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Mini-Presentation by

Jiří Šulc

Czech Statistical Office

jiiri.sulc@czso.cz

ISIC 77.10 Renting and leasing of motor vehicles

Introduction

The paper provides a brief overview on the development and methodological framework of the Producer Price Index for Renting and leasing of motor vehicles calculated in the Czech Republic, informs about the domestic market and proposes future challenges regarding the price index.

The price index for the described industry is a sub-index of the Services Producer Price Index "in total". The Czech statistical office (CZSO) has monitored (approximately 200 prices are surveyed per month on approximately 30 respondents) and published the indices since 1994. The index will be included in the list of the main European economic indicators (PEEI's) from 2023.

The structure of this mini-presentation is based on the Content Development Framework of the Voorburg Group.

1. Descriptions and characteristics of the industry

1.1 Definition of the industry

According to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, class 7710 Renting and leasing of motor vehicles includes:

Renting and operational leasing of the following types of vehicles:

- passenger cars (without drivers)
- trucks, utility trailers and recreational vehicles

This class excludes:

- Renting or leasing of vehicles or trucks with driver, see 4922, 4923
- Financial leasing, see 6491

In the Central Product Classification (CPC), services of renting and leasing of motor vehicles (ISIC 7710) are classified in the class 7311 Leasing or rental services concerning transport equipment without operator, specifically in subclass 73111 Leasing or rental services concerning cars and light vans without operator.

This subclass includes:

- leasing, rental or hiring of cars, light vans etc. without driver

This subclass does not include:

- rental or hiring services concerning private cars with driver, cf. 64116
- financial leasing of cars, cf. 71140

The group of services related to rental and leasing of motor vehicles can be also classified according to the classification of economic activities (NACE) or the more detailed classification of products by activity (CPA) as follows:

NACE Classification

77.1 Renting and leasing of motor vehicles

77.11 Renting and leasing of cars and light motor vehicles

77.12 Renting and leasing of trucks

CPA Classification

77.1 Rental and leasing services of motor vehicles

77.11 Rental and leasing services of cars and light motor vehicles

77.11.1 Rental and leasing services of cars and light motor vehicles

77.12 Rental and leasing services of trucks

77.12.1 Rental and leasing services of trucks

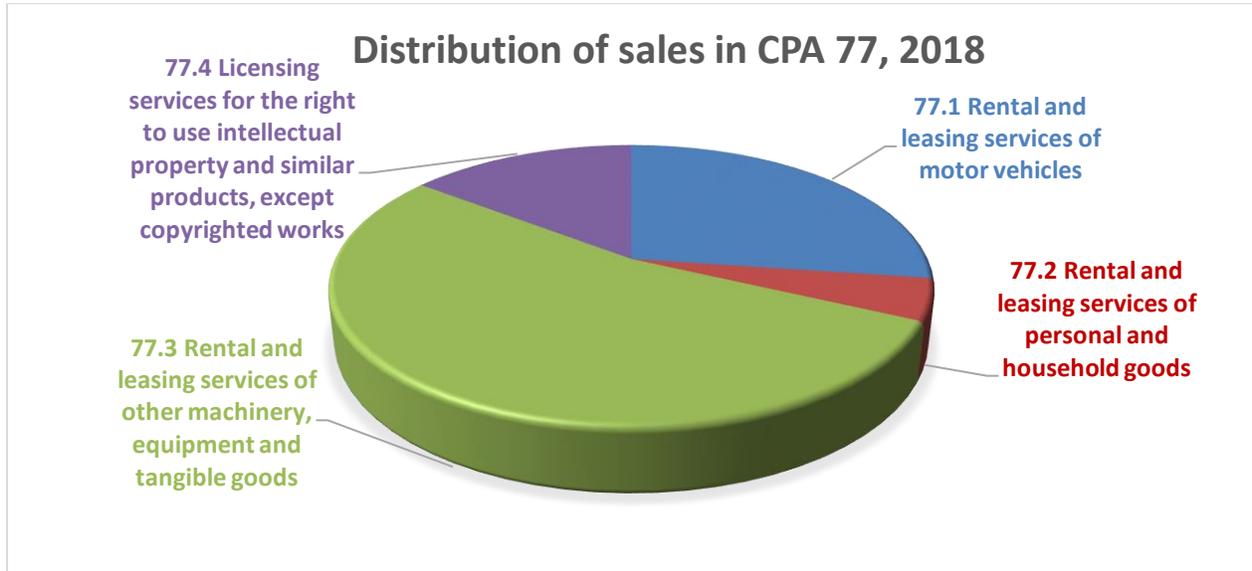
Rental and leasing services of motor vehicles (CPA 77.11) includes only rentals of vehicles without driver and rentals of light motor vehicles up to 3.5 t inclusive.

