

Table of contents

Appendix 1

1.	Bonhams sale, general information	1
2.	List of famous events	3
3.	Interviews	4
3.1	François Tasiaux	4
3.2	Youssef Uriagli	9
4.	Variables.....	12
4.1	Car makes.....	12
4.2	Engine types	12
4.3	Body style	13
4.4	Colours.....	13
4.5	Famous auction houses	13
4.6	Month of sale	14
4.7	Famous sales	14
4.8	“Bullitt effect list”	15
4.9	Most iconic cars	16
4.10	Top design	17
5.	Consumer Price Index All Urban Consumers	18
6.	1962 Ferrari 250 GTO	19
7.	Hedonic regressions results	20
7.1	Period 1980-1991	20
7.2	Period 1991-1993	22
7.3	Period 1993-1996.....	24
7.4	Period 1996-2017.....	26
8.	In depth performance analysis.....	30

9. Hedge fund market study	32
9.1 The classic car fund.....	32
9.2 Ultimate Classic Car Fund	33
9.3 Cohen & Cunild	33

Appendix

1. Bonhams sale, general information

General Information

Admission
Bonhams has the right at its sole discretion without assigning any reason therefore to refuse admission to its premises or attendance at any of its sales by any person.

Absentee Bids
Bonhams will execute bids when instructed. Lots will be bought as cheaply as is allowed by other bids and Reserves.

References
Intending Buyers should supply bankers' references. The references should be supplied to Bonhams in time to allow them to be taken up before the Sale. Unless arrangements are made with Bonhams for payment in advance of the Sale, all Lots will be removed to storage immediately after the Sale at the Buyers' cost. In any event, the Purchase Price should be paid to Bonhams not later than 12 noon on the day after the Sale. Attention is specifically drawn to Condition 6 of the Buyers' Agreement as printed in this Catalogue.

Bidder Registration
To recognise bidders during the Sale all intending Buyers are required to complete a Bidder Registration Form giving full identification and appropriate references before the Sale which will enable them to bid by means of a number allocated to them.

Premium
Like the vast majority of auctioneers Bonhams charge what is known as a Buyer's Premium on the Hammer Price of each Lot purchased and is subject to VAT. Some lots may also be subject to VAT on the Hammer Price and these lots will be clearly marked with a dagger (†) printed beside the lot number in the catalogue.

For Automobila the Buyer's Premium will be 25% on the first £50,000 of Hammer Price; 20% from £50,001 to £1,000,000 of Hammer Price, and 12% on the balance thereafter.

For Motor Cars and Motorcycles the Buyer's Premium will be 15% on the first £50,000 of the Hammer Price of each Lot, and 12% on the balance thereafter.

Buyers' attention is drawn to Condition 7 of the Notice to Bidders. VAT at the standard rate is payable on the Premium by all Buyers, unless otherwise stated.

Damage
Any viewer who damages a Lot will be held liable for all damage caused and shall reimburse Bonhams or its agents for all costs and expenses relating to rectification of such damage.

Important changes to V5C Registration Document procedures
In order to comply with the Driver and Vehicle Licensing Authority's (DVLA) procedures for updating a change of keeper for a motor vehicle, Bonhams has now changed their policy on the handling of V5C Registration documents, upon full payment by the buyer.

If we have not received confirmation of the new keeper's name and address 14 days from the date of the sale, we will write to you requesting this information.

If, after 28 days from the date of sale, we still have not had contact from you, we will update the new keeper to the name and address shown on your Bonhams client account.

Should your address be from outside the United Kingdom, we will inform the DVLA that the vehicle has been exported.

If you wish the new keeper details to be updated in any other way please make contact with the Sale Administrator as soon as possible.

Please Note: Once the V5C has been updated by the DVLA it cannot be reversed.

Methods of Payment
It is important you are aware of the following regarding registration and payment:

The name and address in which you register will be the name and address on your invoice, if successful. We cannot amend the details on your invoice, once issued.

Furthermore, when making payment, the account from which the payment is sent must match the buyer's details as per on the bidder registration form and the issued invoice.

We are unable to accept any third party payments. Should a third party payment be made this will result in a delay in your payment being processed and your ability to collect your purchase.

Purchases can only be released when full settlement (inclusive of all charges) of all invoices issued to the buyer is received in cleared funds. Before bidding, you should ensure that you have the necessary funds available and be able to pay according to one of the methods set out below. All cheques should be made payable to Bonhams 1793 Limited.

We accept the following methods of payment:

- sterling cheque drawn on a UK branch of a bank or building society; all cheques must be cleared before you can collect your purchases, unless agreed with us in advance, or unless you provide an irrevocable letter of guarantee from your bank. Cheques drawn by third parties cannot be accepted;
- bankers draft/building society cheque; if you can provide suitable proof of identity and we are satisfied as to the genuineness of the draft or cheque, we will allow you to collect your purchases immediately;
- cash and travellers cheques; you may pay for lots purchased by you at this Sale with notes, coins or travellers cheques in the currency in which the Sale is conducted (but not any other currency) provided that the total amount payable by you in respect of all lots purchased by you at the Sale does not exceed £3,000, or the equivalent in the currency in which the Sale is conducted, at the time when payment is made. If the amount payable by you for lots exceeds that sum, the balance must be paid otherwise than in coins, notes or travellers cheques.
- We will need to see your passport if you wish to pay using travellers cheques.
- bank transfer: Bonhams require an irrevocable guarantee from your bank. You may electronically transfer funds to our Trust Account. Please quote your paddle number and Invoice number as the reference. Our Trust Account details are as follows:
Bank: National Westminster Bank Plc
Address: PO Box 4RY
250 Regent Street
London W1A 4RY
Sort Code: 56-00-27
Account Name: Bonhams 1793 Limited Client Bank
Account Number: 25563009
IBAN Number: GB 93 NWBK 560027 25563009

If paying by bank transfer, the amount received after either the deduction of bank fees or for the conversion to pounds sterling, must not be less than the sterling amount payable on the invoice.

- debit cards drawn on a UK bank: there is no additional charge for purchases made with these cards. Debit cards drawn on an overseas bank or deferred debit cards will be subject to a 2% surcharge
- credit cards: Visa and Mastercard. Please note there is a 2% surcharge on the total invoice value when payments are made using credit cards. Please note it may be advisable to notify your card provider of your intended purchase in advance to reduce delays caused by us having to seek authority when you come to pay. If you have any questions with regard to payment, please contact our client services department.

VAT
The following symbols are used to denote that VAT is due on the Hammer Price and buyer's premium:
† VAT at 20% on Hammer Price and buyer's premium
Q VAT on imported items at 20% on Hammer Price.
* VAT on imported items at 5% on Hammer Price.
• Zero rated for VAT; no VAT will be added to the hammer price or the buyer's premium.
In all other instances no VAT will be charged on the Hammer Price, but VAT at the prevailing rate (currently 20%) will be added to the buyer's premium which will be invoiced on a VAT inclusive basis.

Artists Resale Right Regulations 2006
On certain Lots, which will be marked "AR" in the Catalogue and which are sold for a Hammer Price (together with Buyer's Premium) of €1,000 or greater (converted into the currency of the Sale using the European Central Bank Reference rate prevailing on the date of the Sale), the Additional Premium will be payable to us by the Buyer to cover our expenses relating to the payment of royalties under the Artists Resale Right Regulations 2006. The Auctioneer will announce the equivalent of €1,000 in the currency in which the Sale will take place at the beginning of the Sale. An Additional Premium will be a percentage of the amount of the Hammer Price (plus Buyer's Premium), please refer to notice to bidders section 7, and shall not exceed €12,500 (converted into the currency of the Sale using the European Central Bank Reference rate prevailing on the date of the Sale).

NOVA
Certain motor car Lots, which will be marked "N" in the Catalogue, if purchased by a UK resident will be subject to a NOVA Declaration, undertaken by Bonhams to facilitate its registration here in the UK.

Vintage Sports-Car Club Eligibility Documents
Any eligibility document issued to the owner of a car is merely to certify that the vehicle is eligible to compete in VSCC events on the basis of the rules and regulations currently in force. It is not intended to be used for any trade or commercial purposes. It does not provide any guarantee as to the standard of design, manufacture, condition or its authenticity, provenance or history. VSCC eligibility documents lose validity on transfer of ownership of the vehicle and a new application is therefore required.

The Veteran Car Club of Great Britain Dating Plates and Certificates
When mention is made of a Veteran Car Club Dating Plate or Dating Certificate in this Catalogue, it should be borne in mind that the Veteran Car Club of Great Britain using the services of Veteran Car Company Ltd, does from time to time, review cars already dated and, in some instances, where fresh evidence becomes available, the review can result in an alteration of date. Whilst the Club and Veteran Car Company Ltd make every effort to ensure accuracy, the date shown on the Dating Plate or Dating Certificate cannot be guaranteed as correct and intending purchasers should make their own enquiries as to the date of the car.

General information for the Bonhams sale: Goodwood Festival of Speed 2014.

Scan of the sale catalog.

Source: Bonhams. (2014). *Goodwood Festival of Speed Sale*. London: Bonhams.

Guide for Buyers

Do I need to bring my catalogue to the sale?

Yes. Please ensure that you bring your catalogue to the sale as entry is by catalogue only. Each catalogue allows two people entry on the view and sale days. Further copies of the catalogue can be purchased at the sale venue.

How do I bid at the sale?

In order to bid at the sale you will be required to complete a bidder registration form. Clients are requested to provide photographic proof of ID – passport, driving licence, ID card, together with proof of address – utility bill, bank or credit card statement etc. Corporate clients should also provide a copy of their articles of association / company registration documents, together with a letter authorising the individual to bid on the company's behalf. Failure to provide this may result in your bids not being processed.

For Lot 320 you may also be asked to provide a suitable bank reference. If you do not, at our request, provide us with a bank reference, or if the reference is not acceptable to us, you may be issued with a paddle that will not allow you bid on this lot.

We recommend prospective buyers to register as early as possible after receiving their catalogue or viewing it online. It is likely to take several business days for a bank to issue an acceptable reference to us.

