# Old and new challenges for 2016 and beyond: strengthening confidence by re-anchoring long-term expectations

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Lamfalussy Lecture Series: Professor Lamfalussy Commemorative Conference

Budapest, 1 February 2016

## Introduction

About 40 years ago, when Alexandre Lamfalussy came to Basel to take up the position of Economic Adviser at the Bank for International Settlements, the world economy was moving from fixed exchange rates, strict capital controls and rigid financial regulations to a much more open, market-driven system. This helped to set in motion a wave of globalisation. Today, the Global Financial Crisis (GFC) might be producing a comparable regime change with its challenges. I will address some of them in my remarks that can be summarised as follows.

The GFC has been challenging us in many analytical and policy dimensions. We achieved significant progress in models that improve our understanding of global financial cycles. We proved that we were able to re-fashion and use old and new monetary policy tools to affect financial markets sentiment, for example boosting their short-term exuberance. We have managed to avoid the 21st century Great Depression.

Yet, despite all that, which is not bad at all, we seem to be stuck in a relatively "mediocre" low growth, gloomy and volatile environment. One reason for that might be a lack of "confidence", not as a sunspot phenomenon, but in the following more "structural" sense: in some way, markets still cannot firm up their expectations about what is the post-crisis long-term sustainable growth rate, a reasonable return on savings through investing in safe assets (ie some type of a benchmark), a sensible method for pricing assets and risk-taking. The differences between current competing and yet plausible narratives about the future are simply too big. And thus markets remain unanchored, held more than ever hostage to the smallest rumour and, hence, as seen in these first weeks of 2016, highly volatile. How could we re-anchor their "faith in the future"? As we are beginning to see, one answer could be to signal a roadmap towards a gradual normalisation of monetary and financial conditions. But to be fully effective that requires also thinking about and implementing reforms in the real economy. Such so-called "structural reforms" should lead us to more sustainable socio-economic equilibria that, in turn, should address some of our disputes about current and inter-generational resource allocation, our societies' "social contracts". This is naturally much beyond macroeconomics but our dismal science can perhaps contribute with some useful elements for our societies to choose from.

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[1] These remarks are personal and do not necessarily represent the views of the Bank for International Settlements (BIS). I thank Előd Takáts for helping me to structure the remarks, and also Claudio Borio, Jaime Caruana, Dietrich Domanski, Robert McCauley, Hyun Song Shin, Josef Tošovský, Philip Turner, Christian Upper and David Williams, who provided comments on an earlier version. As usual, all remaining errors are mine.

So let me try to provide some of them, starting from things we know well and moving on to things that we don't really know.

## Credit booms and busts

We know very well now how credit booms surge and go bust. From the brilliant seminal insights about how asset bubbles emerge and thrive (Kindleberger (1978)) and the inherently unstable nature of finance (Minsky (1986)), we have developed detailed well-established general equilibrium analytical frameworks with all the proper micro-foundations that show how shocks on certain asset prices (eg housing) can be amplified in an economy with some financial structure (eg banks and a central bank) offering credit to agents with some pricing of risk. Credit booms can be replicated in such models through a number of mechanisms. Financial frictions, imperfect information on risk, over-valued collateral can all contribute to excessive credit growth despite standard anti-inflationary reaction by monetary authorities. Lax prudential and regulatory rules are another important dimension that is also now recognised in the build-up of financial vulnerabilities leading to the GFC (Blinder (2013)) both locally and across jurisdictions. These frameworks are also very useful to study policy responses and their trade-offs. Now we know well that combining textbook policies that dampen aggregate demand, especially monetary policy, with regulatory/prudential tools that constrain credit multipliers (eg reserve and capital requirements, provisions etc) is effective and complementary to moderate financial cycles and lean-against-the-wind.

