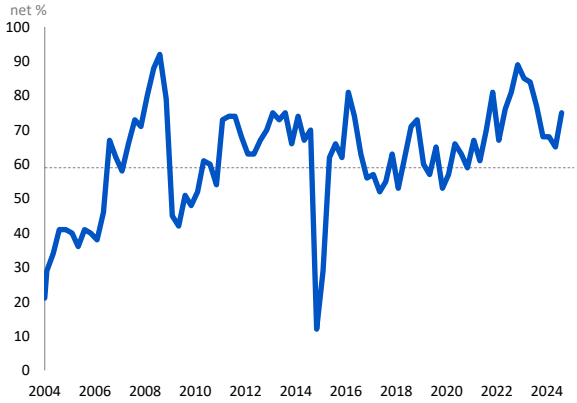
Sales



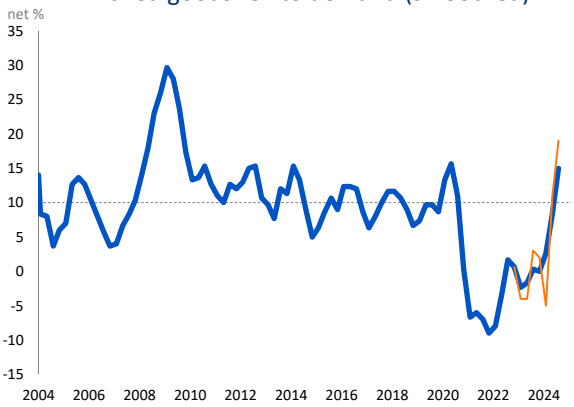
Selling prices



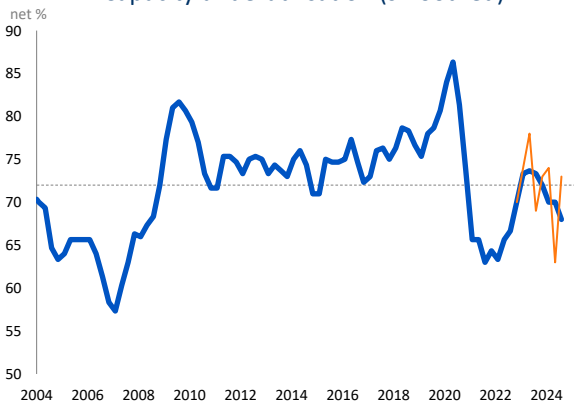
Production costs



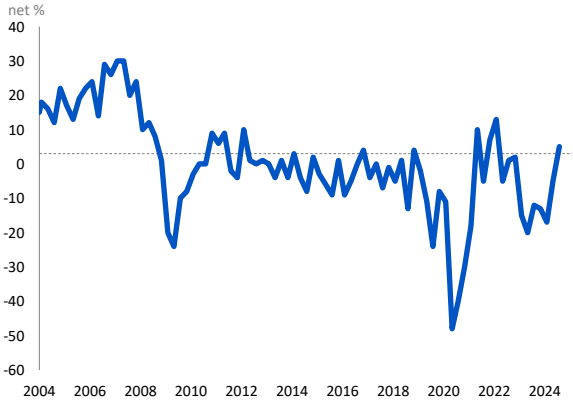
Finished goods rel. to demand (smoothed)



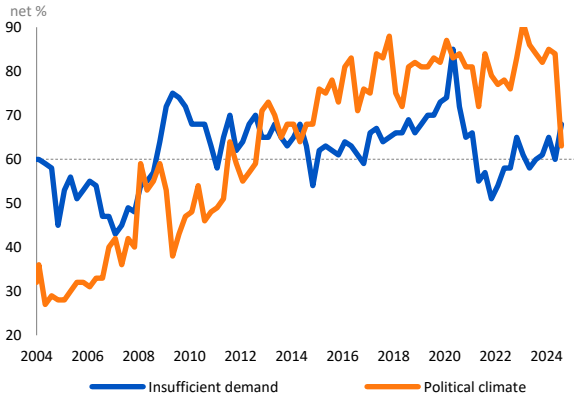
Capacity underutilisation (smoothed)



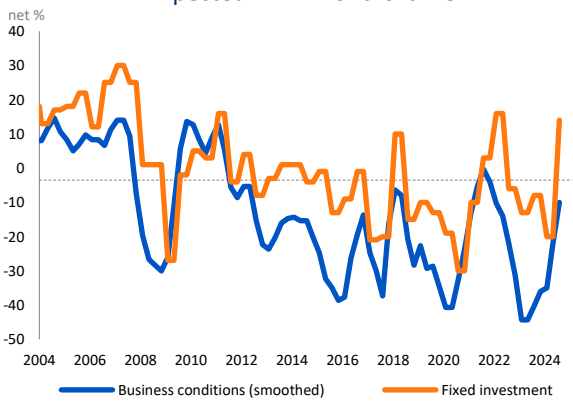
Fixed investment



Constraints

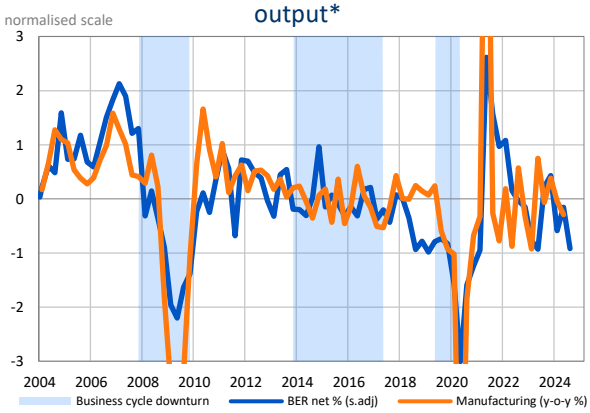


Expected in 12 months' time

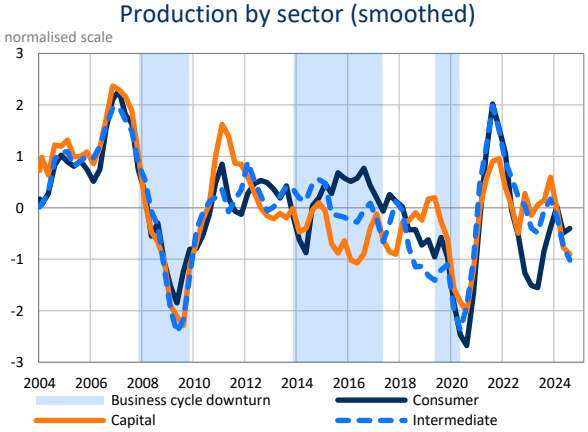


SUMMARY

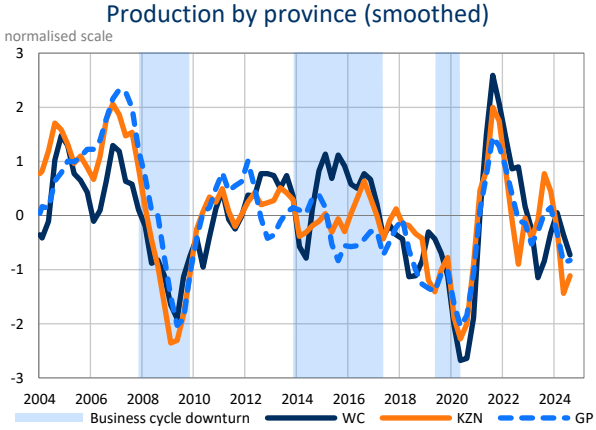
Production & actual manufacturing output*



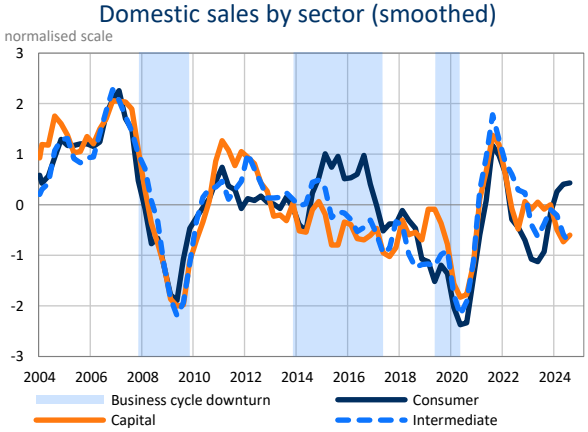
Production by sector (smoothed)



