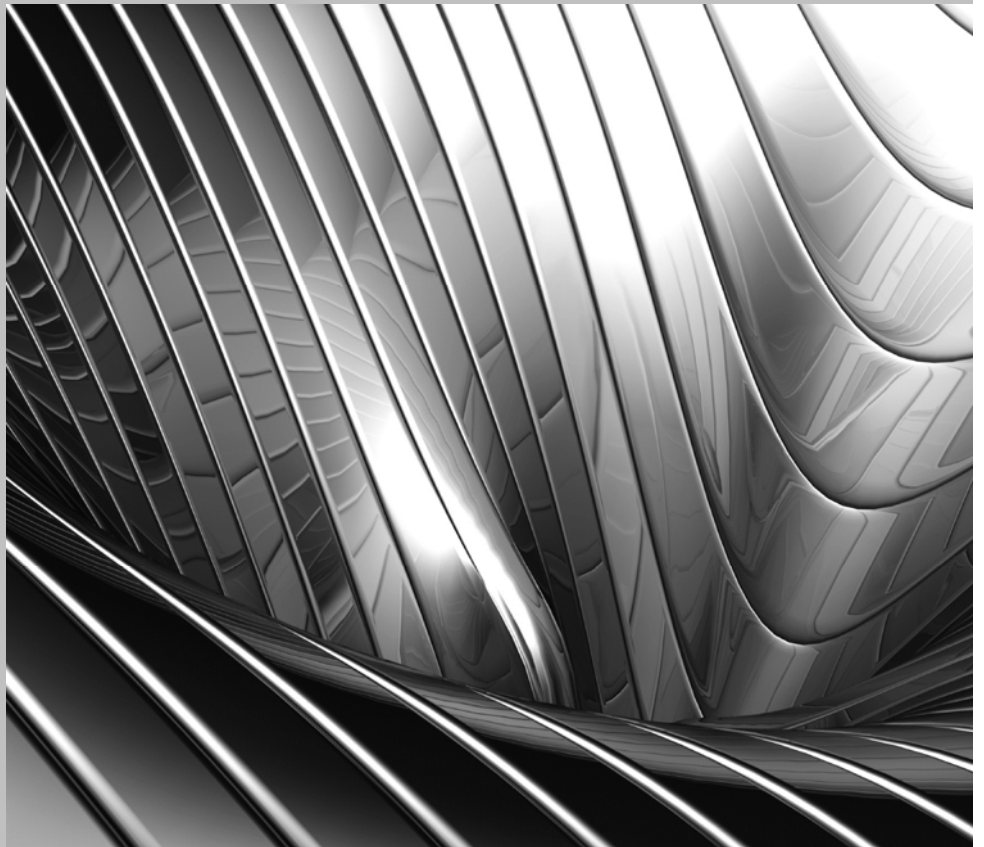




RESEARCH CENTER FOR FINANCIAL SERVICES  
STEINBEIS UNIVERSITY BERLIN

## Gold Ownership by Private Individuals in Germany

KLEINE Financial Study: Analysis of Gold Ownership and the  
Investment Behaviour of Private Individuals in Germany



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## Introduction

**The study is a representative analysis of gold ownership in Germany (n = 3,248 private individuals)**

The study “Gold Ownership by Private Individuals in Germany” is the first investigation for the analysis of gold ownership in private households in Germany conducted by the Research Center for Financial Services. The aim of the research project is to close the previously existing research and knowledge gaps in the area of gold ownership among private individuals. This will contribute to increased transparency, whereby overall assets can be supplemented by a previously unconsidered stake in gold. Furthermore, this will also allow us to come to conclusions about the investment behaviour of German private households. The study does not only depict the overall amount of gold held by the population, but also involves a detailed examination of regional, income and asset-related differences. A gold indicator has also been developed, which can regularly forecast investment attractiveness and buyer readiness in the future. In addition to recording the volumes held, gold trends and market potential can also be established.

The study is the first analysis in the research area of raw materials and was conducted by the Research Center for Financial Services at the Steinbeis University, Berlin. There are future plans to expand the field of research to raw materials/precious metals and extend the research to include institutional investors.

The study “Gold Ownership by Private Individuals in Germany” is based on a representative survey of 3,248 people over the age of 18. All information about gold relates to a standard of 999.