Let us remember, and pay tribute to, some of the measures first proposed by Lamfalussy in the second half of the 1970s. Those included the requirement for internationally active banks to make special provisions and increase their capital ratios to cover specific risks. They would today be called "macroprudential". Indeed, the term macroprudential (MaP) was first mentioned during these discussions (for a review of subsequent usages, see Caruana and Cohen (2014)). Although the debate is intense about if, how, when, and how much of this mixture policymakers can use ex ante and/or ex post to prevent financial excesses, it is and has been well mapped analytically and implemented successfully in practice in advanced and emerging economies alike.

We also know well how credit booms can be exacerbated through cross-border bank lending. These surges in euro/dollar bank lending from leading/large to smaller/dependent advanced economies often by-pass existing prudential regulation and constitute a "risk-taking channel" of monetary policy (henceforth MP) (Bruno and Shin (2015)) for example during the euro accession period. Cross-border lending contributes to credit booms, which furthered asset price booms, currency appreciation and sovereign spreads decline. First this is perceived as an improvement of macroeconomic fundamentals and sovereign risk as it strengthens financial stability indicators. Consequently it leads to even more lending and even more capital flows.[2] The resulting excessive credit growth, buoyant economic activity, more permissive financial conditions, facilitate the build-up of financial vulnerabilities. More recently, these surges also affected emerging market economies after ultra-easy monetary conditions in core advanced economies created "sudden flood" of financing. Such an external boost to local business cycles can further complicate domestic policy setting in EMEs as central banks face more complicated trade-offs. Tightening monetary policy to curb exuberance might

[2] The novel part of the "risk-taking channel" is that the funding currency – primarily the US dollar but also the Euro – became a key driver. This gave – and continues to give – these currencies a large clout in driving global financial conditions. The "risk-taking channel" view has implications when thinking about global imbalances and the Greenspan conundrum. In particular, it suggests that financial exuberance and low yields did not necessarily come from the "savings glut" of Asian economies. Instead European banks used short-term low-interest US dollar funding in wholesale markets to round-trip and invest in high-yield, high-risk longer dated US instruments - such as of highly complex, subprime-related assets. The post-financial crisis dollar appreciation gave an indirect proof to the risk-taking channel view: instead of depreciating, the dollar appreciated as European banks needed US dollar liquidity to unwind their round trips.

have negative side effects by further increasing short-term inflows. These inflows would fuel the already substantial exchange rate appreciation which would result in wider current account deficits, a more rapid credit and monetary expansion, asset price pressures, as documented for example in many emerging market economies[3]. And reversals are more pronounced since wholesale dollar funding is the most flighty and procyclical form of funding. The analytics are slightly more complex in an open economy context but still can be captured in many formal models (including open economy DSGEs), where we have also made some progress. We also know well now that combining an adequate monetary policy reaction with macroprudential tools can reduce temporarily excessive cross-border credit flows (eg using reserve and capital requirements, foreign exchange (FX) interventions etc). Those policies can be effective to moderate capital inflows and lean against excessive currency appreciation (Agénor et al (2014)). Naturally this debate is even more intense when CFMs are mentioned as it affects how such measures could be interpreted by foreign investors. But they have been well understood analytically and have been implemented quite successfully in many emerging economies.

## External and internal balance

We know relatively well macroeconomic policies to achieve external and internal balance. Our DSGE models for small open economies show that in order to avoid the typical EME debt/credit crisis, policymakers can combine macroprudential instruments, capital flow management and aggregate demand measures, including monetary policy. That came, in a certain sense, to the rescue of a more old-fashioned workhorse model used for a long time by policymakers, the Mundell-Fleming framework.

