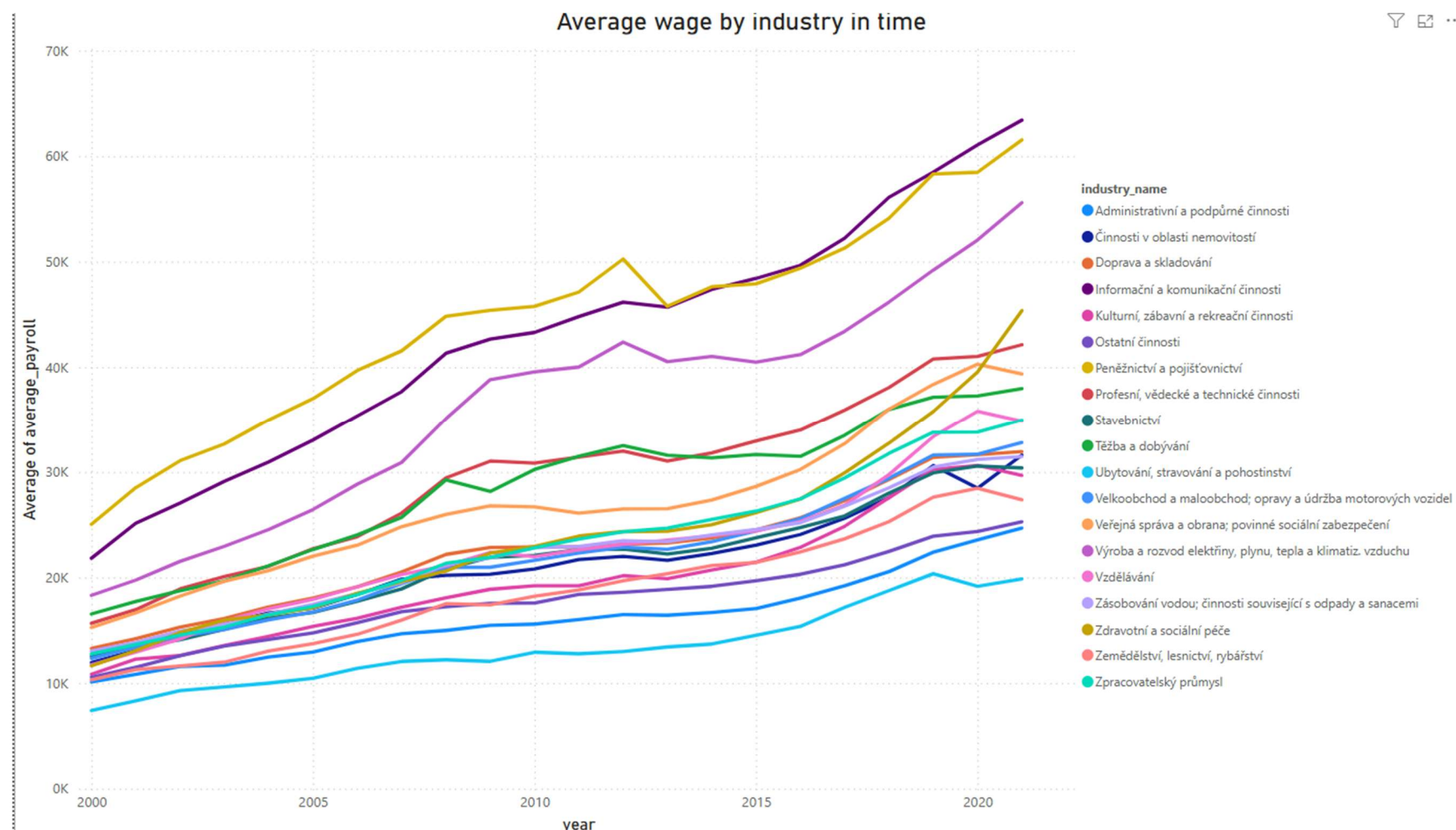


Rostou v průběhu let mzdy ve všech odvětvích, nebo v některých klesají?