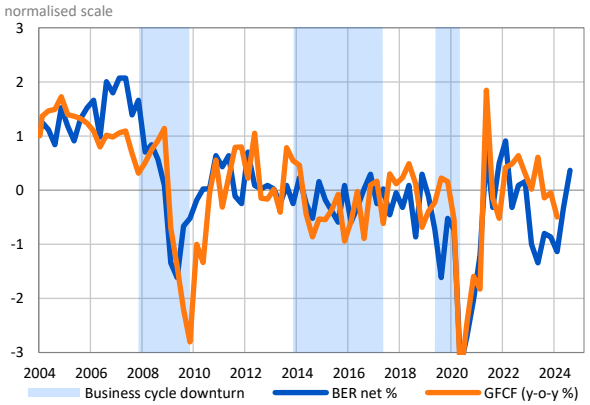
Production by province (smoothed)



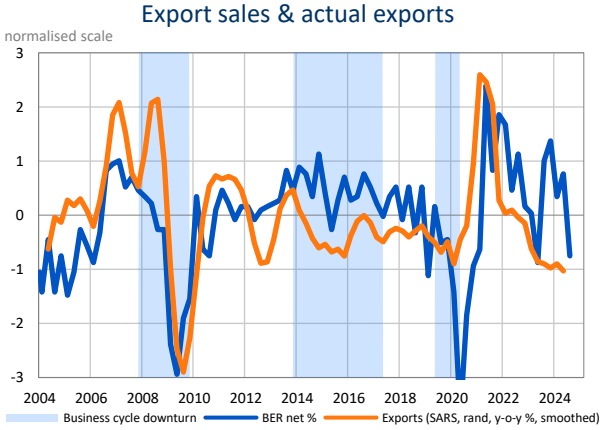
Domestic sales by sector (smoothed)



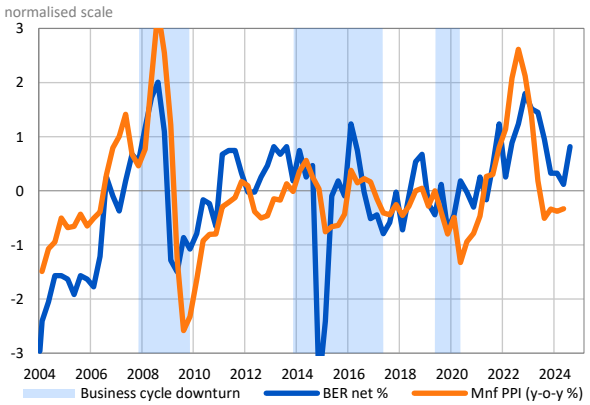
Fixed investment & Private GFCF



Export sales & actual exports



Production cost & PPI-inflation



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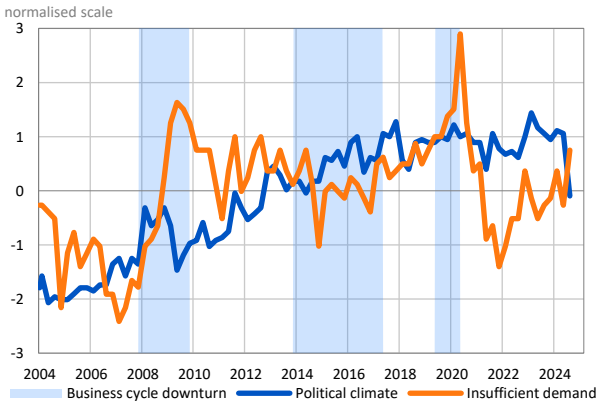


CAPITAL[3], INTERMEDIARY[4] AND CONSUMER[5] GOODS

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Capital goods														
Confidence	%	13	34	54	24	13	10	21	19	16	16	**25**	9	11
Smoothed	%	14	34	53	17	16	15	17	19	17	19	**21**	2	8
Production	Net %	-44	-12	21	-3	17	-60	13	24	-25	-36	**-34**	2	30
Smoothed	Net %	-38	-12	14	-4	-15	-10	-8	4	-12	-32	**-35**	-3	20
Domestic sales	Net %	-46	-15	16	-8	5	-48	3	-6	-41	-36	**-25**	11	26
Smoothed	Net %	-41	-15	11	-13	-17	-13	-17	-15	-28	-34	**-31**	3	19
Export sales	Net %	-41	-17	6	3	-12	-25	-21	15	-6	-5	**-54**	-49	24
Smoothed	Net %	-36	-17	1	1	-11	-19	-10	-4	1	-22	**-30**	-8	18
Intermediate goods														
Confidence	%	19	35	51	20	15	20	29	28	20	27	**24**	-3	8
Smoothed	%	19	35	50	22	18	21	26	26	25	24	**26**	2	7
Production	Net %	-33	-7	18	-1	-21	-26	-7	8	-12	-30	**-29**	1	20
Smoothed	Net %	-29	-8	14	-7	-16	-18	-8	-4	-11	-24	**-30**	-6	17
Domestic sales	Net %	-38	-11	16	-5	-19	-36	-22	-1	-16	-30	**-28**	2	21
Smoothed	Net %	-35	-11	13	-5	-20	-26	-20	-13	-16	-25	**-29**	-4	17
Export sales	Net %	-32	-14	3	-22	-7	-23	11	21	-11	-11	**-28**	-17	17
Smoothed	Net %	-29	-14	0	-8	-17	-6	3	7	0	-17	**-20**	-3	12
Consumer goods														
Confidence	%	25	39	54	37	21	15	16	27	25	36	**37**	1	9
Smoothed	%	26	39	53	27	24	17	19	23	29	33	**37**	4	7
Production	Net %	-20	-1	19	-8	-33	-32	-10	1	-11	9	**-23**	-32	18
Smoothed	Net %	-16	-1	15	-21	-24	-25	-14	-7	0	-8	**-7**	1	13
Domestic sales	Net %	-24	-2	20	-4	-23	-38	-7	-12	5	17	**-4**	-21	19
Smoothed	Net %	-20	-2	17	-15	-22	-23	-19	-5	3	6	**7**	1	13
Export sales	Net %	-29	-10	8	-5	-21	-35	7	-12	-6	13	**-1**	-14	17
Smoothed	Net %	-26	-10	5	-9	-20	-16	-13	-4	-2	2	**6**	4	12

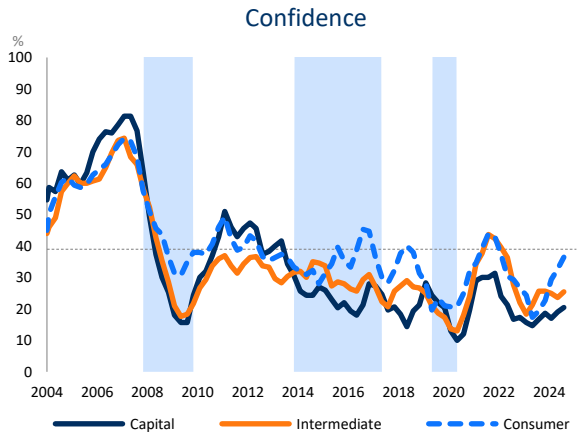
[3] Capital goods: Structural metal products (SIC code 353-4), general purpose machinery (356), special purpose machinery & machine tools (357), electrical motors & generators (361), medical appliances, photo equipment (374-6), motor vehicles & bodies (381-2), parts & accessories (383), other transport equipment (384-7)

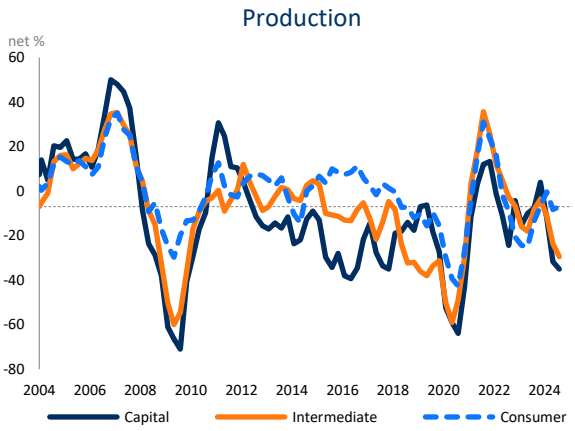
[4] Intermediary goods: Grain mill products, starches & animal feeds (303), spinning, weaving & finishing of textiles, yarns (311), knitted & crocheted fabrics (313), sawmilling, preserving of timber, bark grinding & compressing (321), wood & wood products (322), paper and products (323), basic chemicals (334), rubber (337), plastic products (338), glass & glass products, fibreglass (341), other non-metal mineral products (bricks, tiles, cement, prefab concrete, asphalt, mica products) (342), basic iron & steel (351), basic precious (gold, platinum, silver) & non-ferrous metal (aluminium, copper, lead, nickel, tin, zinc) products (352), other fabricated metal products (355), electrical distribution & control apparatus (362), wire & cable (363), batteries, electrical bulbs & other (364-6)

