Il termometro dei mercati finanziari (5 ottobre 2018)

a cura di Emilio Barucci e Daniele Marazzina

06/10/2018 09:43

L'iniziativa di Finriskalert.it "Il termometro dei mercati finanziari" vuole presentare un indicatore settimanale sul grado di turbolenza/tensione dei mercati finanziari, con particolare attenzione all'Italia.

05-ott-18	Legenda					
Valutazione complessiva		Calma		↑	in miglioramento	
		Turbolenza		↔	stabile	
		Tensione		↓	in peggioramento	
Mercati italiani	05-ott	28-set	21-set	14-set	07-set	Tendenza
Rendimento borsa italiana	-1.77	-3.83	3.12	2.14	0.88	↑
Volatilità implicita borsa italiana	20.03	19.72	18.15	18.90	20.60	↓
Future borsa italiana	20255	20635	21415	20720	20320	↓
CDS principali banche 10Ysub	500.61	485.51	459.93	446.18	466.12	↓
Tasso di interesse ITA 2Y	1.34	1.05	0.76	0.88	0.94	↓
Spread ITA 10Y/2Y	2.07	2.09	2.08	1.93	1.94	↔
Mercati europei	05-ott	28-set	21-set	14-set	07-set	Tendenza
Rendimento borsa europea	-1.58	-0.92	2.58	1.56	-2.93	↓
Volatilità implicita borsa europea	13.93	13.12	11.99	13.05	14.60	↔
Rendimento borsa ITA/Europa	-0.19	-2.91	0.54	0.58	3.81	↔
Spread ITA/GER	2.85	2.67	2.38	2.36	2.49	↓
Spread EU/GER	0.93	0.90	0.84	0.83	0.88	↔
Politica monetaria, cambi e altro	05-ott	28-set	21-set	14-set	07-set	Tendenza
Euro/Dollaro	1.151	1.162	1.176	1.167	1.158	↓
Spread US/GER 10Y	2.66	2.58	2.61	2.54	2.55	↓
Euribor 6M	-0.268	-0.268	-0.268	-0.269	-0.269	↔
Prezzo Oro	1202	1191	1198	1197	1198	↔
Spread 10Y/2Y Euro Swap Curve	1.16	1.08	1.08	1.07	1.03	↓

Significato degli indicatori

- Rendimento borsa italiana: rendimento settimanale dell'indice della borsa italiana FTSEMIB;
- Volatilità implicita borsa italiana: volatilità implicita calcolata considerando le opzioni at-the-money sul FTSEMIB a 3 mesi;
- Future borsa italiana: valore del future sul FTSEMIB;
- CDS principali banche 10Ysub: CDS medio delle obbligazioni subordinate a 10 anni delle principali banche italiane (Unicredit, Intesa San Paolo, MPS, Banco BPM);
- Tasso di interesse ITA 2Y: tasso di interesse costruito sulla curva dei BTP con scadenza a due anni;
- Spread ITA 10Y/2Y : differenza del tasso di interesse dei BTP a 10 anni e a 2 anni;
- Rendimento borsa europea: rendimento settimanale dell'indice delle borse europee Eurostoxx;
- Volatilità implicita borsa europea: volatilità implicita calcolata sulle opzioni at-the-money sull'indice Eurostoxx a scadenza 3 mesi;
- Rendimento borsa ITA/Europa: differenza tra il rendimento settimanale della borsa italiana e quello delle borse europee, calcolato sugli indici FTSEMIB e Eurostoxx;
- Spread ITA/GER: differenza tra i tassi di interesse italiani e tedeschi a 10 anni;
- Spread EU/GER: differenza media tra i tassi di interesse dei principali paesi europei (Francia, Belgio, Spagna, Italia, Olanda) e quelli tedeschi a 10 anni;
- Euro/dollaro: tasso di cambio euro/dollaro;
- Spread US/GER 10Y: spread tra i tassi di interesse degli Stati Uniti e quelli tedeschi con scadenza 10 anni;
- Prezzo Oro: quotazione dell'oro (in USD)
- Spread 10Y/2Y Euro Swap Curve: differenza del tasso della curva EURO ZONE IRS 3M a 10Y e 2Y;
- Euribor 6M: tasso euribor a 6 mesi.