Unlike rental and leasing services of trucks (CPA 77.12), which includes rental and leasing of trucks, commercial trailers and motor vehicles with a total weight over 3.5 t. This group does not include the rental of trucks with a driver.

For national purposes, the CZSO uses **CPA classification**.

1.2 Market conditions and constraints

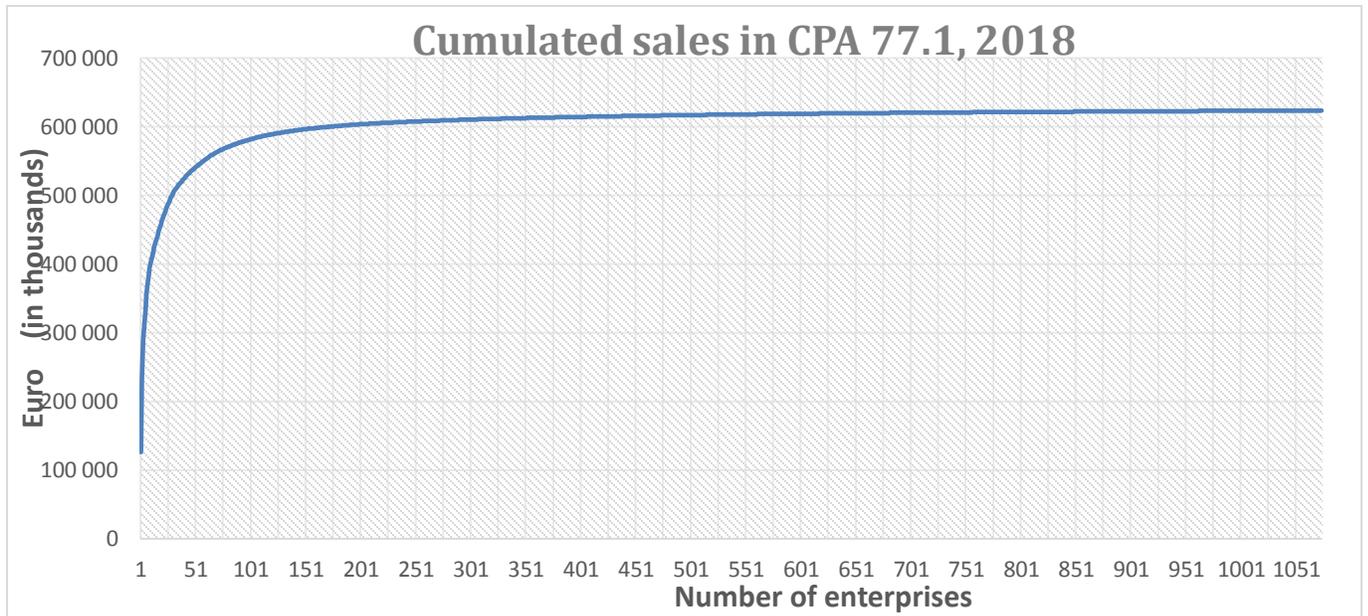
As we can see in the chart below the rental and leasing services of motor vehicles represents the second largest group in terms of sales within whole group of rental and leasing services.