Ironically, the GFC put both AEs and EMEs on an equal footing and validated standard models and recommendations for macroeconomic and especially financial prudence. But before the crisis, several useful refinements have been added to complete our understanding of how to avoid crises. Various elegant models for exchange rate (ER) or currency crises (starting with Krugman (1979) and then Obstfeld (1986, 1996)) have explained the need for consistent exchange rate, fiscal, credit and FX reserve policies as well as the importance of expectations. Numerous historical and empirical studies have showed why fiscal prudence and low debt levels are key for stability and why the exceptional circumstances that politicians always invoke to increase public debt are never an exception. Analytical work and practical rules have confirmed the effectiveness of conducting monetary policy using inflation targeting (IT) frameworks. Central banks have improved their track record, anchoring inflation and expectations at a low and stable level combining interest rate policy with increasingly sophisticated signalling communication.[4]

They accumulated reputation and credibility throughout the Great Moderation. And it was also shown that under specific circumstances, stabilising inflation would also keep unemployment at its

[3] During the phase of large inflows in 2011–12, corresponding to the beginning of the Federal Reserve (FED) asset purchase programmes or quantitative easing (QE) in the United States and massive capital inflows into EMEs, many EME policymakers used a combination of Monetary Policy (MP) and MacroPrudential (MaPs) to control consumer credit growth (eg asking more capital for some consumer loans, lowering loan-to-value (LTV) and hiking reserve requirements (RR)). It remains however an important policy issue for both EMEs and AEs whether periods of excessive inflows need to be addressed by a combination of monetary, fiscal and capital flow management (CFM) policies. This issue is critical since we know that monetary easing spilled over from the reserve currency countries into some EMEs and smaller advanced economies, such as European peripheral countries outside the core euro area. Then the issue, of particular importance in currency unions in construction (eg with no unified fiscal, regulatory and supervision frameworks) is if, how and when to use such instruments (MaPs and CFMs). Can these tools be a response to a possible situation where recipient countries have no autonomous monetary policy, and/or have to keep it looser than domestic conditions would have warranted and/or are not capable to use other instruments (tighter fiscal policy) to avoid excessive financial exuberance?

[4] In most AEs at least, as outlined by Blinder (1998). I will not discuss here the assessment of inflation targeting regimes in general or in EMEs in particular; see for a brief summary Agénor and Pereira da Silva (2013).

"natural" level, stabilising output, a "divine" and very useful coincidence. Hence, many countries, including most pragmatic EMEs adopted the current dominant macroeconomic policy framework: a (relatively) floating ER regime, a (relatively) sustainable fiscal policy, and a (relatively) open capital account; which in turn ensure room for manoeuvre for a (relatively) independent monetary policy. Financial stability goals and instruments further complemented the framework: the local financial system needs to be well-capitalised, strongly regulated and supervised to withstand even unusual shocks. Finally, sufficient FX reserves and/or access to some multilateral liquidity provision are necessary to withhold short-term shocks.

So we knew well how credit booms emerge and also how to reach internal and external stability. Provided the political economy set-up do not interfere too much with the triple constraints, in the Mundell-Fleming view of the world, policies would remain consistent in terms of the ER regime, the

Box 1

## Alexandre Lamfalussy's legacy to the debate over capital flows

In 1976, when Alexandre Lamfalussy came to Basel to take up the position of Economic Adviser at the Bank for International Settlements fixed exchange rates, strict capital controls and rigid financial regulations had just given way to a much more open, market-driven system, underpinning an impressive financial globalisation wave that was also the decade of the oil crises, of economic stagnation in the western economies and of persistently high inflation rates.

Not surprisingly, some of these risks and challenges that we are facing today bear a remarkable resemblance to some of the issues that monetary policymakers had to grapple with in Lamfalussy's time at the BIS. Lamfalussy and his central bank colleagues were particularly concerned about the explosive growth of international bank lending during the second half of the 1970s – a "sudden flood" of capital inflows to the emerging markets, in particular to Latin America. This "flood" had its origin not only in the development needs of the countries concerned, but also in the excess liquidity generated by bank's intermediation role, in part using oil country surpluses and favoured by the loose monetary conditions prevailing in most advanced economies.

Throughout most of the 1970s, real, inflation-corrected interest rates were in fact negative. Lamfalussy and his colleagues worried that the rapid build-up of debt would prove unsustainable, and that a reversal might easily lead to a collapse of the global financial system given the high levels of exposure of many commercial banks in the western world. This is exactly what nearly happened once monetary conditions tightened from 1979–80 onward. The Mexico crisis erupted in August 1982, and collapse was only averted with concerted lending, public funds and painful austerity.