## Worldwide gold volumes

**Germany owns around 8% of the global gold volumes (approx. 12,000 tonnes)**

The total volume of extracted gold worldwide is around 163,000 tonnes. This corresponds to a cube with an edge length of 20 meters. More than half of this gold has been processed to create jewellery, while a large proportion is also used by industry. The remainder is held by central banks and private and institutional investors in the form of coins and bars. The Deutsche Bundesbank and German population hold a stake of just under 8%, not taking institutional investors into account. Around 6 percent of this stake is owned by private households and around 2 percent by the Bundesbank.

**5% of the global gold volumes are held by private households in Germany**

Without taking into account the investments of private individuals in gold-based securities, whereby it is impossible, in terms of volume, to clearly differentiate between products backed by physical gold and purely derived products, the gold volume held by the German population is just under 5% of the gold extracted so far around the world (Fig. 1).

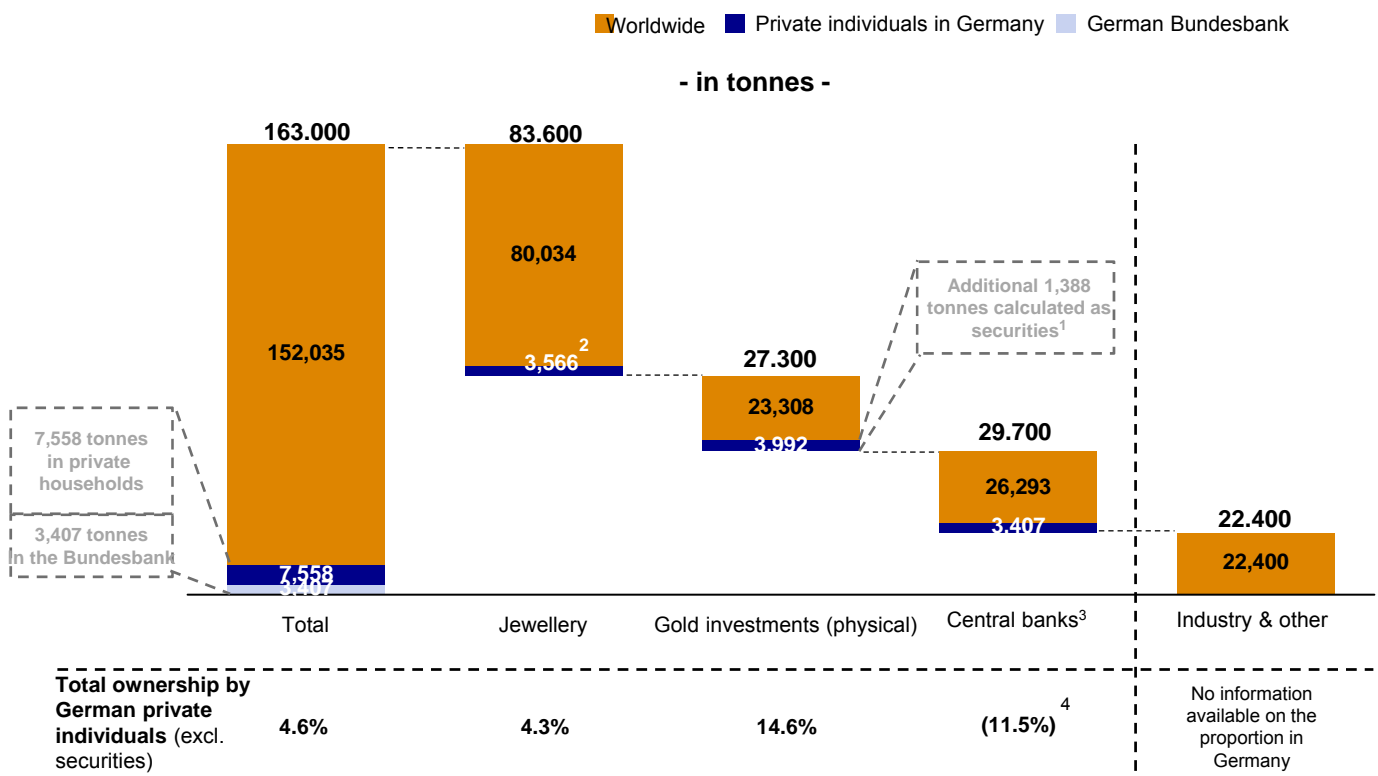


Figure 1: Distribution of the total gold volumes extracted worldwide<sup>1</sup>

**Gold ownership by German private households**

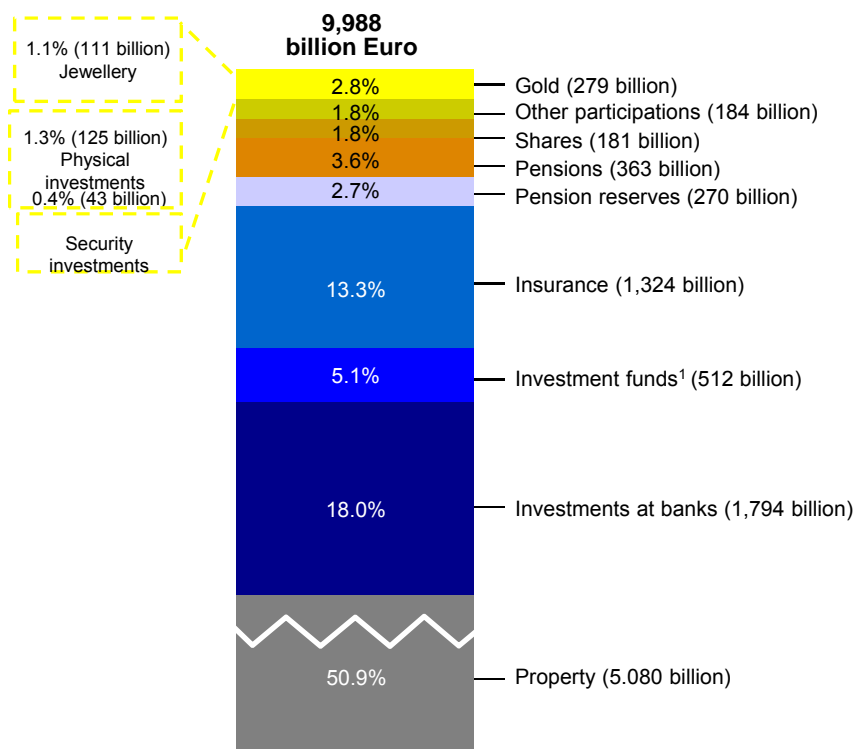
**Private individuals own gold with a total value of 235 billion Euro**

The entire volume of gold held by the population in the form of jewellery and physical investments (such as bars and coins) is approximately 7,500 tonnes. This corresponds to a counter-value of approximately 235 billion Euro. An interesting aspect is that the volume of gold held by the population is more than double that of the gold owned by the Bundesbank, just under 3,500 tonnes of gold. If we also take the gold-based securities of 1,350 tonnes or 43 billion Euro in to account, the total ownership is almost 9,000 tonnes or 280 billion Euro.

**The gold proportion of assets is larger than that of directly-held shares**

**Gold investments represent 3% of total assets held by Germans**

When analysing the asset structure, it was striking that the value of total gold investments was almost 100 billion Euro higher than directly held share participation (fig. 2). The focus point here was on gold ownership in the form of jewellery and physical investments, each approximately 120 billion Euro. Gold-based securities are not as significant. Overall, gold ownership makes up almost 3% of the entire assets of private households, amounting to around 10 billion Euro. In terms of the pure financial assets of the population, amounting to a total of approximately 5 billion Euro, slightly more than 5% of this is gold. However, it should be taken into account here that the price of gold has increased sharply over the past few years, whereby the weighting of gold has also increased proportionally.