Source: the CZSO

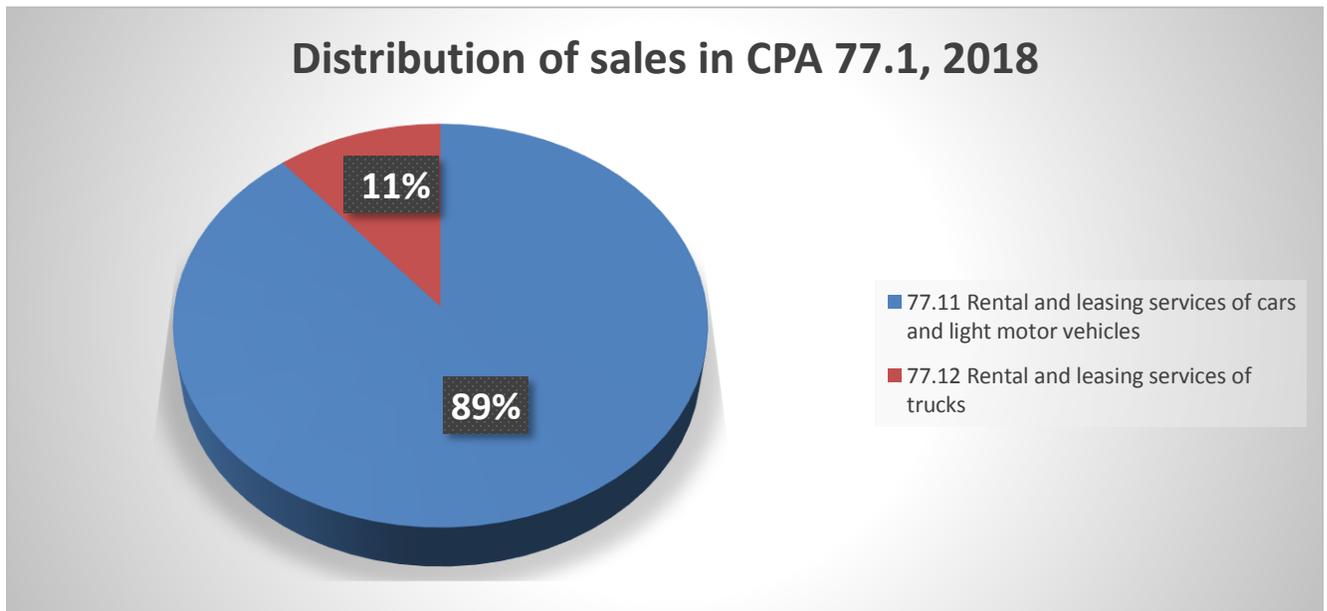
In 2018, total sales for rental and leasing of motor vehicles amounted to approximately 369 million euro. Over 5,000 companies are engaged in these activities. Behavior in this sector is closer to monopolistic competition (market structure with a large number of companies offering differentiated products, individual products are close substitutes).

As we can see in the chart below the top 100 companies represent the largest cumulative increase in sales for the aforementioned services.



Source: the CZSO

The group of rental and leasing services of cars and light motor vehicles (CPA 77.11) represents about 89 % of total sales for rental and leasing services of motor vehicles (CPA 77.1). Rental and leasing services of trucks (vehicle weight over 3.5 tons) do not yet have sufficient weight to cover this group with a price index.



Source: the CZSO

Leasing of movables according to the leasing product:

Assets purchased for leasing and handed over for leasing use in 2019 in millions CZK (entry debt)

Leasing of movables	2019
Financial leasing	19 581,23
Operational leasing	12 049,60
Full-service leasing	12 424,91
Short-term lease	1 009,66

Source: the Czech leasing and finance association

Number of active leasing contracts at the end	2019
Financial leasing of movables	74 619
Operational leasing of movables	36 197
Full-service leasing	92 448
Short-term lease	1 301

As can be seen from the tables above, short-term leases fall far short the values of financial and operational leasing. Unfortunately, there is no information on the ratio of stated structure that occurs in rental and leasing services of motor vehicles.

1.2.1 Leasing

Regarding leasing services, it is necessary to define the difference between financial and operational leasing.

Operational leasing (hereinafter OL) of vehicles, of which the purpose is to provide a service rather than an investment, can be defined as a time-limited car rental, which can be shorter than the useful life and depreciation of the car under applicable tax regulations. The aim of OL is not to transfer the car to the lessee's property. After the end of the lease, the car is returned to the lessor. OL differs from classic financial leasing mainly by the fact that OL is rather a service for customers, which relieves the client of all unpleasant obligations associated with the acquisition and operation of the car. Today, this service is of particular interest to clients who prefer the possibility of achieving savings, simplifying administration, and using free funds for other activities. In the case of using this method of leasing, most leasing companies offer additional services that can be included in lease payments (called **full service leasing** of the company's vehicle fleet).

Full service leasing is an extension of operating leasing (the operating lease with services that are necessary for the operation of the vehicle).