Policymakers at the time agreed that this volatile environment posed increased financial stability risks, but disagreed on what to do about them. Lamfalussy and his colleagues were, already in the late 1970s, exploring policies to limit the excessive debt build-up. These attempts were ultimately unsuccessful, but some of the measures they proposed – including the requirement for internationally active banks to make special balance sheet provisions and to increase their capital ratios to cover specific risks – would today be termed *macroprudential*. Indeed, the term *macroprudential* was coined for the very first time in these discussions. Policymakers understood it was no longer sufficient to only look at the resilience of individual financial institutions. In the face of potential financial fragility a broader approach was required considering the risks and problems of the global financial system and of the market as a whole.

openness of capital account and the spread of the domestic interest rate. The bottom line is that combining some ER flexibility, domestic demand management with a moderate debt level would limit the likelihood of a crisis. In a nutshell, these old and new analytical and policy frameworks captured well main policy challenges for AEs and EMEs alike. We had learned how to cope with the Impossible Trinity, large capital flows, financial cycles and how to design a relatively robust and durable set of policies to ensure external and internal balance with some per capita growth and sustainable social inclusion. Facing the same problem Lamfalussy faced decades ago, it appeared that we now had more answers from robust analytical work. That included understanding how financial cycles get global,

produce spillovers, and how to address credit and asset price bubbles. But things are always more complicated.

## Spillovers and collateral effects

We now know relatively well that spillovers might actually make adjustments more complicated. We are beginning to understand that global financial cycles and its risk-taking channel derail the normal workings of the ER self-stabilising mechanism in the Mundell-Fleming framework. There, the ER acts as a stabilising variable when it affects relatively quickly the real economy through exports or imports, adding or subtracting demand impulse given its price elasticity. However, the risk-taking channel creates a different dynamic, where stock accumulation of liabilities in international currencies (euro/dollar) might be disconnected from the needs of the local real economy. Therefore, for example, balance sheet risks accumulate in good times, through excessive foreign currency borrowing by firms and households. First things look all right. The observed exchange rate volatility is low. Risks of excessive debt and or FX mismatches are downplayed. Simplistic arguments on trend exchange rate appreciation, a misreading of the Balassa-Samuelson effect, are used, sometimes even by seemingly sophisticated observers. This "benign neglect" holds until, of course, the exchange rate moves. And when it does, the speed of adjustment is too abrupt to produce a real-economy adjustment in time. On the other hand, risk-premia quite often rise in this situation and inevitably undermine confidence in financial stability.

Moreover, before the crisis hits, when ER and other asset price appreciation begins, the political economy cycle usually contributes to reinforce local credit booms through wealth effects, expectations and policy complacency. Sometimes political demands add to the pressure on fiscal and para-fiscal policy and end up creating too much debt. Sometimes genuine social and development needs ride on this euphoria to justify the pursuit of unsustainable fiscal policies. In most cases both aspects play a role in driving policies that attend political and social demands. This often occurs despite an ample literature on macroeconomic populism that had documented extensively why such actions might lead to crisis[5] and even worsen the social and development conditions that they wanted to remedy.

## Conventional and unconventional monetary policies

We still know relatively well to use old and new monetary policy instruments to boost financial conditions and market sentiment. In the immediate aftermath of the acute phase of the GFC, old conventional monetary policy worked well to help stabilise financial conditions. The cost of money fell quickly as the policy rate was brought to its zero lower bound. Liquidity was provided in time and quantity to unfreeze interbank markets. After a while though, additional and then what was termed more "unconventional monetary policies" (UMP) were implemented. Balance sheet policies (eg "quantitative easing" (QE), credit enhancing etc) had the effect of boosting asset prices and financial conditions beyond the effect of ultra-low short-term policy interest rate. Although these policies are not necessarily unconventional (Borio and Disyatat (2009)), for example FX intervention had been used previously, their size, intensity and persistence were new. UMP was used by several central banks to

