

## Jean-Pierre Danthine: Financial development – can we have too much of a good thing?

Speech by Mr Jean-Pierre Danthine, Vice Chairman of the Governing Board of the Swiss National Bank, at the International conference on “Financial development, stability and growth”, jointly organised by the State Secretariat for Economic Affairs (SECO) and the Graduate Institute of International and Development Studies, Geneva, 25 October 2012.

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### Introduction

Typically, the term “development” has a positive connotation. A state of higher development is perceived to be superior to a state of low development. The same is true for the term “financial development”, which we associate with improved financial products, processes and institutions. Financial development leads to an improved allocation of capital, empowering entrepreneurs and facilitating risk bearing and consumption smoothing. All in all, financial development increases welfare and potentially promotes growth. As Schumpeter saw it, “Bankers are the gatekeepers of capitalist economic development. Their strategic function is to screen potential innovators and advance the necessary purchasing power to the most promising.”<sup>1</sup> And, indeed, the pre-crisis economic literature on financial development was strongly influenced by King and Levine’s empirical study<sup>2</sup> suggesting that “Schumpeter may be right”. Using data on 80 countries over the 1960–89 period, the authors concluded that the cross-country evidence was consistent with the view that the financial system promotes growth. The same message is conveyed by a more intuitive interpretation of key historical episodes in which finance appears to have played a key role in increasing overall welfare. I have in mind, for instance, the financing of railway expansion in the 19th century (an early form of syndicated loans), the financing of high-technology firms in the 20th century (venture capital), or “microfinance”, allowing local, small-scale business initiatives in low-income countries to tap the global capital market.

The recent financial crisis, however, has prompted us to review this benign assessment. Today, there is broad support for the view that not all forms of financial development are favourable to economic stability, growth and welfare. More extreme views are also prevalent, such as Paul Volker’s, “I wish that somebody would give me some shred of neutral evidence about the relationship between financial innovation recently and the growth of the economy.”

How can we reconcile the pre and post-crisis views on the question posed in the title of my address today?

To try and answer this, at least partially, I will focus on one specific and very visible aspect of financial development – financial liberalisation.

During the final two decades of the last century financial liberalisation led to a deepening of credit markets on a global scale. The end of what many have called “financial repression” permitted households, banks and sovereigns to accumulate increasing amounts of debt.

Of course, debt is not bad per se. It is part and parcel of an optimal allocation of resources – including capital – and of a financial system that enhances growth and welfare. But there can

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<sup>1</sup> Schumpeter, J. (1934), *The Theory of Economic Development*, Duncker & Humblot, Leipzig. Trans. R. Opie (1934), Cambridge, MA: Harvard University Press.

<sup>2</sup> King R, Levine R. (1993), Finance and Growth: Schumpeter might be right, *The Quarterly Journal of Economics*, Vol. 108, No. 3.

be such a thing as excessive indebtedness. And indeed, the indebtedness of banks, sovereigns and households was growing exceptionally strongly. For instance, on a global scale, the ratio of domestic credit to GDP increased from 74% in 1980 to around 138% in 2009.<sup>3</sup> This very high level of indebtedness is considered to have been a key feature of the crisis.

This raises two major questions in my mind. First, what is the reason for the disconnect between our initial perception of financial development as being something positive, and the observed dismal outcomes? And, second, what lessons can we draw from our diagnosis?

### **Market failures, behavioural biases and regulatory design failures**

When our economic system malfunctions, it is natural to try and identify sources of what we generically refer to as “market failures”. Typical market failures include market power, information asymmetries, external effects and public goods. Uncorrected, these traditional market failures give raise to sub-optimal outcomes.

To analyse the case at hand it is useful to extend the list of these usual suspects.

Let me begin with the banking sector. Because this is a heavily regulated sector, regulatory design failures (or possibly even system design failures) could equally well be the source of inefficient outcomes.

When thinking about public debt, it is also clear that distorted market mechanisms are unlikely to be the only culprit. But even in the case of household indebtedness, I would argue that cognitive or behavioural biases as well as other forms of psychological influence (e.g. emotions) are equally important as a potential explanation – even if less recognised. These biases imply that individual decision-making may deviate from the principles of rational choice on which the welfare theorems are based (and on which our understanding of the performance of the market system is founded). If the basic assumptions about rational behaviour do not hold, the decentralised decisions of individuals can – plausibly – lead to sub-optimal market outcomes.

### **Indebtedness of banks, sovereigns and households**

Let us now turn to the factors explaining the excessive indebtedness of banks, sovereigns and households.