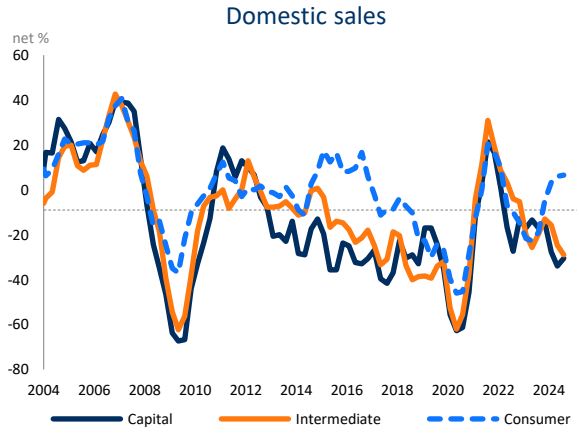
[5] Consumer goods: Meat, fish, fruit, vegetables, oils & fats (301), dairy products (302), other (304), beverages (305), tobacco (306), other textiles (312), wearing apparel & articles of fur (314-5), leather (316), footwear (317), other chemical products (335-6), computers & office machines, household appliances (358-9), TV, radio & communication equipment (371-3), furniture (391), other (e.g. jewellery, musical instruments, games & toys, recycling NOT COVERED) (392)

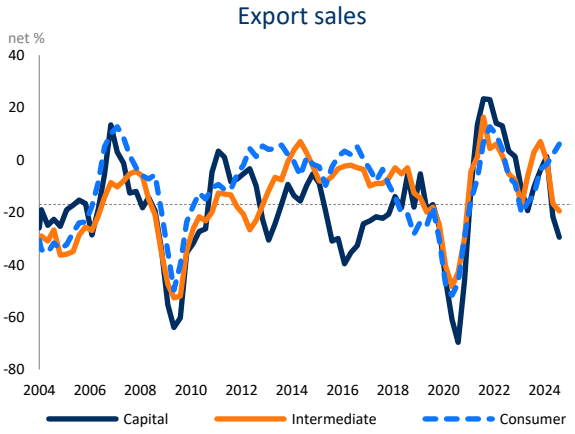
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

CAPITAL, INTERMEDIARY AND CONSUMER GOODS





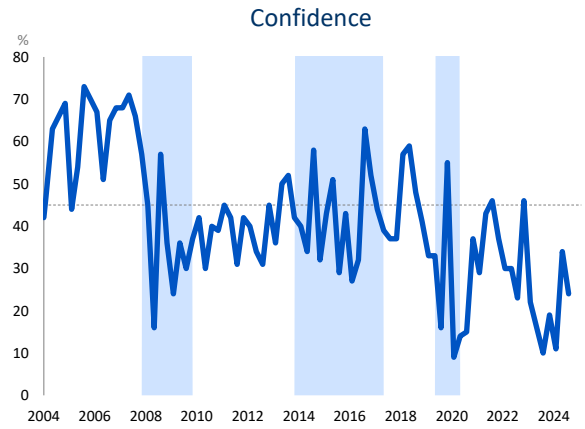


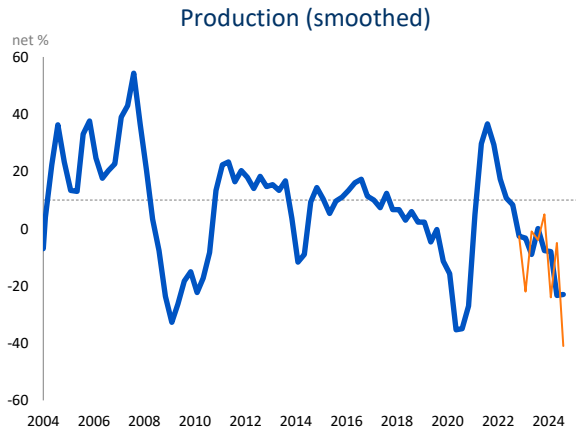


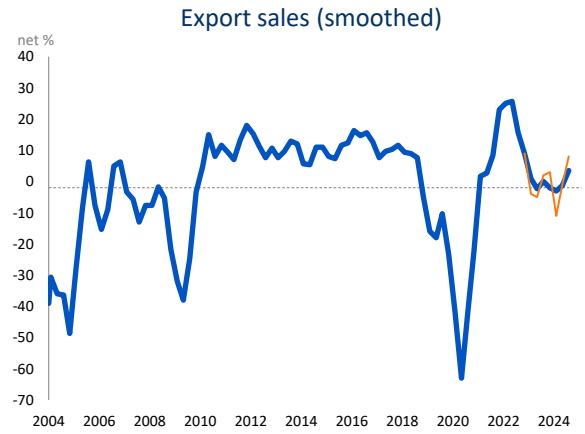
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

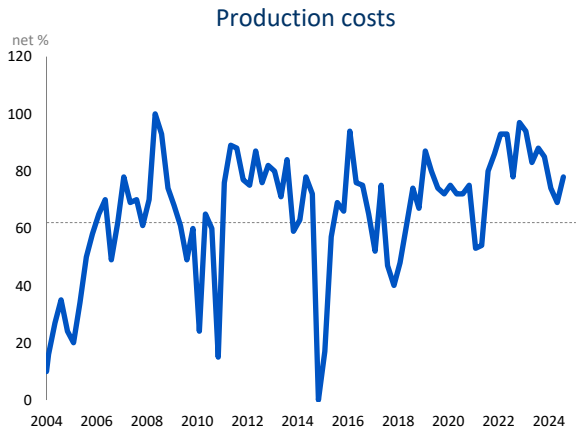
FOOD AND BEVERAGES[6]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	25	41	56	46	22	16	10	19	11	34	**24**	-10	15
Production	Net %	-17	7	30	13	-22	-1	-4	5	-24	-5	**-41**	-36	23
Smoothed	Net %	-12	7	25	-3	-3	-9	0	-8	-8	-23	**-23**	0	16
Export sales	Net %	-22	0	21	12	-4	-5	2	3	-11	-1	**8**	9	21
Smoothed	Net %	-18	0	17	9	1	-2	0	-2	-3	-1	**4**	5	15
Production costs	Net %	48	68	87	97	94	83	88	85	74	69	**78**	9	19
Business conditions in 12m	Net %	-32	-10	11	-11	-18	-53	-27	-36	-70	-36	**-26**	10	23







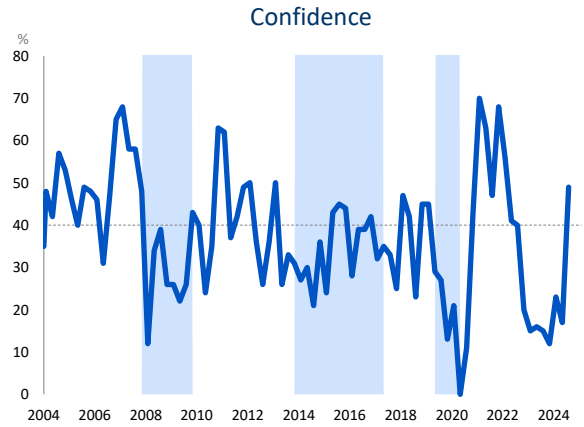


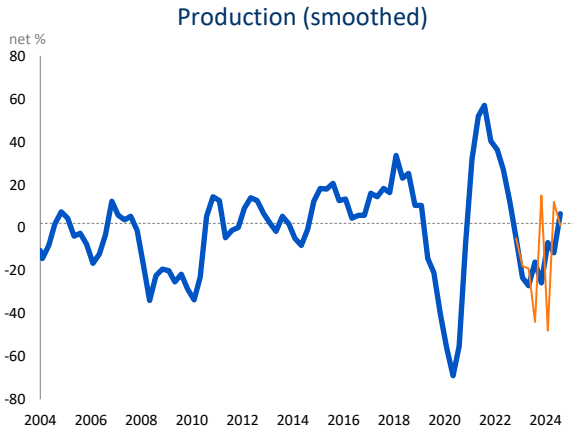
[6] Food & Beverages: Meat, fish, vegetables, oils & fats (SIC code 301), dairy products (302), grain mill products, starches & animal feeds (303), other food (304) and beverages (305). In 2017, this sector contributed 28.4% to production and 11.1% to manufactured exports, petroleum and other excluded in both cases. We recommend that users attach more weight to the trend (smoothed series) than a single data point, as the correlation between the survey production data and reference series is low.