[5] The GFC has shown that advanced economies are not immune to these risks: In the United States, the political economy also encouraged through quasi-fiscal guarantees unsustainable credit growth to facilitate homeownership, for instance. As stated above, in the euro area, optimism about "convergence" fuelled credit flows from the core to the periphery – which then during the euro debt crisis stopped suddenly with dire consequences. Core countries' financial institutions assumed complex balance sheet risks before the financial crisis that had to be unwound under the complex construction of a unified system for bank supervision and resolution that was absent before the crisis.

"improve" the risk profile and composition of private sector balance sheets, by-passing market risk aversion, purchasing less liquid or even risky assets. Central bank's (CB) also communicated clearly that they were prepared to use their balance sheet to reduce yields and ease financing constraints. In a sense, this became a powerful tool to conduct "quasi-fiscal" policy and asset/debt management in the broader context of the consolidated public sector balance sheet.

So at the beginning of the GFC and in addition to its ultra-low interest rate policy, CB's balance sheet policy worked as it should. Both policies helped to stabilise financial conditions and reduce the predictable large contraction in aggregate demand. QE lowered bond yields, and although all CBs strongly denied any "monetisation" of fiscal deficits, the debate raged (especially in the euro zone). Finally an important element of UMP was the new communication strategy of forward guidance (FG) vis-à-vis markets expectations (Woodford (2013)) to put downward pressure on term premia, a feature notably justified by the Federal Reserve.

Conventional and unconventional monetary policies were adopted by all major CBs certainly helped to unfreeze interbank markets and reduce excessive risk spreads in the acute period of the GFC. However, after nine years they seem to be producing "diminishing returns" and at the same time, some "market addiction". In other words, we seem to be in a critical juncture point where the divergent path of monetary policy conditions between the Dollar and the Euro-Yen zones is happening while there is still not a return to "normal". The assumption underlying using UMP was that at some point, after keeping the cost of money low for a prolonged period of time and flattened the term premia making long-term financing cost exceptionally low, there will be a rebound in confidence and risk-taking. These conditions seems to be emerging in the US but less so in Europe and Japan. Why?

## Animal spirits, confidence and new normal post-GFC growth

We know much less about why the post-GFC recovery has been relatively weak and uneven after unprecedented policy stimuli. The current recovery has even been labelled a "new mediocre". There are several competing narratives that try to explain lower growth for AEs and EMEs, ranging from cyclical (eg it's a simple conjunctural issue of deleveraging to pre-crisis level, then normal growth will come back after agents pay back their debts) to more structural issue of a new pattern for long term growth, either in AEs with a "secular stagnation" hypothesis[6] or in EMEs with a "middle-income growth trap" hypothesis[7]. In short, there could be forces at play now, revealed or exacerbated by the crisis (eg deleveraging plus precaution plus demography that produce higher savings, more inequality, uneven education etc). These forces are pushing the real neutral rate of interest far below what it was. So even with all the existing stimuli, and even adding more of it as advocated by some, still aggregate demand would remain subdued. There could be also an unfortunate coincident moment where EMEs have reached a cross-road where some are not able to integrate more additional factors of production and conduct structural reforms to produce the same growth outcome. Under these various narratives there

[6] The secular stagnation hypothesis was originally coined by Alvin Hansen in 1938 as an illustration of the consequences of the Great Depression in the early 1930s but re-instated in the recent policy debate of the post-GFC. As Larry Summers writes, ""There is increasing concern that we may be in an era of secular stagnation in which there is insufficient investment demand to absorb all the financial savings done by households and corporations, even with interest rates so low as to risk financial bubbles." *Boston Globe*, 11 April 2014. For his part, Paul Krugman comments that "the underlying problem in all of this is simply that real interest rates are too high. But, you say, they're negative – zero nominal rates minus at least some expected inflation. To which the answer is, so? If the market wants a strongly negative real interest rate, we'll have persistent problems until we find a way to deliver such a rate"; see "Secular Stagnation, Coalmines, Bubbles, and Larry Summers", Paul Krugman's blog, *New York Times*, 16 November 2013.

