

Institution: University of Southampton
Unit of Assessment: 19 Business and Management
Title of case study: 19-07 Understanding where money comes from and applying credit creation analysis to portfolio management
<p>1. Summary of the impact</p> <p>Research carried out at the University of Southampton into banking, economic growth and development has made Professor Richard Werner a trusted source of advice for economic policy-makers at the highest level, for example for the Financial Services Authority, the Independent Banking Commission, the International Monetary Fund and the Bank of England. Through articles, books and many media contributions, he has promoted a greater public understanding of economics and the financial crisis. His credit creation analysis has also been adopted by two investment funds in their portfolio management, leading to financial gains for investors, outperforming the FTSE100.</p>
<p>2. Underpinning research</p> <p>The financial crisis has given a jolt to policy-makers and researchers, triggering a new consensus that it is necessary to include the banking sector in macroeconomic models. Developing such a macroeconomic model - that distinguishes between the type of credit that boosts GDP and credit that is associated with asset prices and banking crises - has been the focus of the research conducted by Richard Werner, since 2004 at the University of Southampton Management School (since 2005 as Professor of International Banking) [3.1, 3.2, 3.7]. The research has led to the development of Werner's "credit creation approach" to banking policy, as well as asset allocation and portfolio management [3.8, 3.3].</p> <p>Werner's research at Southampton has focused on the link between the financial sector, in particular the banking system, and economic growth and development, and has been framed by his Quantity Theory of Credit (QTC) [3.1]. Based on a combination of analytical and empirical research (financial data gathered from international banks, formal and informal interviews with bankers and investors) Werner's theory posited that banks are not merely financial intermediaries that allocate pre-existing financial means, but operate as creators and allocators of new money, producing about 97% of the money supply. Werner's findings include the insight that when a 'bank loan' is granted, banks credit the asset side of their balance sheet with the value of the loan contract and credit the borrower's account with the loaned money – while in fact not transferring any existing money to the borrower's account. The deposit in the borrower's account is a 'fictitious deposit', but indistinguishable from genuine deposits that are used to settle transactions [3.2] This bank credit creation may increase overall market risk and volatility [3.4, 3.8], depending on the use the funds are put to (productive real credit vs. unproductive financial credit) [3.1, 3.5, 3.6]. This research resulted in many important policy implications, including in banking policy, regulation, monetary and fiscal policy, as articulated in Werner's work.</p> <p>Based on QTC, Werner applied his credit creation approach to portfolio management, by linking credit creation data from 38 countries to the future direction of equity, bond and currency markets [3.3]. Werner then combined the strength of each signal with the past track record of the model in each asset class and country. This information was then applied to obtain concrete portfolio weights for each position in a diversified international portfolio (equities, bonds and currencies). These were then implemented and monitored as part of Werner's research. During 2007-08 Werner fine-tuned this approach (to include shorting) and has since 2008 employed this method in the management of UCITS (Undertakings for Collective Investment in Transferable Securities) funds.</p> <p>Werner found that the credit creation approach is effective in improving models that aim to forecast nominal GDP, equity markets, long-term interest rates (bond markets) and exchange rates. An examination of the fund management track record revealed that funds using this credit creation approach produced competitive returns at lower risk [3.3].</p>

3. References to the research

- 3.1** Richard A. Werner (1997). Towards a New Monetary Paradigm: A Quantity Theorem of Disaggregated Credit, with Evidence from Japan. *Kredit und Kapital (Credit and Capital Markets)*, vol. 30, no. 2, pp. 276-309
- 3.2** Richard A. Werner (2005). *New Paradigm in Macroeconomics: Solving the Riddle of Japanese Macroeconomic Performance*, Basingstoke: Palgrave Macmillan, 2005 (print run 1,950 in the UK and 15,000 in Japan).
- 3.3** Richard A. Werner (2008). Credit Creation: Its Role in Asset Allocation/ Alpha Generation and Implications for Risk Management, paper presented at the Nomura Global Quantitative Strategy Seminar, 28 January 2008, Nomura House, London (Evidence of quality: Commissioned seminar paid for on a commercial basis by one of the largest investment houses in the world)
- 3.4** Richard A. Werner (2009). Understanding and Forecasting the Credit Cycle – Why the Mainstream Paradigm in Economics and Finance has Collapsed, *QFinance*, London: Bloomsbury. Available at www.qfinance.com/macro-economic-issues-viewpoints/understanding-and-forecasting-the-credit-cycle-why-the-mainstream-paradigm-in-economics-and-finance-collapsed?page=1 (Book with online free version; high impact, record downloads)
- 3.5** Richard A. Werner (2011). Economics as if Banks Mattered – A Contribution Based on the Inductive Methodology, *Manchester School*, vol. 79, September, pp. 25–35. DOI: 10.1111/j.1467-9957.2011.02265_5.x (3* journal in the ABS quality guide).
- 3.6** Lyonnet, Victor & Werner, Richard (2012). Lessons from the Bank of England on 'quantitative easing' and other 'unconventional' monetary policies. *International Review of Financial Analysis*, 25, 94–105. (3* journal in the ABS quality guide).
- 3.7** Richard A. Werner (2012). Towards a New Research Programme on 'Banking and the Economy' – Implications of the Quantity Theory of Credit for the Prevention and Resolution of Banking and Debt Crises, *International Review of Financial Analysis*, 21, 94-105, doi: 10.1016/j.irfa.2012.06.002 (3* journal in the ABS quality guide).
- 3.8** Richard A. Werner (2010). Towards Stable and Competitive Banking in the UK – Evidence for the ICB, Formal response to the Call for Evidence by the Independent Commission on Banking (ICB), 15 November 2010, originally published on the ICB website, available as CBFSD Policy Discussion Paper No. 3/ 1-10, University of Southampton Centre for Banking, Finance and Sustainable Development, at www.southampton.ac.uk/assets/imported/transforms/peripheral-block/UsefulDownloads_Download/9519E2B1D03B432BA29A6B664FB970FF/Towards-Stable-Banking-2010.pdf