Should you be unable to attend the sale but still wish to bid, you can either leave an absentee to telephone bid. These forms are found in the back of the catalogue.

Telephone bidding

Telephone bidding allows you to bid live as the auction is happening. You will need to complete a form which asks for your name, address, the telephone number(s) you wish us to contact you on (it is advisable to add an additional number such as your mobile) and the lot number(s) you wish to bid on. For any reason we are unable to contact you on the telephone number(s) you leave on the form, please ensure that the highest bid column is completed (optional). A member of Bonhams staff will contact you a few lots prior to the lot(s) you wish to bid on and you will be instructed from there on. Please note that we do not operate telephone bids for lots with a low estimate below £500.

Absentee/Commission bidding

As with telephone bidding, you will need to complete a form with your name, address and the lot(s) number(s) you wish to bid on. You will also need to enter the amount you are willing to bid up to for that lot (excluding premium & VAT). Bonhams will execute the bid as cheaply as possible on your behalf.

Please ensure the form is signed and dated at the bottom and disregard the client and paddle no. fields at the top of the form as this is for Bonhams use only. Once the form is completed you can either fax or post it back to our offices. Should you post the form back to our offices, please ensure it is posted in ample time prior to the sale day. If you are a first time bidder you must also provide proof of identity. This can be either a copy of your passport or driving licence. This must be sent at the same time as your bidding form.

In order for the above forms to be accepted they have to be completed with buyer's details, lot number(s), signed and faxed/mailed to us no later than 48 hours before the sale.

How fast will the auctioneer go?

The auctioneer will aim to sell +/- 100 lots of automobilia per hour and circa 30 vehicles per hour.

Are there any warranties offered with the vehicles?

No. All vehicles are offered on an 'as seen' basis. It is wise if possible to bring a professional mechanic with you to fully inspect the car. It is also advised that the car is checked before road use. The fully illustrated catalogue will describe the vehicles to the best of our ability on information supplied. Should we receive pertinent information after the publication of the catalogue, we shall affix what is known as a sale room notice (SRN) to the vehicle. A list of all SRNs will be available by the time the vehicles are presented for view. We are happy to offer our opinion as to the integrity of the vehicle at the sale, however you should accept this is an opinion only and should not be relied upon. In short, you should satisfy yourself as to the completeness, condition and integrity of any lot prior to bidding. It is also important to note that some illustrations are historical and may show the vehicle in a better condition than now offered.

Can I change my mind after I have purchased a lot?

No. Lots are not sold as an option and there is no 'cooling off' period. Once the auctioneer drops the hammer a contract is made and you are obligated to proceed with said contract.

Can I view the files that accompany the vehicles?

Yes, we should have every car's file available for inspection during the view.

How can I pay?

It is important you are aware of the following regarding registration and payment:

The name and address in which you register will be the name and address on your invoice, if successful. We cannot amend the details on your invoice, once issued.

Furthermore, when making payment, the account from which the payment is sent must match the buyer's details as per on the bidder registration form and the issued invoice.

We are unable to accept any third party payments. Should a third party payment be made this will result in a delay in your payment being processed and your ability to collect your purchase.

In order to release your purchases immediately we would recommend payment by credit/debit card. We are happy to accept cash (in the currency in which the sale is conducted) but not to exceed £3,000. Any amount over £3,000 must be paid otherwise than in coins, notes or travellers cheques. We accept the following methods of payment.

Payment by card

You may pay by the following debit cards: Barclays connect, Delta and Switch/Maestro. You may also pay by the following credit cards: Visa, Mastercard and Access (American Express not accepted). Please note there is a 2% surcharge on the total invoice value if payment is made with a credit card.

Payment by cheque

You may pay by sterling cheque but all cheques must be cleared before you can collect your purchases, unless you have a cheque facility with Bonhams or we have received an assurance directly from your bank prior to the sale. Cheques generally take 5-7 working days to clear. You may pay by bankers draft or building society cheque which will enable you to collect your purchases immediately and also by Sterling travellers cheques as long as they are accompanied by a valid passport.

Bank transfer

Our bank details can be found on the general information page. Please quote your client number and invoice number as the reference. If paying by bank transfer, the amount received after either the deduction of bank fees or for the conversion to pounds sterling, must not be less than the sterling amount payable on the invoice.

Are there any other charges?

Like the vast majority of auctioneers Bonhams charge what is known as a Buyer's Premium on the Hammer Price of each Lot purchased and is subject to VAT. Some lots may also be subject to VAT on the Hammer Price and these lots will be clearly marked with a dagger (†) printed beside the lot number in the catalogue.

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Buyers' attention is drawn to Condition 7 of the Notice to Bidders. VAT at the standard rate is payable on the Premium by all Buyers, unless otherwise stated.

When can I clear my purchases?

Once full payment has been received, purchases can be cleared (where possible) during and immediately after the auction. All unpaid and uncollected lots of Automobilia will be removed to Bonhams' Warehouse at 6pm on the day of sale. Vehicles will be uplifted the night of the sale to local store, clients will be given address when collecting their invoices or paying for their purchases following the sale.

N.B. Clients cannot pay for purchases on Saturday 28 or Sunday 29 June at the local store.

Payment can be taken between 8:30am and 12pm on Monday 30 June at which point all remaining unpaid lots will be uplifted by Polygon to their storage facility.

Can someone deliver the vehicle for me?

Bonhams do not transport vehicles. However representatives from Polygon Transport will be present at the sale and can quote a price to deliver the vehicle to you. Their contact details can be found on the collections page.

IMPORTANT V5/V5C INFORMATION

Please note that Bonhams retain and update all registration documents, therefore please make sure if you are a successful bidder you fill in the registration document on the day of the sale, with the name and address for which the vehicle is to be registered to. If you are unable to attend the sale, please contact Bonhams as soon as possible post-sale with the correct name and address. For motor car registration please contact Jane Hogan.

Can someone arrange insurance for me?

Representatives of Hagerty insurance will be in attendance at the sale. They can assist with any insurance requirements for agreed value road risk, storage and transportation cover. Contact 0844 824 1134.

Hagerty International Limited
The Arch Barn
Pury Hill Farm
Towcester
Northamptonshire
NN12 7TB
0844 824 1134
Web: www.hagertyinsurance.co.uk

This guide should be read in conjunction with our full Conditions of Sale and Important Notices sections printed in this catalogue.

General information for the Bonhams sale: Goodwood Festival of Speed 2014.

Scan of the sale catalog.

Source: Bonhams. (2014). *Goodwood Festival of Speed Sale*. London: Bonhams.

2. List of famous events

Premium events	
Name	Country
Tour Auto	France
Tour de Espana	Spain
La Festa Mille Miglia	Japan
Le Mans Classic	France
Grand Prix de Pau Historique	France
Oldtimer Grand Prix	Germany
Techno Classica Essen	Germany
Goodwood Festival of Speed	United Kingdom
Goodwood Revival Meeting	United Kingdom
Monterey Historic Automobil Racing	USA
Coronado Speed Festival	USA
Colorado Gand	USA
Pebble Beach Concours d'élégance	USA
Silvretta Classic	Austria
Ennstal Classic	Austria
Gaisbergrennen	Austria
Mille Miglia Storica	Italy
Cento Ore Classic	Italy
Grand Premio Nuvolari	Italy
Rally Classico Isla Mallorca	Spain
Targa Tasmania	Australia
Classic Carrera Panamericana	Mexico
Tulip Rally	The Netherlands
Colorado Grand	USA
Retromobile	France
Grand Prix de Moncaco Historique	Monaco
1000 Milas Sport, Argentina	Chile
Le Jog Rally	United Kingdom

Famous sales, races and beauty contests.

Source: Hatlapa, D. (2014). *Better than gold investing in historic cars*. Tortola: HAGI Publishing.

3. Interviews

3.1 François Tasiaux

Re-transcription of the interview of M. François Tasiaux, consultant and car expert for Artcurial.

The transcript only includes the part of the interview concerning the categories and auction related variables.

Name : François Tasiaux

Role: Consultant

Company: Artcurial

F : Beachcar, c'est essentiellement une petite voiture qui a été transformée en voiture de plage.

A : Style minimoke ?

F : Minimoke, Fiat 600. Je les mettrais dans une catégorie à part entière, ce sont des voitures qui ne vont pas très vite, il y a un marché pour ça.

A : J'ai vu towncars également ?

F : Ça tu peux supprimer, c'est très peu utilisé.

A : J'ai pas mal de Pick-up.

F : Essentiellement des ventes américaines pour les pick-up, si tu veux les garder alors garde-les.

A : Je ferais une catégorie SUV ?

F : Il n'y pas de vente de SUV.

A : Je vais juste mettre une catégorie Pick-up alors.

F : Tu parlais de « Fastback », ce sont souvent des coupés avec des arrières assez allongées, on peut les garder, oui.

A : Sedan avec les saloons, c'est correct ça ?

F : Oui tu peux même ajouter une catégorie « four doors » dans les sedans.

A : Hatchback c'est un peu comme Fastback ?

F : C'est aussi un coupé mais l'arrière est différent.

A : Gullwing c'est juste pour la 300 SL je présume ?

F : Oui quasiment uniquement pour ce modèle.

A : Je fais une catégorie à part ?

F : Non tu peux la classer dans coupé.

A : Utility je ne pense pas que ce soit pertinent ?

F : Non ne prends pas.

A : Deux doors coupé, je peux mettre dans coupé?

F : Oui, normalement un coupé est toujours un deux doors. Remontre le tableau. Je m'étonne qu'il n'ait pas sportscars.

A : La catégorie racer ?

F : Non ça c'est la catégorie de compétition, il te faut une catégorie sportscars, qui regroupe les voitures de sport.

A : Alors j'ai un problème, j'ai des spiders dans la catégorie speedster et roadster.

F : Alors soit on garde une catégorie speedster un peu comme Targa, et tu laisses spider dedans.

A : C'est peut-être le plus simple, donc j'ai Tourer, Roadster, spider.

F : Oui

A : Je vois que les autres bodys que nous n'avons pas encore abordés ne présentent que très peu de ventes. Si j'applique les mots clés j'ai déjà plus de 35.000 ventes donc je pense qu'on est bon.