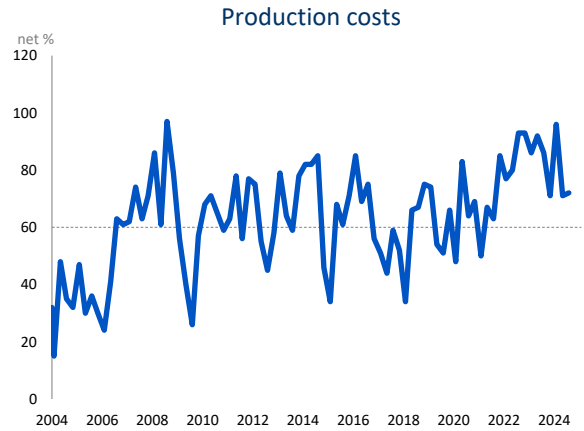
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

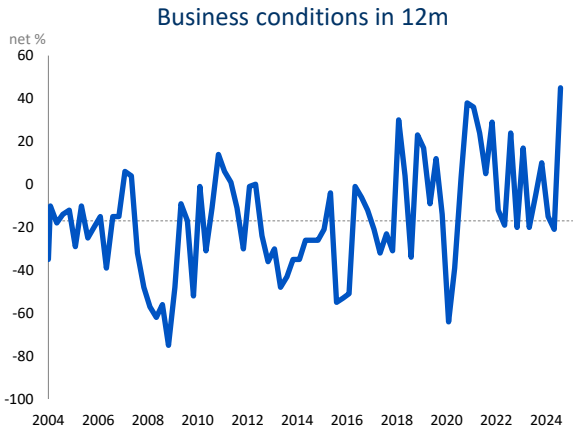
TEXTILES, CLOTHING LEATHER AND FOOTWEAR[7]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	22	37	52	20	15	16	15	12	23	17	**49**	32	14
Production	Net %	-29	0	28	-33	-18	-19	-44	15	-48	12	**1**	-11	28
Smoothed	Net %	-23	0	22	-5	-23	-27	-16	-26	-7	-12	**7**	19	21
Production costs	Net %	47	64	82	93	86	92	86	71	96	71	**72**	1	16
Business conditions in 12m	Net %	-42	-16	10	-20	17	-20	-5	10	-15	-21	**45**	66	26







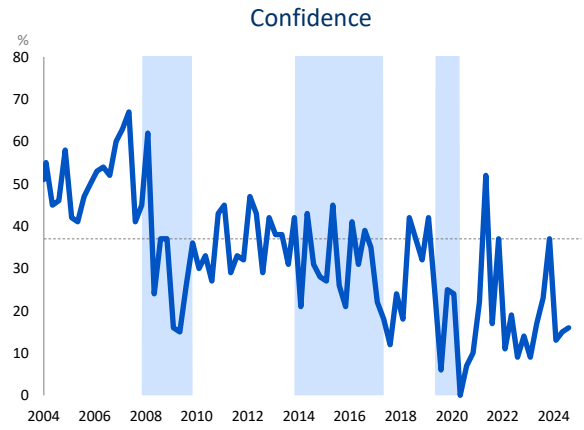


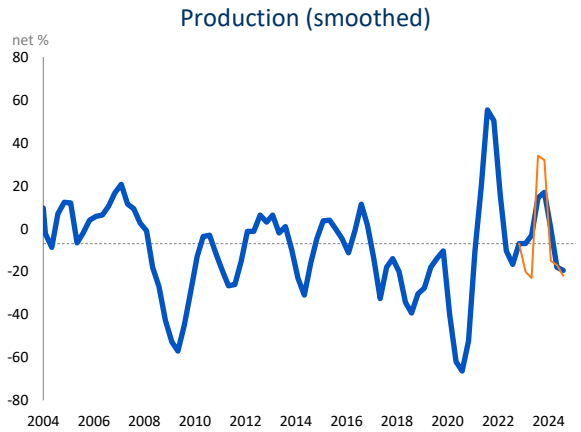
[7] Textiles, Clothing, Footwear & Leather: spinning, weaving & finishing of textiles, yarns (SIC code 311), other textiles (312), knitted & crocheted fabrics (313), wearing apparel & articles of fur (314-5), leather (316) and footwear (317). In 2017, this sector contributed 3.7% to production excluding petroleum and other.

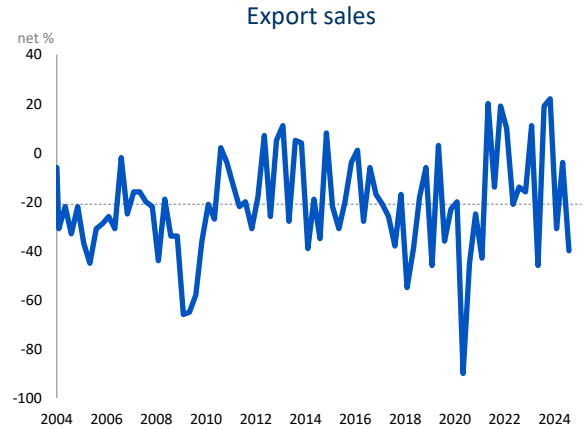
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

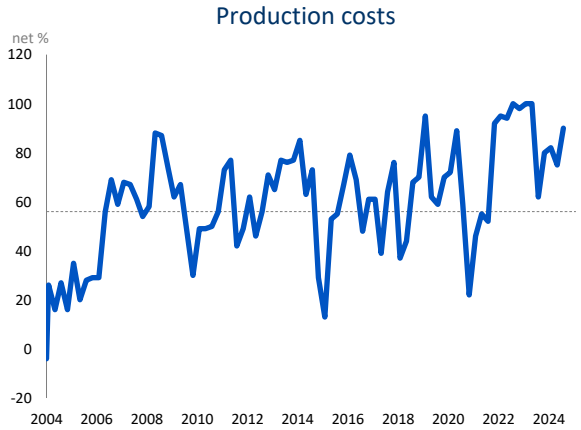
WOOD, PAPER, PRINTING AND PUBLISHING[8]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	17	32	47	14	9	17	23	37	13	15	**16**	1	14
Production	Net %	-39	-9	20	22	-20	-23	34	32	-15	-17	**-22**	-5	30
Smoothed	Net %	-32	-10	12	-7	-7	-3	14	17	0	-18	**-20**	-2	23
Export sales	Net %	-42	-21	0	-16	11	-46	19	22	-31	-4	**-40**	-36	27
Production costs	Net %	41	62	83	98	100	100	62	80	82	75	**90**	15	18
Business conditions in 12m	Net %	-37	-13	10	-42	-47	-57	-29	-33	-64	-19	**9**	28	27









[8] Wood, Paper, Printing & Publishing: sawmilling, preserving of timber, bark grinding & compressing (SIC code 321), wood & wood products (322), paper and products (323) and printing, publishing & recorded media (324-6). In 2017, this sector contributed 13.1% to production and 4.7% to manufactured exports, petroleum and other excluded in both cases. We recommend that users attach more weight to the trend (smoothed series) than a single data point, as the correlation between the survey production data and reference series is low.

μ – average
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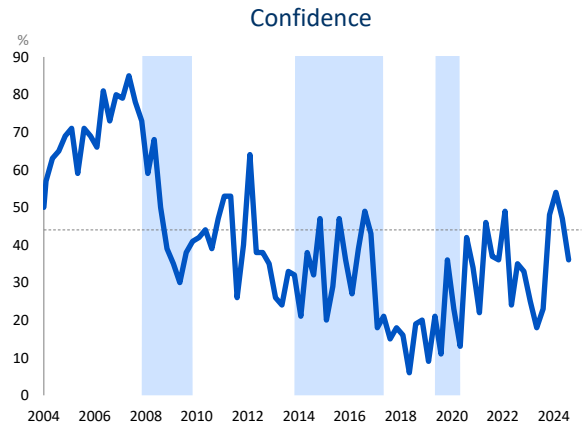
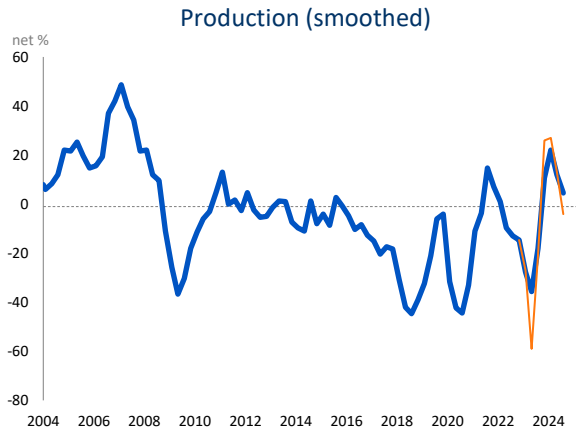
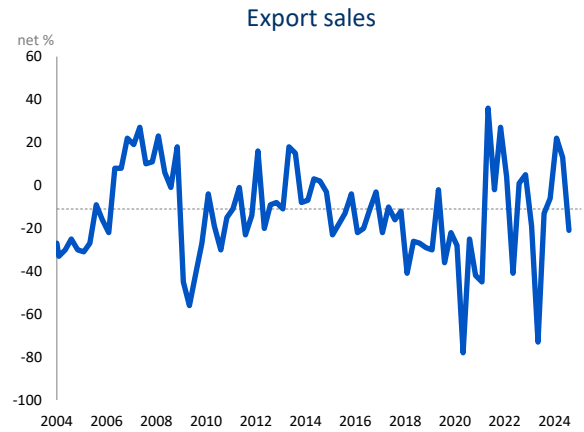
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

