



Introduction

'007 to CIA: Aerial nerve gas precedes dawn raid Fort Knox tomorrow.' In his note to authorities, James Bond did not have to spell out the implications of the plan he just overheard from his hideout in supervillain Goldfinger's headquarter. If successful, the plan to nuke America's gold reserves would bring the Western world's monetary system down. In 1964, money still seemed to have a heart. When the *Goldfinger* movie hit the screens, Fort Knox and its gold vault was considered the centre of the Western world's monetary system. The so-called 'Bretton Woods' arrangement ultimately tied currencies to gold, via the US dollar.

Only a decade later, this link was removed by US President Nixon, in what can be considered one of the most spectacular moves of monetary reform in modern history. What the scriptwriters of 007's third adventure on screen had condensed into a shrill fantasy – the pressure from financial markets and foreign governments undermining the monetary system's gold anchor – ultimately did result in shattering the system only a few years after the movie's release.

But did money stop after Nixon pulled the gold plug? Not really. Instead, it has carried on living without its former heart. If anything, this break has intensified the eternal mystique surrounding money and nurtured doubts about the promises it entails: can something without a heart be trusted? Is money without gold backing legitimate? What is its proper conduct of life when animated by a printing press with no visible limits?

Late in the first decade of the new millennium, such scattered doubts gave way to widespread alarm: the global financial crisis of 2007–09 has been perceived by many observers as something comparable to an atomic explosion in Fort Knox. But this time, no notes from James Bond were forthcoming, giving away the culprits and their evil plans beforehand. More than a decade after its outbreak, causes and

consequences of the crisis are still subject to dispute. A major issue within such debates is the future of the monetary system.

In capitalism, markets dominate allocation. With a few significant exceptions – e.g. theft, unpaid care work provided within families and communities, goods and services provided by the state and charitable entities to citizens – access to goods and services requires money. But what is money?

As one of the more difficult topics of economic inquiry, money can be approached from many angles. We can look at what it does – its functions within the economy. We can look at its physical forms. We can look at its quantity. Finally, we can look at the institutional arrangements supporting its creation, transfer and management. The latter topic can be called monetary governance. Its operation, its claims to legitimacy and debates about its possible reform will be the main subject of this book.

As a first approximation, we can define money by three important functions it serves in the economy:

First, it serves as unit of account – everything available for money signals its availability to possible buyers by having a price. Prices denominated in the same currency are easily comparable, making choices for consumers of how to spend their income convenient. Contracts determine the currency denomination of debts due.

Second, money is a means of payment. Handing over money in exchange for goods and services means transferring purchasing power to someone else. The availability of money as means of payment acts as a constraint. With money too scarce, economic activity grinds to a halt. With money abundant, it loses its ability to determine the allocation of scarce resources. The mechanisms underlying its production will therefore be an important topic to explore.

Third, money is a means to store wealth. There might be more attractive means to store wealth in terms of financial return (e.g. shares, bonds) or use value (e.g. real estate, jewellery). But among these means, money possesses a unique feature: liquidity. In contrast to other forms of wealth, it is immediately available to be used as a means of payment whenever we choose to make a purchase.

In the history of mankind, means of payment have taken many physical forms: historians have discovered that, over time, human societies have used cattle, shells, tobacco, metal, paper and other devices as carriers of value. Current monetary systems are dominated

by coins, notes (both referred to as ‘cash’) and electronic bookkeeping entries at banks. Ongoing innovations in the digital domain have resulted in new ways to access, manage and transfer these funds, complementing the invention of the credit card that was first introduced in the 1950s.

What quantities are we talking about? Together with creditors and debtors from the enterprise, household and public sectors, the financial sector has created, traded and managed a gigantic amount of financial assets and liabilities in the run up to the global financial crisis. The stock of all of these assets and liabilities is denominated in money (as unit of account), but only some of them – banknotes and coins, and demand liabilities of banks held by their customers – serve the economy as money, the means of payment, on the retail level. Before we turn to the governance of these components, the qualitative differences and relations among them in later parts of this book, summarizing these items under the term ‘money’ gives a first useful approximation.

In everyday language, we say that rich people have money, and that money means power. But, of course, everyone is aware that Uncle Scrooge taking a dive in the stock of coins and notes in his money bin is a caricature. Rich people hold wealth, but only a small part of this wealth consists of money.