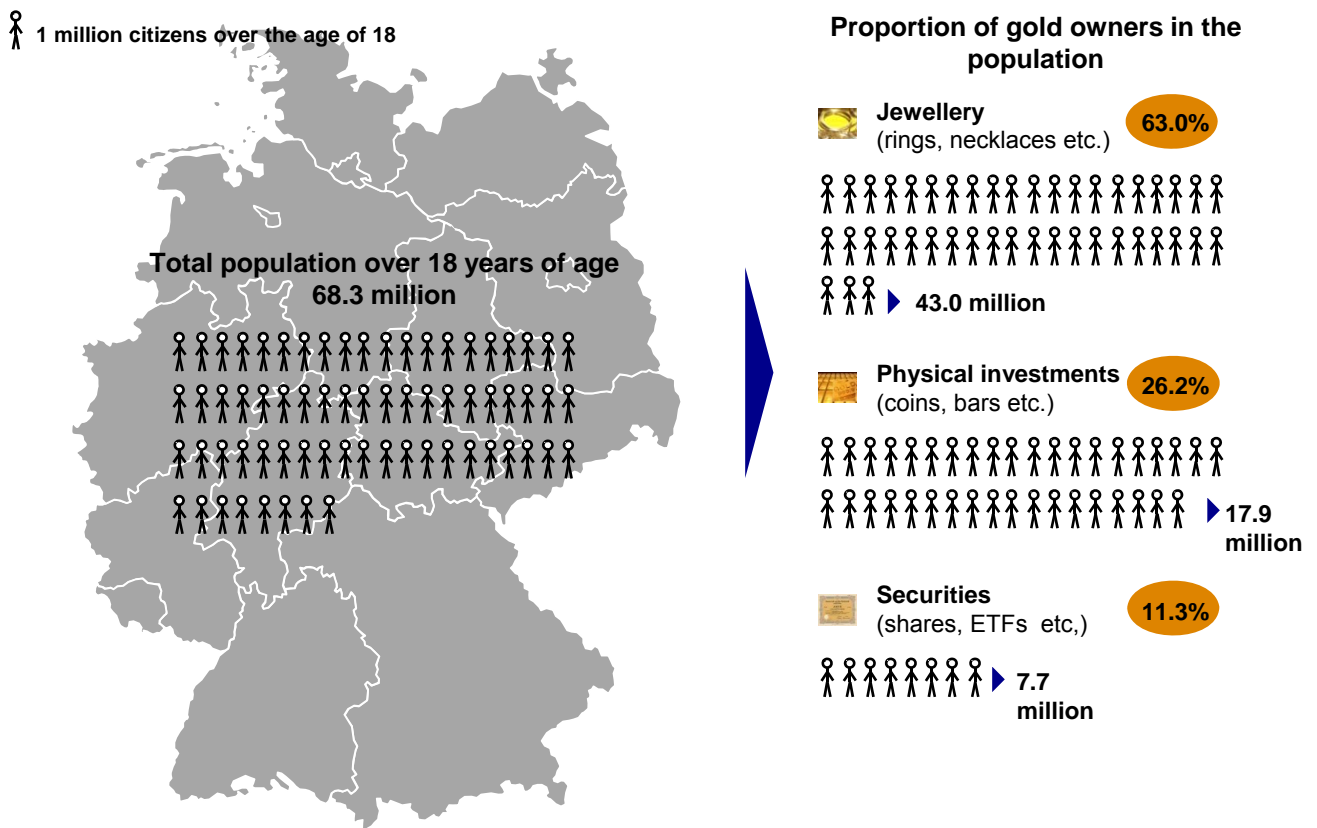
**Figure 2: Total assets of private households in Germany incl. gold and gold-based investments<sup>2</sup>**

It is interesting that the proportion of Germans in the global gold volume is, at 6%, almost identical to their stake in the global gold volume of 5%.

**Every fourth German over the age of 18 owns physical gold as an investment**

**Proportion of people who own gold in the entire population**

Not all German citizens own gold. At 63%, over half of private individuals own gold jewellery (Fig. 3). Physical gold investments such as coins and bars etc., but also gold-based securities are, however, not as common.