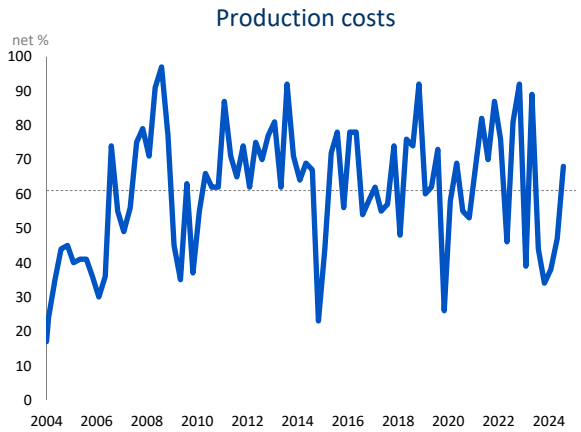
CHEMICAL, RUBBER AND PLASTIC PRODUCTS[9]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	21	40	60	33	25	18	23	48	54	47	**36**	-11	12
Production	Net %	-29	-4	22	3	-27	-59	-21	26	27	13	**-4**	-17	24
Smoothed	Net %	-25	-4	17	-15	-28	-36	-18	11	22	12	**5**	-7	16
Export sales	Net %	-34	-12	10	5	-19	-73	-13	-6	22	13	**-21**	-34	24
Production costs	Net %	45	63	80	92	39	89	44	34	38	47	**68**	21	20
Business conditions in 12m	Net %	-37	-11	15	-21	-41	-68	-53	-3	3	-21	**13**	34	23









[9] Chemicals, Rubber & Plastics: Refined petroleum & coke (SIC code 331-3) (NOT COVERED), basic chemicals (334), other chemical products (335-6), rubber (337) and plastics (338). In 2017, this sector contributed 16.6% to production and 15.4% to manufactured exports, petroleum and other excluded in both cases. We recommend that users attach more weight to the trend (smoothed series) than a single data point, as the correlation between the survey production data and reference series is low.

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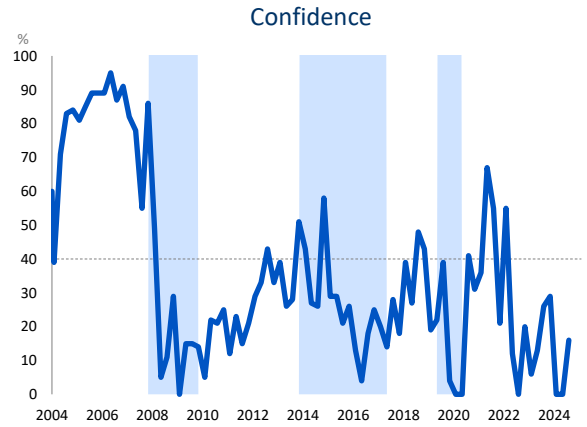
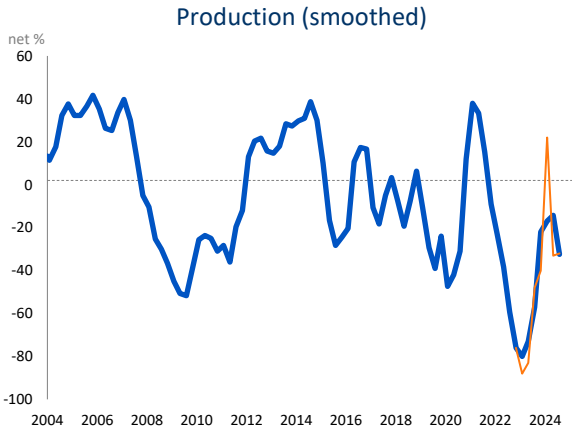
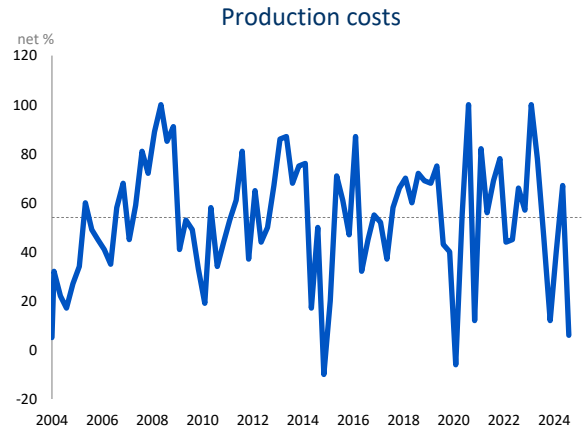
All of the above calculated over the last 20 years
See technical note for further details

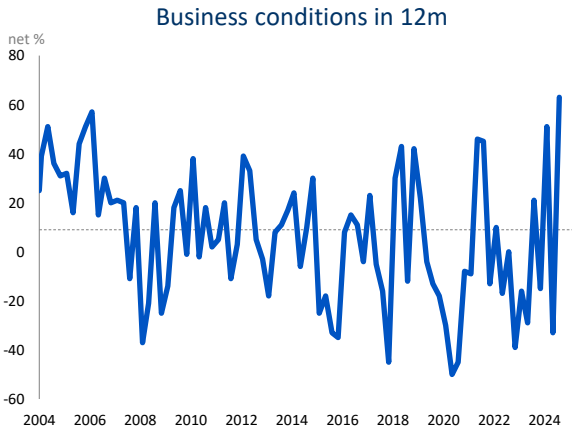
GLASS AND NON-METALLIC MINERAL PRODUCTS[10]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	7	34	61	20	6	13	26	29	0	0	**16**	16	17
Production	Net %	-44	-7	31	-69	-88	-83	-48	-40	22	-33	**-32**	1	32
Smoothed	Net %	-38	-7	25	-76	-80	-73	-57	-22	-17	-14	**-33**	-19	24
Production costs	Net %	32	55	79	57	100	78	46	12	40	67	**6**	-61	29
Business conditions in 12m	Net %	-21	5	32	-39	-16	-29	21	-15	51	-33	**63**	96	32







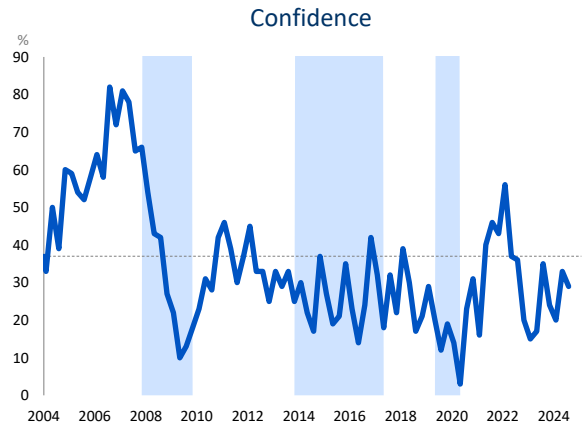


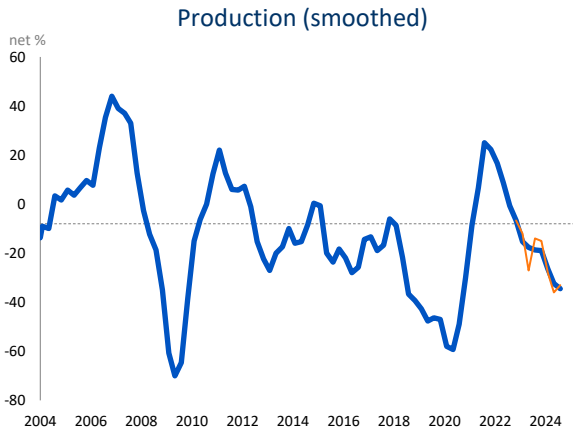
[10] Glass & Non-metallic minerals: Glass & glass products, fibreglass (SIC code 341), other non-metallic mineral products (bricks, tiles, cement, prefab concrete, asphalt, mica products) (342). In 2017, this sector contributed 4.4% to production, excluding petroleum and other.

