

# KOF Konjunkturforschungsstelle

## KOF Manufacturing Survey Empirical Applications

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KOF business tendency surveys provide a wide range of indicators which reflect the economic situation and can therefore be applied for business cycle monitoring and analysis. The early availability of the survey data (compared to official statistics) is one of its advantages. This document aims to illustrate few of the possible applications of KOF survey data. For this purpose, we document some of its characteristics, for example correlations between the survey variables and macroeconomic variables, such as industrial production and GDP. The questionnaires have questions about the past developments, current situation as well as future plans (expectations). In Tables 1 and 2 the start period of each question and its reference period are documented.

Table 1: Start date of monthly questions

Question	Start Date	Type
Incoming orders vs. prev. month	Jan 1968	Past
Incoming orders vs. prev. year	Jan 1968	Past
Stock of orders vs. prev. month	Jan 1968	Past
Stock of orders assessment	Jan 1968	Current
Stock of orders assessment, Abroad	Feb 1999	Current
Production vs. prev. month	Jan 1968	Past
Production vs. prev. year	Jan 1968	Past
Stock of raw materials vs. prev. month	Oct 1983	Past
Stock of raw materials assessment	Apr 1968	Current
Stock of final products vs. prev. month	Jan 1968	Past
Stock of final products assessment	Jan 1968	Current
Employment assessment	Jan 2004	Current
Business situation assessment	Jan 2004	Current
Expectations incoming orders	Jan 1968	Future
Expectations production	Jan 1968	Future
Expectations purchase materials	Jan 1968	Future
Expectations employment	Jan 2004	Future

To examine if the survey variables are rather forward-looking or contemporaneous indicators, the cross-correlations at different lags are documented. When calculating the correlations for the survey variables referring to past, one should keep in mind that these should be actually shifted by one period back (i.e., leaded). This is because the firms are asked for example early January how the change in production in the previous month (i.e., December) was compared to the month or year before. Therefore, the value of January is actually indicating the development in December and should be compared to the other macroeconomic indicators in that month.

The following tables show the cross-correlations of to quarterly frequency aggregated monthly (average) survey variables with various macroeconomic variables (see Table 3) for the last 10 years. In Table 4 we present for each survey variable the macroeconomic variable with the highest (absolute) correlation and at which lag. If the highest

Table 2: Start date of quarterly questions

Question	Start Date	Type
Technical capacities prev. quarter	1967 Q2	Past
Technical capacities assessment	1967 Q2	Current
Capacity Utilization	1967 Q2	Past
Sales prices prev. quarter	1999 Q2	Past
Profit situation prev. quarter	1967 Q2	Past
Competitive position domestic	1999 Q2	Past
Competitive position EU	1999 Q2	Past
Competitive position non-EU	1999 Q2	Past
Export expectations	1999 Q2	Future
Purchasing price expectations	1970 Q2	Future
Sales price expectations	1999 Q2	Future
Expectations for next 6 Months	2004 Q1	Future

correlation is found for negative values (leads), this means that the survey variable in question is leading the macroeconomic variable. In general, higher correlations are found with year-on-year growth rates than with period-to-period changes. In Figures 1-4 few example plots are presented.

Table 5 documents the (absolute) highest contemporaneous correlations for each survey variable and Table 6 shows the absolute highest correlations when survey variables are leaded.

Table 3: Macroeconomic variables

Key	Description
ts.manP.sa.dl	Manufacturing production SA diff-log
ts.manP.yoy	Manufacturing production year-on-year
ts.manU.sa.dl	Manufacturing turnover SA diff-log
ts.manU.yoy	Manufacturing turnover year-on-year
ts.gdp.real.sa.dl	Real GDP SA diff-log
ts.gdp.real.yoy	Real GDP year-on-year
ts.gdp.nom.sa.dl	Nominal GDP SA diff-log
ts.gdp.nom.yoy	Nominal GDP year-on-year
ts.manEmpFT.sa.dl	Manufacturing employment FT SA diff-log
ts.manEmpFT.yoy	Manufacturing employment FT year-on-year
ts.ppi.sa.dl	Producer price index SA diff-log
ts.ppi.yoy	Producer price index year-on-year

Table 4: Highest correlations

	Series	Correlation	Lead(-)/Lag(+)
Incoming orders vs. prev. month	ts.gdp.real.yoy	0.78	-1
Incoming orders vs. prev. year	ts.gdp.real.yoy	0.90	0
Stock of orders vs. prev. month	ts.gdp.real.yoy	0.82	-1
Stock of orders assessment	ts.gdp.nom.yoy	0.91	0
Stock of orders assessment, Abroad	ts.gdp.nom.yoy	0.88	0
Production vs. prev. month	ts.gdp.real.yoy	0.84	0
Production vs. prev. year	ts.gdp.real.yoy	0.88	0
Stock of raw materials vs. prev. month	ts.gdp.nom.yoy	0.83	0
Stock of raw materials assessment	ts.gdp.real.yoy	-0.77	0
Stock of final products vs. prev. month	ts.manEmpFT.yoy	0.72	0
Stock of final products assessment	ts.gdp.real.yoy	-0.80	0
Employment assessment	ts.gdp.nom.yoy	-0.91	0
Business situation assessment	ts.gdp.nom.yoy	0.92	0
Expectations incoming orders	ts.gdp.real.yoy	0.78	-1
Expectations production	ts.gdp.real.yoy	0.85	-1
Expectations purchase materials	ts.gdp.real.yoy	0.85	-1
Expectations employment	ts.gdp.nom.yoy	0.90	0

