Deleveraging, long-term finance and the G20 agenda

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Jean-Pierre Landau

Promoting long-term finance is a major policy objective that sits at the core of the current G20 agenda. In the coming decade, the world will need considerable investments in infrastructure, energy production and public utilities. There are good reasons to fear that current financing structures may not be up to the challenge and that finance could act as a constraint on long-term projects, rather than as an engine and support.

The policy debate encompasses many dimensions, some of them very difficult and controversial. The causes and implications of "short termism" in financial markets are extensively discussed, as well as the necessary reforms in incentives and corporate governance (Kay (2011)). There is no consensus on whether recent regulatory changes – Basel III and Solvency II, in particular – will penalise long-term investors.

A detailed discussion of those questions is well beyond the scope of this short paper. Rather, this note presents some remarks on two specific issues: first on the current process of deleveraging at work in some advanced economies; and, second, on the role that financial innovation may play in fostering long-term finance and investment.

Deleveraging and investment

One may start with a puzzle. Current financial conditions are exceptionally favourable to investment. Even after recent increases, real interest rates remain historically low and most estimates put term premiums at negative levels. Profit shares in GDP stand at record highs in many advanced and emerging economies. Still, investment rates are down by 2 to 4 points of GDP as compared to 2009. And, most significantly, corporates are hoarding cash in unprecedented amounts: about USD 2.8 trillion in Japan, USD 1 trillion in Europe and USD 1.5 trillion in the United States. The value of cash held by British companies is larger than the value of their plant and machinery (Kay (2011)). It is very much a mystery why firms would need to accumulate such stocks of "dead money" – to use the words of then Bank of Canada Governor Mark Carney.

According to one dominant explanation, advanced economies are experiencing a "balance sheet recession" (Koo (2009)), in which the private sector's absolute priority consists in reducing its debt and consolidating its balance sheet. Such behaviour – when saving is exclusively allocated to debt reduction – will inhibit investment until sufficient deleveraging has occurred. However, the facts do not

fully support this narrative. Corporates are actually issuing new debt – including high yield – in significant amounts, and they are using an important part of the proceeds (around two thirds) either to retire existing debt or to make payouts to equity holders via dividends and share buybacks (Stein (2013)). So, while financial intermediaries are truly deleveraging, non-financial corporates, as a whole, are simultaneously issuing debt and hoarding cash, behaviour that is symptomatic of a very strong preference for liquidity.

One way to make sense of these trends is to conclude that they result from an unusually high level of overall uncertainty; and that uncertainty may be produced (in part) by the deleveraging process itself.

Most analyses take a deterministic view of deleveraging. It is viewed as a predetermined process with a fixed, and reasonably well known, endpoint. Historical experience and precedents are used as benchmarks and references to assess the acceptable level of debt and leverage; and to conclude, in most advanced economies, that the process has barely started.

In fact, deleveraging is far from deterministic. Its dynamics and outcome are heavily path-dependent. Depending on how it is managed, the total loss in the economy may be very different. Deleveraging is first and foremost a coordination problem (Buiter and Rabati (2012)). Deleveraging by one agent creates externalities for others. For instance, when households deleverage, firms are worse off and may have to shrink their own balance sheets. Deleveraging by banks imposes financing constraints on non-financial agents. In the light of these externalities, the distinction between credit supply and demand constraints seems rather moot. Supply constraints in one part of the economy translate into weak credit demand in another one. Orderly deleveraging necessitates that many entities adopt mutually consistent adjustment paths towards a new equilibrium of lower debt. That may prove very challenging.

In particular, it remains difficult to define an optimal path between two opposite strategies for the financial sector: first, a very rapid balance sheet adjustment, with possible significant credit contraction and output losses in the short run; and, second, a more progressive adjustment, implying some "forbearance", with no immediate shock but an important risk of misallocation of resources, prolonged economic stagnation and the progressive zombification of the financial sector. The costs of that second strategy are well known, illustrated as they are by Japan's experience during its "lost decade": delayed recognition of losses perpetuates inefficient production structures and, ultimately, lowers total factor productivity and growth itself. There is no such factual reference for the first strategy. The balance of costs and benefits may depend on how fast growth would recover following abrupt deleveraging by the banking sector. Intuitively, the benefits are higher if banks have a lower share in financial intermediation and if other sources of demand (including fiscal policy) are dynamic. Most likely, the optimal path scenario lies somewhere in between these two opposite "corner" strategies.