Additional services may include:

registration of the car, handing over the car on registration plates, handing over the car outside the car showroom, concluding accident insurance, concluding liability insurance (compulsory liability), concluding additional insurance, paying radio fees, highway stamp, paying road tax, paying regular service, set of summer and winter tires, ensuring seasonal tire change, including their storage, pick-up service for regular service and tire change, operative delivery of a spare car, handling insurance claims, the possibility of renting special equipment (ski, bike carrier), washing the outside and inside of the car in the service, assistance service, etc.

What are the benefits of operational leasing (as opposed to buying cars)?

Distribution of all costs associated with the purchase, operation and maintenance of the vehicle into a fixed monthly payment, guarantee of fixed monthly payments, variable rental period from 12 to 48 months, no need to pay the initial down payment (down payment = 0%), cash flow optimization (free funds for other activities), the installment reduces the income tax base, for VAT payers the possibility of deducting VAT on passenger cars, the leasing company assumes the risk associated with the selling price of the used vehicle, the client does not bear the risks of car ownership, reducing costs associated with acquisition and operation car, maintaining the regular renewal of cars in the young fleet.

Financial leasing

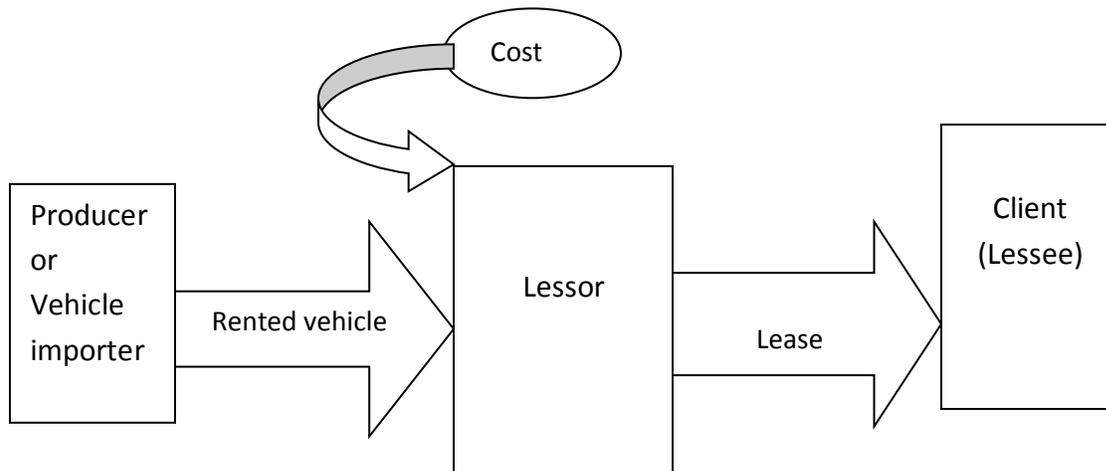
Financial leasing (hereinafter FL) is a financial lease with the possibility of subsequent purchase of the leased item. This is a service where the client (lessee) uses the object of leasing for a long time for payment in the form of lease payments. The leased asset is owned by the leasing company and upon termination of the lease agreement and payment of the residual value, ownership passes to the lessee if the lessee exercises the right to repurchase the lease. The duration of the leasing contract in the case of financial leasing is defined by the Income Tax Act according to the depreciation group of the subject of leasing.

The subject of the price survey of Renting and leasing of motor vehicles is not financial leasing.

How does operational leasing work?

"Gross approach" (package of services containing the price for rented goods)

This model is in line with payment flows and reported sales, and is therefore suitable for the survey of prices for operational leasing.



The determination of the amount of the payment depends on other factors: profit margin, risk margin, interest pick-up, fees for accompanying services, etc.

Possible types of contracts:

Open contract

- equal payments
- payments for services are advance and once for an agreed period are billed to the tenant (monthly, annually, quarterly or after the end of the lease term)
- residual value is guaranteed by the landlord with the observed mileage (deviations from contracted mileage are billed to the tenant so that the residual value corresponds to the actual mileage)

Closed contract

- equal payments without advance payments for services

- residual value is guaranteed by the landlord with the observed mileage (deviations from contracted mileage are billed to the tenant so that the residual value corresponds to the actual mileage)

Individual contract

- equal payments
- payments for services are advance and once for an agreed period are billed to the tenant (monthly, annually, quarterly or after the end of the lease period)
- the residual value is compared with the actual selling price after the end of the lease period, the difference with the tenant is billed
- mileage are not determinative