[7] EMEs in the middle income trap are characterised as growing at an increasingly slower pace because of the loss of their competitive edge over manufactured goods exports due to higher wages, poor productivity and incapacity to make the last leap towards AEs in the high-value-added market. As a result, without changes in sources of growth, institutions and factor market structural reforms, these countries will get stuck at this middle-income level.

is a significant variance in the new post-GFC sustainable growth pattern for EMEs and AEs. The current slowdown might still be simply "convergence to the mean"[8] (Pritchett and Summers (2014)) after a period of exceptional high growth that triggered a commodity boom. But it could also be a deeper "secular stagnation" story. In any event, it seems to be accompanied by an apparent disinflationary pressure in some AEs that further complicates central banks' strategies, especially those based on inflation dynamics that are more complex than we thought (Faust and Leeper (2015)).

The bottom line is that Animal Spirits of entrepreneurs in the real economy (Akerlof and Shiller (2009)) in the sense of the capacity to make longer-term investment decisions, are still "numbed". That psychological angle might be needed to explain why the usual multipliers (credit, financial) are still not functioning. One explanation would be that the "spirits" of financial sectors have been stimulated but have not transmitted into the real economy. Another way to look at it is a lack of "confidence" in the following sense: confronted with several divergent narratives about what is long-term sustainable growth agents and markets cannot form a definitive view. If that is the case, it is difficult for agents to currently price a reasonable return on savings compared to the "safest" risk-free asset (ie which type of a benchmark to use?). In this blurred environment, market sentiment fluctuates and follows the short-term ups and downs, of hints and expectations, hostage to the smallest hint of another injection of central bank stimuli. Hence, markets will react of course but without providing a sustainable path and consistent story for pricing assets and risk-taking. And therefore, while financial markets may overshoot, real economy investors prefer to "wait-and-see". The latter remain unanchored for long-run risk-taking, not capable of identifying a "bottom" for the GFC.

In this context it might be difficult for markets to define a reasonable stable scenario for benchmarks yield curves. There are simply too many missing parameters: the absence of a consensus on sustainable long-term growth; on the non-accelerating inflation rate of unemployment (NAIRU); on the slope of the New Keynesian Phillips Curve (NKPC) (Blanchard (2016)); and on the new post-GFC neutral rate (Rachel and Smith (2015)) etc. In short, the difference between equally plausible narratives for the future is just too big. Markets will prefer to fly to safety and in certain cases even pay to hold what they see as a "safest" haven. It is difficult to decide to invest and take risks in the face of this kind of "structural uncertainty". What would be the future contours of the long-run policy framework for macroeconomic and financial stability (the "new normal", its neutral rate)? Will we see more international policy coordination? Or will we see more episodes of "currency wars", of ad hoc FX interventions?

## Confidence and stable social contracts

We know very little about the relationship between what economists term "confidence" and social stability via contractual socio-political arrangements. Confidence in the sense of positive animal spirits implies, inter alia, some durable and firmly held view about the future growth of resources, a consistent return on savings and a benchmark yield for a safe asset. When these main parameters for business decisions are considered stable, reliable, especially vis-à-vis the real growth rate, the quality of policies and credibility of institutions are assessed and agents take their consumption, investment decisions over a certain time horizon. The Great Moderation was quite possibly such a moment where all these parameters were aligned and deemed consistent. But as we are constantly reminded (Akerlof and

[8] In Asiaphoria meets regression to the mean *(NBER Working Paper* No. 20573), Pritchett and Summers examine historical data on growth rates and conclude that, with economic growth, as with investment returns, past performance is no guarantee of future performance. They demonstrate that regression to the mean is the single most robust and empirically relevant fact about cross-national growth rates. The lack of persistence in country growth rates over medium- to long-run horizons implies that a country's current growth has less predictive power for future growth. Given the regression to the mean present in the cross-national data, however, where growth rates historically have averaged 2% with a standard deviation of 2%, continued high growth would be an extraordinary event.