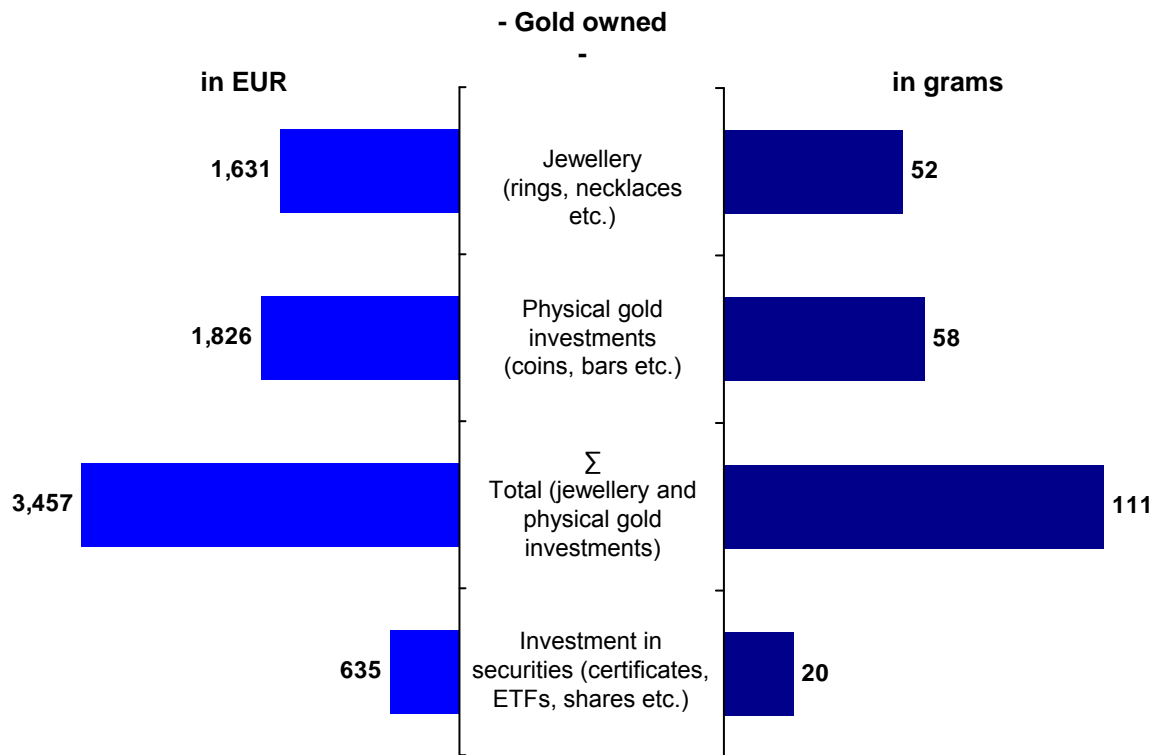
**Figure 3: Proportion of gold owners in the population, divided into the different clusters<sup>3</sup>**

While almost 18 million Germans or 26% of the population over the age of 18 are in possession of physical gold, only approximately 11% own gold-based securities.

**In statistical terms, the German population owns physical gold investments with a value of around 1,800 Euro per person**

**Gold ownership in the German population over the age of 18 according to assets and income**

Per person, this results in an average holding of approximately 58 grams of physical gold investments in the form of coins, bars etc. for every German citizen over the age of 18, which equals a counter-value of approximately 1,800 Euro. Furthermore, citizens also own jewellery with a value of around 1,600 Euro (52 grams) and gold-based securities with a value of 635 Euro (20 grams) (Fig 4).



**Figure 4: Average gold ownership in Germany per person in EUR and grams<sup>4</sup>**

**People with investment assets of more than 150,000 Euro hold over 18 times more gold than private individuals with less than 25,000 Euro**