I colori sono assegnati in un'ottica VaR: se il valore riportato è superiore (inferiore) al quantile al 15%, il colore utilizzato è l'arancione. Se il valore riportato è superiore (inferiore) al quantile al 5% il colore utilizzato è il rosso. La banda (verso l'alto o verso il basso) viene selezionata, a seconda dell'indicatore, nella direzione dell'instabilità del mercato. I quantili vengono ricostruiti prendendo la serie storica di un anno di osservazioni: ad esempio, un valore in una casella rossa significa che appartiene al 5% dei valori meno positivi riscontrati nell'ultimo anno. Per le prime tre voci della sezione "Politica Monetaria", le bande per definire il colore sono simmetriche (valori in positivo e in negativo). I dati riportati provengono dal database Thomson Reuters. Infine, la tendenza mostra la dinamica in atto e viene rappresentata dalle frecce: ↑, ↓, ↔ indicano rispettivamente miglioramento, peggioramento, stabilità.

Asset management under a

minimum guarantee for life insurance products

di Emilio Barucci e Daniele Marazzina

06/10/2018 10:00

Life insurance products are often characterized by a minimum guarantee: the insurance company manages funds guaranteeing a minimum return to policyholders (with profit products).

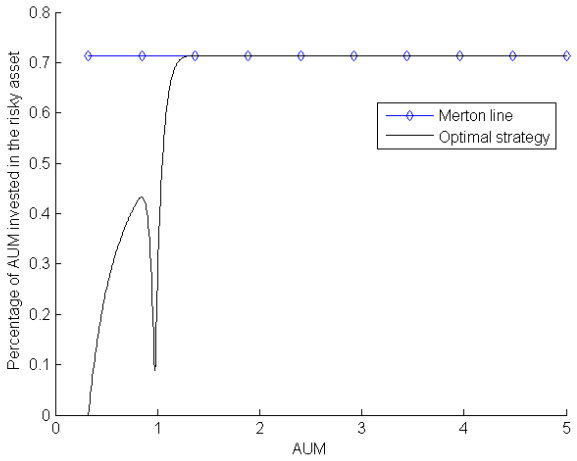
In a recent paper with Elisa Mastrogiacomo we investigated how the presence of a minimum guarantee affects the asset manager's strategy assuming that the liability of the insurance company is partially charged to the asset manager, see also Dong He and Kou (2018) and Lin et al. (2017).

Usually, the funds of policyholders are pooled together in a segregated fund, the insurance company manages it in order to refund claims and lapses of policyholders. The company is remunerated through a constant fee, and a fee that depends on the assets under management (AUM) of the fund (asset management fee) or through a share of the surplus over the guarantee in case it is positive and zero otherwise (performance fee). In some cases, a combination of the two schemes is at work.

Life insurance products with a minimum guarantee establish that the insurance company is endowed with a liability in case the fund goes below it. If this is the case, then the insurance company has to refund the performance gap to policyholders and, therefore, the company is short of a put option written on the AUM of the fund. This type of contract affects the management of the segregated fund by the insurance company.

We have investigated the asset management problem in a dynamic setting assuming that the payoff of the asset manager is made up of a constant fee, an asset management/performance fee and the liability in case the performance target is not reached. The guarantee is defined as a threshold on the AUM. We assume that the manager's remuneration decreases in case the AUM is below the guarantee threshold, concurring to the loss of the insurance company, but it cannot become negative. Therefore, it is the insurance company, with its revenues from other activities or its capital, that ensures the payment of the minimum return to policyholders, while the manager only concurs to the loss in the sense that her remuneration is negatively affected if the minimum guarantee is not reached. We deal with a stochastic and a constant risk interest rate.