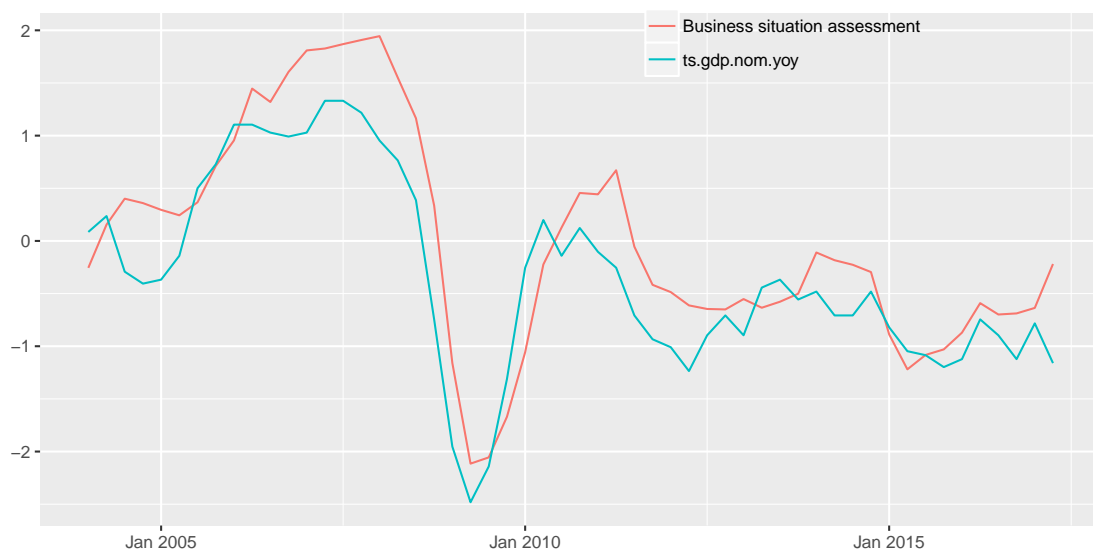


Figure 1: Business situation assessment and quarterly nominal GDP yoy

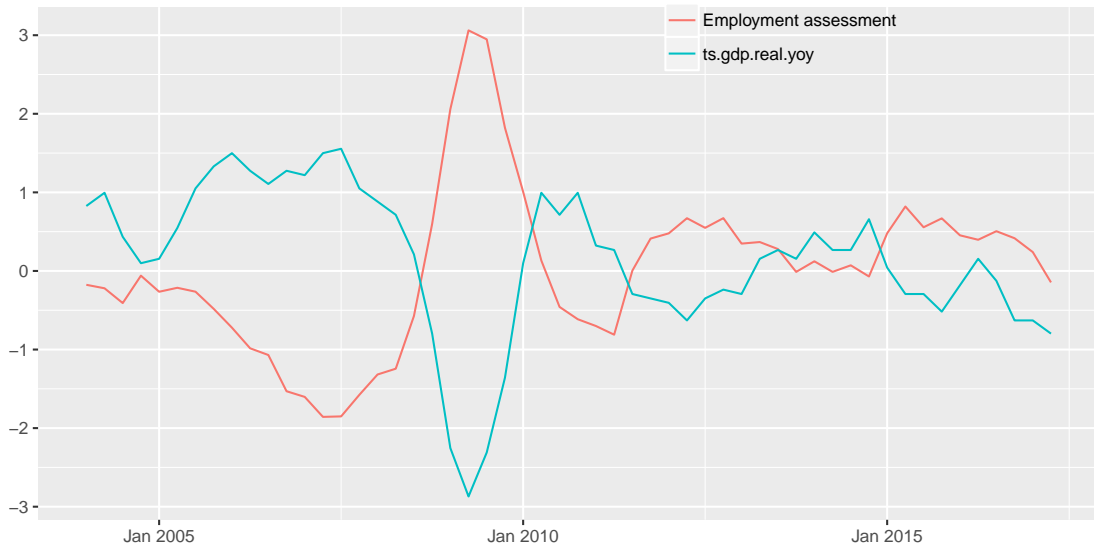


Figure 2: Employment assessment and quarterly real GDP yoy

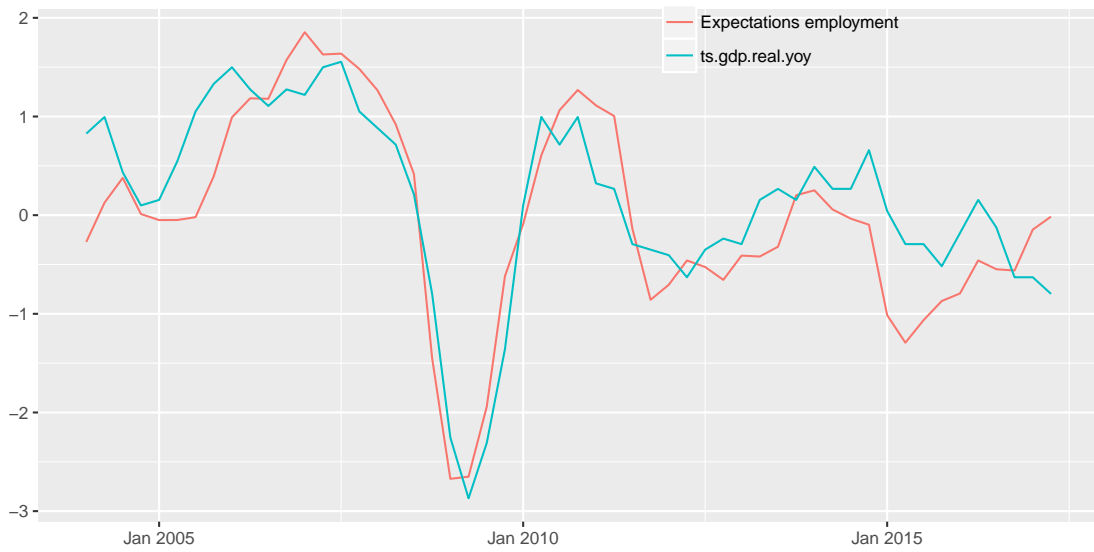


Figure 3: Expectations employment and quarterly real GDP yoy

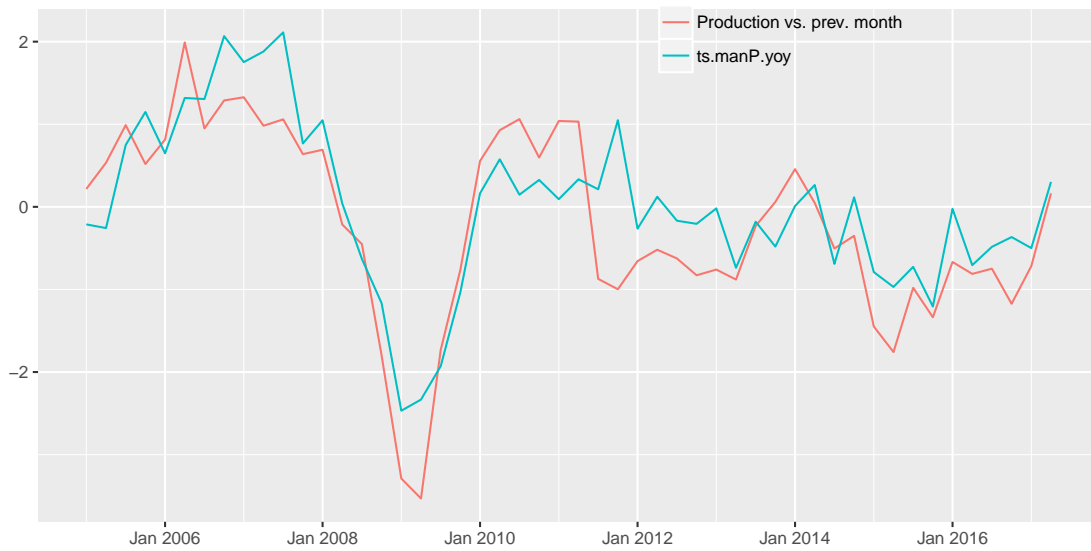


Figure 4: Production vs. prev. month and quarterly manufacturing production yoy

Table 5: Highest contemporaneous correlations

Survey variable	Macro variable	Correlation
Incoming orders vs. prev. month	ts.gdp.real.sa.dl	0.76
Incoming orders vs. prev. year	ts.gdp.real.yoy	0.90
Stock of orders vs. prev. month	ts.gdp.real.yoy	0.79
Stock of orders assessment	ts.gdp.nom.yoy	0.91
Stock of orders assessment, Abroad	ts.gdp.nom.yoy	0.88
Production vs. prev. month	ts.gdp.real.yoy	0.84
Production vs. prev. year	ts.gdp.real.yoy	0.88
Stock of raw materials vs. prev. month	ts.gdp.nom.yoy	0.83
Stock of raw materials assessment	ts.gdp.real.yoy	-0.77
Stock of final products vs. prev. month	ts.manEmpFT.yoy	0.72
Stock of final products assessment	ts.gdp.real.yoy	-0.80
Employment assessment	ts.gdp.nom.yoy	-0.91
Business situation assessment	ts.gdp.nom.yoy	0.92
Expectations incoming orders	ts.gdp.real.sa.dl	0.74
Expectations production	ts.gdp.real.yoy	0.77
Expectations purchase materials	ts.gdp.real.yoy	0.77
Expectations employment	ts.gdp.nom.yoy	0.90