Fleet – for medium and larger fleets

- equal payments
- there are no additional costs in the payments for services (over the agreed payment)
- in case of deviation from the agreed mileage with the tenant, mileage is billed so that the residual value corresponds to the actual mileage)
- after the end of the lease and in the case of a positive result of the settlement of risk items, the overpayment will be refunded to the client

1.2.2 Car rental (short-term lease)

A) Passenger cars and other motor vehicles with a total weight up to 3.5 t

The offered period for which is possible to rent a car varies from a car rental company to a car rental company (e.g. 1-4 days, 1-7 days, 5-14 days, 15-25 days, weekend, 28 days and others but less than 1 year). Along with renting the vehicle itself, the rental company usually handles and provides accident insurance (both in own country and abroad), statutory insurance for damage caused by the operation of a motor vehicle, a motorway stamp, regular service inspections including an oil change, and assistance. It is no exception when the client receives a bonus for the rented car, such as renting GPS navigation gratis. Some rental companies add mileage in addition to regular payments, some offer unlimited mileage.

Short-term rental differs from long-term rental in the number of days rented. Long-term rental is considered a car rental for 28 days (sometimes inaccurately stated month). In addition to the fact that rented vehicles are divided into **personal and commercial vehicles**, where personal vehicles are further divided into cheap ecological, luxury and adventure vehicles, there is a finer division of vehicles depending on car size, engine power, interior equipment, etc.

The classifications used by car rental companies are as follows:

The car classification code

- allow car rental companies to communicate the characteristics of a car using a standardised system, in order to prevent misleading information when booking a rental car.

Category	Type	Trans / Driven wheels	Fuel / air-con
M: Mini	B: 2-3 Door	M: Manual (drive unspecified)	R: Unspecified Fuel With Air
N: Mini Elite	C: 2/4 Door	N: Manual 4WD	N: Unspecified Fuel Without Air
E: Economy	D: 4-5 Door	C: Manual AWD	D: Diesel Air
H: Economy Elite	W: Wagon/Estate	A: Auto (drive unspecified)	Q: Diesel No Air
C: Compact	V: Passenger Van	B: Auto 4WD	H: Hybrid Air
D: Compact Elite	L: Limousine	D: Auto AWD	I: Hybrid No Air
I: Intermediate	S: Sport		E: Electric Air
J: Intermediate Elite	T: Convertible		C: Electric No Air
S: Standard	F: SUV		L: LPG/Compressed Gas Air
R: Standard Elite	J: Open Air All Terrain		S: LPG/Compressed Gas No Air
F: Fullsize	X: Special		A: Hydrogen Air
G: Fullsize Elite	P: Pick up Regular Cab		B: Hydrogen No Air
P: Premium	Q: Pick up Extended Cab		M: Multi Fuel/Power Air
U: Premium Elite	Z: Special Offer Car		F: Multi Fuel/Power No Air
L: Luxury	E: Coupe		V: Petrol Air
W: Luxury Elite	M: Monospace		Z: Petrol No Air
O: Oversize	R: Recreational Vehicle		U: Ethanol Air
X: Special	H: Motor Home		X: Ethanol No Air
	Y: 2 Wheel Vehicle		
	N: Roadster		
	G: Crossover		
	K: Commercial Van/Truck		

Examples:

- IDAD – Intermediate category, 4/5 doors, automatic transmission, diesel engine, air-conditioning fitted

- ECMQ – Economy category, 2/4 doors, manual transmission, diesel engine, no air-conditioning
- PCAV – Premium category, 2/4 doors, automatic transmission, petrol engine, air-conditioning fitted
- IGDV – Intermediate Crossover vehicle, automatic transmission, petrol engine, air-conditioning fitted

Simplified classification

Class	Description	Example	Code
Mini	For short distances, small luggage, 2 doors	Fiat Seicento, Seat Arosa	MBMN
Economy	For short distances, small luggage, 2/4 doors	Fiat Punto, VW Polo	EBMN
Compact	For a small family, limited distance, small luggage	Fiat Bravo, VW Golf, Ford Focus	CDMR
Intermediate	For normal distance and normal luggage	Alfa Romeo, Škoda Octavia, Ford Mondeo	IDMR
Standard	For average distance and normal luggage	Audi A4, VW Passat TDI	SDMR
Fullsize	For a large family, long distance and lots of luggage	BMV 320, Mercedes C180, Saab	FDMR
Premium	For long distance and lots of luggage	Audi A6 TDI, BMW 520, Volvo V70	PDMR
Minivan	For a large family, long distance and lots of luggage	Ford Galaxy, Seat Alhambra	FVWR

The vehicle can be further classified by petrol / diesel consumption, if the vehicle is equipped with central locking, airbag, ABS, electric front windows, etc.