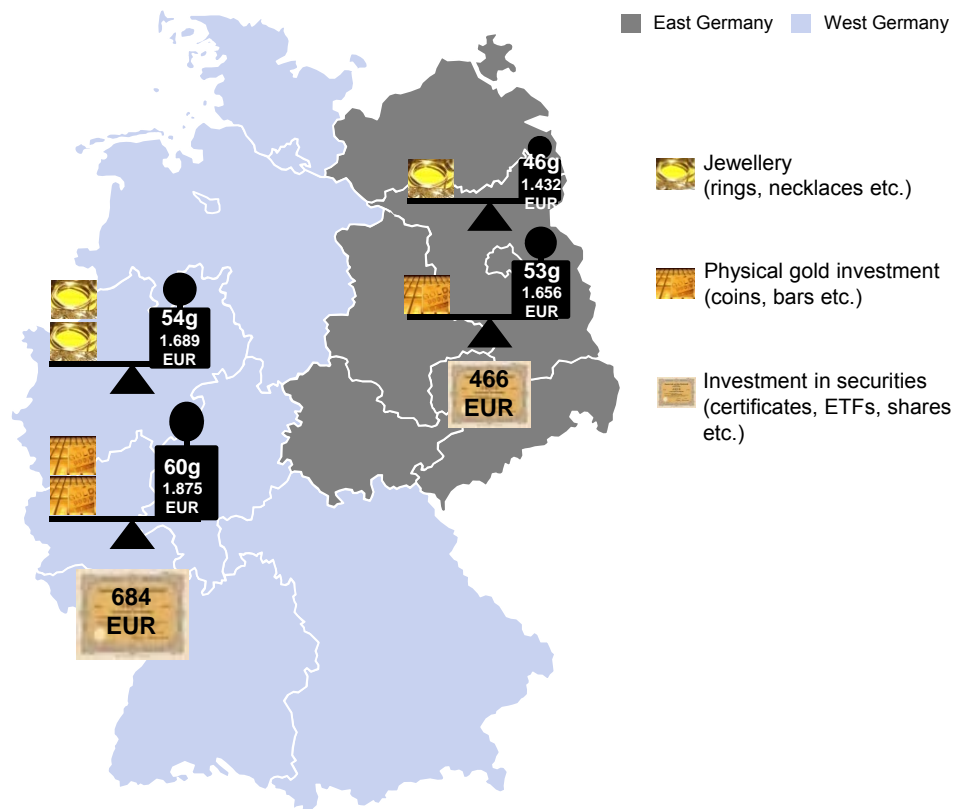
However, this volume is not equally distributed among the population. Both the proportion of gold owners in the various income and asset classes and the value of these investments grows significantly along with increasing assets. This tendency is particularly pronounced in the area of physical investments and investments in securities. While people with investment assets of less than 25,000 Euro own no more than 15 grams of physical gold, those with assets of more than 150,000 Euro own an average of 277 grams, 18 times (262 grams) more gold holdings.

In the area of securities, the difference between the population cluster with the lowest and the highest investment assets is even more pronounced: people in the lowest asset cluster have as good as no assets in gold-based securities.

**Regional differences in gold ownership**

In addition to the differences in the gold ownership structure between jewellery, physical investments and securities, there are also regional deviations. While citizens in West Germany own an average of 60 grams of physical gold investments and 54 grams of gold jewellery, East Germans own an average of 7 to 8 grams less gold (Fig. 5). A similar picture emerges for assets invested in gold-based securities. Citizens in West Germany own an average of just under 200 Euro more assets in gold-based securities. The absolute volume of gold in private households is also clearly different in the West and East.

**People in West Germany have on average 220 Euro more physical gold**



**Figure 5: Regional differences in gold ownership between West and East Germany** <sup>5</sup>

**Citizens in Southern Germany own just under 400 Euro more physical gold than in Northern Germany**

In addition to the West-East divide, a North-South divide is also discernible. With around 850 Euro private individuals in Southern Germany having invested 100 Euro more in gold-based securities. Additionally, with their on average 70 grams of physical gold, they have more than 13 grams or around 400 Euros of gold bars and coins. Only jewellery ownership is higher in Northern Germany than in Southern Germany.

### **Gold indicator**

A gold indicator was developed to forecast future developments in the area of gold. This is sub-divided into the two forecast dimensions of investment attractiveness and buyer readiness.

The gold indicator (investment attractiveness) represents the difference between positive and negative expectations in terms of the attractiveness of gold.

In contrast, the gold indicator (buyer readiness) represents the expectation value of future gold purchases by private households weighted with the purchase probability.

### **Investment attractiveness**

In future, a further increase in the gold owned by the German population is to be expected. Around 58% of the study participants believe that gold investment will increase in attractiveness. Taking into account the 11% of participants who believe gold investment is more likely to decrease in value, this results in an overall indicator value of 47. This indicates a generally positive sentiment. Among people who currently already invest in gold, 62% are in fact of this opinion. Taking the participants with negative expectations into account, this results in an even more positive indicator value of 52.

