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# **CENTRAL BANKS CAN AND SHOULD DO THEIR PART IN FUNDING SUSTAINABILITY**

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ANDREW SHENG





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Andrew Sheng



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## ABOUT THE FIXING CLIMATE GOVERNANCE PROJECT

Project Leaders: **John Odell**, CIGI Senior Fellow and **David Runnalls**, CIGI Distinguished Fellow

Climate scientists agree that human activity has been changing our planet's climate over the long term. Without serious policy changes, scientists expect devastating consequences in many regions: inundation of coastal cities; greater risks to food production and, hence, malnutrition; unprecedented heat waves; greater risk of high-intensity cyclones; many climate refugees; and irreversible loss of biodiversity. Some international relations scholars expect increased risk of violent conflicts over scarce resources due to state breakdown.

Environmentalists have been campaigning for effective policy changes for more than two decades. The world's governments have been negotiating since 1995 as parties to the United Nations Framework Convention on Climate Change (UNFCCC). These talks have not yet produced agreements that are sufficiently effective in curbing greenhouse gas emissions or helping the world adapt to climate impacts. Some effort has shifted to partial measures by national governments, provinces, cities and private companies, which together, also fall far short of the need identified by science so far.

The Fixing Climate Governance project is designed to generate some fresh ideas. First, a public forum was held in November 2013. High-level workshops then developed a set of policy briefs and short papers written by experts. Several of these publications offer original concrete recommendations for making the UNFCCC more effective. Others make new proposals on such topics as how to reach agreements among smaller sets of countries, how to address the problems of delayed benefits from mitigation and concentrated political opposition, ways that China can exercise leadership in this arena and how world financial institutions can help mobilize climate finance from the private sector. These publications will all be published by CIGI in 2015.

## ABOUT THE AUTHOR



Andrew Sheng is a distinguished fellow at the Fung Global Institute, chief adviser to the China Banking Regulatory Commission, and a board member of Khazanah Nasional Berhad, the sovereign wealth fund of Malaysia. He also serves as an adviser to the UN Environment Programme Inquiry into the Design of a Sustainable Financial System. Andrew also serves as a member of the International Advisory Council of China Investment Corporation, China Development Bank, China Securities Regulatory Commission and Securities and Exchange Board of India. Previously, he was chairman of the Securities & Futures Commission of Hong Kong and a central banker at Hong Kong Monetary Authority and Bank Negara Malaysia. Andrew has also worked at the World Bank. He is adjunct professor at the University of Malaya and at Tsinghua University School of Economics and Management. He is the author of *From Asian to Global Financial Crisis*, published by Cambridge University Press (2009) and writes widely for AsiaNewsNet and Project Syndicate. In 2015, he co-edited *Bringing Shadow Banking into the Light: Opportunity for Financial Reform in China*, with Ng Chow Soon, published online by Fung Global Institute.

## ACRONYMS

AE	advanced economy
DIB	Development Impact Bond
EME	emerging market economy
ETF	exchange-traded fund
FSB	Financial Stability Board
FTT	financial transaction tax
FX	foreign exchange
G8	Group of Eight
IMF	International Monetary Fund
OMFIF	Official Monetary and Financial Institutions Forum
QE	quantitative easing
REIT	real estate investment trust

## EXECUTIVE SUMMARY

Central banks, when purchasing financial assets, should consider selecting assets that will promote sustainability, including climate change mitigation and adaptation. During the 2008 financial crisis, central banks deployed unconventional means to rescue failing banks and insulate economies from depression. Their asset purchases have had strong social impacts, but traditionally, central banks have not explicitly factored social objectives into their decisions or evaluated their impacts beyond the narrow monetary domain. The amount of global investment needed for sustainable energy, for instance, is manageable in the context of the global supply of potential capital. Social impact investing is consistent with a central bank's mandate to maintain price stability. Central banks like to maintain their independence, but they are not independent of the societies that created them or Mother Nature.

Central banks that are not yet ready to move in this direction should at least incentivize bankers and asset managers to invest in, or lend to, climate mitigation activities and low-emission growth. Central banks should also support a financial transaction tax, which could fund a new or established global fund for climate mitigation or adaptation or sustainable development more generally.

## INTRODUCTION

The recent financial crisis led central banks into new territory. Unconventional monetary policy was applied to rescue failing banks and to prevent the economy from descending into recession. It was unconventional because

after lowering interest rates to nearly zero (the lower bound), the only way to influence market behaviour other than the price of money was to apply quantitative easing (QE), which increases the quantity of liquidity through expanding the central bank balance sheet.