Table 6: Highest correlations at lead -1

Survey variable	Macro variable	Correlation
Incoming orders vs. prev. month	ts.gdp.real.yoy	0.78
Incoming orders vs. prev. year	ts.manEmpFT.yoy	0.75
Stock of orders vs. prev. month	ts.gdp.real.yoy	0.82
Stock of orders assessment	ts.manEmpFT.yoy	0.89
Stock of orders assessment, Abroad	ts.manEmpFT.yoy	0.85
Production vs. prev. month	ts.gdp.real.yoy	0.81
Production vs. prev. year	ts.manEmpFT.yoy	0.83
Stock of raw materials vs. prev. month	ts.manEmpFT.yoy	0.83
Stock of raw materials assessment	ts.manEmpFT.yoy	-0.69
Stock of final products vs. prev. month	ts.manEmpFT.yoy	0.51
Stock of final products assessment	ts.manEmpFT.yoy	-0.66
Employment assessment	ts.manEmpFT.yoy	-0.90
Business situation assessment	ts.manEmpFT.yoy	0.88
Expectations incoming orders	ts.gdp.real.yoy	0.78
Expectations production	ts.gdp.real.yoy	0.85
Expectations purchase materials	ts.gdp.real.yoy	0.85
Expectations employment	ts.gdp.nom.yoy	0.82

## 1 Detailed Analysis: Quarterly

### 1.1 Industrial production

Table 7: Cross-correlations with quarterly Industry IP yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.044	0.312	0.542	<b>0.645</b>	0.576	0.300	0.013	-0.269	-0.451
Incoming orders vs. prev. year	-0.121	0.072	0.329	0.582	<b>0.764</b>	0.668	0.425	0.104	-0.243
Stock of orders vs. prev. month	-0.050	0.233	0.513	0.690	<b>0.717</b>	0.497	0.205	-0.131	-0.379
Stock of orders assessment	-0.343	-0.137	0.118	0.462	0.733	<b>0.780</b>	0.696	0.511	0.256
Stock of orders assessment, Abroad	-0.372	-0.143	0.117	0.443	0.710	<b>0.718</b>	0.618	0.423	0.152
Production vs. prev. month	-0.107	0.187	0.471	0.685	<b>0.792</b>	0.558	0.311	-0.014	-0.296
Production vs. prev. year	-0.186	0.004	0.247	0.555	<b>0.776</b>	0.755	0.589	0.270	-0.059
Stock of raw materials vs. prev. month	-0.317	-0.117	0.193	0.491	0.743	<b>0.758</b>	0.614	0.300	0.003
Stock of raw materials assessment	0.150	-0.014	-0.259	-0.465	<b>-0.646</b>	-0.609	-0.444	-0.236	0.125
Stock of final products vs. prev. month	-0.369	-0.360	-0.237	0.005	0.233	0.438	<b>0.559</b>	0.486	0.374
Stock of final products assessment	0.073	-0.031	-0.309	-0.505	<b>-0.668</b>	-0.625	-0.401	-0.211	0.105
Employment assessment	0.309	0.091	-0.211	-0.546	<b>-0.804</b>	-0.788	-0.631	-0.391	-0.089
Business situation assessment	-0.370	-0.161	0.101	0.447	0.737	<b>0.772</b>	0.698	0.506	0.244
Expectations incoming orders	-0.007	0.274	0.491	<b>0.588</b>	0.497	0.232	-0.005	-0.287	-0.483
Expectations production	-0.093	0.202	0.476	0.644	<b>0.678</b>	0.449	0.202	-0.104	-0.378
Expectations purchase materials	-0.073	0.237	0.492	0.662	<b>0.683</b>	0.425	0.186	-0.150	-0.414
Expectations employment	-0.188	0.085	0.381	0.682	<b>0.805</b>	0.688	0.478	0.168	-0.119

Table 8: Cross-correlations with quarterly Industry IP qoq

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	-0.070	-0.002	-0.002	0.076	0.082	<b>0.141</b>	0.052	0.004	-0.043
Incoming orders vs. prev. year	-0.030	-0.047	0.006	-0.006	0.084	0.115	<b>0.118</b>	0.062	0.042
Stock of orders vs. prev. month	-0.059	-0.039	0.018	0.041	0.101	<b>0.138</b>	0.092	0.024	-0.007
Stock of orders assessment	-0.069	-0.061	-0.049	-0.026	0.043	0.107	0.106	<b>0.108</b>	0.071
Stock of orders assessment, Abroad	-0.075	-0.054	-0.046	-0.008	0.049	<b>0.109</b>	0.099	0.094	0.060
Production vs. prev. month	-0.082	-0.009	-0.036	0.056	0.071	<b>0.164</b>	0.078	0.080	-0.039
Production vs. prev. year	-0.034	-0.050	-0.011	-0.009	0.063	0.107	<b>0.129</b>	0.089	0.057
Stock of raw materials vs. prev. month	-0.010	-0.149	0.047	-0.063	0.094	0.051	<b>0.183</b>	0.055	0.079
Stock of raw materials assessment	0.034	0.016	0.001	-0.017	-0.057	<b>-0.098</b>	-0.081	-0.088	-0.049
Stock of final products vs. prev. month	0.031	<b>-0.175</b>	-0.006	-0.075	0.017	-0.057	0.074	0.090	0.105
Stock of final products assessment	0.012	0.019	0.024	-0.031	-0.055	<b>-0.118</b>	-0.086	-0.072	-0.039
Employment assessment	0.039	0.083	0.018	0.029	-0.084	-0.103	<b>-0.129</b>	-0.084	-0.080
Business situation assessment	-0.053	-0.084	-0.031	-0.049	0.063	0.085	<b>0.124</b>	0.097	0.084
Expectations incoming orders	-0.020	-0.061	0.051	0.053	<b>0.123</b>	0.061	0.082	-0.013	-0.020
Expectations production	-0.030	-0.075	0.037	0.026	<b>0.130</b>	0.082	0.112	0.018	0.007
Expectations purchase materials	-0.034	-0.060	0.030	0.035	<b>0.130</b>	0.083	0.111	0.020	-0.005
Expectations employment	-0.030	-0.087	0.007	0.000	0.113	0.104	<b>0.133</b>	0.053	0.055

Table 9: Cross-correlations with quarterly Manufacturing IP yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.052	0.339	0.556	<b>0.660</b>	0.624	0.325	0.021	-0.270	-0.492
Incoming orders vs. prev. year	-0.126	0.083	0.351	0.601	<b>0.799</b>	0.702	0.442	0.124	-0.249
Stock of orders vs. prev. month	-0.050	0.248	0.526	0.706	<b>0.755</b>	0.520	0.213	-0.131	-0.408
Stock of orders assessment	-0.395	-0.183	0.095	0.445	0.737	<b>0.797</b>	0.714	0.528	0.265
Stock of orders assessment, Abroad	-0.411	-0.182	0.103	0.439	0.726	<b>0.751</b>	0.646	0.451	0.175
Production vs. prev. month	-0.116	0.186	0.480	0.689	<b>0.825</b>	0.595	0.332	-0.003	-0.317
Production vs. prev. year	-0.209	-0.004	0.261	0.561	<b>0.801</b>	0.786	0.607	0.298	-0.053
Stock of raw materials vs. prev. month	-0.344	-0.132	0.181	0.478	0.759	<b>0.782</b>	0.660	0.342	0.026
Stock of raw materials assessment	0.154	-0.024	-0.281	-0.504	<b>-0.690</b>	-0.650	-0.499	-0.278	0.096
Stock of final products vs. prev. month	-0.386	-0.386	-0.254	-0.037	0.230	0.457	<b>0.579</b>	0.530	0.416
Stock of final products assessment	0.071	-0.058	-0.342	-0.540	<b>-0.715</b>	-0.660	-0.440	-0.241	0.093
Employment assessment	0.332	0.109	-0.214	-0.552	<b>-0.828</b>	-0.821	-0.661	-0.420	-0.101
Business situation assessment	-0.416	-0.206	0.074	0.424	0.734	<b>0.785</b>	0.716	0.523	0.251
Expectations incoming orders	0.033	0.298	0.522	<b>0.627</b>	0.533	0.265	0.004	-0.301	-0.501
Expectations production	-0.069	0.218	0.500	0.674	<b>0.712</b>	0.477	0.216	-0.108	-0.400
Expectations purchase materials	-0.053	0.253	0.519	0.694	<b>0.721</b>	0.459	0.200	-0.155	-0.438
Expectations employment	-0.203	0.070	0.386	0.688	<b>0.829</b>	0.717	0.496	0.180	-0.128