**Gold indicator (investment attractiveness) indicates positive sentiment with a level of 47**



**Buyer readiness**

**The gold indicator (buyer readiness), at a level of 30, indicates that investments in gold are likely to increase**

The readiness to buy gold in the future is also positive with regards to the current distribution of gold investments in the population (Fig. 6). While 26% of the population currently own physical gold, just under 40% would at least potentially consider buying gold over the next three years. This is also reflected by the gold indicator (buyer readiness). At a level of 30, this suggests that the sentiment regarding future gold investments is more likely to be positive. As with the gold indicator (investment attractiveness), the gold indicator (consumer readiness) also indicates a significantly higher value of 36 among gold owners and also among those who currently own no gold (18).

| Planned gold purchases in the next 3 years |       | Expected buyer readiness for physical gold |      | Indicator values |
|--|-------|--|------|------------------|
| Certain                                    | 5.4%  | x  | 100% | 5.4              |
| Probably                                   | 9.2%  | x  | 75%  | 6.9              |
| Possibly                                   | 23.0% | x  | 50%  | 11.5             |
| Probably not                               | 25.0% | x  | 25%  | 6.3              |
| No   | 37.4% | x  | 0%   | 0                |
| <b>Gold indicator (buyer readiness)</b>    |       |  |      | <b>30.1</b>      |

Figure 6: Gold indicator method (buyer readiness)<sup>6</sup>

**Comparison of gold ownership in Germany, France and Italy**

**The German population as a whole owns 7,557 tonnes, while this value in France and Italy is 4,714 and 6,418 tonnes respectively**

In the European comparison with France and Italy, the German population currently has a leading position in gold ownership. German households own a total of more than 7,500 tonnes of gold in jewellery and physical investments, while the citizens of France and Italy have made significantly lower investments at 4,714 and 6,418 tonnes respectively. It is interesting that only private households in Germany have more physical gold investments than the central bank, while this relationship is reversed in France and Italy.

In addition to the above-average assets of the German population, this can be categorised as an indication of the higher need of the German people for security due to bad experiences in the past resulting from hyperinflation. The German central bank also has the highest gold stores in the comparison, which demonstrates its position as a stability anchor within the scope of the former currency system.

