



IN JANUARY of 2008, Pamela Sleas decided to buy a home. The process initially looked straightforward – a bank had already pre-approved her mortgage, which would require a down payment that was the exact sum of her life savings. She did notice one odd clause in the contract: if no bank would approve her loan, she would lose her down payment entirely. But Sleas wasn't worried, she had a six-figure salary and an impeccable credit history. She signed.

Then the recession hit and the rules changed. Her broker told her that unless she doubled the down payment, no bank would approve her. Sleas's life savings were on the line. She had no choice: she signed up for credit cards with shockingly high interest rates and took the maximum cash advance, larding even more fees onto the already exorbitant rates. She borrowed money from a friend. None of it was quite enough, so after

Sleas left work every night, she babysat to squeeze out those extra few dollars.

She managed to get the mortgage, but at a steep price. Her credit rating had been tarnished. When Sleas tried to consolidate her huge debts into a better loan, she found out quickly that to banks, she was now radioactive.

Stories like Sleas's are fuelling the fires of the Occupy Wall Street movement. Banks – supposedly dependable matchmakers that connect people with money to spend to people who need to borrow it – have stopped holding up their end of the bargain. Bankers rode high on the financial bubble until its collapse sank us all. Now, despite being bailed out by taxpayers, banks are at it again, eating up our savings accounts with fees and pitiful interest rates. And if you need a loan, forget it.

When other institutions tested the goodwill of their customers, technology-based

alternatives emerged to provide a better option. Napster, for example, forced the music industry to redraw its entire model to adapt to the new realities of the digital world. Blogs, YouTube and Twitter are forcing newspapers to evolve to keep up with the seismic shifts in the way we communicate with each other.

What you might not know is that there are technology solutions for banking every bit as powerful as social media such as Facebook that can step into the gap, making it possible, this very minute, for you to borrow or lend money safely online, completely independent of an actual bank. They're called peer-to-peer (P2P) lending services, and they have been around for years. This kind of "citizen banking" should be reshaping the business of borrowing and lending, and shaking the foundations of the financial industry in a way no amount of Occupy Wall Street protesting could accomplish. So what's the hold up?

P2P lending started in the mid-2000s, when sites like Zopa in the UK, Prosper and Lending Club in the US, Smava in Germany, were founded on an obvious yet daring principle: that in the connected, high-tech 21st century, it should be possible for ordinary people to take the place of banks.

The idea is simple. Lenders meet borrowers through a website that is something of a mash-up between eBay and a social network. To borrow money through Prosper, for example, you set up a profile and apply. The website assesses your creditworthiness, then assigns you a grade and an interest rate. Lenders can then weigh up these criteria to decide whether to finance your loan. They review borrowers' profiles much as one might review profiles on a dating site, and can finance anything from \$25 of a requested loan to the whole thing. Your monthly payment goes directly into the lender's bank account, including interest. Every part of the process takes place online.

It was an attractive gambit: people were more likely to get loans, it was all very convenient, and lenders could get a better interest rate. It should have worked beautifully.

But the whole thing was derailed by an early, crucial mistake. Galvanised by the crowd-sourced success of efforts like Wikipedia, Prosper CEO Chris Larsen believed that his role was simply to provide the technological infrastructure to match lenders and borrowers. Instead of providing guidelines for borrower risk – such as interest rates and credit scores – he thought Prosper should be a "libertarian open marketplace" that relied entirely on the wisdom of the crowd. "That was probably asking too much of the crowd," he admits. ➤

Citizen banking

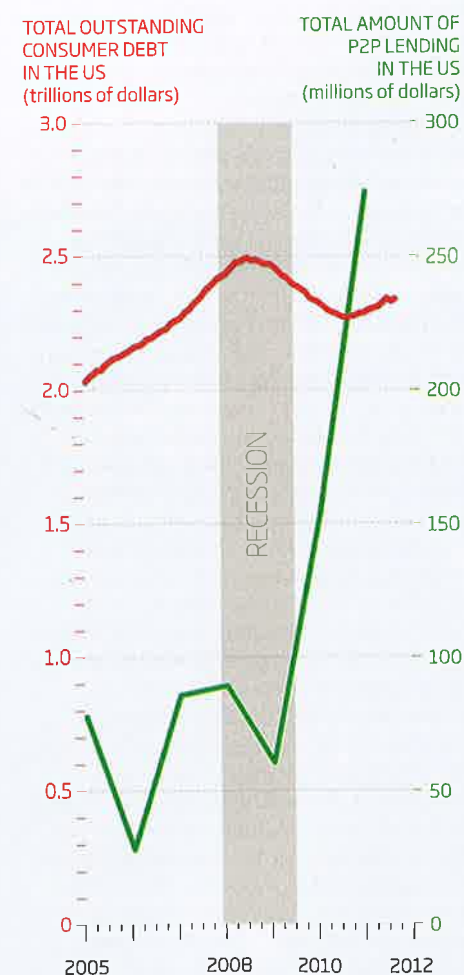
Banks have failed us. But, as MacGregor Campbell finds, there might be a more modern way to keep money moving