It is understandable that central banks undertook such emergency action to rescue the economy from a financial crisis that few predicted or understood. They took bold action in the absence of decisive fiscal action and structural reforms because of political weakness and indecision. This paper asks: If central banks can buy financial assets, can they take into consideration social and environmental objectives? More specifically, can central banks play a role in the needed shift to a lower-carbon economy, which climate experts say is needed almost immediately? Yes. They can and should engage in what is called social impact investing. Current EU President Jean-Claude Juncker said it all, when he said on behalf of politicians, “we all know what to do, we just don't know how to get re-elected after we've done it.”<sup>1</sup>

Since then, central banks have been mesmerized by ECB President Mario Draghi's statement of “whatever it takes.” Can non-elected officials do whatever it takes to prevent financial crisis by whatever action, without a political mandate? Does unconventional monetary policy actually work?<sup>2</sup> Moreover, does it compromise central bank independence? What are the appropriate limits of central bank intervention?

Emerging market economies' (EMEs)<sup>3</sup> central bankers have been more open to such policy debates and have experimented with central bank funding in innovative ways. But the convergence of orthodoxy, driven by free market ideology, induced many EME central banks to give up “policy-based lending” and to buy only safe assets, usually government securities and foreign exchange. Now that Pandora's box has been opened, fresh questions need to be answered.

1 Said during the height of the euro crisis. See [http://en.wikiquote.org/wiki/Jean-Claude\\_Juncker](http://en.wikiquote.org/wiki/Jean-Claude_Juncker).

2 See the important debate on this by William White, Claudio Borio, Hyun Shin and others, available at [www.williamwhite.ca](http://www.williamwhite.ca) and [www.bis.org](http://www.bis.org).

3 The term EME uses the International Monetary Fund (IMF) definition as applied in the IMF *World Economic Outlook*, but includes data from the four newly industrialized Asian economies — Hong Kong, Singapore, Taiwan and Korea — to contrast non-advanced economy (AE) financial market asset size and GDP with the AE data.

## THE POTENTIAL SUPPLY OF INVESTMENTS IS SUFFICIENT TO MEET THE DEMAND

On the demand side, how large is the need for such investing? The amount of financing needed to fund energy sustainability alone was estimated by the International Energy Agency at roughly \$1 trillion annually between now and 2050.<sup>4</sup> In 2013, it was estimated that current level of investment was around \$250 billion, leaving a shortfall of \$750 billion. Such shortfalls may look huge, but they are roughly one percent of world GDP of \$74.7 trillion in 2013 and 0.25 percent of total global financial assets. Assuming that the average of annual global fixed capital formation was similar to that of the Organisation for Economic Co-operation and Development countries at 18 percent of GDP, the world invests roughly \$13 trillion annually in long-term capital formation. A shortfall of \$750 billion appears manageable and, indeed, higher investments would increase global growth.

The first central bank, Swedish Riksbank, was created in 1668 as a joint-stock bank to fund the government (for war purposes; see Broz 1998) and as a clearing house for commerce (Bordo 2007). Later, in the eighteenth century, they evolved to become lenders of last resort and currency issuers and, in the twentieth century, the implementer of monetary policy with price targets. Lawrence Broz's insight that central banks were created to fund governments in war and provide public goods, in exchange for the owners (then private investors or banks) being given "special rights" (such as oligopoly in market making in government bonds) is relevant to the political economy discussion on the historical roots of central banks in providing national and global public goods (Broz 1998).

On the supply side, from a long-term macro perspective, the financial system has become larger, faster, more complex, interconnected and more globalized.<sup>5</sup>

The financial system is *larger*: total conventional financial assets (bank asset, stock market and bond market capitalization) were 108 percent of GDP in 1980 and 380 percent of GDP at the end of 2013 (IMF 2015, 11). A major factor in the expansion of the financial system relative to the real sector is rising leverage. Financial centres such as Luxembourg can have financial assets as high as 3,152 percent of GDP, whereas the United Kingdom is 799 percent, and Japan and the European Union are in excess of 500 percent of GDP. Including the notional value of financial derivatives, another 16 times GDP may have to be

added, but derivatives may impact price, not real funding of real sector activities.

The financial sector is *faster*, partly due to technology in speeding up transactions, but also due to the removal of friction, such as lower transaction taxes and intermediation costs. According to the Bank for International Settlements' Triennial Survey, total global foreign exchange (FX) turnover was \$5.3 trillion per day in 2013, compared with \$4 trillion in 2010 and \$3.3 trillion in April 2007. Using 250 trading days, total FX turnover was \$1,325 trillion in 2013, or 17.7 times GDP, compared with 15 times GDP in 2007. Currently, the largest financial markets are dominated by high-frequency traders who trade via computerized algorithms that spread trading to different markets, such as commodities, bond and futures. This adds to the risks of "flash crashes," crowded exits and high correlations between different market movements that may add to the speed of contagion.