B) Trucks weighing over 3.5 t

Basic conditions are same as for passenger cars.

To rent a vehicle is necessary: a valid driver's license, a concession deed, the extract from the Commercial Register, a deposit.

1.3 Specific characteristics of the industry

The actual compilation of SPPI in the Czech Republic relies on the B2All concept. As the target customer is mainly a company, our survey of prices for rental and leasing services of motor vehicles focuses only on the B2B concept. The resulting price indices therefore represent B2All as well.

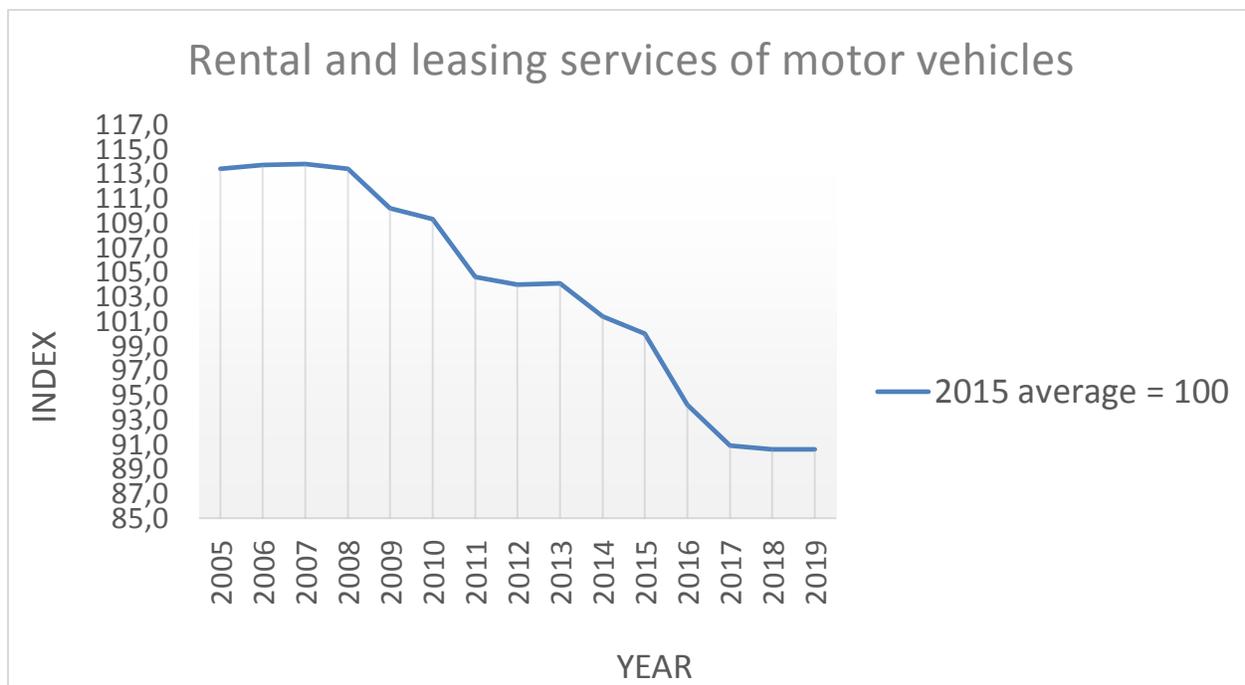
Other information from experts says that a perspective way of financing for the current consumer could be a model that has spread abroad under the name of personal contract purchase. It combines elements from both purchase through consumer credit and rental through operational leasing. Personal contract purchase has increased the last leasing payment and the client can decide whether to keep the car and pay the price, repay it or get rid of it.