The following graph (Average wages by industry over time) shows that average wages have generally increased across all sectors in the long term. There are periodic declines, such as during the global financial crisis of 2008, which impacted the Czech Republic's economy until 2013. Another decrease is evident in 2020, corresponding to the Covid-19 pandemic.



2. Kolik je možné si koupit litrů mléka a kilogramů chleba za první a poslední srovnatelné období v dostupných datech cen a mezd?

Please refer to the print screen below. The data indicate that the quantity of milk and bread that can be purchased in 2018 is higher than in 2006.

How many litres of milk and bread it is possible to buy for average payroll in 2006 and 2018

1.44K

Milk\_ratio 2006

1.29K

Bread\_ratio 2006

1.34K

Bread\_ratio 2018

1.64K

Milk\_ratio 2018

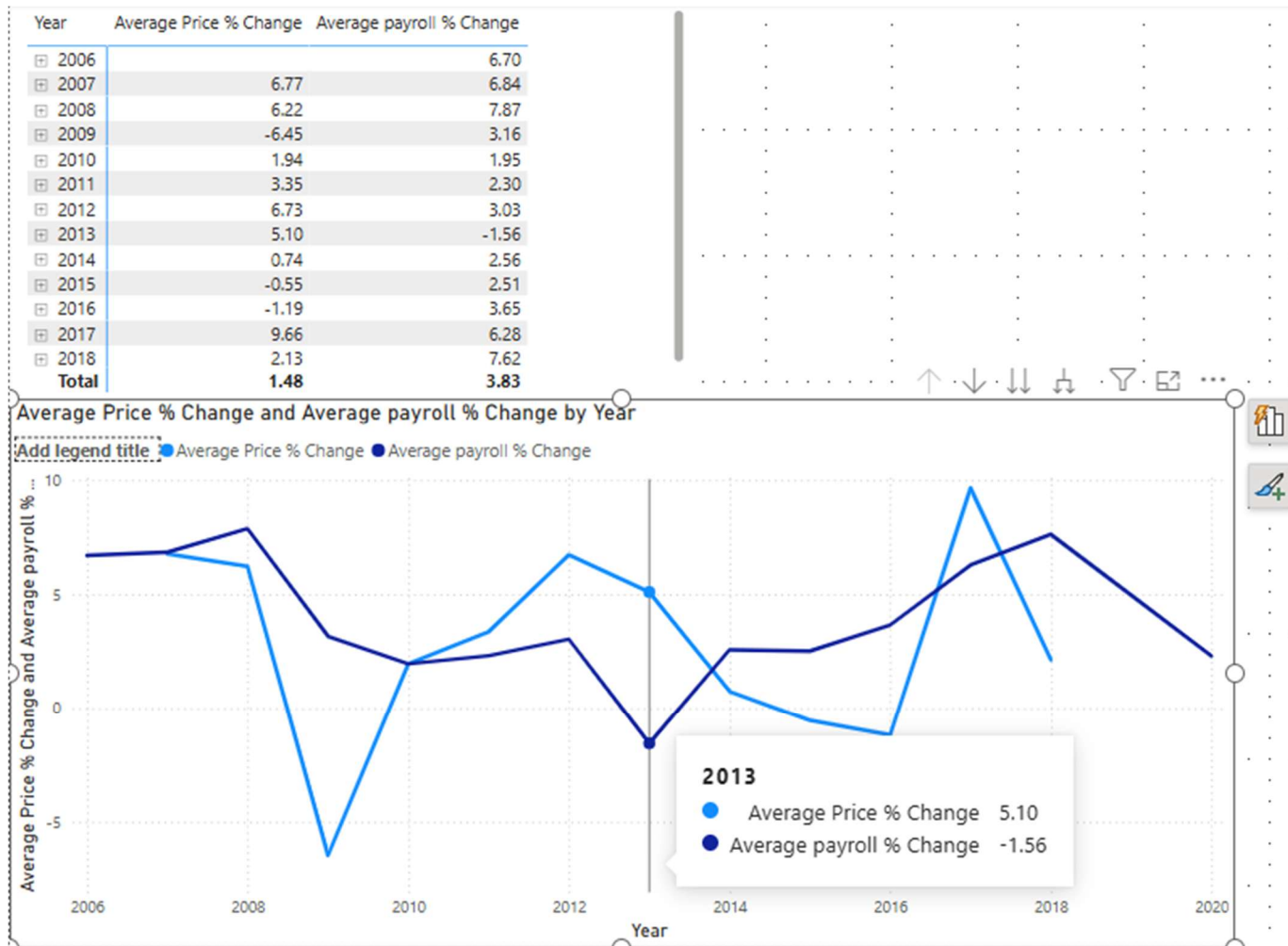
3. Která kategorie potravin zdražuje nejpomaleji (je u ní nejnížší procentuálně mezeroční nárůst)?