Global financial markets today are more *concentrated*, with total assets of global systemically important banks having assets equivalent to 63.3 percent of GDP in 2012 compared with 47.7 percent in 2002. In every financial field, including rating agencies, trading platforms, financial news and credit cards, the bulk of the business is concentrated in a few major players, creating risks of too big or too interconnected to fail.

The financial sector is also more *powerful*: financial services contribute to roughly six percent of EU GDP and employ 11 million people, with two million in the United Kingdom, contributing to 12.6 percent of UK GDP, with many in the super-remuneration class. In the United States, the financial sector is one of the major contributors to the funding of elections and for lobbying efforts. The largest single asset manager has \$4.3 trillion of assets under management, larger than the largest bank and also larger than the GDP of an economy as powerful as Germany.

The FSB recently published data on global financial assets through its detailed survey of global shadow banking as of the end of 2013 (FSB 2014, Figure 2.1). Its survey universe covered total financial assets of 20 key jurisdictions and the euro area, accounting for roughly 80 percent of global GDP and 90 percent of global financial assets.

The FSB survey estimated total financial asset size at roughly \$300 trillion,<sup>6</sup> of which the banking sector accounted for 46 percent or \$138 trillion, the shadow banks (non-bank financial intermediaries) for 25 percent or \$75 trillion, and the insurance and pension funds for \$55 trillion or 18 percent of total financial assets surveyed.

4 Currency noted throughout the paper is in US dollars.

5 Mark Carney (2014), chairman of the Financial Stability Board (FSB), argued in a recent speech that the system is simpler, safer and fairer.

6 This figure is relatively close to the IMF *Global Financial Stability Report's* 2013 data of \$294.9 trillion, comprising \$282.8 trillion in conventional assets, plus \$12.1 trillion of FX reserves.

Central bank balance sheets today are \$22.6 trillion or roughly eight percent of the total world's financial system assets. This is equivalent to 30 percent of world GDP.

In combatting the global financial crisis from 2007 to 2009, AE central bankers violated Bagehot's dictum that in a financial crisis, central banks should lend freely at market interest rates and only against good collateral (Bagehot 1873). Instead, they intervened massively, lent freely at near zero interest rates and began to acquire assets of dubious quality. Entry into unconventional monetary policy has proved easier than exit.

In December 2011, Jaime Caruana (2011), general manager of the Bank for International Settlements, raised the alarm on central bank balance sheets, by pointing out that central bank balance sheets in Asia had risen to over 45 percent of GDP because of FX intervention, whereas AE central banks had risen to over \$8 trillion or 20 percent of GDP. The current size of just four central banks (the European Central Bank, the US Federal Reserve, the United Kingdom's and Japan's) was \$10 trillion and 27 percent of their GDP at the end of 2013 and still rising. Caruana pointed out four policy risks: inflation, financial instability, financial market distortions and sovereign debt management conflicts.

It should be noted that IMF data suggest that at the end of 2013, total global FX reserves, excluding gold, were \$12.1 trillion, which suggests that roughly half of central bank assets are FX reserves. Of these official reserves, EMEs (including the newly industrialized AEs) accounted for \$9.3 trillion or 76.9 percent of world FX reserves (excluding gold).

Out of the shadow bank assets of \$75 trillion, the largest group are other investment funds (comprising equity and other funds under management) of \$24 trillion or 38 percent of the total; broker-dealers — \$9.3 trillion or 15 percent; structured finance vehicles — \$5 trillion or eight percent; finance companies — \$3.8 trillion or six percent; and real estate investment trusts (REITs) and trust companies \$2 trillion or three percent.

Central bank asset purchases also may generate little cost in inflation. The Niall Ferguson, Andreas Schaab and Moritz Schularick (2014, 35) study of 12 central banking balance sheets<sup>7</sup> since 1900 concluded: "so long as the credibility of central banks as independent custodians of price stability remains intact, balance sheet expansions need not be inflationary, even if in nominal terms they become permanent."

If so, the case for central bank investments in alternative assets may be stronger if the risks of inflation appear lower.

## CENTRAL BANKS CAN HOLD DIVERSE TYPES OF ASSETS

As for which assets central banks can or cannot hold, there should be no "sacred cows." What is relevant is that the assets have direct social impact, yield social returns that enhance public good, and do not erode the solvency and reputation of the central bank as steward of price and financial stability.