Table 10: Cross-correlations with quarterly Manufacturing IP qoq

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	-0.062	0.006	-0.013	0.079	0.102	<b>0.135</b>	0.044	0.029	-0.038
Incoming orders vs. prev. year	-0.031	-0.047	0.005	-0.003	0.090	0.117	<b>0.120</b>	0.078	0.047
Stock of orders vs. prev. month	-0.054	-0.034	0.013	0.041	0.111	<b>0.138</b>	0.093	0.041	-0.006
Stock of orders assessment	-0.073	-0.068	-0.056	-0.032	0.044	0.110	0.108	<b>0.116</b>	0.079
Stock of orders assessment, Abroad	-0.077	-0.060	-0.054	-0.012	0.049	<b>0.111</b>	0.104	0.108	0.068
Production vs. prev. month	-0.082	-0.009	-0.040	0.057	0.079	<b>0.164</b>	0.074	0.101	-0.030
Production vs. prev. year	-0.036	-0.053	-0.015	-0.009	0.070	0.111	<b>0.127</b>	0.102	0.066
Stock of raw materials vs. prev. month	-0.008	-0.143	0.043	-0.077	0.101	0.055	<b>0.183</b>	0.061	0.093
Stock of raw materials assessment	0.029	0.022	0.010	-0.023	-0.067	-0.098	-0.085	<b>-0.099</b>	-0.057
Stock of final products vs. prev. month	0.041	<b>-0.145</b>	-0.007	-0.118	0.020	-0.021	0.065	0.063	0.120
Stock of final products assessment	0.021	0.017	0.019	-0.033	-0.061	<b>-0.119</b>	-0.094	-0.085	-0.037
Employment assessment	0.039	0.087	0.021	0.033	-0.087	-0.107	<b>-0.134</b>	-0.095	-0.086
Business situation assessment	-0.054	-0.092	-0.038	-0.055	0.064	0.085	<b>0.125</b>	0.105	0.093
Expectations incoming orders	0.000	-0.050	0.044	0.050	<b>0.134</b>	0.073	0.083	-0.014	-0.011
Expectations production	-0.016	-0.069	0.033	0.024	<b>0.139</b>	0.089	0.114	0.023	0.013
Expectations purchase materials	-0.022	-0.052	0.026	0.031	<b>0.140</b>	0.093	0.113	0.024	0.003
Expectations employment	-0.024	-0.087	0.002	-0.005	0.118	0.111	<b>0.135</b>	0.060	0.063



## 1.2 Industrial turnover

Table 11: Cross-correlations with quarterly Manufacturing Turnover yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.014	0.307	0.533	<b>0.647</b>	0.580	0.258	-0.031	-0.273	-0.467
Incoming orders vs. prev. year	-0.140	0.072	0.343	0.615	<b>0.802</b>	0.678	0.408	0.092	-0.261
Stock of orders vs. prev. month	-0.060	0.239	0.522	0.713	<b>0.745</b>	0.493	0.187	-0.135	-0.399
Stock of orders assessment	-0.291	-0.087	0.189	0.535	0.810	<b>0.834</b>	0.720	0.520	0.254
Stock of orders assessment, Abroad	-0.292	-0.071	0.208	0.536	<b>0.800</b>	0.787	0.648	0.434	0.146
Production vs. prev. month	-0.117	0.183	0.481	0.695	<b>0.797</b>	0.540	0.266	-0.033	-0.317
Production vs. prev. year	-0.199	0.003	0.271	0.587	<b>0.819</b>	0.775	0.569	0.255	-0.087
Stock of raw materials vs. prev. month	-0.296	-0.093	0.218	0.525	<b>0.786</b>	0.771	0.616	0.295	-0.001
Stock of raw materials assessment	0.142	-0.030	-0.270	-0.468	<b>-0.603</b>	-0.521	-0.355	-0.134	0.216
Stock of final products vs. prev. month	-0.377	-0.357	-0.212	0.019	0.285	0.455	<b>0.550</b>	0.500	0.396
Stock of final products assessment	0.073	-0.044	-0.305	-0.493	<b>-0.632</b>	-0.531	-0.291	-0.095	0.218
Employment assessment	0.261	0.049	-0.270	-0.603	<b>-0.851</b>	-0.801	-0.610	-0.361	-0.048
Business situation assessment	-0.312	-0.100	0.186	0.537	0.824	<b>0.834</b>	0.729	0.518	0.242
Expectations incoming orders	-0.027	0.262	0.513	<b>0.613</b>	0.498	0.223	-0.034	-0.316	-0.506
Expectations production	-0.097	0.203	0.509	0.682	<b>0.690</b>	0.439	0.170	-0.137	-0.412
Expectations purchase materials	-0.075	0.236	0.521	<b>0.691</b>	0.690	0.419	0.152	-0.178	-0.444
Expectations employment	-0.181	0.097	0.424	0.724	<b>0.845</b>	0.701	0.461	0.156	-0.140

Table 12: Cross-correlations with quarterly Manufacturing Turnover qoq

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	-0.068	0.000	-0.030	0.089	0.139	<b>0.160</b>	0.039	0.011	-0.052
Incoming orders vs. prev. year	-0.041	-0.051	-0.010	-0.003	0.111	<b>0.143</b>	0.142	0.087	0.040
Stock of orders vs. prev. month	-0.065	-0.039	0.005	0.050	0.142	<b>0.168</b>	0.105	0.035	-0.017
Stock of orders assessment	-0.072	-0.061	-0.056	-0.027	0.069	<b>0.142</b>	0.136	0.134	0.087
Stock of orders assessment, Abroad	-0.076	-0.054	-0.053	-0.002	0.077	<b>0.141</b>	0.127	0.125	0.073
Production vs. prev. month	-0.088	-0.016	-0.050	0.063	0.112	<b>0.194</b>	0.084	0.095	-0.045
Production vs. prev. year	-0.044	-0.056	-0.025	-0.011	0.088	0.139	<b>0.155</b>	0.118	0.063
Stock of raw materials vs. prev. month	-0.019	-0.146	0.040	-0.077	0.114	0.085	<b>0.215</b>	0.069	0.082
Stock of raw materials assessment	0.030	0.027	0.021	-0.024	-0.088	<b>-0.115</b>	-0.085	-0.092	-0.045
Stock of final products vs. prev. month	0.034	<b>-0.154</b>	-0.025	-0.133	0.029	-0.012	0.081	0.076	0.125
Stock of final products assessment	0.017	0.021	0.028	-0.030	-0.074	<b>-0.139</b>	-0.098	-0.081	-0.017
Employment assessment	0.038	0.086	0.028	0.028	-0.112	-0.138	<b>-0.155</b>	-0.105	-0.085
Business situation assessment	-0.055	-0.088	-0.040	-0.046	0.093	0.119	<b>0.156</b>	0.124	0.100
Expectations incoming orders	-0.024	-0.071	0.038	0.064	<b>0.164</b>	0.099	0.084	-0.031	-0.021
Expectations production	-0.033	-0.087	0.026	0.037	<b>0.170</b>	0.121	0.123	0.013	0.003
Expectations purchase materials	-0.039	-0.066	0.022	0.043	<b>0.170</b>	0.124	0.121	0.012	-0.010
Expectations employment	-0.034	-0.092	-0.006	0.002	0.150	0.147	<b>0.153</b>	0.061	0.060