4. Details of the impact

The financial crisis has provoked intense interest in how economies and financial systems work. Werner's research has actively engaged with this issue from the highest level of policy-making to the general public. Werner's book *New Paradigm in Macroeconomics (2005)* has sold 17,000 copies in its English and Japanese editions. Tobias Hoschka, Head of Asian Research at McKinsey and Company called it "A must read for economists and finance professionals." **[5.1]**

His other book *Where Does Money Come From? (first edition 2011, second edition 2012)* has sold 3,300 copies so far and is now included as a core text on a City University undergraduate banking and finance course. **[5.2]** Professor David Miles of the Bank of England's Monetary Policy Committee said "The way monetary economics and banking is taught in many – maybe most – universities is very misleading and what this book does is help people explain how the mechanics of the system work." **[5.2]** The book has been widely cited in the press, including by the Financial Times (20/1/13).

Werner's work has also been used to manage two award-winning UCITS investment funds. In 2008, Profit Global Macro Fund AGmV K and Global Macro Trust **[5.3]** were formed and adopted the latest version of Werner's credit creation methodology as the core element of their portfolio

management. In terms of cumulative monthly returns, performance for both funds between June 2008 and December 2012 has been as good or has exceeded those of FTSE100 and HFRI Fund of Funds Index [5.4]. This has led to financial benefits for investors - recognised in 2009, when Profit Global Macro Fund won silver in the 'Global Macro SHF: Germany Hedge Fund Award' [5.5] and its 2012 naming as a 'Top 10 UCITS Macro Hedge Fund' [5.6]. In 2013 Global Macro Trust was shortlisted for an 'HFMWeek European Hedge Fund Performance Award' [5.7].

In November 2010, Werner submitted evidence based on his QTC to Britain's Independent Commission on Banking (ICB), pointing out the need for bank regulation to reflect the role of banks as creators of the money supply [3.8]. The ICB recommendations formed the basis for UK government policy on banking reform. HM Treasury has confirmed that ICB Commissioners paid attention to Werner's evidence and that "the final report was informed by Mr Werner's submission amongst others" [5.8]. Werner had previously been in touch with Treasury in order to influence policy [5.9]

Werner's work on credit creation is heavily cited in 'The Chicago Plan Revisited', the 2012 International Monetary Fund (IMF) report arguing that banks should no longer be allowed to create new money in the form of credit in connection with their lending activities [5.10]. This IMF paper has been much cited in the national and international media, such as in the Daily Telegraph on 21 October 2012.

Werner organised the first European Conference on Banking and the Economy (ECOBATE 2011) with Lord Adair Turner, Chairman of the Financial Services Authority and ECOBATE 2013 with Vince Cable as keynote speakers. Each conference was attended by over 200 members of the public, local business and government representatives, policy activists and politicians, and has called for specific changes to bank regulation policy. Lord Turner has confirmed that Werner's work has been an important influence on FSA policy and on the deliberations by the international Financial Stability Board, both of which Lord Turner chaired from 2008 to 2013. [5.11]

Since 2011 Werner has been a member of *Handelsblatt's* 'ECB Shadow Council' - a forum of 15 top European economists whose views on monetary policy decision are regularly published in the paper, which also nominated him as one of four 'economists of the year' and frequently cites him [5.12]. Leading UK economist Tim Congdon compared Werner and his invention of 'quantitative easing' to Keynes (*Economic Affairs*, October 2012).