The above survey of central bank balance sheets revealed that the majority of central bank assets comprised lending to foreigners (in terms of FX assets) of between 20 and 50 percent of assets, lending to the government (between 15 and 60 percent of assets), and the balance in lending to banks and the private sector (Ferguson, Schaab and Schularick 2014).

It should be noted that reserve currency central banks do not hold much in FX assets, because they can pay debt denominated in domestic currency to foreigners through monetary creation. This is a privilege limited to four reserve currency central banks, namely, the issuers of the US dollar, euro, pound sterling and yen. The US Federal Reserve, Bank of England and European Central Bank hold FX reserves (excluding gold) of around 0.2 percent of GDP,<sup>8</sup> whereas EME central banks held large amounts of FX reserves, equivalent to 29.2 percent of GDP, at the end of 2013. They did so partly to park their excess savings and partly as insurance against FX crises.

Lending to the private sector in the form of direct loans to the corporate sector is relatively limited. For example, the Bank of Japan's holdings of corporate bonds were less than 1.1 percent of its balance sheet at the end of September 2014.

Unlike AE central banks, EME central banks have been more flexible in lending to the domestic private sector, providing seed money for priority sectors, such as discounting export bills or special loans to industrial banks or specific sectors, such as anti-poverty and rural/agricultural aid programs.

The decline of central bank lending to the broad-based private sector meant that the network of engagement of central banks narrowed further to become an elitist financial agent of the government and the leading banks (including asset managers), dealing less and less with the public, but officially, central banks maintained their stance that they are still an agent of the public, conducting monetary and financial policies "in the public interest."

7 These are Australia, Canada, Switzerland, Germany, Finland, France, Italy, Japan, Norway, Sweden, the United Kingdom and the United States.

8 Data from IMF (2014, 163, Appendix Table 1). Unlike the other reserve currency issuers, the Bank of Japan held FX reserves (excluding gold) amounting to 25.2 percent of GDP.

First of all, it was argued that central banks should be independent of the government, because funding government debt was not necessarily good for price stability when the government ran large deficits. In the maintenance of price stability, the central bank effectively became an agent of the financial sector. Although the ultimate purpose of financial stability is to protect the interests of the public, the direct impact is to protect the interests of the financial intermediaries first, because the central bank needs the financial intermediaries to intervene in financial markets for its operations, either as broker-dealers, or as buyers and sellers of government paper.

This conflict of interest surfaced during the global crisis, because in rescuing the financial sector with large sums of funding, guarantees and cheap funding, the question arose whether similar funds should have been used to effect transfers to the public to stimulate consumption.<sup>9</sup> Indeed, once it became clear that the interests of the financial sector were not necessarily aligned with the real sector, the public justifiably asked why they should not be the direct recipient of cheap funding from the central banks, rather than indirectly through the financial intermediaries.

Orthodox thinking was that central banks and governments should not engage in stock market “price support” action. Since 1998, however, central banks began to diversify their holdings in search of alternative yields, including stocks, albeit in relatively modest amounts.

As part of the Abenomics<sup>10</sup> stimulus package, the Bank of Japan started buying stocks through buying exchange-traded funds (ETFs) representing the Nikkei Index, causing the index to almost double from its trough level of 7,800. Such ETFs amounted to roughly 1.7 percent of the central bank balance sheet at the end of September 2014. Although the level of retail investors in Japan is relatively low at 20 percent, the increase in stock prices revived corporate confidence and improved the wealth of pension funds, thus indirectly improving the wealth of an aging population.

An Official Monetary and Financial Institutions Forum (OMFIF) Public Investor (2015) survey of global public investor assets suggested that, in 2014, 163 central banks held \$13 trillion out of \$29.7 trillion of assets held by public investors such as central banks, sovereign wealth funds and public pension institutions. Although detailed data is not available, the survey estimated that central bank public equity holdings may amount to \$700 billion or two percent of global publicly listed equity. Central banks are also known to hold real estate in the form of REITs,

infrastructure holdings and other forms of alternative assets. Such proportions are increasing in relative asset allocations due to the need to obtain higher returns.

EME central banks, however, are more willing to experiment with funding of sustainability projects. For example, Bangladesh Bank has a \$25 million refinancing line to promote green finance. In 2015, Bangladesh Bank announced a new longer-term refinance window of \$500 million, of which \$200 million would be allocated specifically for green initiatives (Barkawi and Monnin 2015).

Indeed, central banks have far better understanding of the needs of the corporate and retail sector after a financial crisis, because central banks typically have to engage in restructuring banks and their corporate borrowers, including acquiring real estate, during periods of financial distress. Sometimes, central banks engage the real sector during a financial crisis through restructuring agencies,<sup>11</sup> requiring them to either hold equity or lend through such agencies.