## 1.3 GDP

Table 13: Cross-correlations with real GDP yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.053	0.430	0.671	<b>0.778</b>	0.647	0.253	-0.123	-0.399	-0.597
Incoming orders vs. prev. year	-0.261	0.073	0.421	0.728	<b>0.901</b>	0.744	0.409	0.011	-0.385
Stock of orders vs. prev. month	-0.057	0.338	0.652	<b>0.821</b>	0.785	0.455	0.069	-0.274	-0.545
Stock of orders assessment	-0.502	-0.243	0.106	0.480	0.764	<b>0.793</b>	0.659	0.421	0.133
Stock of orders assessment, Abroad	-0.493	-0.211	0.140	0.491	0.744	<b>0.761</b>	0.620	0.397	0.118
Production vs. prev. month	-0.152	0.224	0.571	0.813	<b>0.838</b>	0.560	0.179	-0.166	-0.438
Production vs. prev. year	-0.363	-0.070	0.289	0.642	<b>0.882</b>	0.830	0.563	0.185	-0.212
Stock of raw materials vs. prev. month	-0.406	-0.114	0.222	0.570	<b>0.812</b>	0.797	0.601	0.250	-0.049
Stock of raw materials assessment	0.354	0.092	-0.243	-0.573	<b>-0.769</b>	-0.695	-0.469	-0.156	0.191
Stock of final products vs. prev. month	-0.443	-0.409	-0.217	0.016	0.378	0.600	<b>0.651</b>	0.576	0.412
Stock of final products assessment	0.252	0.004	-0.331	-0.636	<b>-0.801</b>	-0.693	-0.415	-0.099	0.222
Employment assessment	0.425	0.124	-0.269	-0.659	<b>-0.900</b>	-0.849	-0.619	-0.304	0.022
Business situation assessment	-0.516	-0.253	0.100	0.479	0.766	<b>0.779</b>	0.640	0.394	0.107
Expectations incoming orders	0.117	0.452	0.713	<b>0.782</b>	0.594	0.229	-0.131	-0.429	-0.596
Expectations production	-0.045	0.324	0.659	<b>0.847</b>	0.773	0.456	0.074	-0.279	-0.530
Expectations purchase materials	-0.035	0.342	0.677	<b>0.855</b>	0.771	0.443	0.051	-0.308	-0.555
Expectations employment	-0.284	0.077	0.472	0.780	<b>0.882</b>	0.692	0.379	0.033	-0.282

Table 14: Cross-correlations with real GDP qoq

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	-0.279	-0.062	0.136	0.391	<b>0.756</b>	0.611	0.273	-0.019	-0.254
Incoming orders vs. prev. year	-0.418	-0.272	-0.096	0.110	0.492	<b>0.666</b>	0.611	0.466	0.100
Stock of orders vs. prev. month	-0.371	-0.172	0.071	0.323	<b>0.715</b>	0.689	0.430	0.121	-0.170
Stock of orders assessment	-0.498	-0.441	-0.346	-0.118	0.243	0.488	<b>0.547</b>	0.489	0.329
Stock of orders assessment, Abroad	<b>-0.549</b>	-0.461	-0.329	-0.083	0.261	0.473	0.502	0.471	0.294
Production vs. prev. month	-0.387	-0.226	-0.008	0.226	0.665	<b>0.720</b>	0.516	0.225	-0.090
Production vs. prev. year	-0.438	-0.346	-0.205	0.010	0.384	0.613	<b>0.664</b>	0.542	0.244
Stock of raw materials vs. prev. month	-0.522	-0.366	-0.199	-0.063	0.307	0.565	<b>0.667</b>	0.444	0.246
Stock of raw materials assessment	0.313	0.352	0.263	0.027	-0.385	-0.573	<b>-0.609</b>	-0.512	-0.230
Stock of final products vs. prev. month	-0.241	-0.284	-0.299	-0.367	-0.126	0.195	0.346	0.433	<b>0.543</b>
Stock of final products assessment	0.243	0.279	0.154	-0.043	-0.400	<b>-0.644</b>	-0.615	-0.468	-0.167
Employment assessment	0.459	0.415	0.289	0.008	-0.381	-0.634	<b>-0.655</b>	-0.525	-0.275
Business situation assessment	-0.502	-0.453	-0.357	-0.136	0.252	0.484	<b>0.554</b>	0.485	0.296
Expectations incoming orders	-0.209	-0.064	0.118	0.462	<b>0.743</b>	0.627	0.301	-0.060	-0.283
Expectations production	-0.313	-0.185	0.010	0.366	<b>0.721</b>	0.713	0.463	0.127	-0.182
Expectations purchase materials	-0.332	-0.176	0.034	0.371	<b>0.742</b>	0.713	0.456	0.104	-0.201
Expectations employment	-0.436	-0.349	-0.174	0.180	0.582	<b>0.695</b>	0.580	0.319	0.068

Table 15: Cross-correlations with nominal GDP yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.081	0.391	0.599	<b>0.682</b>	0.563	0.203	-0.171	-0.421	-0.581
Incoming orders vs. prev. year	-0.115	0.184	0.474	0.723	<b>0.861</b>	0.694	0.352	-0.035	-0.405
Stock of orders vs. prev. month	0.024	0.368	0.645	<b>0.790</b>	0.752	0.434	0.035	-0.301	-0.543
Stock of orders assessment	-0.234	0.017	0.344	0.668	<b>0.910</b>	0.891	0.715	0.443	0.134
Stock of orders assessment, Abroad	-0.209	0.058	0.379	0.673	<b>0.878</b>	0.839	0.636	0.367	0.059
Production vs. prev. month	-0.052	0.261	0.564	0.766	<b>0.781</b>	0.521	0.129	-0.201	-0.455
Production vs. prev. year	-0.191	0.080	0.392	0.680	<b>0.880</b>	0.800	0.518	0.146	-0.240
Stock of raw materials vs. prev. month	-0.205	0.059	0.354	0.637	<b>0.826</b>	0.785	0.556	0.188	-0.105
Stock of raw materials assessment	0.261	0.059	-0.214	-0.489	<b>-0.625</b>	-0.528	-0.286	0.030	0.362
Stock of final products vs. prev. month	-0.305	-0.257	-0.105	0.069	0.375	0.554	<b>0.604</b>	0.519	0.362
Stock of final products assessment	0.197	0.000	-0.264	-0.524	<b>-0.634</b>	-0.503	-0.211	0.116	0.410
Employment assessment	0.223	-0.046	-0.390	-0.719	<b>-0.913</b>	-0.817	-0.550	-0.208	0.125
Business situation assessment	-0.241	0.015	0.344	0.673	<b>0.917</b>	0.890	0.711	0.434	0.125
Expectations incoming orders	0.062	0.338	0.572	0.628	0.459	0.110	-0.249	-0.517	<b>-0.652</b>
Expectations production	-0.015	0.293	0.591	<b>0.756</b>	0.680	0.369	-0.020	-0.357	-0.579
Expectations purchase materials	0.000	0.314	0.613	<b>0.764</b>	0.681	0.365	-0.035	-0.377	-0.603
Expectations employment	-0.123	0.201	0.557	0.820	<b>0.900</b>	0.685	0.355	0.006	-0.300

