In 1780 the state of Massachusetts issued some unusual bonds. It promised that payments of both interest and principal would not be fixed in money terms, but would depend on the price of "five bushels of corn, sixty-eight pounds and four-seventh parts of a pound of beef, ten pounds of sheep's wool, and sixteen pounds of sole leather". The reason: inflation was high and hard to predict (there was, remember, a war on), making lenders wary of ordinary bonds.

It has taken 216 years for the United States Treasury to follow Massachusetts's example. On May 16th the Treasury secretary, Robert Rubin, announced that America would issue index-linked debt--ie, bonds whose interest payments and principal are tied to inflation. Many details are still missing. One is the structure of the bonds. For instance, the Treasury may issue "zero-coupon" bonds, on which no interest is paid, or choose to make regular interest payments.

Another crucial detail is the choice of the inflation index: candidates include the consumer price index (CPI), the growth of wages and the GDP deflator. The faster the chosen index is expected to rise, the more attractive the bond will be and the lower the yield that the Treasury will have to offer. But the faster the index rises, the costlier it will be for taxpayers. This may make the obvious choice--the CPI--politically tricky. Many economists argue that it overstates inflation. If the government corrected it after issuing bonds, indexed-debt holders would lose.

Still, it is clear that America is set to follow Canada, Sweden and New Zealand, which are among the countries that have issued index-linked debt in the past five years, and Britain, which has been selling indexed gilts since 1981 (see chart). These countries' enthusiasm may seem odd, because inflation in all of them is low by the standards of recent history--America's CPI rose by only 2.9% in the year to April. Yet as many economists (and The Economist) have long argued, Mr Rubin's announcement is not only sensible but long overdue.

Why? After all, at first sight the introduction of index-linked bonds merely transfers the risk of inflation from one group of people (bondholders) to another (taxpayers). How can there be a net gain?

Index-linked bonds, say their advocates, have three main benefits. One is that they broaden investors' choice. As well as being all-but-free of default risk, like conventional government bonds, indexed debt has no inflation risk. Thus it should benefit risk-averse investors, such as retired people and pension funds.

Some argue that this effect is negligible. They say that because America has a liquid market in three-month Treasury bills, and because inflation over such short periods can be predicted fairly easily, investors can avoid inflation risk by rolling over short-term debt.

But John Campbell, an economist at Harvard University, and Robert Shiller, of Yale, disagree. In a recent paper they point out that even three-month bills carry inflation risk.\(^1\) They estimate that between 1953 and 1994 the standard deviation of the difference between the real return on three-month bills and the yield on hypothetical indexed bills--a measure of inflation

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risk—was about two percentage points a year.

Buying long-term indexed bonds, they argue, would not only allow investors to avoid this risk; unlike the rolling-over of short-term debt, it would also remove exposure to fluctuations in real interest rates. The two economists reckon that the standard deviation of these rates over a five- or ten-year investment period is around one percentage point a year.

The bonds’ second advantage is that they change governments’ incentives and so make monetary policy more credible. When debt-service payments are denominated only in money terms, inflation erodes their real value. Thus governments have an incentive to inflate debts away at bondholders’ expense. But if payments of interest and principal increase as prices rise, governments should be less tempted to let inflation rip.

For this reason, the timing of Mr Rubin’s decision is less odd than it looks. This year American ten-year bond yields have risen from 5.6% to 6.7%, largely because the markets expect inflation to rise. Mr Rubin, in effect, is prepared to bet that bond traders are too pessimistic.

The third benefit of index-linked bonds is that their yield can help governments to estimate financial markets’ expectations of inflation. Because monetary policy works only with a lag of a couple of years, this is useful for policymakers: a rise in the inflation rate expected in two years’ time may be a signal that policy should be tightened now.

The Bank of England, using its relatively long experience of indexed debt, estimates inflation expectations from two yield curves. One of these shows the yields on conventional bonds of different maturities; the other, those on indexed bonds. The difference between the real and nominal yields on bonds maturing at a given date should roughly equal the inflation rate expected by the bond markets.

Guessing game

In practice, things are less easy. Because the yields on bonds with different coupons are not comparable, the Bank estimates the yields on hypothetical zero-coupon bonds. There are some years in which no bonds are due to mature, so the Bank has to fill in the missing numbers.

Even then, the resulting estimate of expected inflation has flaws. Some bond yields might be boosted by risk premiums (long-dated bonds, for instance, tend to be more volatile) or, if they are not traded much, by liquidity premiums. For these reasons, the Bank thinks that it is better to look at the expected change in average inflation two or more years ahead, rather than at estimates of expected inflation at individual dates. Its technique predicts future inflation fairly well.

Eventually, America’s government may look to its index-linked bond market for hints on inflation. Meanwhile, it is arming itself with an extra weapon in the fight against inflation. And without having to endure another War of Independence, cautious investors will have a safe haven for their savings.

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Safe

Outstanding indexed government bonds as % of marketable debt, mid-1995

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount outstanding, $bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britain</td>
<td>57</td>
</tr>
<tr>
<td>Australia</td>
<td>2</td>
</tr>
<tr>
<td>Sweden</td>
<td>4</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
</tr>
<tr>
<td>New Zealand</td>
<td>0.01</td>
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Source: Bank of England