In 2015, financial assets (and their corresponding liabilities) were valued at US\$ 402 tn worldwide, comprising shares, bonds, loans and valuations of private businesses. When market values for real estate and land are added, total wealth amounts to US\$ 512 tn. Within this aggregate, only 8 per cent can be referred to as money: the stock of cash and immediately transferable deposits held in financial institutions is estimated at US\$ 41 tn.¹

These are indicators of stocks, subject to variation in value according to the price movements on markets for these assets and in exchange rates among currencies. A given stock of money on average changes hands many times over the year as means of payment: The global stock of money equals the volume of payments handled by the euro area’s wholesale payment system alone over a mere ten business days.² The incomes resulting from these transactions in a given country over the whole year are counted in the most prominent among economic indicators: The Gross Domestic Product (GDP), a flow measure of all income obtained within a given year. In 2015, a money stock worth

US\$ 41 tn was able to accommodate a global flow of economic activity as captured in a world GDP of US\$ 73.5 tn, paid for and measured in money.³ And resulting in increases in wealth, some of which takes the form of money.

When we talk about a stock of means of payment today, broadly and preliminarily summarized under the term ‘money’, we are not talking about a tangible, invariant quantity that can be stored in Fort Knox or Uncle Scrooge’s money bin. Yes, physical cash is the ultimate form of money, but modern payments are mainly made by moving funds available on demand in bank deposits. Cash shares monetary qualities with liabilities of financial institutions. These liabilities can grow more easily than something physical and ultimately scarce, like gold. They can also be reduced – when debt is paid back, and when promises underlying liabilities are broken, such monetary instruments may shrink in volume.

With the onset of the global financial crisis, valuations of various components of the wealth stock fell significantly: houses lost market value, and so did various financial claims that were built on top of the housing market boom. Also, the growth of means of payment came to a halt, as credit creation by banks resulting in new demand liabilities to be used as means of payment slowed.⁴ This shock to the valuation of stocks also put a brake on the flow of economic activity that is measured in GDP, with possible effects over a longer period: the cost of the global financial crisis in terms of lost output over a period of 15 years has been estimated between US\$ 6 and 14 tn for the USA, corresponding to 40–90 per cent of GDP of a single year (Atkinson et al., 2013, 6).

Authorities reacted with extraordinary efforts to stabilize the economy. In Europe, EUR 4.5 tn were foreseen for the public stabilization of the banking sector alone at the peak of the crisis: that is over a third of EU GDP in 2010 (European Commission, 2011). While most of these funds have either remained unused or have been paid back over time, the final settlement is still out.⁵

States intervened to prevent banks from failing by offering guarantees, recapitalization and socialization of losses (Weber and Schmitz, 2011), central banks served as lender of last resort to individual institutions, and stepped in to stabilize markets considered of vital importance to the economy when private market makers got into trouble (Mehrling, 2011). Given its enormous impact, the crisis, its causes and

Figure 1 A typology of crisis explanations

	Macroeconomic perspective	Sectoral perspective
Policy failure	Contingent macro imbalances and policy mistakes	Mismatch between financial developments and prevailing regulation/supervision
Structural failure	Inherent features of capitalism	Inherent features of the monetary system

the policy lessons to be derived from it have been subject to intensive public debate (Streeck, 2011).

Clashing with widely held views on money and its proper governance among economists, officials and the public, the legitimacy of crisis management actions and their contribution to the public interest was contested from various perspectives (Blinder, 2013; Buiter, 2014; Cochrane, 2012; Posen, 2013; Zürn and Rauth, 2014). The ensuing debates about appropriate measures for stabilizing the economic system and distribution of the resulting costs were unavoidably intertwined with a perspective on what had caused the crisis.

While a comprehensive overview of this debate is not possible in our context (see Lo, 2012; Claessens and Kodres, 2014), a rough sketch seems useful to put our subject in perspective. Adopting a very broad brush, four broad classes of approaches can be distinguished, defined by whether they adopt a macroeconomic or sectoral perspective and whether they highlight policy mistakes or more fundamental structural problems as the root of the crisis.

Among analyses with a macroeconomic perspective, approaches focusing on policy failure of macroeconomic governance point to macroeconomic imbalances and policy mistakes as key drivers of the crisis:

In one view, the rise of inequality (among households and among countries) of recent decades (Piketty, 2014) was compensated by soaring asset prices and an expansion of credit to households and governments in the years before the crisis, which supported aggregate demand but led to growing indebtedness that finally proved unsustainable (Aglietta, 2012; Crouch, 2009; Marazzi, 2008; Stockhammer, 2015; van Treeck, 2014).