Table 16: Cross-correlations with nominal GDP qoq

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	-0.231	-0.019	0.177	0.411	<b>0.746</b>	0.624	0.248	-0.053	-0.307
Incoming orders vs. prev. year	-0.372	-0.198	0.008	0.223	0.587	<b>0.726</b>	0.639	0.452	0.070
Stock of orders vs. prev. month	-0.322	-0.104	0.140	0.408	<b>0.775</b>	0.755	0.450	0.104	-0.218
Stock of orders assessment	-0.394	-0.311	-0.150	0.092	0.461	0.673	<b>0.700</b>	0.596	0.394
Stock of orders assessment, Abroad	-0.426	-0.319	-0.123	0.127	0.479	<b>0.649</b>	0.632	0.539	0.313
Production vs. prev. month	-0.334	-0.154	0.060	0.303	0.706	<b>0.772</b>	0.524	0.214	-0.122
Production vs. prev. year	-0.394	-0.265	-0.083	0.138	0.508	0.702	<b>0.718</b>	0.566	0.226
Stock of raw materials vs. prev. month	-0.453	-0.259	-0.065	0.082	0.438	0.676	<b>0.717</b>	0.444	0.223
Stock of raw materials assessment	0.282	0.329	0.244	-0.001	-0.369	-0.559	<b>-0.572</b>	-0.421	-0.119
Stock of final products vs. prev. month	-0.240	-0.205	-0.215	-0.294	-0.053	0.203	0.368	0.432	<b>0.558</b>
Stock of final products assessment	0.251	0.268	0.158	-0.067	-0.380	<b>-0.594</b>	-0.563	-0.352	-0.038
Employment assessment	0.396	0.324	0.151	-0.135	-0.519	<b>-0.728</b>	-0.714	-0.530	-0.240
Business situation assessment	-0.396	-0.316	-0.158	0.082	0.472	0.677	<b>0.712</b>	0.599	0.375
Expectations incoming orders	-0.212	-0.083	0.103	0.415	<b>0.699</b>	0.587	0.232	-0.142	-0.395
Expectations production	-0.287	-0.167	0.041	0.390	<b>0.738</b>	0.723	0.448	0.068	-0.266
Expectations purchase materials	-0.302	-0.153	0.070	0.399	<b>0.757</b>	0.732	0.441	0.054	-0.285
Expectations employment	-0.374	-0.261	-0.041	0.307	0.707	<b>0.794</b>	0.647	0.348	0.043

## 1.4 Employment

Table 17: Cross-correlations with quarterly manufacturing employment (FT) yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.585	0.640	0.571	0.372	0.063	-0.317	-0.595	<b>-0.682</b>	-0.640
Incoming orders vs. prev. year	0.476	0.685	<b>0.783</b>	0.749	0.556	0.168	-0.238	-0.549	-0.696
Stock of orders vs. prev. month	0.615	<b>0.747</b>	0.727	0.553	0.256	-0.129	-0.452	-0.625	-0.646
Stock of orders assessment	0.229	0.532	0.762	0.891	<b>0.896</b>	0.661	0.348	0.035	-0.218
Stock of orders assessment, Abroad	0.261	0.548	<b>0.752</b>	<b>0.851</b>	0.840	0.602	0.296	0.009	-0.232
Production vs. prev. month	0.540	0.713	<b>0.758</b>	0.653	0.391	0.002	-0.368	-0.576	-0.650
Production vs. prev. year	0.384	0.642	0.799	<b>0.829</b>	0.705	0.358	-0.041	-0.392	-0.618
Stock of raw materials vs. prev. month	0.292	0.558	0.741	<b>0.830</b>	0.759	0.492	0.152	-0.211	-0.438
Stock of raw materials assessment	-0.268	-0.523	-0.687	<b>-0.688</b>	-0.489	-0.143	0.227	0.491	0.621
Stock of final products vs. prev. month	-0.197	-0.007	0.234	0.512	<b>0.720</b>	0.704	0.569	0.246	-0.029
Stock of final products assessment	-0.346	-0.559	<b>-0.666</b>	-0.660	-0.461	-0.112	0.265	0.536	0.650
Employment assessment	-0.339	-0.633	-0.827	<b>-0.896</b>	-0.805	-0.480	-0.105	0.217	0.434
Business situation assessment	0.217	0.518	0.751	<b>0.883</b>	<b>0.883</b>	0.650	0.344	0.038	-0.203
Expectations incoming orders	0.561	0.629	0.544	0.279	-0.057	-0.408	-0.642	<b>-0.707</b>	-0.631
Expectations production	0.569	<b>0.710</b>	0.705	0.512	0.200	-0.181	-0.503	-0.661	-0.654
Expectations purchase materials	0.594	<b>0.730</b>	0.714	0.500	0.177	-0.211	-0.531	-0.675	-0.667
Expectations employment	0.489	0.734	<b>0.836</b>	0.779	0.590	0.210	-0.152	-0.420	-0.561

Table 18: Cross-correlations with quarterly manufacturing employment (FT) qoq

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.323	0.443	0.560	0.637	0.518	0.174	-0.215	-0.548	<b>-0.689</b>
Incoming orders vs. prev. year	0.055	0.300	0.536	0.711	<b>0.765</b>	0.577	0.271	-0.163	-0.526
Stock of orders vs. prev. month	0.212	0.443	0.657	<b>0.763</b>	0.660	0.329	-0.061	-0.442	-0.653
Stock of orders assessment	-0.231	0.057	0.347	0.590	<b>0.790</b>	0.762	0.591	0.300	-0.020
Stock of orders assessment, Abroad	-0.203	0.089	0.386	0.609	<b>0.770</b>	0.703	0.505	0.241	-0.062
Production vs. prev. month	0.128	0.371	0.560	<b>0.750</b>	0.720	0.483	0.080	-0.327	-0.578
Production vs. prev. year	-0.065	0.208	0.472	0.675	<b>0.808</b>	0.689	0.434	0.038	-0.377
Stock of raw materials vs. prev. month	-0.127	0.125	0.360	0.623	<b>0.780</b>	0.683	0.517	0.137	-0.210
Stock of raw materials assessment	0.116	-0.088	-0.343	-0.610	<b>-0.740</b>	-0.613	-0.296	0.133	0.402
Stock of final products vs. prev. month	-0.253	-0.245	-0.187	0.012	0.378	0.528	<b>0.689</b>	0.593	0.325
Stock of final products assessment	0.020	-0.217	-0.371	-0.600	<b>-0.709</b>	-0.553	-0.274	0.166	0.422
Employment assessment	0.144	-0.158	-0.430	-0.696	<b>-0.850</b>	-0.747	-0.479	-0.113	0.222
Business situation assessment	-0.229	0.037	0.332	0.583	<b>0.786</b>	0.755	0.589	0.285	-0.022
Expectations incoming orders	0.247	0.429	0.610	0.621	0.475	0.119	-0.329	-0.585	<b>-0.707</b>
Expectations production	0.170	0.400	0.623	<b>0.733</b>	0.648	0.347	-0.115	-0.467	-0.652
Expectations purchase materials	0.185	0.419	0.661	<b>0.743</b>	0.646	0.331	-0.151	-0.498	-0.683
Expectations employment	0.006	0.308	0.581	0.752	<b>0.829</b>	0.595	0.231	-0.134	-0.446