The point of this brief survey of what central banks buy and hold is that it affects their relationship with the real sector, which comprises not just the government, but also the corporate and household sectors. The assets that central banks hold determine the efficacy of the transmission mechanism of their policy tools. The more indirect the relationship with the real sector, the less effective the transmission tool, in the sense that the intermediaries may benefit or capture most of the information and subsidy effects of such policy action.

## CENTRAL BANKS SHOULD FACTOR SOCIAL OBJECTIVES INTO THEIR INVESTMENT DECISIONS

As a result of unconventional monetary policy, we are in new territory because almost all asset prices today are significantly influenced by AE central bank activities and policy shifts. Global interest rates, exchange rates and asset prices are no longer completely market driven. This gives central banks enormous power with enormous responsibilities.

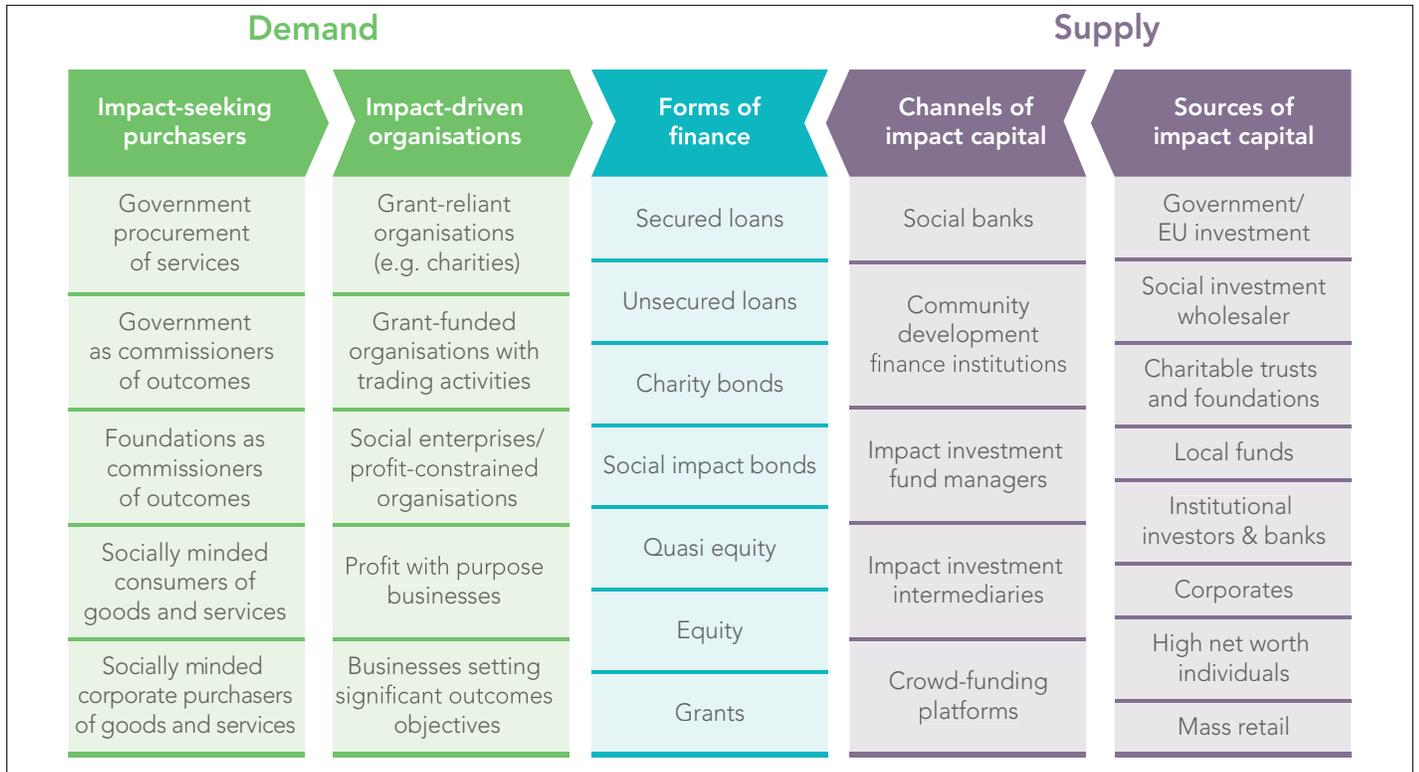
Management of central bank reserves traditionally involved four considerations — safety, risk, return and liquidity. In the area of safety, central banks care about credit quality and reputation of probity on conflicts of interest. Consequently, their investments in financial assets have always been in very high credit quality (rated at least investment grade) bonds with blue-chip issuers.