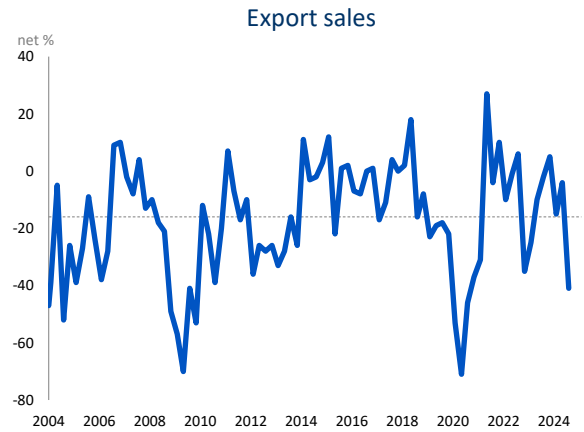
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

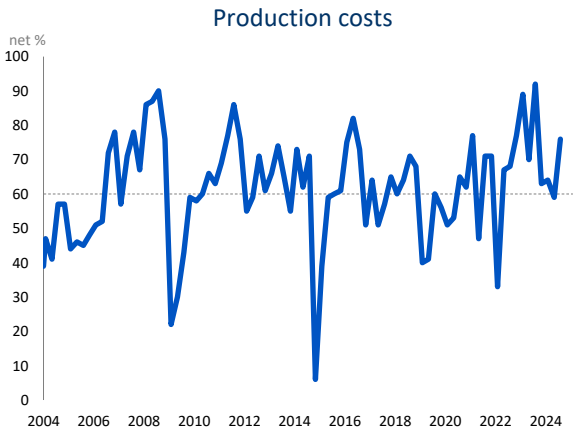
BASIC METALS, METAL PRODUCTS AND MACHINERY[11]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	17	34	52	20	15	17	35	24	20	33	**29**	-4	11
Production	Net %	-40	-12	17	-7	-12	-27	-14	-15	-28	-36	**-33**	3	22
Smoothed	Net %	-37	-12	13	-7	-15	-18	-19	-19	-26	-32	**-35**	-3	18
Export sales	Net %	-36	-16	3	-35	-25	-10	-2	5	-15	-4	**-41**	-37	19
Production costs	Net %	47	62	78	77	89	70	92	63	64	59	**76**	17	17
Business conditions in 12m	Net %	-41	-19	3	-40	-72	-58	-19	-42	-52	-15	**-3**	12	18







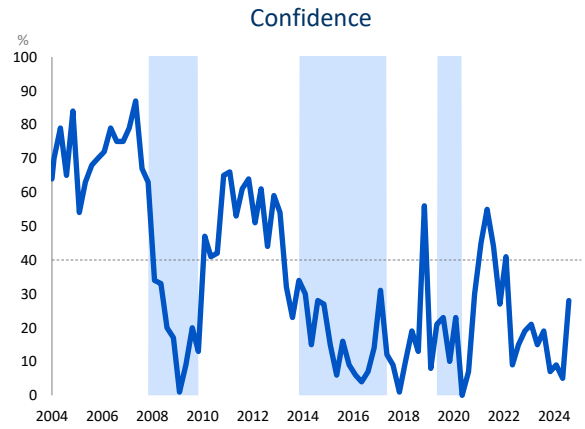


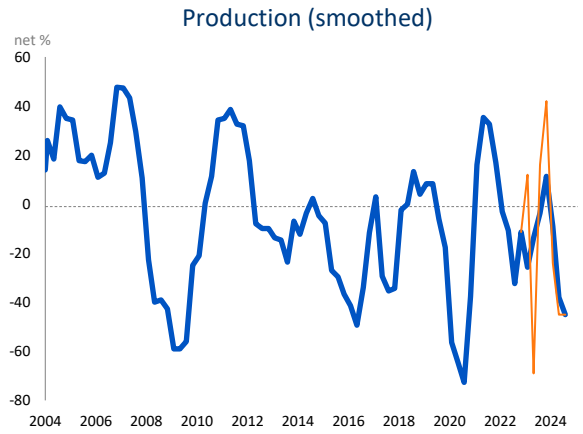
[11] Basic metals, Metal Products & Machinery: Basic iron & steel (SIC code 351), basic precious (gold, platinum, silver) & non-ferrous metal (aluminium, copper, lead, nickel, tin, zinc) products (352), structural metal products (353-4), other fabricated metal products (355), general purpose machinery (356), special purpose machinery & machine tools (357), computers & office machines (358) and household appliances (359). In 2017, this sector contributed 21.1% to production and 42.5% to manufactured exports, petroleum and other excluded in both cases.

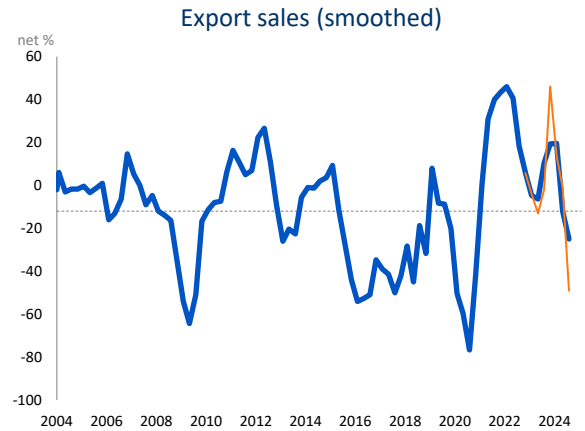
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

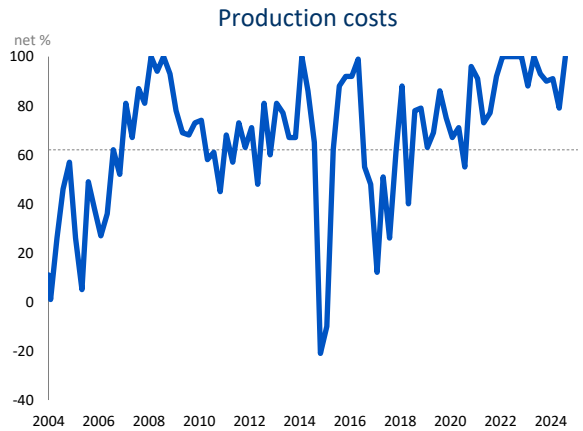
MOTOR VEHICLES, PARTS AND TRANSPORT EQUIPMENT[12]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	9	34	58	19	21	15	19	7	9	5	**28**	23	15
Production	Net %	-45	-7	32	-20	12	-69	16	42	-24	-45	**-45**	0	42
Smoothed	Net %	-36	-7	22	-11	-26	-14	-4	11	-9	-38	**-45**	-7	27
Export sales	Net %	-46	-11	24	3	-4	-13	-2	46	14	-1	**-49**	-48	39
Smoothed	Net %	-38	-11	15	6	-5	-6	10	19	20	-12	**-25**	-13	24
Production costs	Net %	44	69	95	100	88	100	93	90	91	79	**100**	21	23
Business conditions in 12m	Net %	-57	-23	10	-16	-45	-90	-62	-69	-83	-58	**10**	68	30







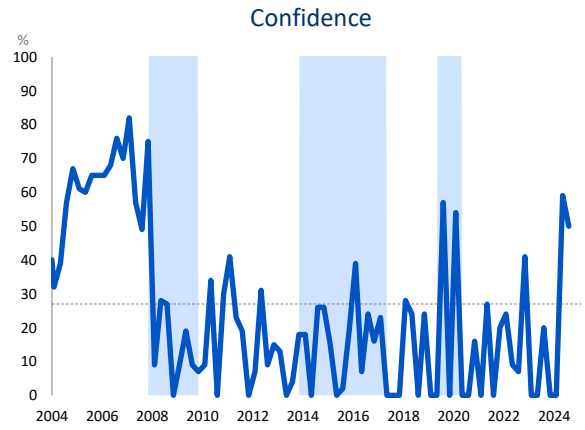


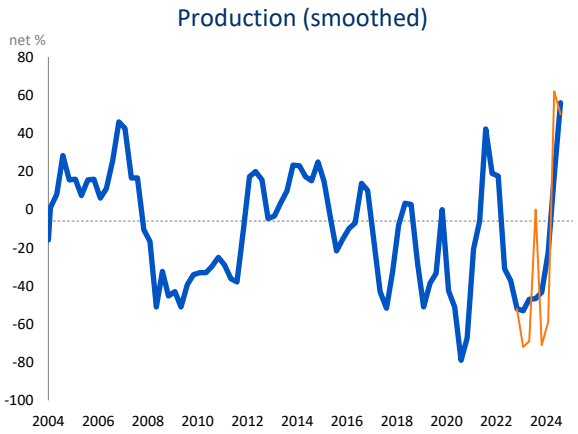
[12] Transport equipment: Motor vehicles & bodies (SIC code 381-2), parts & accessories (383), other transport equipment (384-7). In 2017, this sector contributed 7.7% to production and 16.1% to manufactured exports, petroleum and other excluded in both cases.

