



## Hedonic consumer price index for cars between 1947 and 2004

A Frei

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## Abstract

This diploma thesis estimates a hedonic consumer price index for cars in Switzerland between 1946 and 2004. The hedonic function modulates a relationship between the product price and quality characteristics using regression analytical techniques. Thereby can be effect a disconnection between the product price and the single quality characteristics. This affords the calculation of a quality correctet consumer price index. The calculated real drop in prices of cars in Switzerland between 1974 and 2004 is 77.6%.

## Keywords

Hedonic price index

## Preferred citation style

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# 1.0 Document Description

## Citation

Title: Hedonic consumer price index for cars between 1947 and 2004

Identification Number: longitudinal\_car\_characteristics

Authoring Entity: Frei A. (Institute for Transport Planning and Systems)

Other identifications and acknowledgements: KW Axhausen

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## 2.0 Study Description

### Citation

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## Study Scope

Keywords: Hedonic price index

Topic Classification: Hedonic price index

Abstract: This diploma thesis estimates a hedonic consumer price index for cars in Switzerland between 1946 and 2004. The hedonic function modulates a relationship between the product price and quality characteristics using regression analytical techniques. Thereby can be effect a disconnection between the product price and the single quality characteristics. This affords the calculation of a quality correctet consumer price index. The calculated real drop in prices of cars in Switzerland between 1974 and 2004 is 77.6%.

Time Period: -

Country: Switzerland

Geographic Coverage: Switzerland

Unit of Analysis: Car characteristics like horse power, cylinder capacity etc.

Universe: All cars that were sold in Switzerland during 1947 and 2004

Kind of Data: Historical data

## **Methodology and Processing**

Time Method: Not applicable

Data Collector: Frei A.

Frequency of Data  
Collection: Once

Sampling Procedure: By consistent availability over the researched timeperiod  
(1947-2004).

Mode of Data  
Collection: Historical information collected from books

## Sources Statement

- Data Sources:
- Flik, R. (2001) Von Ford lernen? – Automobilbau und Motorisierung in Deutschland bis 1933, Böhlau Verlag, Köln.
- Kittler, E. (2002) Mercedes-Benz Personenwagen Band 3 - seit 1975, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Kuch, J. (2003) Ford in Deutschland seit 1925, Motorbuch Verlag Pietsch, Stuttgart.
- Rohde, M. und D. Koch (2004) Mercedes-Benz Personenwagen Band 2 - 1945 bis 1975, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Schneider, P. (2003) Porsche Renn- und Rennsportwagen seit 1948, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Schrader, H. (2002a) Opel Band 1 - Personenwagen 1945-1987, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Schrader, H. (2002b) Opel Band 2 - Personenwagen seit 1988, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Schrader, H. (2004) BMW - Personenwagen seit 1952, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Schrader, H. und K. Joachim (2001) VW Band 1 - Personenwagen seit 1945, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Schrader, H. und K. Joachim (2002) VW Band 2 - Personenwagen seit 1945, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Zeichner, W. (1998) Audi Personenwagen seit 1965, Typen-Kompass, Motorbuch Verlag Pietsch, Stuttgart.
- Weighting: No weighting was performed

## **Data Access**

Availability Status: Available

Number of Files: One

## **Other Study Description Materials**

## 3.0 File Description

### **File: longitudinaldataofcars.NSDstat**

- Number of cases: 532
- No. of variables per record: 84
- Type of File: NSDstat 200203

## 4.0 Variable Description

### Variable Groups

- [Index variables](#)
- [Derived variables](#)
- [Price variables](#)
- [Qualitative characteristics](#)
- [Source](#)

#### Index variables

Variables within *Index variables*

- [NUMBER](#)

#### Derived variables

Variables within *Derived variables*

- [NUMBER](#)
- [MODEL](#)
- [BRAND](#)
- [CAR MODEL / VERSION YEAR](#)
- [NUMBER OF CYLINDERS](#)
- [CYLINDER CAPACITY](#)
- [ENGINE POWER HP](#)
- [TRANSMISSION SYSTEM](#)
- [HP/CYLINDER CAPACITY](#)
- [NATURAL LOGARITHM OF THE ADJUSTED PRICE](#)
- [NATURAL LOGARITHM OF THE POWER](#)
- [NATURAL LOGARITHM OF THE CAR-AREA](#)
- [DUMMY FOR THE YEAR](#)
- [DUMMY FOR THE YEAR](#)
- [DUMMY FOR THE YEAR](#)
- [DUMMY FOR THE YEAR](#)
- [DUMMY FOR THE YEAR](#)
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