<sup>9</sup> For a discussion on the need to engage the masses, see Blyth and Lonergan (2014).

<sup>10</sup> Abenomics comprised three pillars — monetary policy, fiscal policy and structural reforms.

<sup>11</sup> Thailand, South Korea, Malaysia and Indonesia established restructuring agencies with the help of central banks to restructure problem borrowers in the wake of the Asian financial crisis, 1997–1999.

Figure 1: Social Impact Investment Ecosystem



Source: Social Impact Investment Taskforce (2014, 3).

Unfortunately, this happens to be mostly sovereign debt. The European debt crisis proved that even sovereign debt is not riskless. Some EME central banks are switching back to gold.

Unlike private sector financial institutions or investors, central banks can take enormous risks because of their funding bases. They carry the full faith and credit of the nation and have the ability to issue currency and are therefore able to absorb market risks in times of emergency. Although the funding appears short term, central banks are able to carry long-term assets across volatile cycles because of their ability to fund in domestic currency. However, EME central banks cannot carry too much FX risk, since they cannot print foreign currency and can only fund this through either borrowing or swaps with other central banks.

As a result, central banks tend to be risk-averse and are willing to sacrifice returns for lower risks and higher liquidity. In recent years, however, since EME central banks need higher returns due to a negative carry (higher domestic funding costs relative to return on foreign assets), they have been willing to experiment with higher risk/return alternative assets, such as hedge funds, commodities, private equity and even real estate, such as REITS.

The central bank-influenced interest rate is important to the environmental sustainability debate because it

influences the appropriate level of social discount rate and returns on environmental projects, which are largely long term in nature and carry both project and governance risks. It is pertinent to note that even though global interest rates have become historically low, the level of long-term funding for infrastructure and environmental projects has not significantly increased. This is partly due to the crisis-diverting management attention to immediate short-term crisis-fighting issues and, at the same time, prudential regulations that add risk-weights on long-term investments and therefore funding costs for banks to hold long-term assets.

In the context of the UK presidency of the Group of Eight (G8), UK Prime Minister David Cameron launched an independent Social Impact Investment Taskforce at the Social Impact Investment Forum in June 2013 to report on “catalyzing a global market in impact investment” in order to improve society (Social Impact Investment Taskforce 2014). Social impact investments are defined as “those that intentionally target specific social objectives along with a financial return and measure the achievement of both” (ibid., emphasis added). The report is a useful summary of the sources of funding for social impact investments and also the demand for such investments (see Figure 1). It is pertinent to note that central banks have not been listed as a possible source of impact capital.

Social impact investment is an idea whose time has come, because traditionally investment was about risk and return,

without questioning whether the use of the funds was socially responsible or not. The implicit assumption was that the borrower or user of funds was likely to produce socially desirable goods and services, on the simplistic theory that private greed produces public goods. The global financial crisis exposed the fallacy of that assumption. The short-term greed of the finance sector was also long-term greed, with huge conflicts, market manipulation, and insider trading and market abuses. At the same time, short termism eroded corporate governance and encouraged speculative activities that destroyed social value. Private investors began to question whether their investments produced social impact.

As a result, investors such as charitable foundations, long-term pension and insurance funds began to argue that they should care about the impact of their investment in activities and should be active in ensuring that the governance of the recipients of their funds act in a socially responsible manner.

Already, 1,276 asset managers with combined assets of \$45 trillion (15 percent of total global financial assets) have signed up to the UN Principles for Responsible Investment, committing to incorporate environmental, social and governance factors into their investment decision-making processes.

Intellectually and morally, central banks should also factor these objectives into their investment decision making. That they have not done so explicitly is because the bulk of their investments hitherto has been for the financing of government, either directly to their own government or to foreign governments (sovereign credit), *without explicitly questioning whether such government expenditure had social impact*.

Again, the global financial crisis exposed the fact that central bank investments do have social impact and spillovers. In 2005, then Fed Chairman Ben Bernanke blamed surplus countries for oversaving, driving interest rates lower and therefore creating the Fed's loss of monetary control. If Asian excess savings could be used to fund social impact projects domestically or abroad, instead of investing in US treasuries, would such debate arise?

The rationale for social impact investing came from the recognition that twenty-first-century society problems may be too large and complex for solutions by government and the social sector alone. There are not only limits to government expenditure and funding, but also some objectives and outcomes of fiscal action are questionable. There is, therefore, a need for innovative and effective solutions to global problems with governments in partnership and not in competition.