F : C'est bien sinon tu vas t'éparpiller. Afin de simplifier tu dois combiner la catégorie roadster et convertible. Et tu peux ajouter dedans la catégorie Speedster et Targa.

A : Très bien, alors la deuxième chose c'est exactement le même style mais avec une approche un petit peu différente. J'ai donc le nom des types d'engine ici et dans la colonne à côté j'ai le

nombre de ventes y afférentes. La question est lesquels de ces moteurs sont susceptibles d'apporter une valeur ? Les autres iront dans la catégorie other.

F : Alors, que je t'explique, le moteur que ce soit un 4 cylindres en ligne, un V8, un 2 cylindres à plat ou un 12 cylindres à plat, ce qui va aider à donner de la valeur c'est en partie le bloc mais surtout l'arbre à cames, la culasse, ce qui va aider à avoir plus de puissance qu'un même moteur concurrent.

A : Malheureusement je ne pourrais pas récolter ce genre d'informations sur autant de voitures.

F : Non, mais on peut simplifier les moteurs et quand même voir une différence de prix.

Alors V8, il faut garder, en ligne 6 également.

A : Ligne 4 aussi ?

F : Oui.

A : Si vous pensez que certains moteurs n'apporteront rien en termes de prix alors on peut les classer dans other.

F : C'est-à-dire que si par exemple tu as une Renault 8 même Gordini avec un 4 cylindres en ligne transversales à l'arrière, il n'a rien de particulier. Mais tu mets un moteur Alfa Romeo 4 cylindres en ligne le bloc indépendamment de la cylindrée c'est le même principe, mais tu as l'arbre à cames en tête, tu as deux carburateurs, et ça fait le double de la puissance. Donc le moteur est important il est évident que si tu as un V8 tu sous-entends qu'il y a plus de puissance qu'un 4 en ligne mais c'est surtout le traitement du moteur derrière. De toute façon des moteurs il n'y en a pas 4.000. Tu as V8, 4 en ligne, 6 en ligne, V6, V12, V10, H10, H12, H6, tu as 2 cylindres mais on ne va pas en trouver 45.

A : W aussi ?

F : Alors W12, W16 on ne va pas en trouver des masses.

A : W16 : 2 ventes et W12 : 1 vente.

F : Tu sais voir ce que ça représente pour le moment ? Il y a le V4 aussi.

A : J'ai 25.000 ventes avec ceux-ci, mais ici il n'y pas de soucis car j'aurais une catégorie other qui reprend le reste.

A : V16 ?

F : Oui.

A : Dernière question sur les moteurs, est-ce que certains moteurs peuvent-être regroupés ?

F : Oui sûrement, il faut ajouter en ligne 8 et la catégorie 8 peut la rejoindre. Je vois qu'il y a aussi des steam engines, ça ne se vend en général pas très cher. Si on doit simplifier on peut les mettre dans other.

A : Très bien. Ce qu'on vient de faire ce sont des catégories directement afférentes aux voitures. D'autres catégories doivent être prises en compte pour mesurer le prix. Alors j'ai créé plusieurs listes qui pourraient être significatives. La première c'est les auction houses, je pense que certaines auction houses prestigieuses auront un biais avec des prix peut-être plus haut.

F : Alors oui, il ne faut jamais oublier que ce ne sont pas les maisons de ventes qui fixent les prix c'est le public. Je m'explique ; on a une voiture que nous estimons à 120.000 euro par exemple. On va la mettre en vente à par exemple 50.000. On a des ordres d'achats qui sont déjà prêts. Puis la salle monte, les téléphones et les offres internet font monter le prix. Plus tu as d'amateurs plus des prix élevés vont être atteints.

A : D'accord, maintenant vous ne pensez pas que pour certaines maisons d'enchères de renom on va retrouver des clients parfois plus fortunés ?

F : On a nos réseaux, je regarde pour des voitures pour Retromobile en ce moment. Sur 20 modèles je vais en prendre un. On sait également qui recherche quoi. Donc quand nous allons envoyer les documents annonçant la vente on envoie ça à plein de gens mais aussi aux contacts qui seraient intéressés. Donc oui.

A : Pourriez-vous me donner selon vous les maisons d'enchères les plus connues.

F : Alors tu peux mettre Bonhams, Artcurial, RM Sotheby's, Coys, Barons, je fais une parenthèse en termes de pays c'est principalement les USA, la France et l'Angleterre. Les autres pays sont moins présents.

A : Est-ce que ça ne commence pas doucement en Asie avec la levée des régulations.

F : Peu, ils n'ont pas d'histoire de cela. Les seuls sont purement des investissements et les voitures restent en général en Europe. Elles ne sont pas conduites.

Pour une maison d'enchère anglaise, il y a Silverstone.

A : Même principe pour les ventes : y a-t-il des ventes annuelles importantes ?

F : Alors basons-nous sur ta liste, Scottsdale c'est important, Amelia Island, Retromobile, Monterey, Palm Springs, Pebble Beach, Goodwood, Artcurial Paris, Greenwich, Bonhams Paris, Spa Classic, Knokke Heist et Les Grandes Marques à Monaco.

A : Très bien merci.

3.2 Youssef Uriagli

Re-transcription of the interview of M. Youssef Uriagli, Head of Portfolio and funds management for Deutsche Bank.

The transcript only includes the part of interview that concerned the portfolio assets and creation.

Name: Youssef Uriagli

Role: Director, Head of Portfolio and funds management.

Company: Deutsche Bank

A : Comme point de départ j'ai utilisé le portefeuille standard de EL-Erian constitué de: S&P500, SP Goldman commodity index, Vanguard emerging markets stock, Vanguard long-term treasury fund, Vanguard inflation protected, PIMCO global fund, real estate et je voulais ajouter l'or.

Y : C'est très orienté investisseur américain, toi tu fais un mémoire en Europe, tu dois pouvoir te mettre dans la peau d'un investisseur européen. Donc je dirais ok pour le S&P, il faudrait que tu trouves aussi un indice européen.

A : FTSE ?

Y : Je pense que ceux qui ont la plus longue série sont les MSCI, et donc tu trouves un MSCI européen et si tu ne trouves pas, tu prends le FTSE ou le DAX. Le DAX c'est l'indice allemand qui est la plus grande économie en Europe. Il faut te dire qu'un investisseur européen aura tendance à investir dans le marché mondial mais il aura aussi un biais européen. Alors tu parlais d'un indice commodities, moi je mettrais plutôt l'or, on sait que les européens sont aussi friands d'or car l'or a une valeur refuge.

A : Je n'inclue pas de commodities, je me contente de l'or alors ?

Y : L'or est la commodity par excellence, d'ailleurs en Belgique on voit beaucoup d'articles sur le sujet : comment les gens se comportent. Quand l'inflation est là, les gens ont tendance à se ruier vers l'or. C'est un placement que tout le monde connaît et que les gens aiment bien. Tu aurais donc le MSCI europe, l'or, du real estate.

A : Ensuite un treasury fund, un actif très safe ?

Y : Oui tu peux, mais sachant que les investisseurs européens investissent très peu dans ce genre d'investissement.

A : Un fond sur des obligations

Y : Tu parlais de PIMCO, ça reste la référence.

A : PIMCO global fund, je prendrais ça ?

Y : Prends un indice global, et si tu en prends un, c'est suffisant comme ça, tu as tous les segments. Ce que tu peux faire aussi, tu parlais de Vanguard tout à l'heure, Vanguard c'est la première société, son fondateur c'est John Bogle, à avoir créé un fond indiciel. C'est les premiers trackers des indices. Je pense qu'il a lancé le premier sur le S&P500 d'ailleurs. C'est dans les années 80, donc si tu ne trouves pas un indice tu peux regarder dans les fonds Vanguard voir si tu n'en trouves pas un qui suit ce que tu recherches. Car il réplique complètement la performance de l'indice.

A : Je comprends bien, qu'est-ce qu'on peut encore ajouter ?

Y : Tu as la partie obligataire, elle est reprise par PIMCO.

A : Real estate c'est bon.

Y : Tu as mis de l'or, dans la partie equity tu as mis un US et une partie européenne.

A : Est-ce que je dois garder la partie américaine aussi ?

Y : Oui parce que l'investisseur en prenant le marché américain et européen, crée une diversification au sein de la composante action. Certains disent même qu'il faut ajouter le marché japonais. Car le marché japonais est très peu corrélé avec les autres marchés. Mais bon si tu en as déjà deux, c'est bon. La seule remarque que tu pourrais avoir c'est de prendre un fond obligataire diversifié, ce que tu pourrais faire au lieu de prendre PIMCO c'est prendre un indice obligataire américain et un européen. Tu vas avoir des IBOX. Si tu prends un fonds tu biaises l'analyse, car tu as le biais du gestionnaire qui va lui-même faire une diversification. Or, ce que tu veux faire ici c'est prendre des indices sans gestionnaire derrière qui allouent des poids. Je remplacerais donc quand même le PIMCO. Tu as la famille des IBOX, mais je ne sais

pas si cela remonte assez loin. Encore une fois dis-moi ceux que tu n'as pas et je pourrais regarder sur un terminal.

A : D'accord en résumé, or, real estate, un indice boursier européen et américain, un indice obligataire de type IBOX. Pas de money market fund alors ?

Y : Non pars du principe qu'un investisseur européen n'investit pas là-dedans.

A : Très bien merci.

Y : Pour ce qui est des poids, crée 2.000 portefeuilles avec des poids différents, crée ensuite un nuage de points et choisis quelques portefeuilles efficients.