## 2 Quarterly questions

Table 19: Cross-correlations with quarterly Industry IP yoy

	-4	-3	-2	-1	0	1	2	3	4
Technical capacities prev. quarter	-0.421	-0.255	-0.022	0.329	0.650	0.750	<b>0.775</b>	0.624	0.371
Capacity Utilization	-0.354	-0.221	-0.033	0.298	0.600	<b>0.729</b>	0.722	0.626	0.412
Competitive position EU	<b>-0.298</b>	-0.219	-0.077	0.077	0.202	0.137	0.079	0.045	0.031
Purchasing price expectations	-0.381	-0.237	-0.002	0.326	<b>0.564</b>	0.550	0.552	0.387	0.207
Expectations for next 6 Months	-0.111	0.126	0.423	0.620	<b>0.662</b>	0.458	0.128	-0.136	-0.404
Sales prices prev. quarter	-0.364	-0.316	-0.140	0.096	0.322	0.412	0.425	<b>0.448</b>	0.345
Competitive position non-EU	<b>-0.142</b>	-0.081	-0.036	0.073	0.135	0.086	0.013	-0.067	-0.138
Competitive position domestic	-0.193	-0.066	0.122	0.338	<b>0.476</b>	0.460	0.327	0.218	0.056
Technical capacities assessment	0.395	0.220	-0.019	-0.386	-0.688	<b>-0.785</b>	-0.738	-0.594	-0.352
Profit situation prev. quarter	-0.267	-0.105	0.170	0.504	<b>0.663</b>	0.596	0.416	0.179	-0.073
Export expectations	-0.230	0.042	0.301	0.567	<b>0.707</b>	0.479	0.261	-0.057	-0.331
Sales price expectations	-0.387	-0.271	-0.068	0.239	0.504	0.540	<b>0.542</b>	0.422	0.242

Table 20: Cross-correlations with quarterly Industry IP qoq

	-4	-3	-2	-1	0	1	2	3	4
Technical capacities prev. quarter	-0.058	-0.077	-0.060	-0.056	0.036	0.070	0.111	<b>0.112</b>	0.095
Capacity Utilization	-0.050	-0.066	-0.041	-0.059	0.028	0.058	<b>0.107</b>	0.103	0.103
Competitive position EU	-0.035	-0.030	-0.062	-0.014	0.000	<b>0.063</b>	-0.003	0.031	-0.025
Purchasing price expectations	-0.077	-0.042	-0.107	0.005	0.004	0.109	0.053	<b>0.118</b>	0.011
Expectations for next 6 Months	-0.053	-0.027	-0.029	0.059	0.076	<b>0.138</b>	0.061	0.045	-0.007
Sales prices prev. quarter	-0.047	-0.035	-0.095	-0.020	-0.026	0.080	0.008	<b>0.096</b>	0.026
Competitive position non-EU	-0.058	0.039	-0.046	0.021	-0.014	<b>0.066</b>	-0.010	0.011	-0.030
Competitive position domestic	-0.092	0.007	-0.099	0.049	-0.026	<b>0.140</b>	0.009	0.103	-0.010
Technical capacities assessment	0.066	0.060	0.056	0.035	-0.030	-0.101	-0.093	<b>-0.117</b>	-0.087
Profit situation prev. quarter	-0.014	-0.062	-0.054	0.002	0.065	<b>0.114</b>	0.073	0.080	0.033
Export expectations	-0.040	-0.054	-0.012	-0.004	0.117	0.085	<b>0.128</b>	0.019	0.015
Sales price expectations	-0.060	-0.039	-0.106	-0.022	0.007	0.089	0.047	<b>0.112</b>	0.037

Table 21: Cross-correlations with quarterly Manufacturing IP yoy

	-4	-3	-2	-1	0	1	2	3	4
Technical capacities prev. quarter	-0.470	-0.304	-0.048	0.305	0.641	0.755	<b>0.796</b>	0.647	0.386
Capacity Utilization	-0.413	-0.274	-0.061	0.279	0.596	0.746	<b>0.751</b>	0.654	0.431
Competitive position EU	<b>-0.285</b>	-0.237	-0.088	0.034	0.163	0.132	0.054	0.034	0.012
Purchasing price expectations	-0.419	-0.284	-0.025	0.278	0.536	<b>0.562</b>	0.536	0.387	0.196
Expectations for next 6 Months	-0.090	0.143	0.443	0.647	<b>0.692</b>	0.499	0.150	-0.134	-0.426
Sales prices prev. quarter	-0.403	-0.364	-0.178	0.048	0.280	0.400	0.408	<b>0.436</b>	0.339
Competitive position non-EU	-0.106	-0.044	0.010	0.072	0.111	0.076	-0.029	-0.094	<b>-0.140</b>
Competitive position domestic	-0.241	-0.095	0.094	0.306	<b>0.464</b>	0.456	0.315	0.198	0.012
Technical capacities assessment	0.438	0.263	0.004	-0.369	-0.686	<b>-0.802</b>	-0.766	-0.629	-0.380
Profit situation prev. quarter	-0.277	-0.118	0.187	0.486	<b>0.662</b>	0.625	0.421	0.195	-0.069
Export expectations	-0.200	0.058	0.322	0.584	<b>0.718</b>	0.506	0.278	-0.061	-0.339
Sales price expectations	-0.428	-0.314	-0.094	0.193	0.475	<b>0.539</b>	0.525	0.419	0.229

Table 22: Cross-correlations with quarterly Manufacturing IP qoq

	-4	-3	-2	-1	0	1	2	3	4
Technical capacities prev. quarter	-0.060	-0.086	-0.066	-0.062	0.037	0.071	0.109	<b>0.115</b>	0.104
Capacity Utilization	-0.052	-0.078	-0.052	-0.065	0.031	0.060	0.106	0.107	<b>0.116</b>
Competitive position EU	-0.032	-0.032	-0.057	-0.015	-0.011	<b>0.064</b>	-0.008	0.036	-0.019
Purchasing price expectations	-0.083	-0.044	-0.107	-0.005	-0.004	0.116	0.044	<b>0.122</b>	0.024
Expectations for next 6 Months	-0.047	-0.018	-0.031	0.058	0.079	<b>0.147</b>	0.067	0.051	-0.002
Sales prices prev. quarter	-0.054	-0.040	<b>-0.096</b>	-0.029	-0.035	0.081	0.006	0.093	0.033
Competitive position non-EU	-0.062	0.038	-0.032	0.028	-0.017	<b>0.068</b>	-0.013	0.013	-0.028
Competitive position domestic	-0.103	0.006	-0.105	0.045	-0.026	<b>0.138</b>	0.004	0.113	-0.007
Technical capacities assessment	0.068	0.067	0.062	0.040	-0.028	-0.103	-0.098	<b>-0.123</b>	-0.094
Profit situation prev. quarter	-0.024	-0.064	-0.040	-0.005	0.055	<b>0.125</b>	0.079	0.084	0.037
Export expectations	-0.031	-0.052	-0.010	-0.001	0.119	0.084	<b>0.132</b>	0.027	0.024
Sales price expectations	-0.073	-0.043	-0.102	-0.030	-0.004	0.092	0.044	<b>0.116</b>	0.041

