Counting the Cost of Collateral

Central banks have been playing an ever bigger role in our lives, particularly since the financial crisis, triggering debate about legitimacy and transparency. Their ascent has also prompted academics to delve more deeply into some of their darker corners.

Haig Simonian

How much does the collateral – the assets commercial banks pledge to their central banks when bidding to obtain money – affect the real economy? That's the question Kjell Nyborg, professor of corporate finance, has been busy investigating.

A Norwegian appointed to his University of Zurich chair in August 2009, Nyborg's background was in game theory and theoretical corporate finance. Previous jobs at London Business School and the Norwegian School of Economics broadened his interest into studying auctions in financial markets. From sales of government debt, his curiosity widened to include central banks' repurchase operations, known as repos, a pinion of the mechanism through which money is provided to commercial banks, and of liquidity in general.

Professor Kjell G. Nyborg holds the Chair in Corporate Finance at the Department of Banking and Finance at the University of Zurich and is a Senior Chair of the Swiss Finance Institute. He is also a current Director, and member of the Executive Committee, of the European Finance Association (since January 2013). Nyborg has been elected Vice-President of the EFA (effective January 2016) and will serve as Program Chair of the 43rd European Finance Association Annual Meeting 2016 in Oslo.

"I wanted to see if auctions of money functioned like those of government bonds to learn if the same economic forces operated and see how such auctions should be designed", he says.

"I came to realise the underlying asset – the money auctioned by central banks – was at the very epicentre of the financial system. I thought it was incredibly important and interesting: this is the foundation of the monetary system, and the financial system grows out of that. Money is incredibly important for the financial system and the real economy."

Surprisingly overlooked

Though monetary economics – closely identified with the University of Chicago where Nyborg earned his undergraduate degree in maths and economics – is well established, there has been scant academic work on how central banks actually provide money to the banking system, and particularly, on the collateral banks put up in return. "In grad school, you don't study money. And despite all the literature on monetarism, there was little about the collateral-money interchange – the actual process of money being injected into the economy. If you don't understand collateral policy, you can't understand, for example, what the European Central Bank has been doing to protect the Euro."

Nyborg's research, conducted alongside his graduate and postgraduate teaching commitments at UZH – proved so enthralling that an initially planned background paper has grown into a book. The strikingly titled manuscript, "Collateral Frameworks: the Open Secret of Central Banks", has just been submitted to Cambridge University Press, to be published in 2016.

What the data shows

Nyborg's most startling conclusions concern the marked decline in the quality of collateral the ECB has accepted in its efforts to refinance commercial banks and ensure adequate lending – a task that has become very politicised in the financial crisis and its aftermath.

The ECB always had relatively low quality criteria for collateral (it even accepted shares until 2005). But Nyborg's research revealed there is often no real market for many of the even supposedly higher quality assets accepted. Moreover, the central bank's willingness to take assets of much lower quality may have a dangerous impact on the real economy. "The ECB has always had an accommodative policy. But since the crisis it has moved to super-accommodative." Just wading through the data has been a Herculean task: ECB eligibility includes obvious instruments, like government and multilateral organisation bonds. But it also runs to corporate and covered bonds, and assorted asset backed

securities. (Understandably, Nyborg describes his work "more like forensic research").
His diligence has revealed the public list of eligible collateral in the Eurosystem runs to a mind-boggling 30,000-40,000 different securities. However, the overwhelming majority have no effective market – at least as defined by prices quoted on Bloomberg – implying they cannot be traded. "There's no role for market discipline if there's no market", he quips. "I want people to be aware of this, not just academics."

Wider implications
Equally worrying are the implications for the real economy of accepting ever lower quality assets as collateral. Among assets now eligible, for example, are wholly illiquid items like credit claims.

"Lowering the eligibility criteria creates an incentive for banks to offer less liquid and higher risk assets as collateral. And what you promote in terms of collateral will have an impact on the real economy."

"If you favour low quality and illiquid collateral, more will be produced. If central bank money is only available against igloos, or igloo backed securities, then more igloos will be built." The example may sound a fanciful play on his Norwegian origins, but the underlying implications are telling, considering securities based on real estate and German Pfandbriefe – covered bonds based on property – are a major element of banks' ECB collateral.

It is known there is debate within the ECB about what to accept. By next year, such discussion may become even more prominent: not only will Nyborg's book be out, the Zurich professor will also be Program Chair for the 2016 annual meeting of the influential European Finance Association - the "club" for hundreds of university economists, whose gathering will, appropriately, be in Nyborg's native Oslo. And a year later, he is due to become EFA President.