The roles of government in social impact investment identified by the Taskforce report (2014, 43) are directly

relevant to the mandate of the central bank in a general sense:

- as a market builder;
- as a purchaser of social outcomes; and
- as a market steward.

However, before social impact investment can take off, the Taskforce correctly identified a primary obstacle of the lack of (and hence, the need to develop) reliable measures of social and environmental impact, including the development of appropriate governance indicators of users of the funds (*ibid.*, 28–32). How to capture impact is appropriately summarized in Figure 2.

A relevant question that needs to be asked is whether there are appropriate impact metrics for the measurement of the social impact of central banks' unconventional monetary policy and investments.

Once such impact measurements are undertaken, central banks would be able to compare and contrast the impact of their investments on society, and whether the users of their funds — domestic, foreign or multilateral governments, corporations or foundations — deserve resource allocation.

Finally, the Taskforce report recommends that G8 governments jump-start the field of social impact investing by creating an Impact Finance Facility to help attract early-stage capital and a Development Impact Bond (DIB) Social Outcome Fund to pay for successful development of DIBs. The Taskforce believed that there is a potential to “unleash up to \$1 trillion of new investments to tackle social problems more innovatively and effectively” (JPMorgan Chase and Rockefeller Foundation, quoted in Social Impact 2014 6, 11).

It is conceivable that central banks may wish to invest in such global cooperative platforms, including providing seed funding to create new sources of vigour and innovation to solve global funding and social impact problems.

After all, many central banks were the founding shareholders of the Bretton Woods institutions and also seeded the capital for the earlier development banks. The difficult question is whether they are willing now to move out of their narrow focus on monetary policy using simplistic inflation targeting models back into the uncertain and complex reality of combatting system fragility and failure with non-linear dynamic feedbacks and spillovers. Crises forced them out of the old model and now they have to consider the consequences of their unconventional monetary policy, including the proper usage of their balance sheets.

**Figure 2: Capturing Impact — Key Data Needs of Market Participants**

	Government (as outcome payer)	Foundations (as grant makers)	Social Sector Organisations	Impact-driven businesses	Impact Investors
<b>Cost of an issue to the country</b>					
Fiscal	●		●		
Economic	●	●	●	●	●
Social	●	●	●	●	●
<b>Intervention metrics</b>					
Government savings from a successful intervention	●		●		
Cost of a successful government intervention	●				
Social improvement from a successful intervention	●	●	●	●	●
Success rate of outside interventions	●	●	●	●	●
Outside cost per successful intervention	●	●	●	●	●
<b>Investor metrics</b>					
Outcome objectives for beneficiaries	●	●	●	●	●
Performance in meeting objectives	●	●	●	●	●
Performance metrics and benchmarks	●	●	●		●
Outcome payments	●	●	●		●
Social return on investment	●	●	●	●	●
Financial return on investment	●	●	●	●	●

Source: Social Impact Investment Taskforce (2014, 31, Chart D).

## CONCLUDING OBSERVATIONS

This paper takes a narrow perspective of solutions for social and environmental issues. It asks whether central banks should engage in social impact investment in their balance sheets.

In a complex, interconnected and interdependent world, all investments will have social impact, both negative and positive. As central banks today possess eight percent of global financial assets and have the capacity to influence the direction of investment of other financial assets in terms of risk perception, price, return, duration and liquidity, central banks cannot ignore the social impact of their investments.

One of the key challenges of putting finance onto a sustainable path that is aligned in interest with the community at large is to move it away from short termism and change its self-serving business model into one that acts with social responsibility.

Central banks tackled this challenge during the crisis with two prongs — unconventional monetary policy to keep banks and the economy afloat; and tighter financial regulation to increase capital and liquidity requirements while pushing for financial inclusion, investor/consumer protection and a return to financial probity.

The first staved off a sharp financial and economic collapse, but had unpleasant spillovers in terms of volatile

capital flows, asset bubbles in EMEs and distortions in resource allocation. Indeed, there is some evidence that unconventional monetary policy and low interest rates have distributional effects on income and wealth inequality. The real sectors, especially governments and increasingly EME corporates, have become over-leveraged and dependent on low nominal interest rates, even as growth slowed in a debt deflation phase.

The second is still a work in progress, as the complex set of rules and regulations agreed at the Brisbane G20 Summit in November 2014 will take time to implement. It remains to be seen whether the financial sector will change its short-termist business model, whether technology will accelerate the creative destruction in both finance and manufacturing sectors, and whether inequality and climate change will worsen in the absence of countervailing measures.

As Albert Einstein said, “The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking.” Having opened up the Pandora’s box of unconventional monetary policy, central bank thinking and operations need to be more open, innovative and bold to deal with ever more complex challenges and opportunities.