Other authors within this first group of approaches point to the role of problematic macroeconomic policy choices – above all, misaligned

exchange rates and inadequately easy monetary policy – as the root of global imbalances which have led to the crisis (Obstfeld and Rogoff, 2009; Taylor, 2009). In this view, political interference in market determination of exchange rates and monetary policy management was to blame: with undue political pressure imposed on central banks, market prices were distorted, resulting in instability. In one view, this contributed to long-term financial cycles, resulting in excessive leverage, bursting asset bubbles and balance sheet recession (Borio, 2012; Koo, 2014).

The policy conclusions derived from the inequality perspective involve changing economic policy in order to correct imbalances prone to cause instability, whereas the policy distortion perspective involves limiting the room for discretionary government action (e.g. by subjecting monetary policy to strict rules) and expanding the role of markets (e.g. introduce a regime of market-determined exchange rates).

While such diagnoses imply policies to remedy the imbalances identified, a second group of macroeconomic perspectives stress structural systemic causes of the crisis and barely see room for containing instability within capitalism.

In the influential framework of Hyman Minsky, modern capitalism is inherently unstable. Phases of prosperity and stability encourage increasing leverage of economic units which inevitably results in excessive financial fragility bound to end in crisis (Minsky, 1986/2008). Some scholars have interpreted the global financial crisis as an expression of this inherent tendency of the economic system (Whalen, 2008).

Others within this second group of approaches have invoked Marx's theories of over-accumulation and the tendency of profit to fall to interpret the crisis as exhibiting fundamental inherent vulnerabilities of the economic system, only temporarily postponed by financial sector expansion until the outbreak of the crisis: financial euphoria and bubbles have temporarily covered the waning dynamism of the economic system (Choonara, 2009; Streeck, 2011). The thesis that we have entered a period of secular stagnation has even managed to influence mainstream economic policy discussions (Summers, 2014).

Macro approaches diagnosing structural systemic problems see prevailing economic policy as more or less powerless in the face of inherent capitalist instability. In a Marxist perspective, democratic will must transform the economic system in order to get rid of crises.

In general, both groups of macroeconomic diagnoses have policy implications which involve huge changes to the current state of affairs and international coordination. But neither factor contributes to their fast and consensual implementation (Baker, 2015).

Most official policy responses to the crisis result from a third group of approaches: sectoral perspectives on the problem, based on analyses of policy mistakes in governing the financial sector. In this framework, a mismatch between financial sector developments and prevailing regulatory and supervisory policies is perceived as the main cause of the crisis. The governance failures identified are manifold: the rise of a market-based credit intermediation system ('shadow banking') lacking adequate regulation and supervision was underappreciated before the crisis. The development of new techniques of securitization and rating undermined the quality of credit underwriting and led to excessive financial fragility. A misguided belief in an extensive self-stabilizing quality of financial markets based on self-interest and derivative-based insurance against risky exposure led to an underappreciation of system risk. Such risk, enhanced by growing interconnectedness among large and financially fragile financial market participants, was not detected by a regulatory structure with a focus on the microprudential and lacking macroprudential monitoring tools (Eidenberger et al., 2014; Ramskogler, 2014). Reforms of capital and liquidity requirements for banks, efforts to reduce the erosion of underwriting standards induced by securitization, reassembly of supervisory responsibilities, measures to enhance the loss-bearing capacity of markets and introduction of macroprudential supervision are the main reforms to financial market governance undertaken in the wake of the crisis (Claessens and Kodres, 2014, 8–9). Structural reforms of the banking sector are envisaged in order to better protect customer deposits and the credit and payment system (Vinals et al., 2013). So far, issues of appropriate bank ownership structures and corporate governance (Aglietta and Rebérioux, 2005; Scherrer, 2014b), as well as measures to reduce the likelihood of regulatory capture have not played a major role in recent reform agendas. The precise content and breadth of reform remains subject to considerable political struggle and debate (Scherrer, 2011).

While most of the debate is about details of regulatory and supervisory governance, a fourth group of crisis explanations, adopting a sectoral perspective, contest what they perceive as limitation of the

debate to minor adjustments of the existing governance framework. According to this fourth view, the crisis revealed structural problems of a particular subsector of the financial system that call for fundamental reform: the monetary system.

Proponents of ‘Sovereign Money’ (a.k.a. ‘Positive Money’ in the UK, ‘Vollgeld’ in German-speaking countries) call for nationalizing money creation, whereas some local initiatives see a promising future in creating their own local substitute for money, Regional Money. Supporters of Modern Monetary Theory (MMT) try to convince the public of the unlimited power of the state to create money, whereas some libertarian technology enthusiasts see this claim as a threat leading them to support Bitcoin as a digital equivalent of gold. These approaches see monetary reform as the key to future crisis prevention. From different assumptions on the nature of money and its proper governance, they call into question the current monetary system’s legitimacy.

