Economist.com **OPINION**

INVESTING

The foresight saga

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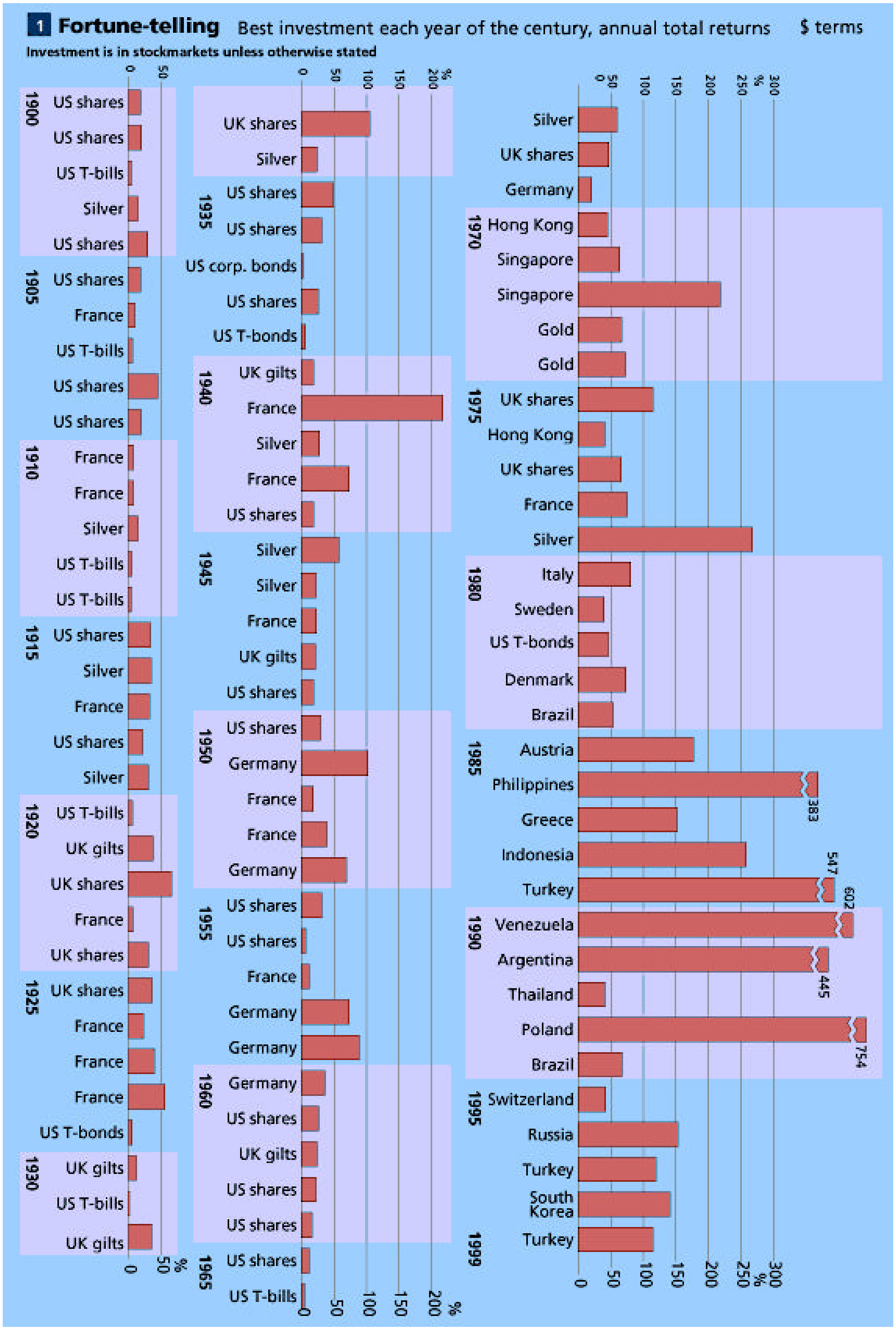
One hundred ways to make a trillion dollars...

WHO will be the world's first trillionaire? Most people would currently put their money on Bill Gates. If (a big if) the share price of Microsoft continues to rise at the same pace as it has in the past five years, then Mr Gates would indeed be worth $1 trillion within six years. *The Economist*, however, is pleased to reveal that Mr Gates has (in theory, at least) already been beaten to the crown of trillionaire by a little-known, but brilliant investor named Felicity Foresight.