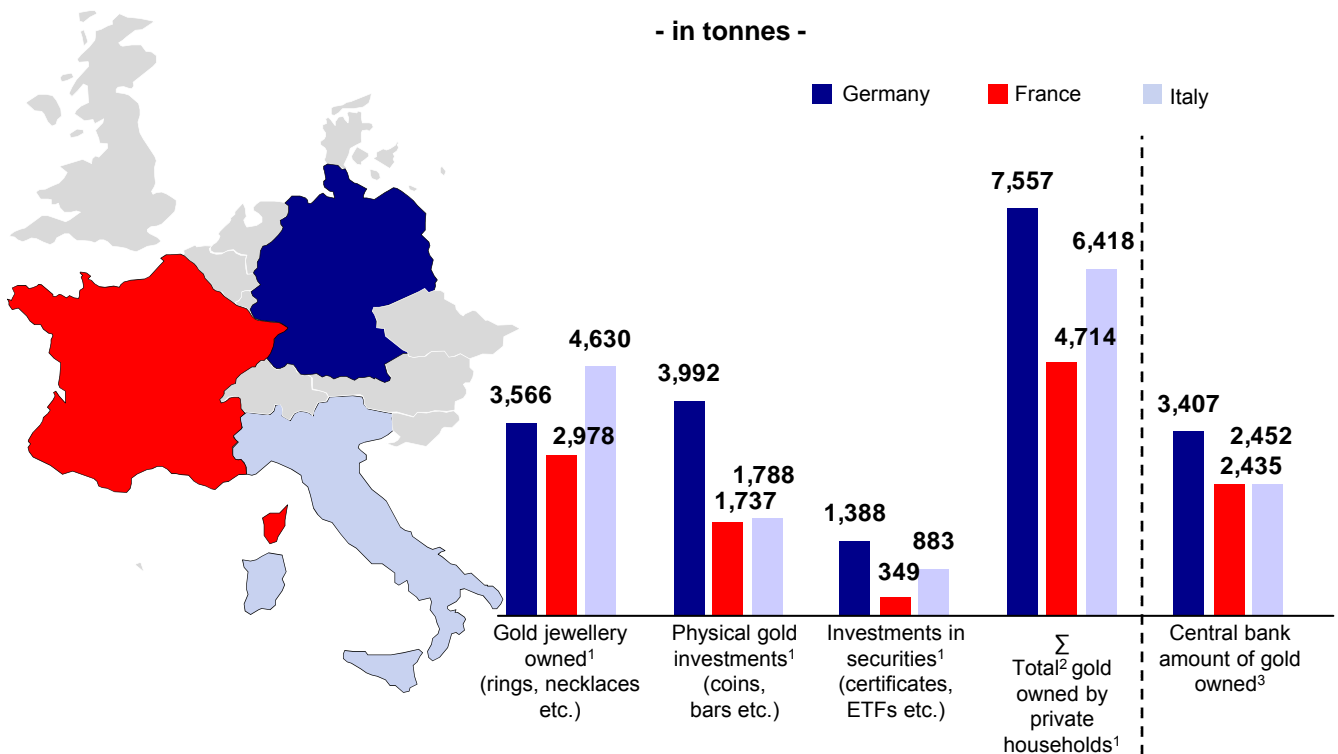


Figure 7: Gold ownership in the entire population from the age of 18 in comparison to central bank ownership<sup>7</sup>

**Gold indicator (buyer readiness) is significantly higher in Italy (45) than in Germany (30)**

A different picture emerges for gold purchases planned for the future than for gold ownership. While the German population has the highest level of gold ownership, the indicator (30) has a higher value than in France (27), but remains significantly behind that of Italy (45).

### Conclusion

The frequently mentioned orientation of Germans towards security is also reflected in their gold ownership. The physical gold investments of the German population make up a relatively high proportion of global physical gold investments. In contrast, the proportion of globally available gold jewellery is relatively low. Gold-based security investments by private households have so far been only of minor significance.

Gold ownership is, however, relatively unevenly distributed across the population. Both the proportion of gold owners and the amount of gold held or assets held in gold rise significantly as income or assets increase.

In the European comparison with France and Italy, the German population again holds a high amount of gold. German private households own significantly more gold per head for investment purposes than citizens in France and Italy.

The general trend towards private individuals having a positive attitude also suggests there is further potential for gold investments.

1) The calculation of gold owned by the German population was made on the basis of the results per person of the study participants, which was multiplied by the population over the age of 18 (source: Federal Statistical Office as of 12/2008)

1) In the case of the security investments made within the scope of gold investment, it is not possible to differentiate between securities backed by physical gold and purely derivative securities (e.g. gold funds and certificates with total return swaps).

Furthermore, no clear classification is possible with regards to gold-based shares etc.

(e.g. gold mining companies) 2) The assumed average gold standard below is based on

the following assumptions: 20% of jewellery consists of 8 karat gold, 65% of 14 karat, 15% of 18 karat and less than 1% of 22 karat, which results in an average gold standard

of 55.9% for Germany. All information about gold jewellery was converted into a gold

standard of 999 3) Deutsche Bundesbank Business Report 2009 4) Proportion of gold

owned by the Deutsche Bundesbank of gold held by the global central banks is not taken into account in the gold owned by private individuals Source: World Gold Council, expert discussions, Deutsche Bundesbank, own calculation

2) 1) Without gold-based Securities Source: Deutsche Bundesbank, Federal Statistical Office (information about property assets as of 2006).

3) Question: “How much gold do you currently own (your approximate estimation)?”

4) Question: “How much gold do you currently own (your approximate estimation)?” 1) For the conversion of the study results into EUR and grams, a gold price of 971.84 EUR (as of 01.09.2010) per troy ounce was used, which equates to a gold price of 31.25 EUR per gram

5) Question: “How much gold do you currently own (your approximate estimation)?” For the conversion of the study results from grams into EUR, a gold price of 971.84 EUR (as of 01/09/2010) per troy ounce was used, which equates to a gold price of 31.25 EUR per gram. 1) The results of the random samples in the study deviated from the population distribution from 18 years of age between West and East Germany given by the Federal Statistical Office by 1.6 percentage points (random sample can be regarded as significant despite the marginal deviation) Source: Federal Statistical Office as of 12/2008, own calculation

6) Question: “Do you plan to buy physical gold in the next three years?”

7) 1) The calculation of gold owned by the population was made on the basis of the results per person among the study participants, which was then multiplied by the population of the respective country from the age of 18 2) Total amount of gold owned = gold jewellery owned and physical gold investments together 3) As of June 2010 Source: Federal Statistical Office Germany, as of 12.2008 in conjunction with Eurostat (France and Italy, Stand 01/2010), World Gold Council, own calculation.

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