We show that an asset management fee or a performance fee lead to a similar investment strategy with the latter yielding a lower level of risk exposure (investment in the risky asset). We show that the manager may invest in the risky asset even if the put option is in the money, i.e., when AUM are below the threshold of the guarantee. In that region, the investment is hump shaped: when the put option is deep in the money (AUM are far away from the threshold) the manager doesn't invest in the risky asset; as AUM increase, the investment in the risky asset increases and then decreases just below the guarantee reaching a null investment for a level of AUM that allow to reach the minimum guarantee. At that point there is a kink, then the investment in the risky asset increases again converging towards the solution obtained without constraint in the region where the guarantee is satisfied (Merton solution). The strategy is depicted in the figure below: we consider a market with a risk-free asset (a bond) and a risky asset (a stock), and we plot the percentage of the AUM (1=100%) invested in the risky asset by the manager, setting the minimum guarantee threshold equal to 1.



If the company is remunerated also through a constant fee, then the investment strategy may be hump shaped also above the threshold yielding excess risk taking with respect to the Merton solution. This result confirms that, contrary to common wisdom, a remuneration based on a fixed fee leads to excess risk taking, see Ross (2004) Barucci et al. (2018) .

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IMF: regulation challenges towards a safer financial system

06/10/2018 16:43

In the decade since the collapse of US investment bank Lehman Brothers sparked the most severe economic crisis since the Great Depression, regulation and supervision of the financial sector have been strengthened considerably. This has reduced the risk of another crisis, with all its attendant woes—unemployment, foreclosures, bankruptcies. But a new risk has emerged: reform

fatigue.

As memories of the crisis fade, financial-market participants, policy makers, and voters are growing weary of calls for new regulations, and some are even demanding a rollback of existing ones. There is good reason to resist these pressures. The reform agenda that aimed to prevent another financial crisis has not yet been fully implemented, and new risks to global financial stability continue to emerge. To complete the agenda and meet new challenges, international cooperation will be vital, according to Chapter 2 of the latest Global Financial Stability Report.

The financial system is safer, reports the IMF. Banks have thicker and better capital cushions to absorb losses, and they are now better able to convert assets into cash in times of stress. Countries also use stress tests to check the health of the biggest banks and have set up oversight authorities to monitor risks to the financial system.

But there is still more work to be done. In particular, implementation of the so-called leverage ratio, which constrains banks' ability to expand excessively during boom times, should be completed, and supervisors must not weaken oversight of major banks whose failure could pose a threat to the financial system. *Where else should authorities focus their attention?*

- **Liquidity:** Before the crisis, many financial firms borrowed money for short terms in wholesale markets to fund longer-term assets. When trouble struck, they were unable to roll over the short-term borrowing, forcing them to sell assets at fire-sale prices. In response, the Basel Committee on Banking Supervision, a global standard-setting body, introduced the so-called Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). Their purpose: to encourage banks to hold more liquid assets as protection against a sudden drop in funding, and to better align the maturities of their assets and liabilities. Most countries have adopted the LCR, but the NSFR is still a work in progress. This work must be completed.
- **Macroprudential regulation:** Countries, including India and the United States, have set up authorities to monitor and contain systemic risks. In many places, however, these authorities lack sufficient powers and tools to rein in excessive buildup of leverage and mismatches in non-financial corporations and households. Cross border cooperation in data sharing and systemic risks also should be improved.
- **Shadow banking:** Countries have made progress in overseeing and, to a lesser extent, prudentially regulating so-called shadow banks, such as asset-management companies. But work remains to be done, and in many countries, including China and other emerging markets, the rapid growth of shadow banking could pose risks to other areas of the financial system.
- **Bank resolution**: During the crisis, costly taxpayer-funded bailouts of large banks, while helping to limit the damage to the financial system, caused a popular backlash. After the crisis, countries adopted measures making it easier to wind down, or resolve, large banks in a way that imposes greater costs on shareholders and limits the use of public money. But there has been less progress on resolution regimes for insurance companies, and cooperating across borders to address the failure of the world's largest banks is a particular challenge.