Because the path is indeterminate and the total amount of losses endogenous, deleveraging generates its own uncertainty. In turn, uncertainty pushes the banks to deleverage ever more aggressively as the quality of their loan portfolios deteriorates. This circular – and reciprocal – relationship between deleveraging and uncertainty creates a negative spiral – one in which many advanced economies, especially in Europe, are currently trapped.

Public authorities can help in many ways to reduce uncertainty and coordinate expectations around the equilibrium they desire.

Financial regulation has been thoroughly reformed following the crisis, with Basel III bringing the most significant changes to capital and liquidity requirements. Studies concur on its significant long-term benefits but diverge on the short run, depending on assumptions made about the transition process. To avoid unintended effects, it was decided to set ambitious targets and give the banks a long phase-in time. In fact, that decision has opened the prospect of a period with no precise references to guide markets on the appropriate levels for capital requirements and leverage. This may have created a possible "race to the top", making the whole process less certain and more disorderly.

To reduce that uncertainty, regulators need to express a view (and give guidance) on the appropriate path and approaches for deleveraging in the financial sector. In a sense, they face a problem identical to the one confronted by central banks when they practise flexible inflation targeting. And they need to adopt the same mindset. "Flexible capital targeting" would involve taking a view on the appropriate path towards a new equilibrium. As central bankers know, there is a trade-off. Getting back to target too quickly would incur significant output losses and costs. On the other hand, waiting too long runs the risk of endangering the credibility of the ultimate objective. That trade-off was left unexplored in the regulatory field. There would be huge benefits in making the regulators' preferences more explicit and transparent.

Expressing a view might not be a sufficient condition for lending to restart. It may also be necessary to eliminate uncertainty on future regulatory developments. Prudential regimes are in a constant state of flux. Now that the foundations of a new regime for capital and liquidity have been solidly established, regulators could consider a moratorium on any further changes for some time. That would not prevent discussions and consideration of new measures and improvements to be introduced in the following period. It would, however, allow lenders and borrowers to take a break from second-guessing the shape of possible forthcoming regulatory changes when making their decisions.

Financial innovation and long-term finance

Long-term finance raises two different economic issues: first, the natural reluctance of investors to irrevocably commit resources over the long run and their subsequent preference for liquid financial instruments; and, second, the intrinsic difficulty of assessing (and pricing) risk over very long horizons. Obviously those two problems are related: the higher the future uncertainty, the greater the preference for short-term (liquid) investments. The central point this paper will make, however, is that there may be advantages in dealing separately with each of these issues through distinct and specific financial instruments. That would call for some reorientation of the process of financial innovation that has taken place over the last two decades.

Long-term investment carries a great number of different, often interrelated, risks: legal geopolitical, technological and economic. Assessing and pricing those risks remains extremely problematic. Elevated or volatile risk premiums can act as significant impediments to long-term finance. Markets and governments have developed instruments and techniques to deal with – or circumvent – those

difficulties. Project finance allocates and assigns cash flows deriving from specific investments to servicing the debt and providing returns to equity investors. Another approach, currently prominent in policy debates, aims at leveraging the public sector's (assumed) capacity for taking on long-term risks through public participation or guarantees, in effect mutualising part of the risk. The rationale is obvious: part of the benefits of some long-term projects (such as infrastructure or energy security) accrue to society as a whole; some risks may be uninsurable; and some are linked to actions by public authorities themselves; so that their participation, through the commitment of resources, creates a proper incentive structure that will make the project work (provided time inconsistency issues can be legally and institutionally resolved).

This approach has been extensively discussed and explored in various working groups. The EU Commission has proposed a long-term investment fund for Europe based on such principles. Suffice it to say that the current debt situation of public entities in advanced economies will severely restrict their capacity for taking on new risks in the next decade. New commitments will have to be weighed against other expenditures and choices will be very constrained.

For those reasons, there might be room for a different approach, based on a reorientation of financial innovation, to make it more conducive to long-term finance. The thoughts presented in this paper are very preliminary and tentative.

Financial innovation during the last decade was about sharing risk in liquid markets. It was characterised by the development of (derivative) instruments that, implicitly or explicitly, mixed maturity transformation and risk-sharing. That was the guiding principle behind securitisation, both plain vanilla and structured. The technique relied on the existence of deep and liquid markets for all sorts of financial instruments (although, crucially, without product standardisation). For their part, investors were required to dynamically manage exposures over long periods.