Shiller (2009)), confidence results also from a complex set of economic and non-economic variables. One important component of it are stable rules and institutions (Drazen (2000), Acemoglu and Robinson (2012)) and their associated rules and binding arrangement on agents' behaviour. Beyond economic rules, confidence has also to be constructed since the origins of organised social groupings by establishing and upholding viable, durable, sustainable "social-political contracts" (Fukuyama (2011)). Such contracts define first rights and responsibilities in maintaining order and discipline and later on, in market economies technical rules to keep low debt, low inflation, through productive, cooperative and efficient mechanisms. Economists look at this from the viewpoint of institution stability, credibility of policies, predictability, more rules versus less discretion.

In the absence of such social contracts, or when they are disrupted, macroeconomic management becomes more difficult. And, as a case in point, exacerbating the old Tragedy of the Commons, the GFC has quite possibly revealed more explicitly that some of our old social contracts in AEs democracies but also elsewhere in many EMEs were not sustainable (Ferguson (2013)). They could not produce the same consensus about burden-sharing and the perception of present and inter-generational fairness. We have progressively elaborated in both AEs and EMEs a set of rules to erect a more or less socially inclusive and protective State. However, these rules appear now increasingly incompatible with our capacity to finance their tax implications and the fair distribution of their benefits. In other words, we have not really earned a Welfare State, fashioning its financing on permanent long-run sustainable total factor productivity (TFP)-based growth, we have probably "borrowed our Welfare State" and now this debt (Rogoff and Reinhart (2011)) is coming back to haunt us and of course to be repaid.

In addition, other cyclical uncertainties are creating more doubts about the short-term and transitions (eg the transition in China, its implications for future oil/commodity prices). And even more worrisome, we witness the present tensions about budgetary allocations, social security, pension systems that are part of the socio-political equilibrium of the pre-crisis Welfare State. The post-GFC keeps revealing their current and actuarial unsustainability. As an illustration of how tense the debate on burden-sharing (present and future) debt-servicing became, in many if not all AEs, tax or debt-financed additional fiscal stimuli was questioned and then rejected by all sorts of idiosyncratic and fierce political debates. At that point, monetary policy became the "only game in town" to support the recovery.

There is more: established regional currency arrangements went under stress. Localised regional separatisms are flourishing in AEs and EMEs alike. And last but not the least, although we are increasingly aware of the need for "global social contracts" to, at least, begin addressing some global negative externalities (eg the economic and financial consequences of climate change or the tragic geo-political tensions that are triggering waves of war refugees) our responses have so far being more symbolic than effective, leaving many unanswered questions about when, what and how to begin (eg the Paris COP21 climate change conference).

All this is not an environment favourable for confidence. Our dismal science with its macroeconomic and financial policies cannot address alone these complex issues that are much beyond our discipline. But economists need to send a warning that our societies can live with that sentiment of uncertainty and gloom for a bit of time but not for too long. We have to reflect on what exactly are we signalling as future policy directions. Aren't we contributing to create expectations that ironically confirm a secular stagnation scenario? What if reiterating that our recovery remains "mediocre" and needs additional monetary stimulus simply reinforces the perception that negative nominal interest rates might be here for a much longer time than we anticipated? What if this perception starts to affect savings behaviour and the balance sheets of large holders of safe, long-term assets (insurance and pension funds) (Pereira da Silva (2015))? Naïve optimistic incantations are futile, there are no simple answers but we need to reflect on self-fulfilling negative expectations spirals.