2. Measurement of SPPI

2.1 General framework

The CZSO has been publishing a monthly price index for motor vehicles rental and leasing since 1994. The index is used primarily as a deflator for national accounts. The objective of the index is to measure average monthly change of prices of the motor vehicles rental and leasing services designed predominantly for the business field on the domestic market. Surveyed prices are real contract prices, eventually prices from price lists, which are adjusted from the value added tax. The statistical survey of prices for services in general uses non-probability sampling techniques (purposive sampling), i.e. economical subjects with the highest annual sales in the monitored sector are selected to the sample of respondents. The sample of reporting units is proportionally replenished by medium-sized enterprises. The CZSO offers the possibility of electronic reporting for easier and faster data collection from respondents instead of filling out data to the printed statistical questionnaire. The essence of electronic method of data collection is filling out interactive PDF form, which is saved on website of the CZSO. The content of this form is tailored to the individual needs of reporting respondents. Another option is to fill the reporting form in via the web interface.

Over the last 15 years, the price index has shown a strongly declining trend.



2.2 Measurement issues

In order to construct the price index for Renting and leasing of motor vehicles it is necessary to accurately capture specifications for rental and leasing services, including the type of price, the unit of measure, the size of, and reason for price change. The objective, when selecting representatives, is find such a service, which appropriately represents given group or class of services within the Classification of product by activity CPA (used Czech version CZ-CPA). The selected service must comply with further criteria as clear definability, quality stability in time and significance of the selected service in terms of the overall company activities. Therefore, visits to companies operating in the mentioned market and mainly the Czech leasing and finance association were very helpful.

2.2.1 Operational leasing

The key factors influencing the lease payment in general:

- The lease length (usually from 12 to 48 months)
- annual mileage (number of mileages per year)
- class of cars

- whether the rental is associated with full service or not (full service content above)
- client size (fleet)

The example of one of the offered contracts:

Car rental: Škoda Octavia II Ambiente 1,9 TDI 77 kW + metallic varnish

The lease length: 36 months

Mileage: 120 tis. Km/ year

List price of the car: 423 083 CZK without VAT (507 700 CZK with VAT)

Full service: car insurance, accident liability 5%, windshield insurance, registration mark, road tax, radio fee, regular maintenance, 2x set of summer tires, 2x set of winter tires including tire service and storage, highway vignette, free pick-up service

Monthly payment: 11 100 CZK without VAT

2.2.2 Car rental (short-term lease)

Personal cars and other motor vehicles with a total weight up to 3.5 t

From the above classifications of vehicles and from the analysis of websites and contracts of several rental companies, we can distinguish the following main factors influencing the price of the service provided:

- Class of selected car, e.g. ECMN, Economy, Class A
- Car rental time, e.g. several days, week, month, weekend

Mileage, e.g. a certain number of kilometers included in the rate, charges for each additional mileage.

- Type of client, e.g. company, private person, foreign or domestic client

Contracts may include other paid services such as:

- Additional fee for the client accident insurance
- Windshield and tire insurance

- Mandatory billing of winter tires always from 1 November to 30 April
- Additional charge for each additional registered driver
- Airport or train station fee

Additional charges for navigation system, car seat, snow chains, roof rack and more

The base price for renting a car often includes:

- statutory insurance, accident insurance and theft insurance in the country and abroad
- highway vignette and road tax

Another condition for renting a car is 2 years valid driver's license and driver's age 21 years

The example of one of the offered contracts: - *The most frequently rented car in economy class*

Car: Ford Fiesta

Class: EDMR (economy, 5 door, manual transmission, air conditioning) or only expressed as Economy Class or Class A

The most common length of rental for a selected car

Car rent: 2 days

The type of customer who rents the vehicle

Client: Domestic company

Appropriate location of the branch, where this vehicle is rented:

Prague airport

Base price: 5 320.80 CZK

Included: unlimited mileage, statutory insurance and accident insurance and theft insurance in the country and abroad, highway vignette and road tax

Rate for renting winter tires: 276 CZK/day, i.e. 552 CZK/ 2 days (mandatory during this period)

Total price: 5 872.80 CZK

2.3 Description of pricing methods

From the information obtained from big companies, the price statisticians have tried to define and standardise the specification of the service to ensure that the specification continues over time.

It means that direct use of prices of repeated services is main pricing method for capture price movements.