4. Variables

4.1 Car makes

Abarth, AC, Alfa Romeo, Allard, Alvis, AMC, American, Amphicar, Aston Martin, Auburn, Audi, Austin, Austin Healey, Bentley, BMW, Bristol, BSA, Bugatti, Cadillac, Chevrolet, Chrysler, Citroën, Cord, Crosley, Daimler, Datsun, Delage, Delahaye, DeLorean, DeSoto, De Tomaso, Dodge, Duesenberg, Edsel, Facel, Ferrari, Fiat, Ford, GMC, Hispano Suiza, Honda, Hudson, Humber, Imperial, International, Iso, Jaguar, Jeep, Jensen, Lagonda, Lamborghini, Lancia, Land, LaSalle, Lincoln, Locomobile, Lotus, Marmon, Maserati, Mazda, Mercedes-Benz, Mercury, Messerschmitt, MG, Morgan, Morris, Nash, Nash Healey, Oldsmobile, Packard, Panhard, Peugeot, Pierce Arrow, Plymouth, Pontiac, Porsche, Renault, Riley, Rolls-Royce, Rover, Shelby, Singer, Stanley, Studebaker, Stutz, Sunbeam, talbot Lago, Toyota, Triumph, Vauxhall, Volkswagen, Volvo, Willys, Wolseley.

4.2 Engine types

Variable: Engine	
Engine	N
2 CYL	21
H12	101
H6	582
I4	3720
I6	4472
I8	902
V8	11610
V10	34
V12	1678
V16	84
V4	54
V6	490
other	4203
Total N showing the variable engine:	27951

4.3 Body style

Variable: Body of the car										
Body	Keywords									N
coupe	berlinetta	fastback	hatchback	gullwing						10095
convertible	cabriolet	hard top	hardtop	roadster	tourer	Spider	Spyder	Speedster	targa	17130
sedan	saloon	berline								3569
racer	racing	rally	race							590
wagon	station wagon	estate car	estate	break	shouting brake					641
beachcar	beach car									53
sports car	sports	sportscar	sport							68
drophead	DHC	drop head								367
pickup										680
									Total N showing the variable body:	33193

4.4 Colours

Variable: colours										
Colour	Keywords									N
red	rosso									6509
white	ivory	cream	bianco	creme						3832
blue										4286
orange										536
silver	aluminium	argento	argent	grey	gray	aluminum				2764
beige	tan	sand	champagne	mustard	sable					606
yellow	citron	lemon								1314
green	olive									2725
brown	maroon	chocolate								1160
black										1160
burgundy	bordeaux	burgandy								430
other	bronze	gold	pearl	Pink	Purple	turquoise	aqua			1183
									Total N showing the variable color:	26505

4.5 Famous auction houses

Variable: Famous auction houses	
Auction houses	N
Bonhams	4553
Artcurial	668
RM sotheby's	341
coys	1032
Barons	22
Silverstone	434

4.6 Month of sale

Variable: month of sale	
Month	N
January	4512
February	2346
March	2875
April	3739
May	3106
June	3297
July	1512
August	4021
September	2248
October	2361
November	1746
December	1430
Total N showing the variable month:	33193

4.7 Famous sales

Variable: Famous auction sales	
Auction sale	N
Scottsdale	371
Amelia Island	339
Retromobile	180
Monterey	337
Palm Springs	139
Pebble_Beach	281
Goodwood	167
Artcurial Paris	71
Greenwich	185
Bonhams Paris	35
Spa Classic	51
Knokke Heist	26
Les Grandes Marques à Monaco	45

4.8 “Bullitt effect list”

The "Bullit effect" list			
Production year	Make	Model	Movie
1959	Cadillac	hearse	Ghostbusters
1963	Volkswagen	Beetle	The Love Bug
1963	ferrari	Spyder California	Ferris Bueller's Day Off
1963	Aston martin	DB5	Goldfinger
1965	Chevrolet	Corvette	Stingray
1966	Ford	Thunderbird	Thelma & Louise
1966	Plymouth	Barracuda	Fireball 500
1966	alfa Romeo	duetto	the graduate
1967	Shelby	GT500	Gone in 60 Seconds
1967	Toyota	2000GT	You Only Live Twice
1968	Ford	Mustang GT	Bullitt
1969	Dodge	Charger	The Dukes of Hazzard
1970	Dodge	Challenger	Vanishing Point
1970	Dodge	Charger	The Fast and the Furious
1970	Porsche	917K	Le Mans
1970	Ferrari	512S	Le Mans
1972	Ferrari	Daytona	Miami Vice
1973	Ford	Falcon Interceptor Pursuit Special	Mad Max
1973	Ford	Mustang Mach 1	Gone in 60 Seconds
1975	Ford	Gran Torino	Starsky & Hutch
1977	Lotus	Esprit S1	James Bond the Spy Who Loved Me
1977	Pontiac	Trans Am	Smokey and the Bandit
1982	DeLorean	DMC-12	Back to the Future
1986	Ferrari	Testarossa	Miami Vice
1992	Ford	Explore XLT	Jurassic Park

Source: Atchity, M. (2008). *TOTAL RECALL: 50 MOST MEMORABLE MOVIE CARS*.

Retrieved 10 July, 2017, from Rotten Tomatoes:

<https://editorial.rottentomatoes.com/article/Total-Recall-50-Most-Memorable-Movie-Cars/>

Huffman, J. P. (2013). *The 100 Greatest Movie and TV Cars of All Time*. Retrieved 10 July, 2017, from Edmunds: <https://www.edmunds.com/car-reviews/features/the-100-greatest-movie-and-tv-cars-of-all-time.html>

4.9 Most iconic cars

The "most iconic per decade" list					
Production year	Make	Model	Production year	Make	Model
1894	peugeot	vis-à-vis	1960	Alfa Romeo	33 Stradale
1898	renault	type A	1967	Toyota	2000GT
1899	daimler	12hp renwagen	1966	Jaguar	XJ13
1899	benz	8hp renwagen	1969	McLaren	M6 GT
1900	daimler	23hp la turbie renwagen	1967	De Tomaso	Mangusta
1900	Benz	16hp renwagen	1960	ferrari	P4
1950	maserati	A6	1970	Maserati	Bora
1944	triumph	roadster	1977	Aston Martin	V8 Vantage
1949	ferrari	166 s	1974	Maserati	Khamsin
1939	Bentley	Mark V	1975	Porsche	911 Turbo
1949	Aston Martin	2-litre sports (DB1)	1970	Aston Martin	DBS V8
1948	Alfa Romeo	6C	1973	Lancia	Stratos HF Stradale
1939	BMW	335	1975	Lamborghini	Countach
1947	Talbot Lago	Grand-sport T26	1970	Porsche	928
1948	Porsche	356	1975	ferrari	308 GTB
1949	Jaguar	XK120	1970	BMW	M1
1948	Lagonda	2,6 Litre	1975	Lotus	Esprit
1947	Cisitalia	202	1980	ferrari	F40
1952	Alfa Romeo	Disco Volante	1986	Porsche	959
1955	Porsche	356 A	1980	ferrari	Testarossa
1956	Porsche	356 Speedster	1987	RUF	CTR yellowbird
1953	Ford	Thunderbird	1986	Aston Martin	V8 Vantage Zagato
1952	Mercedes-Benz	300SL	1986	ferrari	288 GTO
1953	Chevrolet	Corvette C1	1986	Lamborghini	LM002
1954	Jaguar	D-Type	1983	Ford	RS200
1950	Aston Martin	DB2/4 Touring spider	1987	Lotus	Esprit Turbo
1953	Lancia	D24	1991	Honda	Acura NSX
1957	Jaguar	XKSS	1994	Ferrari	F355
1954	ferrari	250GT	1990	McLaren	F1
1956	BMW	507	1990	Lamborghini	Diablo
1960	Lamborghini	Miura	1997	Mercedes-Benz	CLK-GTR
1963	Porsche	911	1992	Jaguar	XJ220
1969	ferrari	365 GTB/4 Daytona	1999	Aston Martin	V8 Vantage
1966	Ford	GT-40 MK1	1990	Lister	Storm
1961	Jaguar	E-Type	1991	Bugatti	EB110
1964	Aston Martin	DB5	1993	Porsche	911 GT2
1963	Chevrolet	Corvette Stingray	1990	ferrari	F50

Source: Supercars.net. (n.d.). *Decade Built*. Retrieved 11 July, 2017, from Supercars.net:

<https://www.supercars.net/blog/category/decade-built/>

4.10 Top design

The "top design" list		
Production year	Make	Model
1954	Mercedes-benz	300 sl
1961	Ferrari	250 gt california
1963	Chevrolet	corvette
1964	Aston Martin	DB5
1965	Jaguar	E-type
1966	Ford	GT40
1967	Ferrari	275 GTB/4
1970	Dodge	challenger R/T
1971	Lamborghini	Miura SV
1973	Porsche	Carrera RS

Source: Kane, C. (2012). *The 10 Most Beautiful Cars of All Time*. Retrieved 10 July, 2017, from CNBC: <https://www.cnbc.com/2012/08/17/The-10-Most-Beautiful-Cars-of-All-Time.html?slide=1>