Above all, regulators must avoid complacency. It's not possible to reduce the chance of a crisis to zero, nor should we seek to. With ten years of experience in implementing the new reforms, an evaluation of the impact of these on the broader economy is in order. Regulators could then assess whether tradeoffs arise between costs and burdens imposed by new rules and the benefits of greater safety. And they must remember that risk tends to rise during good times, and it migrates to new, unexpected corners of the financial system. They mustn't get caught fighting the last war.

IMF: A Decade After Lehman, the Financial System Is Safer. Now We Must Avoid Reform Fatigue (HTML)

EBA: preliminary impact of the Basel reforms on EU banks capital and updates on liquidity measures in the EU

06/10/2018 16:32

The European Banking Authority (EBA) published today two reports, which measure the impact of implementing Basel III reforms and monitor the current implementation of liquidity measures in the EU. The EBA Basel III capital monitoring report includes a preliminary assessment of the impact of the Basel reform package — as endorsed by the Group of Central Bank Governors and Heads of Supervision (GHoS) — on EU banks assuming its full implementation.

The report on liquidity measures monitors and evaluates the liquidity coverage requirements currently in place in the EU. The EBA estimates that the Basel III reforms would determine an average increase by 16.7% of EU banks' Tier 1 minimum required capital. The liquidity coverage ratio (LCR) of EU banks stood at around 145% in December 2017, materially above the minimum threshold of 100%.

Basel III monitoring report

The Basel III monitoring report assesses the impact on EU banks of the final revisions of credit risk, operational risk, and leverage ratio frameworks, as well as of the introduction of the aggregate output floor. It also quantifies the impact of the new standards for market risk (FRTB), as set out in January 2016, and credit valuation adjustments (CVA).

Overall, the results of the Basel III capital monitoring, based on data as of 31 December 2017, show that European banks' minimum Tier 1 capital requirement would increase by 16.7% at the full implementation date. The impact of the risk-based reforms is 21.8%, of which the leading factors are the output floor (6.3%) and operational risk (5.7%). The leverage ratio is the constraining (i.e. the highest) Tier 1 requirement for some banks in the sample, explaining why part of the increase in the risk-based capital metric (-5.1%) is not to be accounted as an actual increase of the overall Tier 1 requirement.

Change in total Tier 1 minimum required capital, as percentage

of the overall CRR/CRD IV minimum required capital, due to the full implementation of Basel III (2027), in %

	Credit risk	Market risk	CVA	Op. risk	Output floor	Total risk-based	Revised LR	TOTAL
All Banks	4.5	2.0	3.3	5.7	6.3	21.8	-5.1	**16.7**
Group 1	4.1	2.3	3.8	6.4	6.5	23.0	-4.3	**18.7**
Of which: G-SIIs	4.7	3.4	5.4	7.5	5.4	26.4	-1.0	**25.4**
Group 2	6.7	0.6	0.4	1.4	5.3	14.4	-10.6	**3.8**

Source: EBA QIS data (December 2017)

To comply with the new framework, EU banks would need EUR 24.5 billion of total capital, of which EUR 6.0 billion of additional CET1 capital.

EBA report on liquidity measures

The EBA report on liquidity measures under article 509(1) of the Capital Requirements Regulation (CRR) shows that EU banks have continued to improve their LCR. At the reporting date of 31 December 2017, EU banks' average LCR was 145% and the aggregate gross shortfall amounted to EUR 20.8 billion corresponding to four banks that monetised their liquidity buffers during times of stress. A more in-depth analysis of potential currency mismatches in LCR levels, suggests that banks tend to hold lower liquidity buffers in some foreign currencies, in particular US dollar.

2018 Basel III Monitoring Exercise Report (PDF)

BIS: Monitoring of fast-paced electronic markets

06/10/2018 15:57

Trading in foreign exchange and other fast-paced electronic markets is increasingly spread across a range of platforms, with non-bank intermediaries, most notably principal trading firms, gaining a stronger foothold. In addition, access to data and data-centric technologies increasingly defines competitive and market structure changes.