When Ms Foresight was born in America, on January 1st 1900, her parents invested $1 on her behalf (the equivalent of $22 in today's prices) in a broad basket of American shares, to provide a little something for when she grew up. If the $1 had then simply been left there, with the dividends reinvested, that nest egg would now be worth almost $15,000. Enough for a splendid 100th birthday party perhaps. However, Felicity—a rather precocious child—reckoned she could do much better. Discovering at an early age that she possessed perfect foresight about the performance of financial markets, her parents encouraged her to adopt a more active investment strategy, moving her funds every year. (As a toddler, she expressed her country and asset preference by gleefully ripping up the relevant page from *The Economist*, to which her parents, of course, subscribed.)

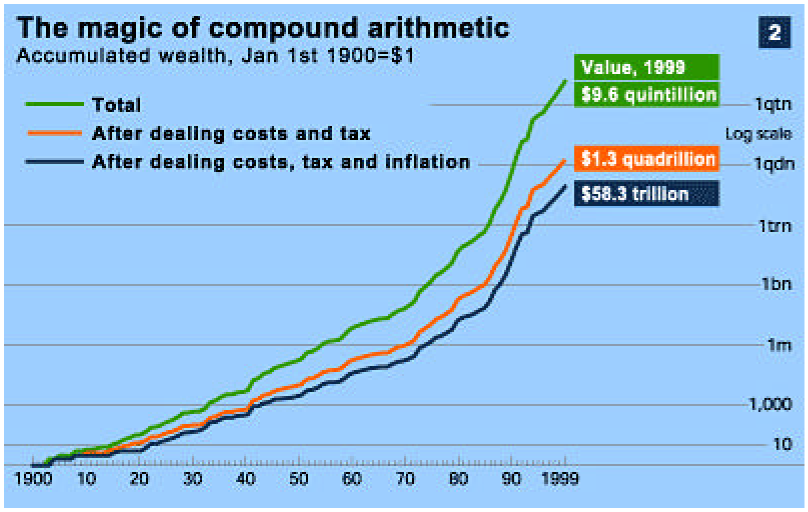
At the start of each year, Ms Foresight would predict which asset and which market around the world—shares, bonds, cash, property, precious metal, etc—would experience the highest total dollar return (income plus capital gain) over the following 12 months. Then, ignoring all the usual rules about risk diversification, she would invest all her wealth in that single asset and not touch it for a year. This she has done on the first trading day of each year throughout this century, allowing all dividend and interest income to be reinvested. The lucky lady thereby enjoyed large gains, but never suffered any losses, such as the 89% plunge in American share prices in the three years after the 1929 crash.

Chart 1 lists all her investment choices, year by year. Ms Foresight's three most frequent punts during the century were American shares, French shares and silver. But from time to time she successfully had a flutter on gold (in 1974 and 1975, when the gold price soared after it was set free), corporate bonds and several emerging markets, which have proved highly lucrative over the past decade. In 1998, for instance, she benefited from the 141% dollar return in South Korea's stockmarket. Her best investment of the century was in 1993 when Polish shares yielded an average dollar return of 750%. The most disappointing year was 1931 when both share and bond prices plunged everywhere. Ms Foresight had wisely put her money in American Treasury bills, but these offered a mere 1%. Over the century as a whole, her portfolio earned an enviable average annual total return of 55%.



Felicity not only has perfect foresight, she has also been canny enough to dodge taxes. And, living frugally, she has not spent a cent of her wealth. So how much is her initial $1 stake worth today?

If Ms Foresight had succeeded in picking the best performing asset each year (of those assets for which we could find historical data on total returns), she would now be worth an incredible $9,607,190,781,673,150,000 or $9.6 quintillion—some 110m times richer than Mr Gates who has a mere $85 billion. It took 55 years to become a millionaire, but only another 31 years for her to make a trillion dollars, in 1985 (see chart 2).



The above figures assume that Ms Foresight invested her fund in a broad basket which mirrored her favoured market each year. (We have also restricted her to those markets that are tracked each week in the indicator pages at the back of *The Economist* and for which we could easily find back years' data.) She would clearly have done even better if she had bought shares in that market's best-performing company. Take 1999, for example. By our cut-off date in early December, her 1999 investment in the Turkish stockmarket had yielded a dollar return of 115%. But had she selected one of the top-performing Turkish companies, she could have enjoyed a return of more than 300%.

Our research also shows that basic commodities, whose prices tend to be highly volatile, would often have been a year's best buy, especially earlier this century. For example, the price of cotton rose by more than Ms Foresight's selected asset in 15 of the 100 years. A tempting investment, but where on earth could she have stored it all? If she had included cotton in her portfolio, then in 1973, the most recent year when cotton prices would have topped the performance league, her fund would have been sufficient to buy a bulky 17.6m bales (each weighing 480 pounds) of cotton—enough then to make six T-shirts for everybody in the world.