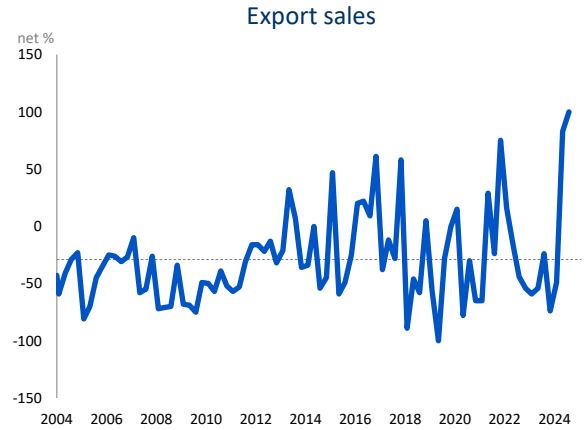
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

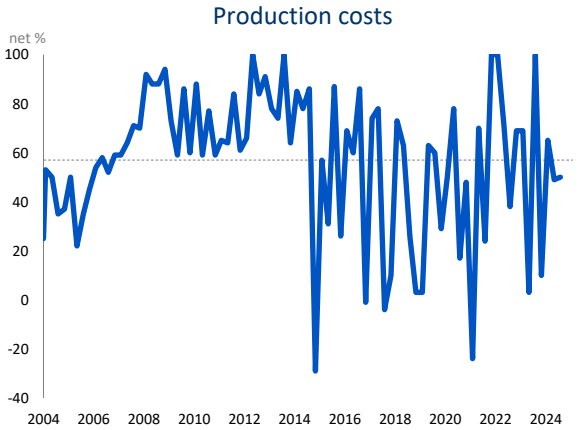
FURNITURE AND OTHER[13]

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Confidence	%	0	24	48	41	0	0	20	0	0	59	**50**	-9	23
Production	Net %	-53	-11	30	-18	-72	-69	0	-71	-59	62	**50**	-12	50
Smoothed	Net %	-41	-12	18	-52	-53	-47	-47	-43	-23	18	**56**	38	29
Export sales	Net %	-69	-29	12	-54	-59	-54	-24	-74	-49	83	**100**	17	46
Production costs	Net %	28	58	88	69	69	3	100	10	65	49	**50**	1	40
Business conditions in 12m	Net %	-57	-22	13	-49	-80	-100	20	-16	-69	-28	**0**	28	40







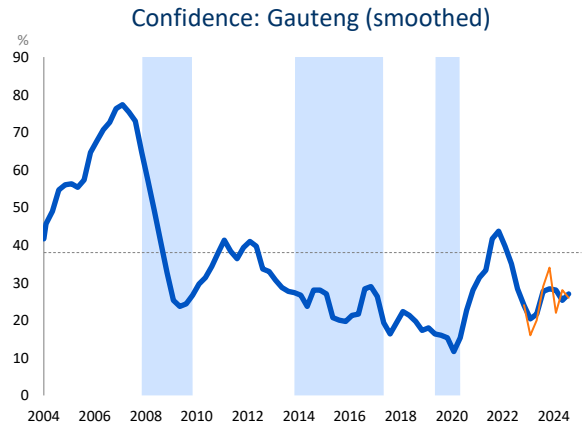


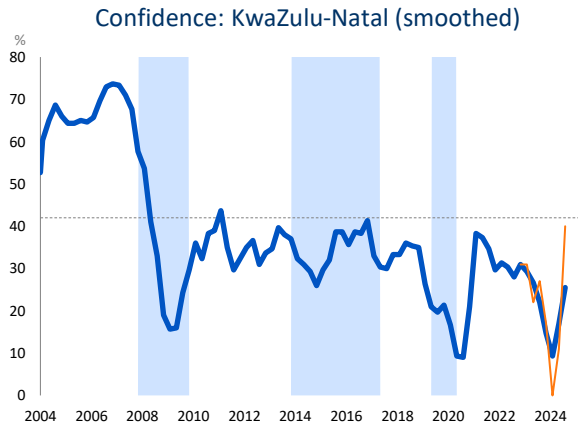
[13] Furniture & Other: Furniture (SIC code 391), other (e.g. jewellery, musical instruments, games & toys, recycling NOT COVERED) (392), tobacco (306). In 2017, this sector contributed 1.2% to production and 1.0% to manufactured exports, petroleum and other excluded in both cases. We recommend that users attach more weight to the trend (smoothed series) than a single data point, as the correlation between the survey production and export data vis-à-vis the reference series is low.

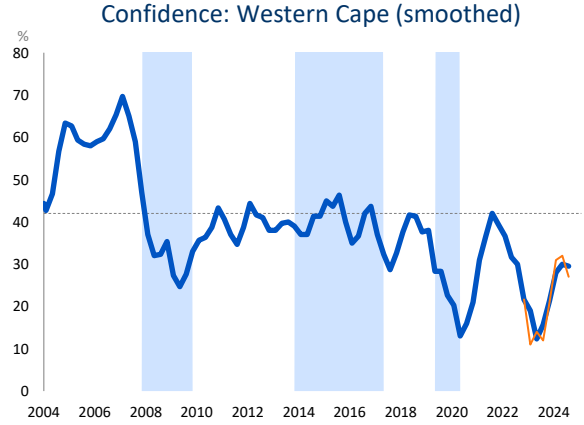
μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

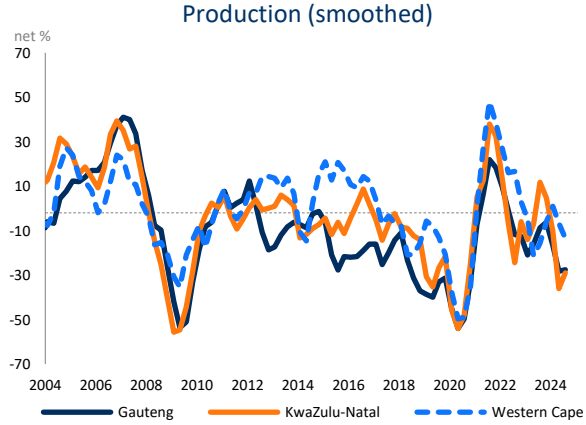
BY PROVINCE

Indicator	Unit	μ-σ	μ	μ+σ	22Q4	23Q1	23Q2	23Q3	23Q4	24Q1	24Q2	24Q3	Δ	Δσ
Gauteng														
Confidence	%	17	34	52	25	16	20	29	34	22	28	**26**	-2	8
Smoothed	%	18	34	51	24	20	22	28	28	28	25	**27**	2	7
Production	Net %	-34	-10	15	-12	-14	-37	3	8	-30	-28	**-27**	1	19
Smoothed	Net %	-31	-10	12	-13	-21	-16	-9	-6	-17	-28	**-28**	0	15
KwaZulu-Natal														
Confidence	%	19	36	54	35	31	22	27	17	0	11	**40**	29	12
Smoothed	%	20	36	52	31	29	27	22	15	9	17	**26**	9	9
Production	Net %	-33	-5	23	-16	3	-29	5	59	-50	-40	**-18**	22	30
Smoothed	Net %	-27	-5	17	-6	-14	-7	12	5	-10	-36	**-29**	7	18
Western Cape														
Confidence	%	24	38	53	32	11	14	12	21	31	32	**27**	-5	11
Smoothed	%	26	38	51	22	19	12	16	21	28	30	**30**	0	8
Production	Net %	-24	0	24	28	-20	-22	-22	-3	7	-1	**-26**	-25	23
Smoothed	Net %	-19	0	18	3	-5	-21	-16	-6	1	-7	**-14**	-7	17









μ – average
σ – standard deviation
Δ – change from previous period
σ_Δ – volatility (standard deviation of the changes)
All of the above calculated over the last 20 years
See technical note for further details

Technical note

Short-term planning is hampered as official (quantitative or numeric) data is released with a time lag. Business tendency *survey* (BTS) *results reveal what happened between the release of the last official figures and the current state of affairs*. The survey results not only reveal earlier developments in sales, production, employment, selling prices, capacity utilisation, investment etc. (for which official figures are published), but also provide unique information, such as business confidence, business conditions, constraints and respondents' expectations (or forecast) for the next quarter for which no official figures exist. It is now widely recognised that such subjective individual expectations play a key role in economic developments. Furthermore, the survey results of successive quarters *provide a means of tracking cyclical movements, pinpointing trend changes* and establishing forecasts.

