

Paper Money

Almost 750 years ago, a young Venetian merchant named Marco Polo wrote a remarkable book chronicling his travels in China. It was called *The Book of the Marvels of the World*, and it was full of descriptions of strange foreign customs that Marco claimed to have seen. But there was one, in particular, that was so extraordinary, Marco Polo could barely contain himself: "Tell it how I might," he wrote, "you never would be satisfied that I was keeping within truth and reason."

What was exciting Marco so much? He was one of the first Europeans to witness an invention that remains at the foundation of the modern economy: paper money.

Of course, the paper itself isn't the point. Modern paper money isn't made of paper—it's made of cotton fibers or a flexible plastic weave. And the Chinese money that so fascinated Marco Polo wasn't quite paper, either. It was made from a black sheet derived from the bark of mulberry trees, signed by multiple officials, and, with a seal smothered in bright red vermillion, authenticated by the Chinese emperor Genghis Khan himself. The chapter of Marco Polo's book was titled, somewhat breathlessly: "How the Great Khan Causes the Bark of Trees, Made into Something Like Paper, to Pass for Money All over His Country."

The point is that whatever these notes were made of, their value didn't come from the preciousness of the substance, as with a gold or silver coin. Instead, the value was created purely by the authority of the government. Paper money is sometimes called fiat money—the Latin word *fiat* means “Let it be done.” The Great Khan announces that officially stamped mulberry bark is money—and lo, let it be done. Money it is.

The genius of this system amazed Marco Polo, who explained that the paper money circulated as though it was gold or silver itself. Where was all the gold that wasn't circulating? Well, the emperor kept a tight hold of that.

The Mulberry money itself wasn't new when Marco Polo heard about it. It had emerged nearly three centuries earlier, around the year 1000 in Sichuan, China—a region now best known for its fiery cuisine. Sichuan was a frontier province, bordered by sometimes hostile states. China's rulers didn't want valuable gold and silver coins currency to leak out of Sichuan into foreign lands, and so they told Sichuan to use coins made of iron.¹

Iron coins aren't terribly practical. If you traded in a handful of silver coins—just two ounces' worth—you'd be given your own body weight in iron coins. Even something simple like salt was worth more, ounce for ounce, than iron—so if you went to the market for groceries, your sackful of coins on the way there would weigh more than the bag of goods that you brought back.²

It's no surprise that they began to experiment with an alternative.³ That alternative was called *jiaozi*, or “exchange bills.” They were simply IOUs. Instead of carrying around a wagonload of iron coins, a well-known and trusted merchant would write an IOU and promise to pay his bill later when it was more convenient for everyone.

But then something unexpected happened. These IOUs, these *jiaozi*, started to trade freely.

Suppose I supply some goods to the eminently reputable Mr.

Zhang, and he gives me an IOU. When I go to your shop later, rather than pay you with iron coins—who does that?—I could write you an IOU. But it might be simpler—and indeed you might prefer it—if instead I give you Mr. Zhang's IOU. After all, we both know that Mr. Zhang is good for the money.

Now you and I and Mr. Zhang have together created a kind of primitive paper money—it's a promise to repay that has a marketable value of its own—and can be passed around from person to person without being redeemed. The very idea of this is slightly bewildering at first, but as we saw earlier this sort of tradable debt has emerged at other times—the checks passed around Ireland during the banking strike of the 1970s, or in 1950s Hong Kong, or even the willow tally sticks of late medieval England.

The new system of tradable promises is very good news for Mr. Zhang, because as long as one person after another finds it convenient simply to pass on his IOU as a way of paying for things, Mr. Zhang never actually has to stump up the iron coins. Effectively, he enjoys an interest-free loan for as long as his IOU continues to circulate. Better still, it's a loan that he may never be asked to repay.

No wonder the Chinese authorities started to think these benefits ought to accrue to them rather than to the likes of Mr. Zhang. At first they regulated the issuance of *jiaozi* and produced rules about how they should look. Soon enough, the authorities outlawed private *jiaozi* and took over the whole endeavor themselves. The official *jiaozi* currency was a huge hit; it circulated across regions and even internationally. In fact, the *jiaozi* even traded at a premium, because they were so much easier to carry around than metal coins.

Initially, government-issued *jiaozi* could be redeemed for coins on demand, exactly as the private *jiaozi* had been. This is a logical enough system: it treats the paper notes as a placeholder for something of real value. But the government soon moved stealthily to a fiat system, maintaining the principle but abandoning the practice of redeeming

jiaozi for metal. Bring an old *jiaozi* in to the government treasury to be redeemed, and you would receive . . . a crisp new *jiaozi*.

That was a very modern step. The money we use today all over the world is created by central banks and it's backed by nothing in particular except the promises to replace old notes with fresh ones. We've moved from a situation where Mr. Zhang's IOU circulates without ever being redeemed, to the mind-bending situation where the government's IOUs circulate despite the fact they cannot be redeemed.

For governments, fiat money represents a temptation: a government with bills to pay can simply print more money. And when more money chases the same amount of goods and services, prices go up. The temptation quickly proved too great to resist. Within a few decades of its invention in the early eleventh century, the *jiaozi* was devalued and discredited, trading at just 10 percent of its face value.

Other countries have since suffered much worse. Weimar Germany and Zimbabwe are famous examples of economies collapsing into chaos as excessive money-printing rendered prices meaningless. In Hungary in 1946, prices trebled every day. Walk into a Budapest café back then, and it was better to pay for your coffee when you arrived, not when you left.⁴

These rare but terrifying episodes have convinced some economic radicals that fiat money can never be stable: they yearn for a return to the days of the gold standard, when paper money could be redeemed for a little piece of precious metal. But mainstream economists generally now believe that pegging the money supply to gold is a terrible idea. Most regard low and predictable inflation as no problem at all—perhaps even a useful lubricant to economic activity because it guards against the possibility of deflation, which can be economically disastrous. And while we may not always be able to trust central bankers to print just the right amount of new money, it probably makes more sense than trusting miners to dig up just the right amount of new gold.

The ability to fire up the printing presses is especially useful in

crisis situations. After the 2007 financial crisis, the U.S. Federal Reserve pumped trillions of dollars into the economy, without creating inflation. In fact, the printing presses were metaphorical: those trillions were created by keystrokes on computers in the global banking system. As a wide-eyed Marco Polo might have put it: "The great Central Bank Causes the Digits on a Computer Screen, Made into Something Like Spreadsheets, to Pass for Money." Technology has changed, but what passes for money continues to astonish.