Get real

In practice, even an investor who could perfectly predict the future would find it impossible to match Ms Foresight's performance, because of three big obstacles: dealing costs, taxes, and the limited size of financial markets. If we deduct dealing costs (these vary by asset, but are assumed to average just under 1% a year), the current value of Ms Foresight's fund is reduced by more than half to $4.4 quintillion. Dealing costs take a big bite out of the final value of a fund because of the power of compound interest, which exaggerates the impact of small differences in annual returns over long periods.

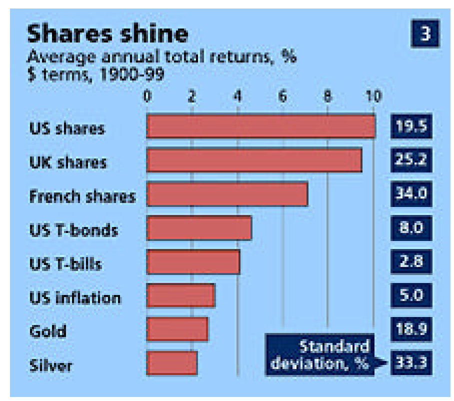
A second oversimplification is that we have assumed that no taxes were paid on dividend and interest income or on capital gains. If tax had been deducted, this would have made another huge dent in the total return. America's top rate of income tax was above 70% from the 1940s to the 1970s. British investors in the late 1970s faced a top rate of tax on investment income of as high as 98%. If we assume that the total return (capital and income) is subjected to an average tax rate of 25% each year, this would reduce the current value of Ms Foresight's fund to "only" $1.3

quadrillion. And, of course, $1 today is not worth as much as in 1900. After deducting 100 years of inflation, Felicity's nest egg is now worth $58 trillion in 1900 prices. However, if Felicity had paid taxes, America's Treasury would also have enjoyed a large windfall in recent years, pushing its budget into even bigger surplus.

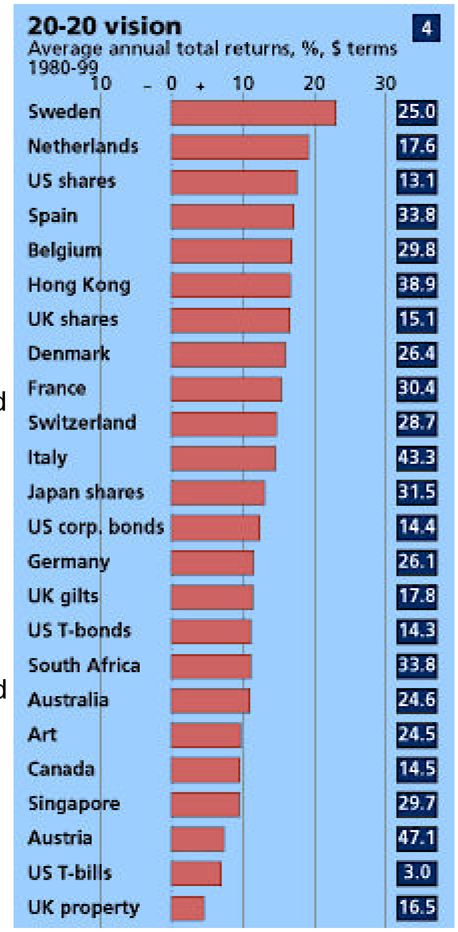
The third "complication" in the real world is that Ms Foresight has been too successful: the gross size of her fund has become so large in recent years that no market is big enough to absorb all her money. Take silver. The 268% rise in the silver price in 1979 was at the time blamed on Nelson Bunker Hunt, a rich Texan who tried to corner the market. But it is now clear that it was all Felicity's fault. In January 1979 she had sufficient money to buy the equivalent of more than five years of world silver production.

Likewise during the past decade Ms Foresight's fund (especially had she escaped tax) would have dwarfed individual stockmarkets. America's total stockmarket capitalisation is $13 trillion; those of Russia or Argentina amount to around only $50 billion. If she had tried to invest in these tiddlers, share prices would have soared even higher—at least until she tried to pull out. Indeed, Ms Foresight's current treasure chest of $1.3 quadrillion (after dealing costs and tax) simply has nowhere to go: the estimated total value of all the equities, bonds, bank deposits, precious metals, art and property in the world is today around only $130 trillion.