5. Consumer Price Index All Urban Consumers

CPI All Urban Consumers, Base: January 2017												
	January	February	March	April	May	June	July	August	September	October	November	December
1980	32,06	32,50	32,96	33,34	33,67	34,04	34,06	34,28	34,60	34,90	35,22	35,52
1981	35,81	36,18	36,44	36,68	36,98	37,30	37,72	38,01	38,39	38,48	38,59	38,70
1982	38,83	38,96	38,92	39,08	39,47	39,95	40,17	40,25	40,32	40,43	40,36	40,20
1983	40,29	40,31	40,33	40,62	40,84	40,98	41,14	41,28	41,49	41,60	41,67	41,72
1984	41,96	42,15	42,24	42,45	42,57	42,71	42,85	43,03	43,23	43,34	43,34	43,37
1985	43,45	43,63	43,82	44,00	44,17	44,31	44,37	44,47	44,61	44,75	44,90	45,01
1986	45,14	45,02	44,81	44,72	44,86	45,08	45,09	45,17	45,39	45,43	45,47	45,52
1987	45,79	45,97	46,18	46,42	46,56	46,75	46,85	47,11	47,34	47,47	47,54	47,52
1988	47,66	47,76	47,98	48,22	48,39	48,60	48,79	49,02	49,34	49,50	49,56	49,61
1989	49,86	50,05	50,34	50,70	50,97	51,10	51,23	51,29	51,50	51,72	51,83	51,91
1990	52,44	52,69	52,99	53,09	53,19	53,49	53,71	54,18	54,64	54,99	55,08	55,11
1991	55,41	55,51	55,58	55,69	55,85	55,99	56,09	56,25	56,51	56,57	56,73	56,77
1992	56,88	57,08	57,35	57,45	57,54	57,72	57,85	58,01	58,18	58,38	58,47	58,45
1993	58,70	58,93	59,13	59,28	59,39	59,44	59,47	59,65	59,76	59,99	60,06	60,05
1994	60,18	60,39	60,64	60,68	60,75	60,94	61,09	61,37	61,52	61,59	61,67	61,64
1995	61,90	62,14	62,34	62,55	62,66	62,78	62,82	62,96	63,10	63,28	63,25	63,22
1996	63,58	63,81	64,13	64,36	64,47	64,54	64,67	64,76	64,98	65,17	65,30	65,30
1997	65,53	65,74	65,89	65,94	65,93	66,01	66,08	66,20	66,40	66,55	66,52	66,42
1998	66,56	66,66	66,78	66,92	67,04	67,11	67,19	67,30	67,37	67,54	67,54	67,50
1999	67,68	67,76	67,96	68,43	68,42	68,45	68,62	68,83	69,13	69,27	69,30	69,30
2000	69,53	69,93	70,49	70,55	70,60	71,00	71,14	71,15	71,52	71,65	71,69	71,63
2001	72,10	72,40	72,58	72,84	73,16	73,31	73,08	73,11	73,41	73,16	73,04	72,75
2002	72,94	73,23	73,61	74,04	74,03	74,08	74,16	74,40	74,52	74,67	74,66	74,49
2003	74,81	75,40	75,86	75,68	75,57	75,66	75,73	76,02	76,25	76,20	75,98	75,90
2004	76,28	76,69	77,19	77,42	77,86	78,11	78,01	78,03	78,18	78,62	78,66	78,37
2005	78,52	78,98	79,59	80,13	80,06	80,09	80,45	80,86	81,85	82,03	81,38	81,02
2006	81,64	81,82	82,29	82,96	83,37	83,55	83,80	83,98	83,57	83,11	82,98	83,10
2007	83,35	83,80	84,56	85,11	85,63	85,80	85,78	85,62	85,86	86,04	86,55	86,49
2008	86,92	87,17	87,93	88,46	89,21	90,11	90,58	90,22	90,09	89,18	87,48	86,57
2009	86,95	87,38	87,59	87,81	88,06	88,82	88,68	88,88	88,94	89,02	89,08	88,93
2010	89,23	89,25	89,62	89,78	89,84	89,76	89,78	89,90	89,95	90,06	90,10	90,26
2011	90,69	91,13	92,02	92,61	93,05	92,95	93,03	93,29	93,43	93,24	93,16	92,93
2012	93,34	93,75	94,46	94,75	94,64	94,50	94,34	94,87	95,29	95,26	94,80	94,55
2013	94,83	95,60	95,85	95,76	95,93	96,16	96,19	96,31	96,42	96,17	95,98	95,97
2014	96,33	96,68	97,30	97,62	97,97	98,15	98,11	97,95	98,02	97,77	97,25	96,69
2015	96,24	96,66	97,23	97,43	97,93	98,27	98,28	98,14	97,98	97,94	97,73	97,40
2016	97,56	97,64	98,06	98,53	98,92	99,25	99,09	99,18	99,42	99,54	99,39	99,42
2017	100,00	100,31	100,40	100,69	100,78	100,87						

January 2017 as base year

Source: Bureau of Labor Statistics. (n.d.). *Consumer Price Index*. Retrieved July 17, 2017, from United States Department of Labor: <https://www.bls.gov/cpi/#tables>

6. 1962 Ferrari 250 GTO



Most expensive auction sale. Auction house: Bonhams.

Source: Bonhams. (2014). *1962-63 FERRARI 250 GTO BERLINETTA*. Retrieved 30 July, 2017, from Bonhams: <https://www.bonhams.com/auctions/21917/lot/3/>

7. Hedonic regressions results

7.1 Period 1980-1991

Dependent variable: natural log of prices.					
1980-1991	Estimate	Std. Error	t value	Pr(> t)	Price Impact (%) (exp(estimate)-1)
(Intercept)	9,544	0,237	40,287	0,000%	
Make					
Bugatti	2,116	0,429	4,935	0,000%	729,55%
Lamborghini	1,944	0,692	2,808	0,512%	598,34%
Ferrari	1,866	0,130	14,399	0,000%	546,25%
Allard	1,185	0,320	3,706	0,023%	227,14%
Maserati	1,123	0,353	3,177	0,155%	207,37%
aston_martin	1,114	0,140	7,982	0,000%	204,63%
BMW	1,000	0,224	4,467	0,001%	171,81%
rolls_royce	0,966	0,167	5,771	0,000%	162,70%
Cord	0,910	0,521	1,748	8,087%	148,46%
AC	0,813	0,195	4,179	0,003%	125,51%
Bentley	0,763	0,144	5,313	0,000%	114,53%
Auburn	0,736	0,427	1,722	8,551%	108,70%
Chrysler	0,713	0,410	1,740	8,229%	104,01%
Shelby	0,540	0,203	2,662	0,793%	71,58%
Jaguar	0,529	0,084	6,315	0,000%	69,80%
mercedes_benz	0,327	0,112	2,923	0,357%	38,62%
austin_healey	-0,312	0,141	-2,212	2,730%	-26,81%
Pontiac	-0,602	0,267	-2,254	2,445%	-45,25%
MG	-0,630	0,134	-4,683	0,000%	-46,72%
Triumph	-0,831	0,297	-2,803	0,520%	-56,45%
Volkswagen	-0,901	0,324	-2,777	0,563%	-59,37%
Ford	-1,077	0,113	-9,569	0,000%	-65,92%
Nash	-1,292	0,695	-1,859	6,342%	-72,52%
Alvis	-1,606	0,411	-3,905	0,010%	-79,93%
Amphicar	-3,331	0,698	-4,773	0,000%	-96,43%
Transmission					
MANUAL	0,113	0,057	1,964	4,993%	11,95%
Auction house					
coys	0,142	0,066	2,155	3,148%	15,24%
Body of the car					
drophead	1,262	0,157	8,022	0,000%	253,23%
convertible	1,008	0,126	7,966	0,000%	173,88%
coupe	0,779	0,134	5,810	0,000%	117,89%
Month of sale					
MAY	-0,181	0,087	-2,072	3,862%	-16,56%
FEBRUARY	-0,195	0,113	-1,729	8,427%	-17,73%

OCTOBER	-0,227	0,099	-2,282	2,276%	-20,29%
JULY	-0,314	0,087	-3,614	0,032%	-26,97%
MARCH	-0,343	0,139	-2,462	1,405%	-29,04%
SEPTEMBER	-0,344	0,138	-2,500	1,264%	-29,10%
JUNE	-0,359	0,081	-4,422	0,001%	-30,18%
Production decade					
DEC_1980	-0,517	0,250	-2,071	3,873%	-40,37%
DEC_1940	-0,557	0,218	-2,553	1,087%	-42,71%
DEC_1950	-0,679	0,108	-6,281	0,000%	-49,30%
DEC_1960	-0,744	0,109	-6,848	0,000%	-52,47%
DEC_1970	-0,908	0,128	-7,101	0,000%	-59,65%
Effect list					
LIST_ICONIC	1,538	0,132	11,661	0,000%	365,35%
LIST_DESIGN	0,663	0,275	2,414	1,600%	94,12%
R ² = 0,645 N= 818					
Adjusted R ² = 0,621					

7.2 Period 1991-1993

Dependent variable: natural log of prices.					
1991-1993	Estimate	Std. Error	t value	Pr(> t)	Price Impact (%)
(Intercept)	10,568	0,120	88,080	0,000%	(exp(estimate)-1)
Make					
Ferrari	1,170	0,117	10,028	0,000%	222,15%
Auburn	1,159	0,238	4,864	0,000%	218,59%
rolls_royce	0,976	0,119	8,199	0,000%	165,30%
Lotus	0,893	0,496	1,799	7,226%	144,16%
Maserati	0,870	0,170	5,118	0,000%	138,72%
mercedes_benz	0,830	0,065	12,759	0,000%	129,33%
Bentley	0,824	0,121	6,836	0,000%	127,90%
Lamborghini	0,685	0,362	1,894	5,846%	98,35%
BMW	0,631	0,203	3,113	0,190%	87,98%
Lagonda	0,564	0,293	1,926	5,436%	75,84%
aston_martin	0,545	0,103	5,282	0,000%	72,52%
Chrysler	0,520	0,204	2,550	1,091%	68,17%
Shelby	0,472	0,102	4,604	0,000%	60,24%
AC	0,316	0,191	1,656	9,802%	37,17%
Jaguar	0,269	0,052	5,126	0,000%	30,87%
Porsche	0,161	0,090	1,790	7,373%	17,50%
austin_healey	-0,193	0,098	-1,973	4,875%	-17,51%
MG	-0,304	0,086	-3,540	0,042%	-26,22%
Lincoln	-0,374	0,157	-2,385	1,723%	-31,18%
Pontiac	-0,403	0,111	-3,635	0,029%	-33,18%
Oldsmobile	-0,488	0,285	-1,711	8,742%	-38,60%
Ford	-0,534	0,055	-9,622	0,000%	-41,38%
DeLorean	-0,535	0,259	-2,061	3,948%	-41,43%
Triumph	-0,667	0,131	-5,107	0,000%	-48,67%
Nash	-0,931	0,496	-1,876	6,093%	-60,59%
AMC	-1,105	0,287	-3,845	0,013%	-66,89%
Transmission					
MANUAL	0,249	0,036	6,913	0,000%	28,26%
Auction house					
coys	0,114	0,049	2,328	2,010%	12,09%
Body of the car					
racer	2,180	0,511	4,270	0,002%	785,04%
drophead	1,096	0,124	8,832	0,000%	199,16%
convertible	0,889	0,096	9,281	0,000%	143,30%
coupe	0,739	0,098	7,508	0,000%	109,48%
Engine					
V12	0,389	0,088	4,437	0,001%	47,62%
I4	-0,389	0,060	-6,481	0,000%	-32,21%