The Occupy movement has gone global

“Though the recession technically ended in 2009, skittish banks have not loosened their purse strings”

A new lending era

As the recession caused US loans to plummet, peer-to-peer (P2P) lenders began to fill the gap. The figures look similar in other countries



The fallout was harsh. Two years after it formed, Prosper was being ruined by defaulters: up to 20 per cent of borrowers were walking away with no repercussions. That ratio was staggering compared with the single digits banks report, and unlike a traditional bank, Prosper had no insurance to repay jilted investors. After an investigation in 2008, the US Securities and Exchange Commission, the country's primary financial regulator, forced the company to shut its doors.

The experiment had failed. Even P2P lenders who hadn't used the risky crowd-sourcing model felt the sting of Prosper's problems.

But by 2009, though Prosper managed to relaunch, bank loans had dried up. Banks, after all, had similarly extended bad loans to people with no ability to pay them back, only on a much bigger scale. In reaction, banks tightened the net, applying the broadest, most conservative criteria to prospective borrowers to ensure no defaulters could slip through. As a result, even creditworthy borrowers like Pamela Sleas were out. "There's no question that people who would normally easily get a loan from a bank are failing," says Giles Andrews, CEO of London-based Zopa.

Though the recession technically ended in 2009, skittish lenders have still not loosened their purse strings. US banks have lopped a ruinous 12 per cent off the \$8 trillion they were lending in 2008. The trend is similar in the UK and Europe, and the picture looks no rosier for those with money to lend. With savings accounts paying far less than 1 per cent on average, they have few good options.

Against this backdrop, P2P lending slowly began to rise again (see graph). People who lend money through Prosper and Lending Club can now expect interest returns between 8 and 10 per cent. Borrowers, too, fare better with P2P lenders, getting interest rates between 6 and 20 per cent, slightly lower than typical bank rates.

Despite these better numbers, however, P2P lenders still represent only a tiny fraction of all loans. Even Zopa, which never made the mistakes that have plagued its competitors, only has around 2 per cent of the overall UK consumer debt market, a minuscule sliver that nonetheless represents the highest percentage of any P2P service in any country in the world.

The problem, ironically, is that P2P lenders adopted a few too many tactics from banks. Despite Prosper's relaunch, laissez-faire libertarianism was out. Now, instead of simply matching borrowers and lenders and letting them sort out among themselves how to price their loans, Prosper – like Lending Club, Zopa, and banks themselves – relied on data from

official sources like credit bureaux.

This strategy was supposed to engender trust among potential lenders, a tough nut to crack for any online service. Traditional banks have had centuries to hone their formula, says Amir Herzberg, a computer scientist at Bar-Ilan University in Ramat Gan, Israel, and it includes fancy buildings and people wearing expensive suits. "The reasoning goes 'if this person is wearing this very expensive suit, then it's not worthwhile for him to steal from me,'" he says.

Lenders want to know that P2P sites have an accurate way to help them assess credit risk, says Andrew Lo, an economist at the Massachusetts Institute of Technology. If you can't do that, you'll have no lenders.

Risky business

But that strategy came at a price: fewer borrowers. The trouble with relying on credit bureau figures is that they are slow to reflect the reality they claim to portray. Typical consumer credit ratings don't change very often – once a quarter or once a year – so they can take a while to register changes to a person's ability to pay back a loan. That means P2P lenders are not necessarily approving the borrowers they're meant to be serving – the ones who might look bad on paper but have every indication of paying back their loans. And so it is not necessarily easier for a borrower to get a P2P loan than one with a bank.

The problem seems intractable: to gain the trust of lenders, you must use the best available metrics to assure them that their money will be safe. But that bars the very borrowers you want to serve.

Lo thinks there's a better way to work out credit risks: use state-of-the-art data mining techniques to tap deep into a borrower's financial data, such as ATM transactions, credit card statements, and direct debits.

In 2009, Lo and his colleagues analysed four years of consumer financial transaction data from a major commercial bank. They found that certain indicators, such as changes in the number of times a person ate out at restaurants, or the sudden stoppage of deposits into their bank account, were good predictors of that person's likelihood of defaulting on a loan. "These indicators could tell you a lot about the likelihood of becoming delinquent," says Lo. Their method successfully predicted 85 per cent of defaulters, a better result than most banks can claim (*Journal of Banking and Finance*, vol 34, p 2767). The bank Lo's team studied has since adopted the techniques for use on its own customers.