Hitting a century



Do the past 100 years offer any lessons for less-gifted investors? Over the century as a whole, shares have outperformed bonds, property and precious metals. Among those assets for which continuous data exists, American shares fared best over the 100 years, with an average total return of 10% (see chart 3), compared with less than 5% on government bonds. Gold and silver, which are meant to offer hedges against inflation, both lagged behind American consumer prices over the century, with average annual returns of only 2-3%. Since 1980, a period for which we have total return data for a wider range of assets, including fine art and property, Swedish and Dutch shares top the league in dollar terms; gold and silver again languish at the bottom (see chart 4).

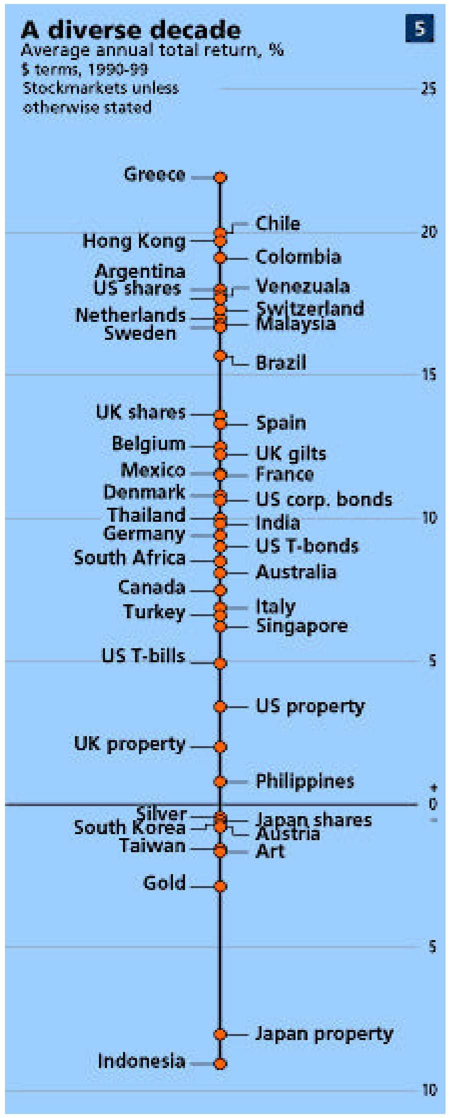


Figures for emerging markets are available only for a shorter period. Since 1990, Greek equities have been the world's best-performing asset, with an average dollar return of 22%; at the other extreme, Indonesian shares and Tokyo property prices have fallen by an average of 9% a year (see chart 5).

In theory, riskier (ie, more volatile assets) should yield higher average rewards—and are more likely to be the best investment in a particular year rather than more staid assets, such as government bonds or mature stockmarkets. This explains why an emerging market has topped the league in 13 of the past 14 years. Argentine and Venezuelan equities have been by far the most volatile over the past decade (as measured by the standard deviation of annual returns), but they have also delivered some of the best average returns. However, the relationship between risk and reward does not always hold. Over the past two decades, gold and silver, and some emerging markets have not only been more volatile than equities or bonds in America or Britain, say, but they have also yielded much lower average returns.

Timing is everything: in 1989 and 1991 Argentine shares showed handsome gains, of 205% and 445% respectively. However, in the year in between they plunged by more than two-fifths. An investor who lacks perfect foresight can quickly be wiped out. For instance, if an investor starting out with $1 billion in 1900 had repeatedly put his money into the world's worst-performing market each year, by now he would be left with only a cent.

Some investors who lack the advantage of perfect foresight favour a contrarian strategy: each year placing their money in the asset that performed worst in the previous year. That would have been a pretty safe plan up until 1993. By then $1 in 1900 would have grown to $3,510 (ignoring dealing costs and taxes), an annual annual return of 9%. But during the past six years this strategy would have gone badly wrong, reducing the fund to only $1,730 today. The main reason for this is the more recent inclusion of volatile emerging markets, which are quite capable of falling sharply two years in a row. Even so, over the century as a whole, this strategy would still have beaten a strategy of leaving all money passively in safe American Treasury bonds: that would have transformed the original dollar into only $86.



But what readers really want to know, of course, is what is Felicity's hot tip for next year? She says she is still thinking about it, but it certainly won't be what she started with—American shares.

Sources include: Art 100 Index/Art Market Research; Barclays Capital; Federal Reserve Bank of Boston; Global Financial Data; International Finance Corp.; Japanese Real Estate Inst.; Morgan Stanley Capital International; Nationwide; Primark Datastream; S&P DRI/McGraw Hill; US Dept. of Commerce; World Gold Council.