For the time being, the statistical questionnaire for the survey of prices of rental and leasing services contains following representatives and definitions:

Motor vehicle rental, total		Measure unit	Examples
Rental of cars with manual transmission and air conditioning provided to companies [1]	Economy	CZK/day	
	Compact	CZK/day	
	Intermediate	CZK/day	
	Standard	CZK/day	
	Premium	CZK/day	
Commercial vehicle rental provided to companies weighing up to 3.5 t [2]		CZK/day	
Operational full service leasing of motor vehicles, total		x	x
Leasing payment for the rental of a personal vehicle for 36 months with a mileage of 120,000 km / year for a client with a fleet of 30 vehicles [3]	lower class vehicle	CZK/month	e.g.: Fabia Combi Classic 1,2
	middle class vehicle	CZK/month	e.g.: Octavia Combi Ambiente 1,6 TDI
	higher class vehicle	CZK/month	e.g.: Superb Elegance 1,9 TDI
Leasing payment for the rental of a personal vehicle for 48 months with a mileage of 120,000 km / year for a client with a fleet of 30 vehicles [3]	lower class vehicle	CZK/month	e.g.: Fabia Combi Classic 1,2
	middle class vehicle	CZK/month	e.g.: Octavia Combi Ambiente 1,6 TDI
	higher class vehicle	CZK/month	e.g.: Superb Elegance 1,9 TDI

Instructions in more detail stated in questionnaire which respondent reports are described below.

[1] Rental of cars with manual transmission and air conditioning provided to companies

Respondents report the price for the most frequently rented vehicles without a driver (the most represented one type and vehicle brand for those classes that appear in the respondent's offer). The basic parameters will be described in the comments. If there are different rates according to the length of the lease and the location of the rental company, the price for the most common length of the lease and the location with the most profitable branch is stated. The price should include statutory insurance, insurance against accidents and theft in the country and abroad, a motorway stamp, road tax and a tire change fee in the winter months. The price does not include fees for each additional kilometer traveled for a limited number of km. If the contractual rental price is set in a foreign currency, the respondent will convert the data into CZK according to the exchange rate valid at the time of compiling the questionnaire.

[2] Commercial vehicle rental provided to companies weighing up to 3.5 t.

Respondents report the price for renting only one type of commercial vehicle, the one that is most represented. The relevant parameters are specified by the respondent in the comment.

[3] Leasing payment for the rental of a personal vehicle for 36 months or 48 months with a mileage of 120,000 km / year for a client with a fleet of 30 vehicles

Respondents report the average price level of the leasing payment (or the average price) for the specified types and brands of vehicles, which is based on concluded contracts. The price of the monthly payment should include the following additional services (called a full service): conclusion of compulsory liability, conclusion of accident insurance with 5% co-payment, road tax, motorway stamp, radio fee, regular maintenance, roadside assistance, seasonal tire change.

2.4 Quality adjustments

When defining and specifying any service, the Department of Price Statistics has always tried to set the selected representative as concretely as possible according to the following methodological instruction:

In order to monitor net price changes it is necessary to indicate the most frequently occurring price of the provided service under approximately the same business and payment conditions due to the comparability of the reported data over time.

Concerning rental and leasing services of motor vehicles, the definitions of services and selected car classes have long been unchanged. In the case of a major intervention in the structure of the

questionnaire and specifications of individual representatives, there is an effort to use the revision of price statistics. Revision of price indices is done every 5 years. Updating is just focused on selected files of the representatives and reporting units, weight structure, price base and the concept of calculation.

The only occasionally changing items are the models and names of rented cars (type and vehicle brand) belonging to individual fixed classes. For these substitutions, the direct comparison method is used to adjust qualitative changes.

In the case of a large deviation from the set parameters within the selected car classes, the second method for quality adjustment would be used. Which means applying the overlap method.

3. Future challenges (SPPI)

- Follow new trends in the services offered.
- Monitor the shares of services used by businesses and consumers.
- Develop good relations between respondents and the Czech statistical office when selecting and defining new services.
- Explain the benefits of filling in the questionnaire via the web interface (an online questionnaire).
So far, respondents have filled in the reports via an interactive PDF form.

Bibliography

Czech Statistical Office. *Database of prices and price indices*. Retrieved from

<https://vdb.czso.cz/vdbvo2/faces/en/index.jsf?page=statistiky#katalog=31784>

Czech Statistical Office. *Database of services*. Retrieved from

<https://vdb.czso.cz/vdbvo2/faces/en/index.jsf?page=statistiky#katalog=32025>

Grada (1994), interpretive dictionary of leasing