## 2.1 Producer Prices

Table 23: Cross-correlations with PPI yoy

	-4	-3	-2	-1	0	1	2	3	4
Technical capacities prev. quarter	-0.072	0.130	0.397	0.617	<b>0.714</b>	0.629	0.414	0.148	-0.082
Capacity Utilization	-0.027	0.121	0.313	0.500	<b>0.632</b>	0.577	0.426	0.198	-0.026
Competitive position EU	-0.049	0.210	0.433	0.582	<b>0.630</b>	0.496	0.361	0.247	0.211
Purchasing price expectations	-0.072	0.211	0.521	0.756	<b>0.828</b>	0.667	0.437	0.200	0.072
Expectations for next 6 Months	-0.108	0.197	0.438	<b>0.517</b>	0.418	0.108	-0.157	-0.346	-0.398
Sales prices prev. quarter	-0.113	0.156	0.443	0.703	<b>0.859</b>	0.797	0.650	0.463	0.277
Competitive position non-EU	-0.062	0.126	0.282	0.394	<b>0.463</b>	0.352	0.195	0.015	-0.071
Competitive position domestic	-0.115	0.153	0.416	0.630	<b>0.745</b>	0.638	0.502	0.339	0.200
Technical capacities assessment	0.018	-0.180	-0.410	-0.610	<b>-0.705</b>	-0.576	-0.351	-0.062	0.185
Profit situation prev. quarter	-0.117	0.204	0.501	0.691	<b>0.733</b>	0.493	0.192	-0.074	-0.229
Export expectations	-0.078	0.221	0.497	<b>0.612</b>	0.510	0.197	-0.133	-0.384	-0.448
Sales price expectations	-0.087	0.195	0.493	0.743	<b>0.865</b>	0.734	0.523	0.279	0.122

Table 24: Cross-correlations with PPI qoq

	-4	-3	-2	-1	0	1	2	3	4
Technical capacities prev. quarter	-0.197	-0.163	-0.034	0.182	0.411	<b>0.574</b>	0.527	0.305	0.089
Capacity Utilization	-0.132	-0.058	0.009	0.109	0.310	0.423	<b>0.454</b>	0.340	0.151
Competitive position EU	-0.304	-0.094	0.039	0.209	0.482	<b>0.485</b>	0.391	0.208	0.118
Purchasing price expectations	-0.249	-0.141	-0.039	0.216	0.603	<b>0.723</b>	0.575	0.253	0.089
Expectations for next 6 Months	-0.379	-0.200	-0.004	0.250	<b>0.548</b>	0.456	0.184	-0.142	-0.331
Sales prices prev. quarter	-0.290	-0.146	-0.046	0.142	0.523	<b>0.645</b>	0.635	0.458	0.288
Competitive position non-EU	-0.284	-0.040	0.052	0.075	0.290	<b>0.338</b>	0.318	0.173	0.067
Competitive position domestic	-0.306	-0.151	-0.055	0.165	0.504	<b>0.560</b>	0.512	0.371	0.190
Technical capacities assessment	0.185	0.078	-0.027	-0.180	-0.418	<b>-0.515</b>	-0.504	-0.286	-0.038
Profit situation prev. quarter	-0.381	-0.168	0.000	0.191	0.595	<b>0.635</b>	0.453	0.150	-0.112
Export expectations	-0.356	-0.198	0.017	0.295	0.549	<b>0.571</b>	0.306	-0.125	-0.355
Sales price expectations	-0.287	-0.138	-0.022	0.185	0.568	<b>0.689</b>	0.632	0.369	0.131

## 3 Detailed Analysis: Monthly

Table 25: Cross-correlations with monthly Manufacturing IP yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.016	0.297	0.102	-0.072	<b>0.357</b>	-0.192	0.075	0.233	-0.091
Incoming orders vs. prev. year	0.079	0.163	0.101	0.087	<b>0.262</b>	-0.071	0.098	0.192	-0.104
Stock of orders vs. prev. month	0.072	0.249	0.120	0.084	<b>0.343</b>	-0.149	0.128	0.103	0.033
Stock of orders assessment	0.073	0.197	0.303	0.300	<b>0.449</b>	0.217	0.264	0.310	0.194
Stock of orders assessment, Abroad	0.041	0.081	0.077	<b>0.157</b>	0.128	-0.102	0.021	-0.024	-0.078
Production vs. prev. month	-0.043	0.286	0.170	-0.042	<b>0.508</b>	-0.098	0.098	0.275	-0.027
Production vs. prev. year	0.074	0.226	0.166	0.186	<b>0.362</b>	0.044	0.202	0.268	0.040
Stock of raw materials vs. prev. month	0.003	0.103	-0.081	0.198	<b>0.300</b>	0.104	0.072	0.045	0.186
Stock of raw materials assessment	-0.145	0.040	-0.140	0.022	<b>-0.160</b>	-0.020	0.151	-0.018	0.024
Stock of final products vs. prev. month	-0.021	0.004	0.027	-0.015	-0.006	0.004	0.014	0.027	<b>0.129</b>
Stock of final products assessment	-0.057	0.138	-0.046	<b>-0.175</b>	-0.107	0.120	0.071	0.020	-0.005
Employment assessment	-0.173	-0.098	-0.077	<b>-0.224</b>	-0.197	-0.130	-0.167	-0.067	0.005
Business situation assessment	0.191	0.232	0.245	0.334	<b>0.451</b>	0.239	0.307	0.283	0.145
Expectations incoming orders	<b>0.288</b>	0.139	0.048	0.101	0.059	-0.036	0.050	0.007	0.008
Expectations production	<b>0.282</b>	0.072	0.015	0.216	0.127	-0.040	0.038	-0.022	0.011
Expectations purchase materials	<b>0.256</b>	0.052	0.025	0.208	0.164	-0.051	-0.007	-0.070	0.007
Expectations employment	<b>0.272</b>	0.189	0.161	0.242	0.254	0.054	0.183	0.132	0.092

Table 26: Cross-correlations with monthly Industry IP yoy

	-4	-3	-2	-1	0	1	2	3	4
Incoming orders vs. prev. month	0.037	0.282	0.066	-0.082	<b>0.313</b>	-0.245	0.061	0.197	-0.129
Incoming orders vs. prev. year	0.044	0.141	0.048	0.048	0.180	<b>-0.204</b>	0.039	0.129	-0.164
Stock of orders vs. prev. month	0.058	0.232	0.103	0.059	<b>0.266</b>	-0.208	0.121	0.100	0.000
Stock of orders assessment	0.155	0.237	0.320	0.293	<b>0.405</b>	0.152	0.195	0.243	0.136
Stock of orders assessment, Abroad	0.007	0.039	0.014	0.067	0.026	<b>-0.196</b>	-0.071	-0.127	-0.191
Production vs. prev. month	-0.024	0.308	0.157	-0.047	<b>0.480</b>	-0.179	0.103	0.247	-0.085
Production vs. prev. year	0.105	0.245	0.127	0.163	<b>0.325</b>	-0.046	0.162	0.213	-0.040
Stock of raw materials vs. prev. month	0.012	0.103	-0.061	0.232	<b>0.287</b>	0.067	0.049	0.041	0.101
Stock of raw materials assessment	-0.093	0.063	-0.082	0.082	-0.096	0.051	<b>0.154</b>	0.010	0.089
Stock of final products vs. prev. month	0.049	0.051	0.050	0.007	-0.024	-0.011	0.033	0.008	<b>0.073</b>
Stock of final products assessment	-0.024	<b>0.141</b>	-0.035	-0.135	-0.044	0.127	0.044	0.031	0.016
Employment assessment	-0.157	-0.060	-0.059	<b>-0.220</b>	-0.122	-0.040	-0.095	-0.007	0.068
Business situation assessment	0.253	0.291	0.280	0.352	<b>0.410</b>	0.169	0.281	0.242	0.085
Expectations incoming orders	<b>0.214</b>	0.051	0.005	0.095	0.034	-0.048	0.050	-0.011	-0.002
Expectations production	<b>0.220</b>	0.002	-0.010	0.205	0.087	-0.051	0.049	-0.020	0.015
Expectations purchase materials	<b>0.191</b>	-0.013	-0.008	0.179	0.092	-0.083	0.002	-0.072	-0.004
Expectations employment	<b>0.259</b>	0.161	0.152	0.242	0.209	0.016	0.166	0.094	0.053

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