In the case of excessive leverage in the banking sector we can make a conventional and probably little disputed diagnosis. It is widely accepted that one main cause of over-leverage in banking is the existence of distorted incentives, originating from faulty, or defective, system design and regulation. The move from Basel II to Basel III is an explicit acknowledgement that capital and liquidity requirements ahead of the crisis were too lax. This was particularly the case for too-big-to-fail institutions. The implicit state guarantee for these institutions is a major source of incentive distortions. It is in complete contradiction with the functioning of a free market system and the hypotheses of our welfare theorems. Limited liability and the prevalence of bonus systems provide other significant distortions affecting individual decision-making. At various levels of financial institutions, decision-makers face asymmetric incentives. To give you an example, remuneration levels were high when risk taking paid-off, but there were no negative consequences – except possible job losses – when risks materialised. It is not surprising that excessive risk-taking was the consequence.

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<sup>3</sup> Domestic credit to private sector refers to financial resources provided to the private sector, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for repayment. Worldbank, World Development Indicators, <http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS/countries/1W?display=graph>.

This problem of socially excessive risk-taking is even more damaging in the case of large interconnected institutions whose failure would endanger other institutions, with adverse consequences for the broader economy. Here, a clear externality is at work.

My focus on incentive problems does not eliminate the possibility that cognitive or behavioural biases could also play a prominent role in driving excessive leverage in the banking sector. Herding behaviour and “group think” were certainly prevalent in “subprime investment”. A possible explanation for herding behaviour here is the propensity to suspect that “they know something that I don’t know”. This bias is prevalent in complex and opaque situations which are surely predominant in the modern financial system.

Turning to the indebtedness of sovereigns, we cannot put the blame for excessive indebtedness on financial incentives. But the overweighting of current benefits and the over-discounting of future costs can easily be attributed to electoral considerations and the finite career of elected politicians, careers which become shorter when they cannot “seduce” their electorates.

At a cognitive level, I would also put the blame on another factor that could be called a “Keynesian bias”. Here, I refer to the conviction that countercyclical policies should be activated in downturns to mitigate the social cost of output and employment losses, but that they need not be reversed in upturns. This conviction is based on the view that there is no natural, theoretical or even apparent practical limit to state indebtedness, at least for developed economies. This cognitive bias is, in my view, a major explanation for the observed structural deficits in government accounts leading to an ever-rising debt to GDP ratio. In the OECD as a whole, for instance, the public debt to GDP ratio has increased from 70% in 2000 to 103% today!

While we can dispute the precise diagnosis, we cannot disagree with the fact that the present crisis should and will serve as a wake-up call. Sovereigns, like banks, need to build up a buffer ahead of potential unfavourable economic developments. The recent work by Rogoff and Reinhart suggests this would mean making sure that the 90% debt to GDP ratio is not reached, even after a plausibly serious stress scenario.<sup>4</sup> Seen in this light, we may doubt that the 60% debt to GDP ratio that has been the reference since the Maastricht Treaty is sufficiently prudent.

Let us now turn to the case of household indebtedness. Here the intermediating factor has been, in most recent examples, the burst of a housing bubble leaving, in particular, the most recent generation of buyers with a mortgage exceeding the value of their houses – that is, with negative equity. Besides system design failures which include policies that portray home ownership as a goal to be reached by everyone (President Clinton declared in 1994, “More Americans should own their own houses!”) and that are encouraged by public sector institutions, behavioural biases can be blamed as the main drivers of indebtedness.<sup>5</sup> I could mention, first, a form of herding which is the simplest explanatory factor for an asset price bubble and, second, a “keeping up with the Joneses” effect, which is a plausible reason for the very low American savings rate and which Rajan, among others, uses as a potential link between the rise of inequality and increased indebtedness. In the words of Cynamon, 2008, “A family, in isolation, might choose a more conservative financial path, but the influence of neighbours, both those who have a physical presence and those whose lifestyles are piped in through the media, drives both consumption and debt higher.”<sup>6</sup>

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<sup>4</sup> Reinhart C., Rogoff K. (2010), Growth in a Time of Debt, American Economic Review, American Economic Association, vol. 100(2).

<sup>5</sup> Rajan R. (2010), Fault Lines, Princeton University Press.

<sup>6</sup> Cynamon B., Fazzari S. (2008), Household Debt in the Consumer Age: Source of Growth—Risk of Collapse, Capitalism and Society, Berkeley Electronic Press, vol. 3(2).

Finally, sub-optimal levels of savings and corresponding excessive indebtedness may originate from time-inconsistent preferences that lead human beings to deviate today from behaviour they defined as optimal yesterday. We might, for instance, have planned to save more (and consume less) in the future but – when the time comes – we postpone our plan to save because of so-called “present-biased” preferences.<sup>7</sup> This behaviour may result in a reduction of lifetime utility because our “long-run selves” do not appreciate it.<sup>8</sup> Already in the 18th century, David Hume wrote “There is no quality in human nature, which causes more fatal errors in our conduct, than that which leads us to prefer whatever is present to the distant and remote”.<sup>9</sup>

### **Mitigate the downsides of financial development**

What lessons can we draw from this multi-faceted diagnosis? How can we ensure that financial liberalisation does not lead to excesses that can endanger financial stability? How can we make sure that finance in advanced countries is conducive to the public good?