Logically, important efforts were devoted to making trading more efficient, including at high frequency; and regulation focused on ensuring transparency and to raising the efficiency of pricing and valuation as well. The objective was that risk could be constantly assessed, priced and, if necessary, adjusted. Therefore, risk had to be traded, and traded safely. Liquidity and risk became closely entangled.

That model has several important consequences, not all favourable to long termism.

First, for the investor, liquidity and fundamental performance risks cannot be distinguished on the basis of market prices, since both are closely mingled in a single instrument. So, if the total amount of risk per unit of capital is capped by risk management practices (VaR for instance) and if liquidity risk increases (or is expected to potentially increase), very little is left to cover fundamental risk.

Second, expertise for dealing with non-liquid assets may have shrunk amongst asset managers, as a premium is set on the ability to trade profitably and efficiently.

Third, the coexistence of deep market liquidity and ultra-efficient trading technology changes the incentives and horizons. Significant resources are invested in improving the performance of (very) short-term arbitrage rather than assessing the probability distribution of cash flows over very long-term horizons for complex projects. The behavioural shift is spectacular: the mean duration of equity holdings by US investors was around seven years in 1940, remained approximately constant up to the middle of the 1970s, and then dropped continuously to reach a low of seven months in 2007 (Haldane (2010)). Warren Buffet does remain an exception!

Finally, the crisis has revealed that a system built on those principles is prone to fragility and sudden stops. Recent research (Dang et al (2012)) has shown that an asset's liquidity depends on its information sensitivity. Liquidity disruptions occur when an asset, previously considered as information-insensitive, suddenly becomes sensitive. Information asymmetries appear that impede trading and reduce liquidity. Instruments designed for risk-sharing are obviously more likely to become information-sensitive in many states of the world.

Indeed, one can think of a sort of trilemma between some main characteristics of financial instruments: the ability to do maturity transformation (provide liquidity); the capacity for transferring risk; and utility as a reliable store of value (meaning the absence or virtual absence of valuation risk). No existing instruments can simultaneously fulfil those three functions. As an attempt to solve that trilemma, recent (structured) securitisation techniques ended up by failing on every front.

Equities provide an apt illustration of the trilemma. Over the last 150 years, equities have served as support for sharing long-term risk while, at the same time, providing instant liquidity. For investors, the flip side to such benefits is the potential for significant changes in the valuation of their portfolios. Not all investors are willing to face that possibility. In addition, recent regulatory reforms have made it more costly to hold equities by significantly raising the amount of capital needed to cover their volatility risk.

The future may lie, therefore, in a greater distinction between managing risk on one hand and doing maturity transformation on the other. One should not assume one single instrument will fulfil both these roles, or that the same intermediaries will be equipped to undertake these two different activities. Rather than holding a portfolio of complex assets (equities or securitised products), investors would decide on a (variable) mix of two specialised instruments: one providing safe maturity transformation over very long horizons, the other providing exposure to specific risks on projects, sectors or whole economies.

Making long-term maturity transformation absolutely safe should therefore become one aim of financial innovation. Following the crisis, there are widespread – and legitimate – doubts about the private sector's ability to create and issue such safe assets. And that may be a prerequisite for long-term investment finance. The technologies do exist, however. Safe assets can be manufactured by arranging seniority of claims on future cash flows (the principle behind tranching); they can be produced by backing them with tangible assets. The problem to be solved is to ensure the full integrity of the process, which has formerly been distorted by badly aligned incentives. Some kind of public intervention in the certification and rating phase may prove necessary. The ability of the financial system to transform a large pool of low-quality claims (and collateral) into a smaller one of higher quality may be the key to the development of long-term finance.

Once this problem is solved, it is likely that long-term investors will willingly take on more specific or idiosyncratic long-term risks. That may require additional innovation such as, for instance, the ability to write very long-term derivative contracts representing the risks attached to specific projects. Large quantities of collateral may be needed to face margin calls over long periods of time (another reason for developing safe assets). Risks may have to be segmented into different components: macro- and project-specific. At least for the first category, the creation of "macro markets", as advocated by Shiller (1999), would bring valuable improvements.

Such developments are already under way. Triggered in part by regulatory and accounting changes, some long-term investors (pension funds and sovereign funds) have shifted away from equities to a mix of (safe) debt and alternative investments, therefore concentrating asset allocation at the two extremes of the risk-return spectrum. This may well be the direction in which long-term finance is heading.

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