The Bank for International Settlement (BIS) recently issued a report analyzing the major developments in the evolution of market structure and their implications for central banks. Market monitoring is a core part of central bank activities for operational purposes and to help fulfil their financial stability mandates.

The report highlights three key structural trends:

1. Trading is increasingly fragmented across a range of new venues, while the frequency of activity and speed of information flows have accelerated significantly, especially in foreign exchange markets.
2. Liquidity provision has become more concentrated among the largest banks, as smaller players resort to an agency model of market-making or exit the business altogether. At the same time, a new set of non-bank intermediaries, most notably principal trading firms, have strengthened their positions.
3. Greater electronification has led to the commoditisation of large quantities of high-frequency data.

As many central banks participate actively in fast-paced electronic markets (for example, when implementing monetary policy) they are adapting their approaches to market monitoring. This includes the range of participants with whom they engage, the types of data collected, and the tools and technologies used.

The report points to an overall trend among central banks towards greater usage of high-frequency, transaction-level data. Monitoring market conditions in near time using such data can support monetary policy implementation and foreign exchange reserves management. Over the long term, such monitoring can serve financial stability purposes, for example, by allowing a better understanding of structural trends or aiding the analysis of specific events such as recent "flash crashes".

BIS: Monitoring of fast-paced electronic markets (PDF)

EU Court of Justice validates the BCE purchase program on secondary markets

06/10/2018 15:36

By decision of 4 March 2015, the European Central Bank (ECB) put in place a secondary markets public sector asset purchase programme ('PSPP'). The PSPP is one of the four sub-programmes of the Expanded Asset Purchase Programme ('APP') announced by the ECB in January 2015 and generally referred to as 'quantitative easing'. The other three sub-programmes of the APP, to which the PSPP is subsidiary, concern the purchase of private bonds.

The APP, and therefore the PSPP, aim to respond to the risks of deflation in the euro area and thus to maintain price stability. A large purchase of securities, including public sector bonds, is supposed to ease monetary and financial conditions enabling undertakings and households to obtain financing at more favourable prices. In principle, this stimulates investment and consumption, which contribute to returning inflation rates to the target level, namely below, but close to, 2%. The PSPP was set up in an environment where key ECB interest rates were at their lower bound and private purchase programmes were judged to have provided insufficient scope to achieve that goal. The only category of securities considered capable of providing the purchase volume needed to bridge the inflation gap, owing to its market volume at that time, was that of public sector bonds.

Several groups of individuals have brought before the Bundesverfassungsgericht (Federal Constitutional Court, Germany) various constitutional actions concerning various decisions of the ECB relating to the APP, the participation of the Deutsche Bundesbank (German Central Bank) in the implementation of those decisions or the alleged failure of it to act with regard to those decisions and the alleged failure of the Federal Government and the Lower House of the German Federal Parliament to act in respect of that participation and those decisions.

They claim that the PSPP infringes the prohibition of monetary financing of the Member States 2 and the principle of conferral of powers3 Moreover, they claim that the decisions on the PSPP undermine the principle of democracy enshrined in the

Grundgesetz (German Basic Law) and, accordingly, undermine German constitutional identity.

In today's Opinion, Advocate General Melchior Wathelet proposes that the Court should reply to the Bundesverfassungsgericht by stating that the examination of the decision of the ECB establishing the PSPP4 ('the PSPP decision') has not revealed any factor capable of affecting its validity.

The Advocate General considers, in the first place, that the PSPP decision does not infringe the prohibition of monetary financing. The PSPP does not give the European System of Central Banks (ESCB)'s intervention an effect equivalent to that of a direct purchase of government bonds from the public authorities and bodies of the Member States and, secondly, it is not such as to lessen the impetus of the Member States to follow a sound budgetary policy.