The following graph shows that the price of crystal sugar in 2018 was lower than in 2006.



4. Existuje rok, ve kterém byl meziroční nárůst cen potravin výrazně vyšší než růst mezd (větší než 10 %)?

Please refer to the graph below; it demonstrates that there is no instance in which the average price of food increases 10% faster than the average payroll compared to previous year. The biggest gap is in 2013.



-5. Má výška HDP vliv na změny ve mzdách a cenách potravin? Neboli, pokud HDP vzroste výrazněji v jednom roce,  
--projeví se to na cenách potravin či mzdách ve stejném nebo následujícím roce výraznějším růstem?

Please refer to the graph and regression data below it is obvious that there is dependency between prices and GDP per capita.

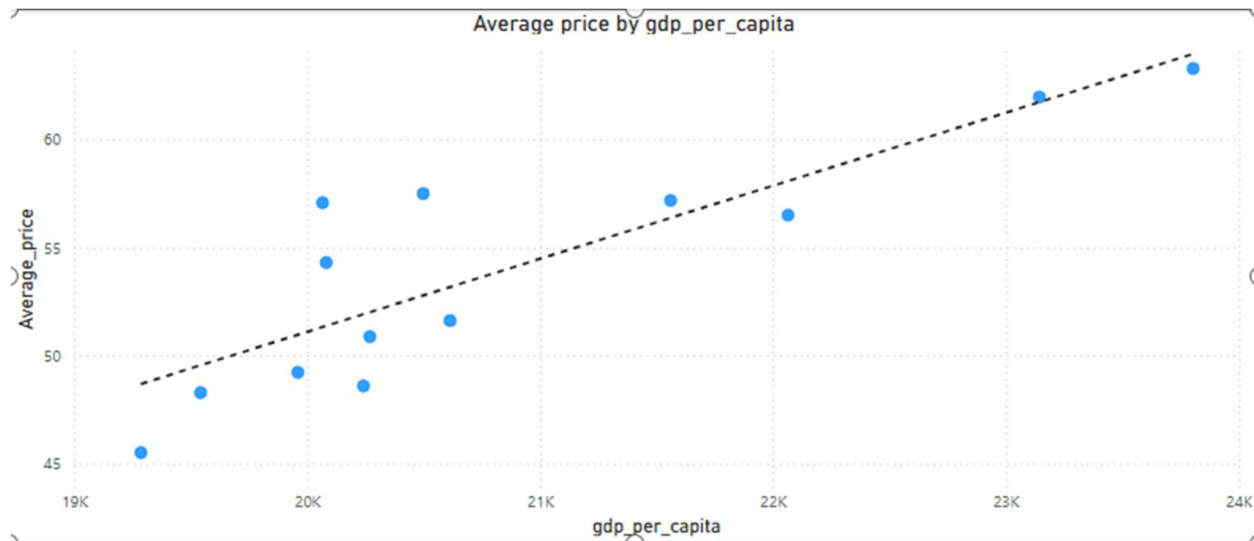
By performing regression analysis with 95% confidence interval and setting hypotheses.