cyl_2	-1,524	0,317	-4,802	0,000%	-78,22%
Condition					
COND_2	-0,287	0,046	-6,167	0,000%	-24,91%
COND_3	-0,608	0,043	-14,104	0,000%	-45,53%
COND_4	-1,125	0,059	-19,132	0,000%	-67,54%
COND_5	-1,501	0,132	-11,361	0,000%	-77,71%
COND_6	-2,348	0,497	-4,724	0,000%	-90,45%
Month of sale					
MARCH	0,192	0,066	2,905	0,375%	21,22%
JULY	-0,106	0,053	-2,019	4,369%	-10,10%
APRIL	-0,113	0,052	-2,173	3,000%	-10,72%
SEPTEMBER	-0,122	0,056	-2,176	2,978%	-11,49%
MAY	-0,130	0,052	-2,494	1,278%	-12,22%
OCTOBER	-0,238	0,085	-2,790	0,535%	-21,16%
Number of production					
PROD_NUMBER	0,000	0,000	-3,216	0,134%	0,00%
Production decade					
DEC_1950	-0,348	0,066	-5,265	0,000%	-29,38%
DEC_1920	-0,369	0,161	-2,293	2,204%	-30,87%
DEC_1980	-0,402	0,147	-2,744	0,616%	-33,11%
DEC_1960	-0,576	0,063	-9,114	0,000%	-43,81%
DEC_1970	-0,737	0,074	-9,924	0,000%	-52,16%
Effect list					
LIST_DESIGN	1,025	0,212	4,824	0,000%	178,66%
LIST_ICONIC	0,791	0,068	11,598	0,000%	120,47%
R ² =	0,725				N= 1239
Adjusted R ² =	0,712				

7.3 Period 1993-1996

Dependent variable: natural log of prices.					
1993-1996	Estimate	Std. Error	t value	Pr(> t)	Price Impact (%)
(Intercept)	9,401	0,178	52,877	0,000%	(exp(estimate)-1
Make					
Ferrari	1,647	0,130	12,637	0,000%	418,97%
Allard	1,531	0,640	2,394	1,701%	362,42%
Shelby	1,412	0,209	6,743	0,000%	310,48%
rolls_royce	1,340	0,238	5,635	0,000%	281,99%
Auburn	1,117	0,674	1,656	9,820%	205,44%
Facel	1,091	0,639	1,707	8,840%	197,71%
Maserati	1,085	0,239	4,547	0,001%	196,03%
Plymouth	0,873	0,380	2,300	2,183%	139,42%
aston_martin	0,807	0,180	4,491	0,001%	124,18%
Bentley	0,782	0,218	3,592	0,036%	118,56%
BMW	0,731	0,218	3,355	0,085%	107,69%
mercedes_benz	0,682	0,103	6,626	0,000%	97,70%
AC	0,646	0,323	1,997	4,626%	90,70%
Packard	0,616	0,259	2,381	1,760%	85,10%
Chrysler	0,606	0,323	1,878	6,088%	83,32%
Jaguar	0,508	0,091	5,586	0,000%	66,16%
Ford	-0,436	0,106	-4,114	0,004%	-35,31%
alfa_romeo	-0,457	0,236	-1,935	5,354%	-36,71%
Lincoln	-0,523	0,289	-1,809	7,097%	-40,71%
Dodge	-0,591	0,340	-1,739	8,249%	-44,61%
MG	-0,611	0,125	-4,875	0,000%	-45,74%
Amphicar	-0,706	0,381	-1,851	6,471%	-50,62%
Triumph	-0,744	0,176	-4,221	0,003%	-52,46%
Transmission					
MANUAL	0,198	0,058	3,422	0,067%	21,91%
Body of the car					
racer	3,505	0,491	7,140	0,000%	3228,16%
drophead	1,179	0,209	5,630	0,000%	225,17%
convertible	1,154	0,163	7,062	0,000%	217,04%
coupe	0,947	0,171	5,552	0,000%	157,75%
Month of sale					
OCTOBER	0,408	0,145	2,811	0,512%	50,44%
MARCH	0,398	0,140	2,852	0,451%	48,91%
APRIL	-0,247	0,068	-3,611	0,033%	-21,90%
SEPTEMBER	-0,768	0,312	-2,463	1,408%	-53,61%
Production decade					
DEC_1930	0,413	0,159	2,601	0,952%	51,21%
DEC_1960	-0,396	0,066	-5,983	0,000%	-32,68%

DEC_1980	-0,405	0,148	-2,734	0,646%	-33,32%
DEC_1970	-0,644	0,086	-7,470	0,000%	-47,46%
DEC_1920	-0,742	0,382	-1,940	5,282%	-52,39%
Number of production					
PROD_NUMBER	0,000	0,000	-2,782	0,558%	0,00%
Effect list					
LIST_DESIGN	1,117	0,390	2,864	0,434%	205,60%
LIST_ICONIC	0,951	0,116	8,202	0,000%	158,95%
LIST_MOVIE	0,292	0,221	1,322	18,681%	33,85%
R ² =	0,636		N= 614		
Adjusted R ² =	0,608				

7.4 Period 1996-2017

Dependent variable: natural log of prices.					
1996-2017	Estimate	Std. Error	t value	Pr(> t)	Price Impact (%)
(Intercept)	11,012	0,127	86,458	0,000%	(exp(estimate))-1
Make					
Duesenberg	2,316	0,090	25,615	0,000%	913,33%
hispano_suiza	1,770	0,167	10,593	0,000%	486,97%
Bugatti	1,747	0,070	24,843	0,000%	473,86%
Ferrari	1,707	0,032	53,681	0,000%	450,98%
aston_martin	1,517	0,037	40,687	0,000%	355,98%
Delahaye	1,502	0,099	15,116	0,000%	349,23%
Shelby	1,378	0,042	33,159	0,000%	296,63%
Bentley	1,339	0,040	33,214	0,000%	281,58%
talbot_lago	1,262	0,091	13,803	0,000%	253,34%
Lamborghini	1,220	0,065	18,790	0,000%	238,80%
Maserati	1,135	0,048	23,510	0,000%	211,18%
Audi	1,092	0,171	6,374	0,000%	197,87%
rolls_royce	1,069	0,037	29,026	0,000%	191,28%
Facel	1,031	0,126	8,175	0,000%	180,26%
Delage	0,961	0,137	7,010	0,000%	161,39%
Lagonda	0,882	0,074	11,897	0,000%	141,64%
Porsche	0,864	0,036	23,977	0,000%	137,22%
mercedes_benz	0,838	0,029	28,816	0,000%	131,10%
Iso	0,812	0,163	4,969	0,000%	125,30%
Lancia	0,806	0,064	12,576	0,000%	124,01%
DeTomaso	0,782	0,100	7,826	0,000%	118,66%
Stutz	0,779	0,110	7,112	0,000%	117,97%
AC	0,751	0,075	9,970	0,000%	111,88%
Auburn	0,666	0,092	7,226	0,000%	94,71%
Cord	0,652	0,099	6,557	0,000%	91,92%
Allard	0,591	0,110	5,391	0,000%	80,62%
Citroën	0,579	0,078	7,422	0,000%	78,46%
Toyota	0,573	0,137	4,177	0,003%	77,39%
Marmon	0,568	0,182	3,126	0,178%	76,56%
Vauxhall	0,559	0,145	3,864	0,011%	74,96%
Jaguar	0,550	0,030	18,501	0,000%	73,27%
Amphicar	0,545	0,131	4,160	0,003%	72,38%
nash_healey	0,505	0,158	3,202	0,137%	65,78%
alfa_romeo	0,466	0,040	11,550	0,000%	59,35%
pierce_arrow	0,461	0,113	4,083	0,004%	58,60%
Plymouth	0,432	0,042	10,302	0,000%	54,06%
BMW	0,430	0,051	8,395	0,000%	53,68%
Bristol	0,417	0,153	2,730	0,634%	51,71%

DeLorean	0,411	0,236	1,741	8,166%	50,82%
GMC	0,410	0,151	2,719	0,655%	50,68%
Abarth	0,385	0,148	2,590	0,959%	46,90%
Jensen	0,325	0,121	2,694	0,707%	38,45%
Cadillac	0,288	0,038	7,637	0,000%	33,39%
Chrysler	0,280	0,046	6,030	0,000%	32,30%
Packard	0,266	0,046	5,824	0,000%	30,52%
Peugeot	0,259	0,134	1,937	5,273%	29,60%
Lotus	0,230	0,069	3,340	0,084%	25,92%
Chevrolet	0,224	0,022	10,104	0,000%	25,13%
Riley	0,214	0,104	2,052	4,019%	23,82%
Dodge	0,186	0,046	4,077	0,005%	20,45%
Daimler	0,170	0,102	1,670	9,498%	18,57%
Pontiac	0,123	0,036	3,406	0,066%	13,12%
Oldsmobile	0,087	0,046	1,891	5,858%	9,09%
Fiat	-0,070	0,055	-1,279	20,101%	-6,78%
Ford	-0,107	0,025	-4,289	0,002%	-10,17%
Studebaker	-0,251	0,068	-3,707	0,021%	-22,23%
AMC	-0,289	0,079	-3,659	0,025%	-25,09%
Austin	-0,305	0,071	-4,285	0,002%	-26,31%
Wolseley	-0,339	0,190	-1,789	7,356%	-28,78%
Honda	-0,350	0,164	-2,137	3,260%	-29,53%
MG	-0,359	0,038	-9,463	0,000%	-30,19%
Volkswagen	-0,379	0,050	-7,586	0,000%	-31,53%
Morris	-0,384	0,081	-4,717	0,000%	-31,90%
Edsel	-0,387	0,111	-3,476	0,051%	-32,12%
Triumph	-0,406	0,057	-7,087	0,000%	-33,39%
Rover	-0,407	0,140	-2,903	0,370%	-33,46%
Willys	-0,418	0,130	-3,212	0,132%	-34,19%
International	-0,436	0,178	-2,458	1,400%	-35,36%
Nash	-0,473	0,092	-5,143	0,000%	-37,68%
Singer	-0,503	0,212	-2,369	1,785%	-39,51%
Messerschmitt	-0,558	0,177	-3,142	0,168%	-42,74%
Datsun	-0,625	0,094	-6,634	0,000%	-46,46%
Crosley	-0,839	0,141	-5,957	0,000%	-56,78%
BSA	-0,984	0,282	-3,488	0,049%	-62,62%
Transmission					
MANUAL	0,318	0,013	25,405	0,000%	37,39%
Auction house					
RM_sothebys	0,700	0,049	14,172	0,000%	101,38%
Artcurial	0,476	0,036	13,108	0,000%	60,92%
Silverstone	0,331	0,043	7,694	0,000%	39,27%
Bonhams	0,171	0,016	10,614	0,000%	18,63%
Barons	-0,354	0,181	-1,954	5,069%	-29,81%
Body of the car					