## Conclusion

We have managed to better understand the characteristics and dynamics of global financial cycles, how they behave and how they increase systemic risk. We also have learned which policies are needed to reduce risk, dampen excessive financial exuberance etc using leaning-against-the-wind policy instruments in combined/complementary way. We also discovered new angles through which vulnerabilities can build-up through risk-taking channel of debt flows in international currencies. We also see now, after nine years, how the recovery is taking place, weaker than many thought, especially given the massive stimuli used. The current market developments show uncertainties remaining and might tempt us to increase monetary stimuli and expansion of our asset purchase programmes. This might again boost short-term financial sentiment for a while. But are we going to continue recreating large financial cycles, just another boom with an over-priced asset of some sort? Is our capacity to re-instate growth now resting only in using financial markets and hyper-inflating some asset class (eg EME, housing, bonds etc)?

Or can we think of alternatives? Animal spirits might be subdued despite the unprecedented monetary stimuli because of the absence of a clearer picture about long-term sustainable growth, its related benchmark remuneration for savings and a (new) equilibrium position of the neutral real rate of interest. Therefore, shouldn't we focus on fostering more sustainable growth through real economy-based TFP? Some technology components of a new business cycle are apparently present in our daily life[9] (eg very low marginal costs for some activities, faster communication, new internet-based services, new exchange rules, new technologies fostering lower carbon growth patterns etc). It is not for central banks to directly engineer policies to foster TFP but neither should be their role to sustain credit boom-and-bust cycles that always end badly even if now we know much better how to manage them. So we should perhaps be pressing more all of us to focus on the traditional financing of the real economy that contributes to long-term TFP based sustainable growth.

Can our dismal science participate more into to this process? Surely, perhaps bringing elements to re-anchor markets' view of the future. How? Perhaps with narratives help reducing some uncertainty in both the short but also the medium-long term. That might require supporting more pro-active policies towards growth, structural reforms that allow us to get some TFP out of the current set of innovations already present in our societies (Rifkin (2014), Brynjolfson and McAfee (2014)).

We of course should not be naïve either. This is not a straightforward issue, many new technologies will change relative prices, including that of capital and might have an ambiguous if not negative impact on other factor markets, especially labour. There are transition costs. Still, it is possible to at least begin discussing a route toward a new growth pattern with its associated new social contract. That said, markets require more than just a vision, some tangible action is needed to re-anchor expectations. Some of this is happening with the current normalisation of monetary policy in the United States. Some of this is coming in the way systemic countries are redefining growth models and social contracts in AEs and EMEs alike. At the end, confidence will return in a durable way only when agents perceive that we have passed the "bottom" of the GFC. Then, they might begin feeling tangible evidence that the upside in asset prices are more than just the result of ad hoc temporary exceptional stimuli for exceptional times. They result from a more stable sustainable long-term direction. It will be a time to "buy".

Lamfalussy in his essay on Financial crises in emerging markets (2000), anticipated and reviewed the increased risks faced by the global financial system: "*However significant its contribution to*

[9] Although the debate is complex about the positive or negative role of new technologies. Robert J. Gordon, in CEPR No 62, September 2012 "Is US economic growth over? Faltering innovation confronts the six headwinds" that are in the process of dragging long-term growth to half or less of the 1.9% annual rate experienced between 1860 and 2007 (…) demography, education, inequality, globalisation, energy/environment, and the overhang of consumer and government debt".

*efficiency gains, the process of globalisation makes our financial world a more rather than a less risky place to live in. (…) Greater risk calls for less leverage, longer debt maturities, a stronger capital base, ample liquidity, and, most of all, risk-aware management for debtors and creditors alike*". True to himself, he stressed the indispensable international outlook: "*The process of financial globalisation throws up problems of worldwide dimension which cannot be handled on an ad hoc basis. Even if all the preventive measures taken by national authorities work, their sum total may turn out to be dismally inadequate for reducing the risk of a systemic crisis. And there is a genuine risk that in the case of a major crisis, national policy reactions will tend to diverge rather than converge*". For that reason, he concluded: "*Governments, central banks and regulatory agencies will have to meet the greatest of all challenges: setting up a well-structured and efficient cooperative framework at the global level*". Among other challenges that one still faces us today.

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