**Null hypothesis** – there is no linear relationship between Average prices and GDP per capita

**Alternative hypothesis** -There is linear relationship between Average prices and GDP per capita

Multiple R value is 0,85 which means that there is very strong correlation between Average food prices and GDP per capita

Based on F(p) value is  $< 0,05$ (confidence interval) I can reject the null hypothesis and accept the alternative hypothesis the linear model is significant.



SUMMARY OUTPUT									
Regression Statistics									
Multiple R	0.880551								
R Square	0.775369								
Adjusted R Square	0.754948								
Standard Error	685.5454								
Observations	13								
ANOVA									
	df	SS	MS	F	Significance F				
Regression	1	17844505	17844505	37.96925648	7.08687E-05				
Residual	11	5169697	469972.5						
Total	12	23014201							
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%	
Intercept	10677.97	1662.789	6.421724	4.93045E-05	7018.197922	14337.75	7018.198	14337.75	
payroll_current	0.388668	0.063076	6.16192	7.08687E-05	0.249839062	0.527497	0.249839	0.527497	

Please refer to the graph and regression data below it is obvious that there is dependency between average\_payroll and GDP per capita.

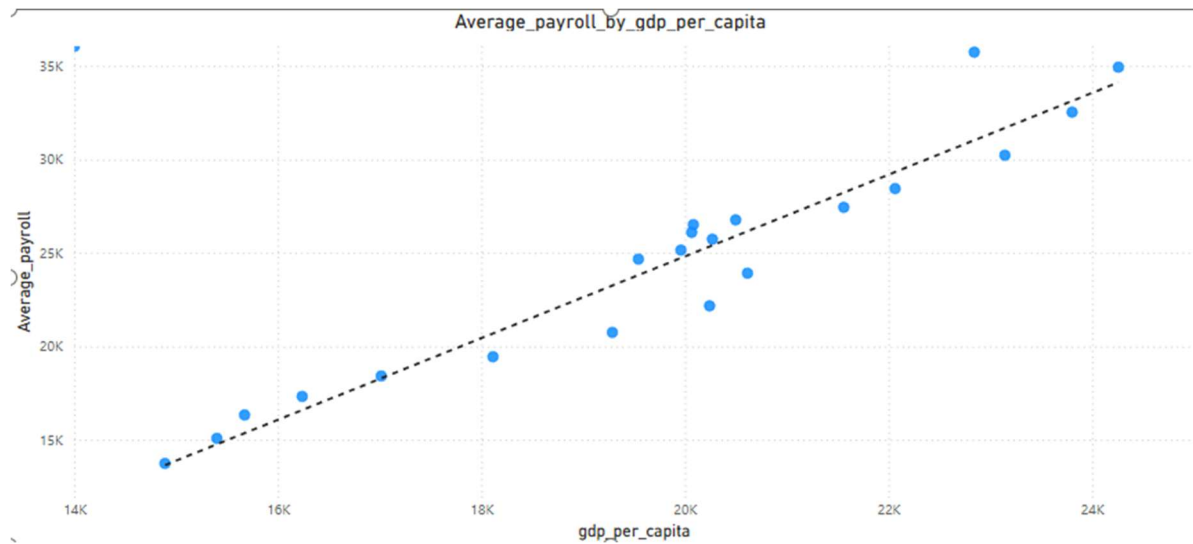
By performing regression analysis with 95% confidence interval and setting hypotheses.

**Null hypothesis** – there is no linear relationship between Average Payroll and GDP per capita

**Alternative hypothesis** -There is linear relationship between Average Payroll and GDP per capita

Multiple R value is 0,88 which means that there is very strong correlation between Average payroll and GDP per capita

Based on F(p) value is  $< 0,05$ (confidence interval) I can reject the null hypothesis and accept the alternative hypothesis the linear model is significant.



#### SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.880551
R Square	0.775369
Adjusted R Square	0.754948
Standard Error	685.5454
Observations	13

ANOVA					
	df	SS	MS	F	Significance F
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