Again, the answer is most evident in the case of the banking sector. Excessive leverage is the result of a faulty system design. Hence, we must improve the system design. This is what Basel III and the TBTF work programme are about. On the one hand, it aims at removing the main incentive distortion – the implicit state guarantee. The critical element here is to make sure that it will be possible to allow a big complex institution to fail, which means resolving it in an orderly manner. On the other hand, increased capital and liquidity requirements as well as a leverage ratio serve as stronger safeguards in the event that incentives cannot be fully corrected, and also because externalities are present in the case of large and complex institutions.

In my view we are on the right track, but we have not yet reached our destination. It is important that we stay on this path, and do not get caught in the “disaster myopia trap” which means, as the crisis fades in our memory, forgetting progressively the dismal consequences of the identified faults in the system and – as a consequence – losing our determination to correct them.

As for the indebtedness of sovereigns, the key word is “prudence”: countries should make sure that they use the good times to lower their debt to GDP ratio so as to have a buffer for bad times. In general, the future cost of stabilising the debt to GDP ratio should be better taken into account when evaluating the benefits of countercyclical macroeconomic policies. And, given the electoral and political biases I have mentioned, the benefits of institutions promoting fiscal discipline should be taken on board. The constitutional debt brake rule (“Schuldenbremse”), adopted in 2002 by a very large majority of the Swiss people, is an excellent case in point. It has effectively led to a significant reduction in the public debt to GDP ratio in Switzerland, from above 50% in 2002 to below 40% today, with a target of 31% for 2015. This reduction in sovereign debt has had no negative consequences for the momentum of Swiss economic growth. On the contrary, before the Great Recession, Swiss GDP growth rates were above trend for five years in a row. Even if it can be argued that we benefited from lucky timing, the Swiss success with this form of commitment is an

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<sup>7</sup> Time-inconsistent preferences should not be confused with “impatience”.

<sup>8</sup> For theoretical and empirical references on hyperbolic discounting and the self-control problem see, among others: O'Donoghue, R. (1999): Doing it now or later, *American Economic Review*, Vol. 89, No.1.; Benton, M. et al. (2007): Overborrowing and Undersaving: Lessons and Policy Implications from Research in Behavioral Economics, *Discussion Paper*, Federal Reserve Bank of Boston; Heidhues P. et al. (2010): Exploiting Naivete about Self-Control in the Credit Market, *American Economic Review* 100; Laibson D. et al. (2000): A Debt Puzzle, *NBER Paper No. 7879*; Meier, Sprenger (2008): Charging Myopically Ahead: Evidence on Present-Biased Preferences and Credit Card Borrowing; Azfar O. (1999): Rationalizing hyperbolic discounting, *Journal of Economic Behavior and Organization*, Vol. 38.

<sup>9</sup> Hume, D. (1739), *A treatise of human nature*.

encouraging sign, as it shows that deleveraging is not always inconsistent with economic growth.

Turning to the indebtedness of households, the diagnosis does not point to easy solutions. Thus, regulatory measures at the microprudential level that enforce stronger discipline on the supply side of credit are all-important. Complementary macro-measures aimed at preventing excessive exuberance should also be deployed. In this context, I am referring to interest rate policies which – whenever feasible – “lean against the wind”, but also to more targeted macroprudential measures which directly address the dynamics of the credit market. The countercyclical capital buffer is an important example. Besides, facing more directly the behavioural biases that are at the root of the problem requires an increased level of “awareness”. In the words of Shefrin (2012), raising people’s awareness means “reminding ourselves of our psychological fallibilities so that we can avert some crises and mitigate others”.<sup>10</sup> More specific consumer protection regulations or system design measures come as a second step. An interesting example is Thaler’s proposal for the “default” option in the design of pension plans. The idea is to directly counter the time-inconsistency and other behavioural biases when designing default or “no action required” options, in order to nudge people towards making rational savings decisions.<sup>11,12</sup>

At the public policy level, we should similarly take the existence of behavioural biases into account. This may mean going against usual practices. The very common tendency of promoting home-ownership points in the wrong direction. Public policies (and politics!) should not “seduce” people into accumulating debt.

More generally, the awareness that financial liberalisation – while generally positive – can also lead to inferior outcomes is a good postulate for emerging economies embarking on the road towards higher financial development.

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<sup>10</sup> Shefrin, H. (2012), Behavioral Finance in the Financial Crisis – Market Efficiency, Minsky, and Keynes, discussion paper available at [www.russellsage.org/blog/new-research-crisis-and-regulation-financial-sector](http://www.russellsage.org/blog/new-research-crisis-and-regulation-financial-sector).

<sup>11</sup> Thaler R., Sunstein C. (2008), *Nudge – Improving Decisions about Health, Wealth, and Happiness*, Yale University Press.

<sup>12</sup> A “default” option or “no action required” option could substantially boost participation in pension plans as individuals do not *actively* have to decide whether or not to make a contribution to savings. However, it does not inhibit their individual freedom to choose, as they can still adjust their contributions.

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