racer	1,807	0,042	43,295	0,000%	508,94%
sports_car	1,249	0,125	9,979	0,000%	248,75%
convertible	0,797	0,017	45,782	0,000%	121,95%
beachcar	0,780	0,124	6,273	0,000%	118,15%
coupe	0,675	0,019	35,992	0,000%	96,48%
drophead	0,623	0,067	9,369	0,000%	86,50%
wagon	0,574	0,038	15,032	0,000%	77,55%
Engine					
V16	0,961	0,106	9,055	0,000%	161,40%
V10	0,800	0,153	5,212	0,000%	122,50%
V12	0,599	0,034	17,818	0,000%	82,03%
I8	0,411	0,042	9,859	0,000%	50,76%
V8	0,242	0,025	9,540	0,000%	27,32%
V6	0,203	0,046	4,387	0,001%	22,57%
H6	0,183	0,046	4,024	0,006%	20,11%
H12	0,178	0,090	1,975	4,832%	19,44%
I6	0,158	0,027	5,966	0,000%	17,14%
I4	-0,192	0,026	-7,290	0,000%	-17,45%
V4	-0,410	0,128	-3,202	0,137%	-33,62%
cyl_2	-0,550	0,228	-2,411	1,593%	-42,33%
Color					
orange	0,111	0,038	2,947	0,321%	11,73%
white	0,033	0,015	2,136	3,269%	3,33%
green	-0,048	0,018	-2,697	0,699%	-4,69%
brown	-0,083	0,026	-3,198	0,138%	-8,00%
yellow	-0,091	0,025	-3,709	0,021%	-8,69%
other	-0,115	0,026	-4,464	0,001%	-10,83%
beige	-0,134	0,035	-3,803	0,014%	-12,53%
Condition					
COND_2	-0,472	0,014	-32,751	0,000%	-37,61%
COND_3	-0,974	0,015	-64,541	0,000%	-62,23%
COND_4	-1,465	0,023	-65,037	0,000%	-76,90%
COND_5	-2,234	0,044	-51,336	0,000%	-89,29%
COND_6	-3,952	0,103	-38,447	1,97083e-315	-98,08%
Auction sale					
RM_Villa_Erba	1,109	0,227	4,887	0,000%	203,03%
Pebble_Beach	0,584	0,052	11,287	0,000%	79,36%
Retromobile	0,580	0,068	8,527	0,000%	78,58%
Monterey	0,328	0,048	6,861	0,000%	38,86%
Bonhams_Paris	0,317	0,144	2,197	2,799%	37,36%
Amelia_Island	0,235	0,051	4,632	0,000%	26,46%
Greenwich	-0,145	0,064	-2,256	2,407%	-13,47%
Palm_Springs	-0,582	0,074	-7,883	0,000%	-44,14%

Month of sale					
MARCH	-0,140	0,021	-6,757	0,000%	-13,05%
MAY	-0,288	0,020	-14,481	0,000%	-25,06%
FEBRUARY	-0,355	0,023	-15,642	0,000%	-29,85%
OCTOBER	-0,355	0,021	-16,650	0,000%	-29,86%
NOVEMBER	-0,361	0,024	-14,830	0,000%	-30,28%
JUNE	-0,380	0,019	-19,685	0,000%	-31,59%
SEPTEMBER	-0,395	0,022	-17,789	0,000%	-32,65%
JULY	-0,399	0,027	-14,513	0,000%	-32,89%
APRIL	-0,432	0,018	-23,648	0,000%	-35,07%
DECEMBER	-0,433	0,028	-15,460	0,000%	-35,15%
Replica					
REPLICA	-0,387	0,039	-9,816	0,000%	-32,07%
Production decade					
DEC_1910	-0,422	0,132	-3,210	0,133%	-34,46%
DEC_1930	-0,545	0,116	-4,708	0,000%	-42,01%
DEC_1920	-0,823	0,118	-6,966	0,000%	-56,10%
DEC_1950	-0,883	0,115	-7,678	0,000%	-58,64%
DEC_1940	-0,917	0,117	-7,840	0,000%	-60,02%
DEC_1960	-1,202	0,115	-10,457	0,000%	-69,94%
DEC_1970	-1,575	0,116	-13,624	0,000%	-79,31%
DEC_1990	-1,846	0,118	-15,679	0,000%	-84,21%
DEC_1980	-2,040	0,117	-17,473	0,000%	-86,99%
Effect list					0,00%
LIST_ICONIC	0,595	0,031	19,231	0,000%	81,27%
LIST_MOVIE	0,196	0,044	4,421	0,001%	21,66%
LIST_DESIGN	1,212	0,083	14,533	0,000%	235,93%
R ² = 0,638 N= 29081					
Adjusted R ² = 0,636					

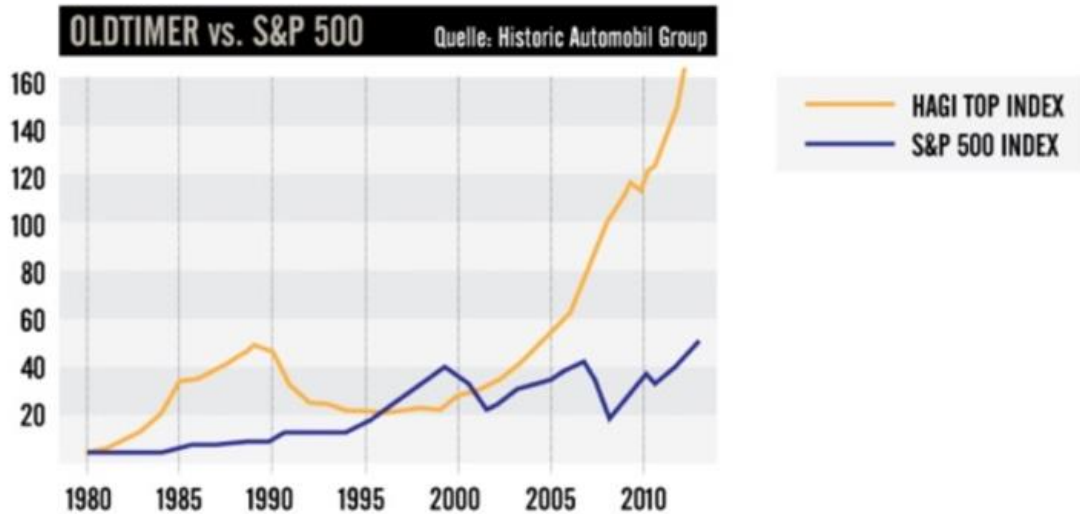
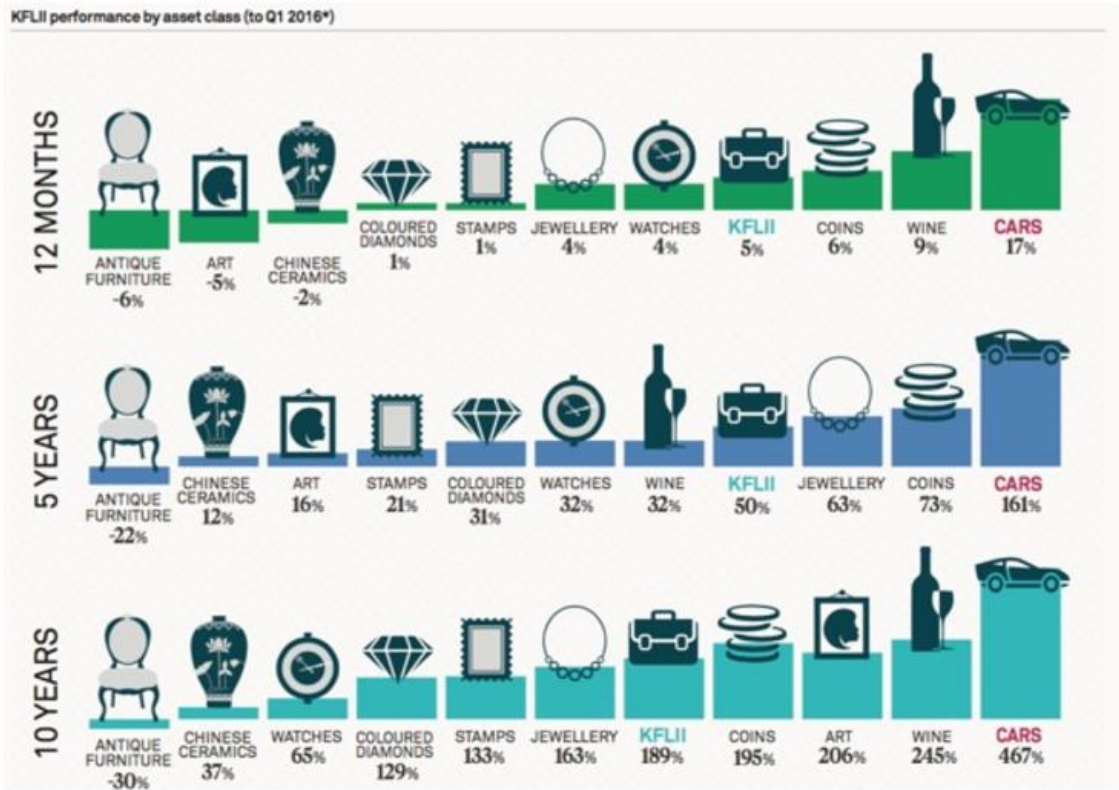
8. In depth performance analysis