TODD MELVILLE/REUTERS

That's just the beginning. There are also far more radical ways to assess creditworthiness, using non-traditional sources of data such as social information. Prosper is correlating delinquency rates with how many lenders were part of a person's loan, or if that person belongs to a specific alumni association.

Still, both of these new techniques come with a serious caveat, in that the information they deal with is extremely sensitive. Their use could bring unpleasant consequences. "Say you buy a book on Alzheimer's and then all of sudden you can't get credit," says Larsen.

Here too, though, recent computing advances can come to the rescue. New encryption techniques could allow companies to compute all the minutely sensitive factors that determine your creditworthiness without ever revealing the underlying information. In 2009, mathematician Craig Gentry developed a method called "fully homomorphic encryption", which made it possible, for the first time, to perform computations on encrypted data without ever having to decrypt it (*Proceedings of the 41st Annual ACM Symposium on Theory of Computing*, p 169). This would let borrowers divulge even their most sensitive information without the fear that it could be misused, because the recipients could never access it to begin with.

“Citizen banking could change financial realities in the fundamental ways Occupy Wall Street is clamouring for”

This still won't solve all citizen banking's problems. Herzberg points out that P2P lending sites are just as vulnerable as other websites to denial of service attacks and other cyber-threats. It is one thing if your gmail account is frozen for a day, but quite another if you lose an interest payment. Social borrowing may also be more prone to "herd" behaviour, in which loan decisions are influenced more by who other people are lending to rather than what makes sense on paper. This can lead to bubbles amplified by the "viral" nature of online life.

And yet, despite all these concerns, in a financial climate with few good options, P2P lending has gone through the roof, according to Ken Lemke, who runs the independent website lendstats.com. He started the project after some early bad experiences with Prosper, and his site is now the leading source for independent verification and analysis of the numbers hawked by P2P lending sites. Lemke's analysis shows that Prosper's total loan volume has grown over 30 per cent in the past year, while that of Lending Club has nearly doubled, recently topping \$400 million. Both companies are seeing increased interest from start-ups and small businesses looking for working capital. "The returns are great," Lemke says. "There's nowhere else you can borrow something like that right now," he says.

How much further can it go? Lending Club CEO Renaud LaPlanche says that if his company sustains its current growth rate, then within seven years it will be bigger than Citibank, one of the largest banks in the US. The American Bankers Association, perhaps predictably, dismissed this idea, saying P2P sites will likely remain niche services.

Banks are not doing their jobs

To go much further, P2P lenders will need to contend with something technology can't change: regulations. If citizen banking takes off, P2P lenders could find themselves facing off against the banks themselves, which aren't likely to cede their positions of power to these upstarts. And indeed, some regulations appear to be in place chiefly to suppress start-up competitors, such as a US rule that stipulates that a company must get the permission of another bank in order to become a bank. Not all such regulations are designed to block start-ups. Many are designed to protect investors. The US Securities and Exchange Commission, for example, is required to vet each new loan individually. And in Germany, a bank must have €5 million in equity before it can operate.

Actually, there's probably plenty of room for traditional and citizen banking to operate side by side. Even if people turn away from traditional banks en masse, these have little to fear, says Rainer Lenz, a former banker with what is now DZ Bank in Germany. Large banks typically rely on consumer loan interest for only around a third of their income, he says.

The real effect of successful citizen banking on traditional banks could be both more subtle and more powerful, says Lo. The more enlightened banks will see an opportunity. After all, isn't a bank already a kind of social network? By playing a more transparent role in matching their customers with money to lend to customers who wish to borrow, banks may adapt and even thrive in a financial system dominated by P2P transactions. You might say that if Facebook becomes like a bank, banks will become more like Facebook.

And never mind the banks. If citizen banking takes off, it could change people's day-to-day reality in the fundamental ways that the now-global Occupy movement is clamouring for. With interest payments going directly to the masses, rather than to banker bonuses and skyscrapers, P2P lending could cause more money to circulate in the real economy. It also naturally distributes risk among many individuals in a potentially more transparent way, rather than concentrating it in large, "too big to fail" institutions.

Sleas certainly agrees. In 2010, she got a loan with Lending Club which is now allowing her to rebuild her credit rating. With a growing movement protesting the old system, perhaps the "99 per cent" can start to do things themselves. "We think this is kind of a magic moment," says Larsen. ■

MacGregor Campbell is a freelance journalist in Portland, Oregon