Despite its leveraged scale, finance is still a derivative of the real sector. Retooling the financial system to suit real sector needs remains the core challenge.

If we remember that central banks were established to help governments fund their war needs, then the war of the twenty-first century is being driven by worsening social inequality, environmental degradation due to pollution and climate change that could ultimately erupt in civil unrest and territorial conflicts. Central banks are not independent of their social context. They were created to solve mass social needs, not independent ivory towers accountable only to themselves and their narrowing circle of political elites, banks and asset manager counterparties.

In tune with the specialization of academic thinking and bureaucratization of government functions of the last 50 years, central bank thinking became increasingly reductionist, focusing more narrowly on monetary policy, using more and more indirect instruments to intervene in markets increasingly concentrated as to resources and trading power. With that focus, mainstream thinking ignored not just financial stability, but also the social inequities engendered by debt-increasing consequences of monetary and tax policies, assuming that these would be taken care of by other parts of government, including the marketplace.

If central banks are the stewards of financial discipline and probity, and the social conscience of speaking truth to power, then they must accept that their own thinking and tool box have become part of the problem. As the Asian

saying goes, to change the world, one must first change (and know) oneself.

My conclusion from this preliminary survey is that it is in their own interest, and society at large, for central banks to engage in social impact investing, using their power to create money in more accountable and “impact-identifiable” ways, rather than relying mainly on their principal counterparties — governments and financial intermediaries — to do so.

If central banks were to join the UN Principles on Responsible Investing, then another \$22 trillion worth of funds would be added to the \$45 trillion already pledged, equivalent to one-quarter of global financial assets. Four percent of central bank assets allocated to such funding would amount to \$1 trillion alone.

The principal arguments as to why central banks should not directly engage in social impact investing outside their current range of permissible assets are primarily two — compromising central bank independence and, furthermore, opening up central banks to political influence to engage in an increasingly wide range of subsidies or policy-based activities. Such activities would not only damage their political independence, but also dilute their focus and effectiveness in delivering on their primary goals of monetary and financial stability. A thorough debate over the appropriate limits of central bank holding of social impact investments is beyond the scope of this paper.

If central banks are not willing to engage in such direct investments, they could still help create the environment and context for funding for social impact in two different ways:

- Support for a financial transaction tax (FTT). The financial community has argued for “frictionless” financial markets for their own vested interests, without realizing that increasing leverage and high-speed trading is an accident waiting to happen, without financial resources to sort out the collateral damage. The FTT is already being collected in the form of exchange fees or stamp duty. Monitoring the tax base can form an important source of information for macroprudential purposes, and varying the FTT would send important regulatory signals to markets to cool down speculative activity. Last but not least, the FTT would be an easy-to-collect tax to fund either a financial safety net or a global social or environmental fund (Sheng 2011).

- Use financial regulations and moral suasion to incentivize bankers and asset managers to invest in, or lend to, social impact activities. The willingness of central banks to even rediscount social impact financial instruments under specific conditions would be an incentive. If bankers and investors were to apply transparent and benchmark outcome metrics and standards in identifying social impact, the whole quality of investments would be raised for the public good.

This paper does not expect central bankers to change their thinking overnight. It is a long journey to shift institutional mindsets and behaviour patterns, because of groupthink and other behavioural biases (see Haldane 2014). But the process of goal identification, designing of metrics to measure central bank impact outcomes and the value of broadening diversity in central bank engagement with society at large will begin the process of realigning the operational goals of the agent central bank with the aspirations of the principal — the real economy.

The need to take action to save humankind from climate change is nobody's and everybody's responsibility. Central banks may want to be independent, but they are not independent of society at large or Mother Nature.

They can, and should, do their share in funding sustainability.

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*CIGI Policy Brief No. 57*  
Jason Thistlethwaite

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### The Environmental Risk Disclosure Regime: Navigating Complexity in Global Financial Markets

*CIGI Papers No. 47*  
Jason Thistlethwaite

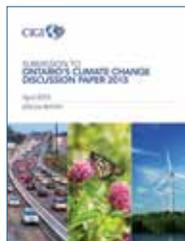
In recent years, a plurality of different governance initiatives has emerged that are designed to expand the disclosure of environmental risk within financial markets. The emergence of these initiatives represents an important policy development, and it has the potential to reduce environmental risk within the financial sector by incentivizing investments in sustainable economic activity capable of long-term value creation. Unfortunately, environmental risk disclosure has yet to be assessed as a field of governance activity in addition to its potential effectiveness in improving disclosure within financial markets.



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*Special Report*

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*Conference Report*

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