Recent articles by Werner were published in *The Financial Times* (5/3/2013), *The Economist* (15/06/2013, 1/07/2013, 14/09/2013), *The Guardian* (10/2/2012, co-writer Caroline Lucas MP), *The Central Banking Journal* (10/5/13, with subscribers in 130 countries, 120 central banks) and *Frankfurter Allgemeine* (10/9/12 and 4/10/12) [5.13]. His research has been cited, among others, in the Daily Telegraph (26/10/2012, 17/12/2012, 22/01/2013), profiled in South Korea's *JoongAng Ilbo* daily newspaper (2/12/2009), Greece's *Naftemporiki* (5/09/2011) and *Boerse Online*, one of the largest-circulation German stock-exchange journals (25/11/09). His contribution to QFinance is the most widely read in the volume [3.4]. His YouTube interviews have received over 34,300 hits in total (2011-07/2013) [5.14]. Werner is regularly asked to comment on economic news including UK Banking and Regulation (BBC News, 2/8/12 BBC World Service 30/8/11), Quantitative Easing (The Guardian 12/07/12, Fundweb 13/4/12) and the LIBOR probe (Bloomberg, 26/6/12, 2/3/12 and 21/2/12). His professional publications influence thinking in the business world (Chartered Banker, June 2013; Local Council Review, Summer 2013).

The Bank of England's 'Funding for Lending Scheme' of 13 July 2012 was predicated on a core tenet of QTC, as it aims to "incentivise banks... to boost their lending to... the 'real economy' " (BoE Quarterly Bulletin 2012Q4) [5.15]. Only Werner's work had previously argued for such a disaggregation of bank credit, and the Bank used the same method to calculate the data series defined as 'credit for the real economy' as Werner had recommended for the UK [3.5] and submitted to the Bank in July 2011.

5. Sources to corroborate the impact

5.1 Comments available at www.palgraveconnect.com/pc/doi/10.1057/9780230506077

5.2 Comments by Professor David Mills available at: <http://www.neweconomics.org/blog/entry/the-big-questions-on-money-and-banking-we-should-all-be-asking>, and book available from www.academia.edu/2344025/Where_does_money_come_from_A_guide_to_the_UK_monetary_and_banking_system_overview

5.3 Corroborating contacts: Former MD., Pictet Private Management Ltd., Tokyo Branch Manager; and Partner, Focus Asset Management, Munich.

5.4 In public domain: data series on portfolio management performance available at news and data services, including Reuters and Bloomberg. Bloomberg LLP codes: CSPGMTR AV Equity (Global Macro Trust); PGLOBMC LE Equity (Profit Global Macro Fund). Available to view on request: Fund performance charts showing outperformance of Global Macro Trust, Profit Global Macro Fund and the Bear Stearns Global Alpha funds of the FTSE 100 index, which adopted the methodology.

5.5 Certificate showing Profit Global Macro Fund won the Silver award in the "Global Macro SHF" Category; *Germany Hedge Fund Award, 2009*

5.6 Email: from Partner, ALIX Capital SA confirming Profit Global Macro Fund appears in the report cited (In addition, the reports themselves are published at <http://www.alternative-ucits.com/page-report.html>, this refers to Q1 2012 which shows outperformance of first fund - in the first quarter 2012 there were approx. 800 UCITS funds and a total of 120 billion \$ in assets under management)

5.7 Email: from Pageant Media, announcing that Profit Global Macro Fund had been chosen as a top performing fund in the HFM European Performance Awards 2013.

5.8 Freedom of information request response: from Office of George Osborne MP, Letter from Chancellor Osborne. www.whatdotheyknow.com/request/93078/response/235294/attach/3/document2011%2012%2012%20182448.pdf

5.9 Letter: from Chancellor of Exchequer

5.10 'The Chicago Plan Revisited' report available at www.stanford.edu/~kumhof/chicago.pdf

5.11 Corroborating Statement: Lord Adair Turner

5.12 Handelsblatt: www.handelsblatt.com/jahreswechsel/jahreswechsel-das-war-2011/oekonomen-des-jahres-die-nominierten-richard-werner-der-krisenexperte/5997422-3.html

5.13 Financial Times: www.samachar.com/Hitchhikers-guide-to-monetary-infrastructure-ndgeNUedcij.html; Guardian: www.guardian.co.uk/commentisfree/2012/feb/10/qe-banks-green-projects; Central Banking: www.centralbanking.com/central-banking-journal/feature/2266660/the-case-for-nominal-gdp-targeting-by-central-banks; BBC example: www.bbc.co.uk/iplayer/episode/p00jq0d1/Business_Daily_Banks_to_the_rescue/

5.14 Reference to YouTube hits available at: <http://the-free-lunch.blogspot.co.uk>

5.15 Bank of England Summary of Quarterly Bulletin 2012 Q4 www.bankofengland.co.uk/publications/Pages/quarterlybulletin/n12.aspx