	S&P500	DAX	US Global Bonds	Real Estate	Classic Car	Gold Spot	PF 1	PF 2	PF 3	PF4	PF5	PF6	PF7	PF8
Average annual re turn:														
Arithmetic mean	9,47%	12,92%	8,00%	1,14%	6,03%	3,37%	7,74%	7,69%	7,64%	7,59%	7,55%	7,50%	8,11%	8,23%
Global return (excl. compound.):														
Arithmetic mean	350,35%	478,00%	295,86%	42,03%	223,16%	124,55%	286,26%	284,51%	282,76%	281,01%	279,26%	277,51%	300,25%	304,38%
Final Value (excluding compounding)	450,35	578,00	395,86	142,03	323,16	224,55	386,26	384,51	382,76	381,01	379,26	377,51	400,25	404,38
Average annual re turn:														
Geometric mean	8,190%	9,594%	7,792%	0,992%	3,410%	2,089%	7,269%	7,240%	7,198%	7,142%	7,073%	6,991%	7,615%	7,710%
Average annual log return	7,872%	9,162%	7,503%	0,987%	3,353%	2,067%	7,017%	6,990%	6,950%	6,898%	6,834%	6,757%	7,339%	7,427%
Global log return (excl. compound.)	291,26%	338,98%	277,61%	36,51%	124,06%	76,48%	259,64%	258,63%	257,16%	255,23%	252,85%	250,02%	271,53%	274,80%
Volatility	15,878%	28,352%	6,907%	5,420%	25,221%	16,073%	10,134%	10,016%	10,050%	10,236%	10,566%	11,025%	10,675%	10,866%
Beta (S&P500)	1	1,105	0,071	0,133	-0,028	0,091	0,520	0,495	0,469	0,444	0,419	0,393	0,506	0,504
t* with H0: beta= 0	-	4,779	1,428	1,868	-0,109	0,493	7,818	7,328	6,644	5,867	5,090	4,368	7,077	6,625
Two-tailed p-value	-	0,00%	16,21%	7,02%	91,35%	62,49%	0,00%	0,00%	0,00%	0,00%	0,00%	0,01%	0,00%	0,00%
Beta (DAX)	0,357	1	0,028	0,057	0,256	0,096	0,321	0,319	0,316	0,313	0,311	0,308	0,339	0,341
t* with H0: beta= 0	4,779	-	0,972	1,384	1,863	0,927	10,246	11,032	11,212	10,663	9,627	8,452	12,518	11,408
Two-tailed p-value	0,00%	-	33,79%	17,53%	7,08%	36,02%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Annual Jensen's Alpha (S&P500)														
(arith/arith)	0,00%	3,13%	1,34%	-5,71%	-1,18%	-3,35%	-0,28%	-0,25%	-0,22%	-0,19%	-0,16%	-0,13%	0,14%	0,26%
Alpha (S&P500) (geom/geom)	0,00%	1,21%	1,29%	-5,63%	-2,92%	-4,45%	-0,05%	-0,03%	-0,03%	-0,04%	-0,06%	-0,10%	0,32%	0,42%
Alpha (S&P500) (log/log)	0,00%	1,11%	1,20%	-5,42%	-2,78%	-4,27%	-0,04%	-0,03%	-0,03%	-0,03%	-0,06%	-0,09%	0,30%	0,39%
Alpha (S&P500) (log/arith)	0,00%	1,14%	0,96%	-5,64%	-3,05%	-4,50%	-0,17%	-0,16%	-0,16%	-0,18%	-0,21%	-0,25%	0,17%	0,27%

	S&P500	DAX	US Global Bonds	Real Estate	Classic Car	Gold Spot	PF 1	PF 2	PF 3	PF 4	PF 5	PF 6	PF 7	PF 8
Annualized Sharpe ratio	0,329	0,306	0,543	-0,574	0,071	-0,055	0,345	0,344	0,338	0,327	0,313	0,295	0,363	0,366
t-ratio test with H0: SR= 0	1,974	1,836	3,259	-3,441	0,425	-0,328	2,068	2,064	2,028	1,964	1,876	1,772	2,175	2,199
Two-tailed p-value	5,61%	7,47%	0,24%	0,15%	67,33%	74,49%	4,59%	4,63%	5,00%	5,73%	6,88%	8,49%	3,63%	3,44%
Annualised excess return:														
Geometric average	3,88%	5,23%	3,59%	-3,35%	-0,87%	-2,58%	2,94%	2,93%	2,90%	2,85%	2,80%	2,72%	3,32%	3,41%
Volatility of excess returns	16,09%	28,31%	5,84%	6,95%	24,39%	17,79%	10,68%	10,44%	10,34%	10,39%	10,58%	10,92%	10,83%	11,11%
Tracking volatility index-based)	0	0,170	0,160	0,156	0,277	0,233	0,102	0,105	0,109	0,115	0,121	0,128	0,104	0,107
(Annualized) return premium (over the index)	0,000%	1,290%	-0,369%	-6,885%	-4,519%	-5,805%	-0,854%	-0,882%	-0,921%	-0,974%	-1,038%	-1,114%	-0,533%	-0,445%
(Passive) Information ratio - Index Based	-	13,193	-43,423	-2,262	-6,136	-4,019	-11,894	-11,903	-11,866	-11,776	-11,635	-11,444	-19,546	-24,173
t-ratio test with H0: IR= 0	-	79,156	-260,538	-13,574	-36,815	-24,115	-71,367	-71,420	-71,195	-70,659	-69,807	-68,662	-117,278	-145,039
Two-tailed p-value	-	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
Treynor ratio	0,039	0,047	0,508	-0,253	0,313	-0,285	0,057	0,059	0,062	0,064	0,067	0,069	0,066	0,068
Active Treynor ratio	0,000	0,028	0,190	-0,430	0,427	-0,370	-0,005	-0,005	-0,005	-0,004	-0,004	-0,003	0,003	0,005
Modified Treynor ratio	0,241	0,294	3,159	-1,570	1,948	-1,769	0,351	0,368	0,384	0,400	0,415	0,431	0,408	0,420
Downside volatility	8,41%	11,31%	0,60%	3,46%	10,88%	9,72%	3,53%	3,23%	2,97%	2,79%	2,71%	2,79%	3,23%	3,17%
Annualized Sortino ratio	1,126	1,142	13,348	0,329	0,555	0,346	2,190	2,383	2,570	2,720	2,780	2,685	2,511	2,591

9. Hedge fund market study

9.1 The classic car fund

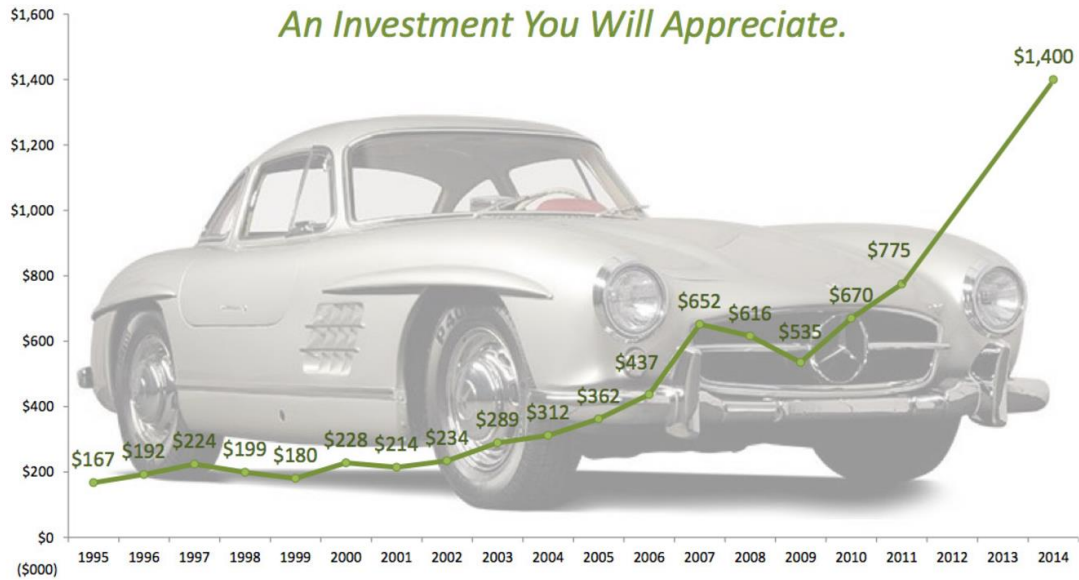


9.2 Ultimate Classic Car Fund



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9.3 Cohen & Cunild

BROWSE BY...

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SEARCH

Manufacturer:

Min Price:

Max Price:

Body Type:

Trans:

Year Built:

Kms:

Dealer Location:

CLASSIC CAR INVESTMENT FUND

We offer & guarantee clients the possibility to make an annual cash return on their capital of up to 20%. We are well known for our modern super cars but our true passion and specialty lies with Classic Cars, we have more than 10 years experience in trading with a flawless record having never lost money on a single car and benefit from a network of some of the most eminent members of the classic car world.

The entire process & fund is managed in house and returns are paid out annually, the capital can also be returned with notice, the client is also able to own & drive the car(s) in during the process of sale. We cherry pick the stock and there may be times when there are no suitable cars available so we will ask the client to wait to invest until a opportunity arises. Investments start at 30.000€

We also offer investment advice & assistance when a client wishes to keep the car as a long term investment.

Year	Value (\$000)
1995	\$167
1996	\$192
1997	\$224
1998	\$199
1999	\$180
2000	\$228
2001	\$214
2002	\$234
2003	\$289
2004	\$312
2005	\$362
2006	\$437
2007	\$652
2008	\$616
2009	\$535
2010	\$670
2011	\$775
2012	
2013	
2014	\$1,400