This is a significant departure from the analytical frameworks of prevailing crisis explanations outlined above. For the first three groups of crisis explanations, the governance of money is not a fundamental issue on the reform agenda. They see other issues as key: changing tax policy and budgetary expenditure or adjusting the existing tools of monetary policy better towards an improved achievement of existing policy goals (Group 1), fundamental changes to the economic system based on private property rights (Group 2) and adjusting regulations of the financial sector (Group 3).

The extent of the crisis seemed to call for a fundamental reform of capitalism.⁶ But no such reform was forthcoming in the ensuing policy debates. Banking reregulation more or less remained a technocratic affair rarely resulting in changes of significant visibility. There simply was no radical reform concept from among the ranks of the biggest camps of crisis explanation schools (e.g. breaking up banks, nationalizing them for good, redistribution of wealth and other major shifts in economic policymaking) able to attract sufficient political support. This created the impression of political inaction and provided outsiders supporting the fourth group of crisis explanations with a window of opportunity to capture public attention.

Members of the fourth group are moved by a different question than the others: is the misuse of the power to create money the key to understanding the enduring crisis, and is monetary reform instrumental

in ending it? Their answer is yes – in their view, the crisis has laid open the illegitimacy of current monetary governance.

As much as monetary reformers agree on putting money in the spotlight, they are divided on two fundamental issues. Is there too much or too little money? And who is to blame – governments or banks?

On the first question, one camp of monetary reformers points to excessive money creation as the main cause of the crisis. They also condemn easy monetary policy in response to the crisis, which they perceive as even adding to a fundamental monetary excess. Other monetary reformers have the opposite impression: high unemployment and credit constraints for many small business owners in the aftermath of the crisis are perceived as a result of excessive scarcity of money. Monetary reform looks different depending on which of the two views it is based on.

The second question was given a Solomonic answer in the *Goldfinger* plot: here, an irresponsible government and an irresponsible market actor (both foreign, not surprisingly) acted in alliance against the forces of order and stability. Both types of villain are cast in leading roles in contemporary crisis explanations of monetary reformers as well. But reformers tend to be divided over which enemy to love best: post-crisis bailouts, granted to banks because of the latter's importance for the economy, are perceived as unfair and in violation of market mechanisms. In addition, enormous bonuses, a number of scandals involving mis-selling, market manipulation and other forms of fraudulent behaviour have intensified traditional reservations against banks (Lautenschläger, 2015). While reform efforts after the crisis focus on making banks safer and giving authorities more crisis prevention authority, monetary reformers focused on banks see the only real solution in revoking the special status of banks in monetary affairs.

Similarly, central banks' unconventional quantitative easing (QE) policies violate some widely held views on money and its legitimate governance. Neither explaining their role in preventing markets of key importance for the macroeconomy from collapsing, nor stressing the need for monetary action to be complemented by fiscal and structural policies to make them successful, has seemed to reassure critics. Instead, reformers perceive the need to rein in power-hungry central bankers on a mission to destroy the free market economy.

With their focus on radical solutions claiming to rein in powerful interests messing with our money, monetary reformers were able to

capture a considerable amount of public attention. As in other great crises previously, ideas from the fringes have a better chance of being heard. But so far, the attention given to the fourth group of crisis explanations is largely confined to popular media outlets. By and large, they have rarely entered the discussions of traditional experts of money – economists, bankers and policymakers. In the following pages, we will try to fill this gap and put monetary reform proposals to scrutiny: is the monetary reformers' analysis of the status quo correct? Do we need a reformed monetary system to increase the legitimacy of money? Would such a new system provide the key to a more stable and just economy?

In order to assess claims of monetary reformers, we first have to develop concepts which enable us to understand monetary systems: money, legitimacy and governance will be the key terms used in our endeavour. They will be defined and elaborated first, based on a broad reading of the theoretical literature. The analytical apparatus to be developed will build on the two dividing lines among monetary reformers introduced above. In fact, their differing opinions on whether money is either too scarce or not scarce enough, and about who is most to blame for the crisis (governments or banks), reflect fundamental positions in debates about monetary theory. Some of these debates look back on a centuries-old tradition which will be reviewed briefly. Then we apply the resulting framework to describe the current monetary system, before we turn to a classification and assessment of monetary reform proposals in separate chapters.