THE SURVEY METHOD

The survey results are obtained from questionnaires completed by senior executives in the trade, manufacturing and building sector during the middle month of every calendar quarter.

The business survey questionnaire contains a small number of questions. These questions are qualitative in nature, e.g. "Compared to the same quarter a year ago, is the volume of production up, the same or down?". No figures are requested.

The sample of executives remains the same from one survey to the next. A panel is in effect established. The sample provides for the main sectors. The list of participants is reviewed every few years to replace those firms that went out of business or stopped responding during the previous two years with new ones.

To provide for widely differing sizes, each firm in the manufacturing and trade sectors is allocated a weight based on its turnover. Firms in the building sector are not weighted. Participants have to complete a "participant details form" at the time of recruitment and every few years to ensure that their sector classification and turnover (optional) are correct.

The BER conducted its first survey of the manufacturing and trade (i.e. retail, wholesale and motor trade) sectors in 1954. The sector coverage was expanded to the building sector (i.e. main contractors and sub-contractors) in 1969. Architects, quantity surveyors and civil engineering contractors were added later to the building survey.

Consult the BER web page (**www.ber.ac.za**) for more information about the business tendency method.

THE UNIQUE UNITS OF MEASUREMENT OF QUALITATIVE SURVEYS

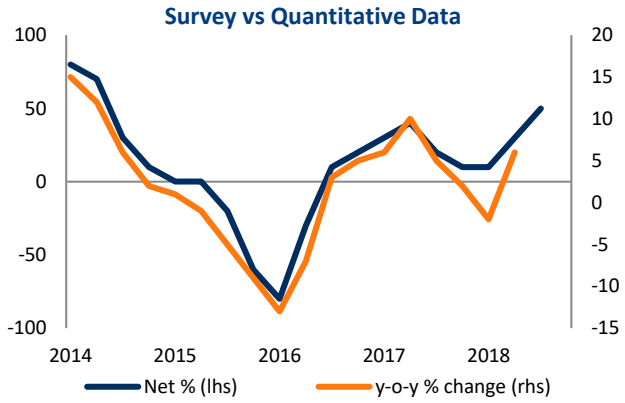
Net percentage (net %)

The responses related to the change in production, prices, employment, business conditions etc. are presented as a "net percentage" (also called a "net balance" or a "net majority"). If, for example, the percentages of respondents rating production as "higher", the "same" or "lower" compared to a year ago are 70%, 10% and 20% respectively, then one can conclude that the

majority of participants experienced higher production. The net percentage is calculated as the percentage of respondents rating "production" as higher less the percentage rating it as "lower". The percentage rating it as the "same" is ignored. The net percentage in this example is therefore 50%, being the difference between the 70% "higher" and the 20% "lower". A net percentage of –10%, for instance, would indicate a decline in production compared to a year ago. Take note that this does not mean a year-on-year contraction of 10%. It only means that the production of a majority of 10% of the respondents was lower compared to a year ago.

The net percentage, or net balance statistic, can theoretically vary between a minimum of -100 (when all participants replied "lower") and a maximum of +100 (when all respondents replied "higher"). Theoretically a value of zero, therefore, indicates no change, between 0 and 100 reflects a rise (or improvement) and between 0 and –100 a decline (or deterioration) compared to the same quarter a year ago. The net balance statistic is a diffusion index, i.e. it indicates the degree to which the indicated change is "diffused" (spread) throughout the sample population. It indicates both the direction and size of the change.

Given that it reflects respondents' estimation of the change in the phenomenon/variable in the current quarter relative to the same quarter a year ago, the net percentage corresponds to a year-on-year percentage change/growth rate in the corresponding/equivalent official data series (see the figure on the right).



Percentage (%)

The responses relating to business confidence and constraints are presented as percentages.

In the case of business confidence, respondents have to rate prevailing business conditions as either "satisfactory" or "unsatisfactory". The percentage of respondents rating prevailing business conditions as satisfactory is taken as an indicator (proxy) for business confidence. A reading of 10 for business confidence, for instance, means that only 10% of the respondents indicated that they were satisfied. In this example, 90% were, therefore, unsatisfied.

In the case of the constraints, respondents have to rate if a particular issue – for instance, a shortage of skilled labour – "seriously", "slightly" or "not at all" hampers their activity. Composite constraint indices are calculated by weighting the responses as follows: The answers of respondents rating a particular constraint as "serious" are weighted by 0.67%; "slightly" by 0.33% and "not a constraint at all" are discarded. The results are then multiplied by 100/67 = 1.49 to convert it to an index that can vary between zero and 100.

Care must be taken when making inferences from the constraints indices given that the list of constraints (issues) remains unchanged over time. Each constraint ought to be analysed relative to its own historical performance rather than comparing the ratings of the different constraints at a specific point in time. The latter inference would be more appropriate if respondents had to list all issues hampering their activity at a particular point in time and rank them in order of their impact.

Theoretically, the confidence and constraints series can vary between a minimum of zero and a maximum of 100. A value of zero would reflect an extreme lack of confidence/no limitation at all and 100 extreme confidence/complete limitation. These results reflect respondents' evaluation of the phenomenon/the survey variable in respect to that specific survey quarter, i.e. not relative to some period in the past or future.

DESCRIPTIVE STATISTICS IN THE TABLES

Smoothed

Some series show erratic/volatile movements, i.e. data jumps around quite a bit between consecutive quarters. In such cases, it is necessary to smooth these movements over a longer period to obtain a general trend. Another case where we added moving averages is when the correlation between the survey results and the corresponding reference series is low or non-existent.

Three-quarter centred moving averages (3qcma) were selected in order to not disturb turning points too much, e.g. the moving average of 17Q4 is calculated as the average of 17Q3, 17Q4 and 18Q1, that of 18Q1 is calculated as the average of 17Q4, 18Q1 and 18Q2 etc. In order for the smoothed series to run up to the last unsmoothed data point, the last smoothed data point is only the average of two quarters, namely the previous and current quarter.

When a smoothed series is added, it is prudent not to attach too much value to the unsmoothed results of a particular quarter, but rather to evaluate it in its historical context.

Seasonal adjustment (SA)

In theory, the time series ought to display no seasonal patterns because respondents are instructed to compare the current quarter with the same one of a year ago (e.g. they have to compare the current Festive Season or wet/dry winter period with the same time a year ago). However, in practice, some series nevertheless reveal seasonal patterns, probably because some respondents incorrectly compare the survey quarter with the one directly preceding it. In such cases, a seasonally adjusted series (i.e. where such seasonal variation is eliminated with X12 ARIMA) is added.

Average (μ)

The neutral level of the time series for the two measurement types, net percentage and percentage, is 50 or zero respectively. The long-term average (mean) is often not equivalent to this neutral level. In such cases, it is more useful to evaluate the current results relative to such a long-term average than the neutral level.

One standard deviation below (μ-σ) and above (μ+σ) the average

The standard deviation indicates the common variation in or dispersion of the values. Data points falling between one standard deviation below and above the average could be regarded as common. Any data point falling outside these ranges, therefore, displays statistically significant variation.

Change (Delta: Δ)

This statistic indicates the change in the results of the latest quarter relative to the preceding quarter.

Volatility (standard deviation of the deltas: Δσ)

This statistic indicates the volatility of the quarter-on-quarter change. If the size (regardless if it is an increase or decline) of the change is greater than the standard deviation of the deltas, then it displays a statistically significant variation.

CONVENTIONS AND AIDS PROVIDED IN THE CHARTS

Shaded areas

Indicates cyclical downturns as demarcated by the South African Reserve Bank. Users need to take note that the business cycle could have already reversed course towards the end of the period covered in the chart, but usually we wait until the bank determines a turning point before changing the shaded areas.

Solid vs. dotted horizontal (X) axes:

A solid line indicates the theoretical mid-points of 50 or zero respectively, while a dotted line indicates the long-term average (mean). Also see the section on the "average" above.

Normalised scale

Time series data is normalised (standardised) when one wishes to observe the co-movement among indicators with different units of measurement, say for instance, between a diffusion index (confidence) and the growth rate in a volume index (GDP growth). Normalisation converts both series to the same scale (unit) by subtracting the long-term average from each series and dividing it by its standard deviation. This ensures that one compares "apples" with "apples" when making a visual inspection and not mistakenly identify co-movements or deviations that different scales could produce.