As regards the claim that the PSPP has an effect equivalent to that of a direct purchase of government bonds from the public authorities and bodies of the Member States, the Advocate General considers that the PSPP offers sufficient guarantees to prevent the conditions of issue of government bonds from being distorted by the certainty that those bonds will be purchased by the ESCB after their issue and to prevent operators which are active on the government bond markets from being able to act, de facto, as intermediaries for the ESCB for the direct purchase of bonds.

In that regard, the Advocate General notes in particular that (i) the ECB Governing Council decides on the scope, the start, the continuation and the suspension of the intervention on the secondary markets envisaged by the PSPP, (ii) the PSPP is subsidiary in relation to the other three APP programmes which concern the purchase of private bonds, (iii) unlike the OMT, the PSPP does not provide for the selective purchase of bonds, rather it provides for purchases in a manner which is representative of all the Member States of the euro area, (iv) the holding of bonds is, in principle, limited to 33% of bonds from a single issue and the ESCB is prohibited from holding more than 33% of the outstanding bonds of a single issuer for the entire duration of the PSPP, (v) there must be a minimum period between the issue of a security on the primary market and its purchase on the secondary market and (vi) the PSPP procedures communicated by the ECB are of a general nature.

In the second place, the Advocate General considers, as regards whether the PSPP exceeds the ECB's mandate in the light of its volume, its period of application and the ensuing consequences, that the PSPP pursues a monetary policy objective using instruments which fall under that same policy. In his opinion, the ECB did not commit a manifest error of assessment in determining the objective of the programme, or in its choice of instruments to be implemented. Moreover, it did not misuse its powers or manifestly exceed the limits of its discretion.

In addition to making the purchase of government bonds conditional upon the credit quality of the issuer or guarantor, three of the PSPP's characteristics in particular ensure that the programme does not, principally, pursue an economic policy objective. First, purchases of government bonds under the PSPP are subsidiary in relation to the activities authorised by the other three APP programmes which all concern the purchase of private bonds. Second, the purchases authorised by the PSPP are distributed across all of the euro area Member States in accordance with a fixed and objective distribution key, which is independent of the individual economic situation of those States. Third, risk sharing is limited to 20% of purchases made under the PSPP.

Court of Justice of the European Union — Press Release No 145/18 (PDF)

Caccia al Tesoro Finanziaria@Polimi

06/10/2018 09:33

Il 2 ottobre 2018, presso il campus Leonardo del Politecnico di Milano, si è tenuta la seconda edizione della Caccia al tesoro finanziaria!

50 ragazzi delle IV e V dei Licei Parini, Beccaria e Vittorio Veneto di Milano hanno invaso il Dipartimento di Matematica per la seconda edizione di questa Caccia al tesoro interamente dedicata all'educazione finanziaria.

Organizzata dal laboratorio QFinLab dell'Ateneo in occasione della settimana mondiale Wiw – World investor week, e all'interno delle iniziative del Mese dell'Educazione Finanziaria, la gara ha permesso ai ragazzi di districarsi fra curiosi quiz finanziari, per imparare, giocando, alcuni dei principali concetti della matematica finanziaria, che si applicano alle scelte di ogni giorno, quali la scelta di un mutuo, il tipo di conto corrente e i rischi insiti nella scelta di quanto investire.

La Caccia al Tesoro Finanziaria offre un modo divertente per far riflettere i giovani su temi di educazione finanziaria. Il QFinLab ha ritenuto importante provare a entrare in contatto con i giovani su questi temi, stuzzicando la loro curiosità sotto forma di gioco e di competizione. In questo contesto ha avuto origine la Caccia al Tesoro Finanziaria, la cui prima edizione si è svolta il 4 ottobre del 2017, coinvolgendo 45 studenti delle classi 4 e 5 liceo di Milano. Il Politecnico di Milano è stato invaso dall'entusiasmo e dalla spigliatezza dei ragazzi, che si sono districati per il Campus Leonardo risolvendo enigmi finanziari. L'evento si è quindi ripetuto il 2 ottobre 2018, nell'ambito delle iniziative del Mese dell'Educazione Finanziaria.

www.imparalafinanza.it/

www.cacciaaltesorofinanziaria.it

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