

« New normal » and pension fund management

French Public Service Additional Pension Scheme



International Workshop on the Reform of Public Pension Systems

February 2nd 2015, Brussels

1/ The environment is changing, making more challenging pension management

→ Lasting trends:

- longer life expectancy
- It is difficult to monitor « pay as you go schemes » well...

→ How to reach a new balance in such an unbalanced world

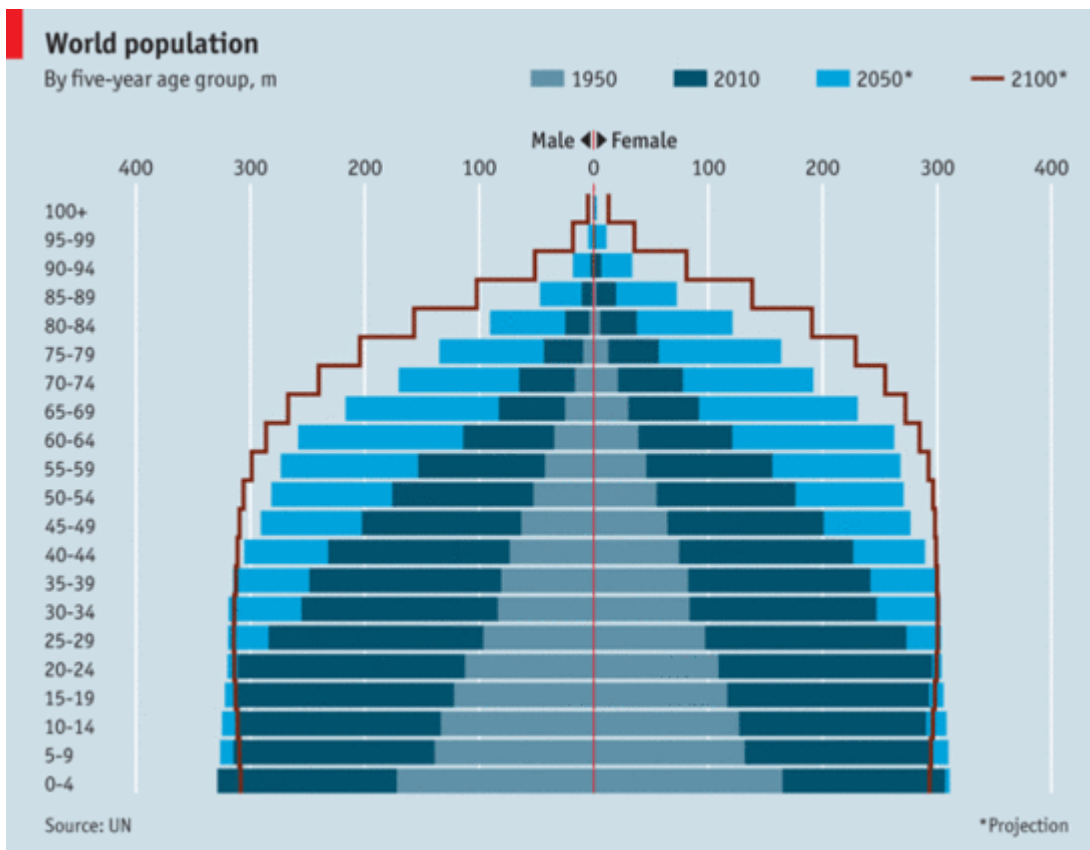
- crisis stroke already weakened economies
- how to adapt to the so called « new normal »

2/ ERAFP is an original Collective Defined Contribution Scheme

- point technic and intergenerational equity
- the will to make a difference by investing in a sustainable world

The aging of the world: where we are

By 2100, 22.3% of people will be aged 65 or over, up from just 7.6% in 2010.

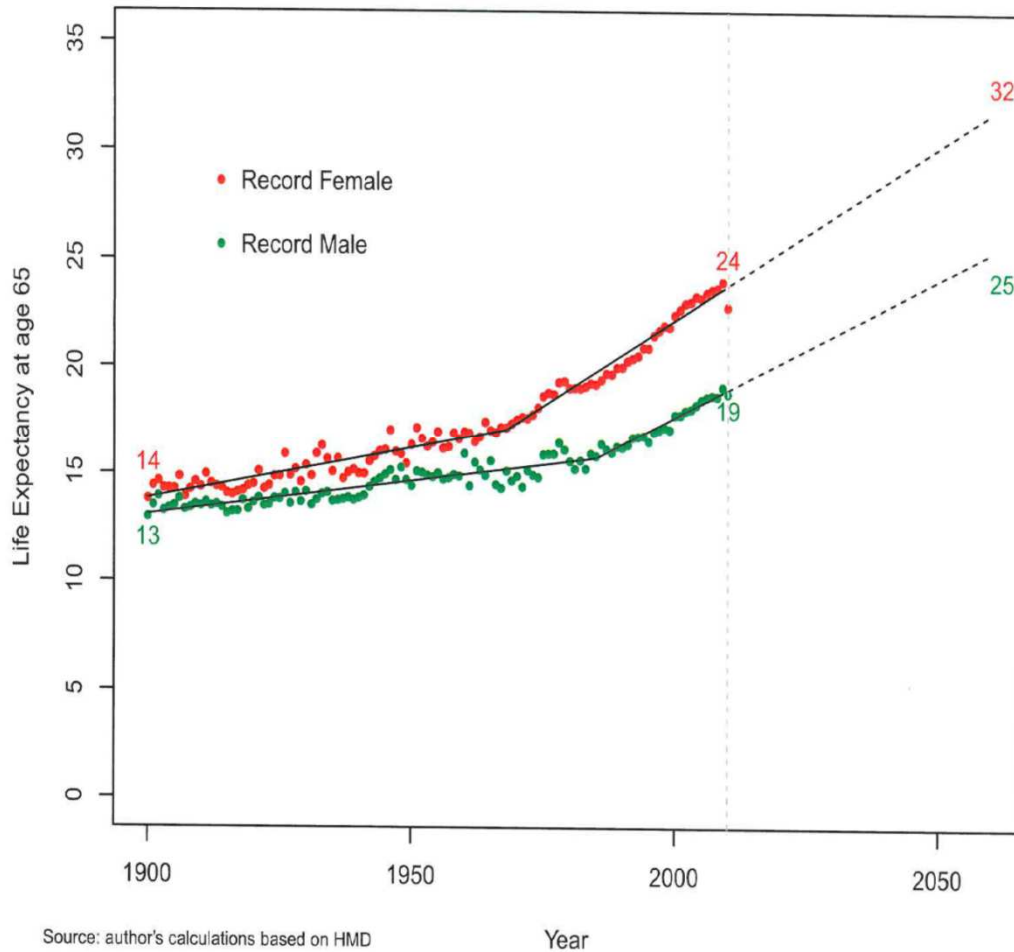


Change in life expectancy at age 65 for different social groups

		highest	lowest
US	1992	17,8	16,2
	2006	20,2	17,5
UK	1984	15,1	13
	2004	18,4	15,8
France	1980	15,3	15,8
	2004	19,8	16

The aging of the world: you ain't seen nothing yet!

Record and French life expectancy at age 65, 1900–2060.



What Calico is aiming at: "harness advanced technologies to increase our understanding of the biology that controls lifespan"



Dr Laurent Alexandre

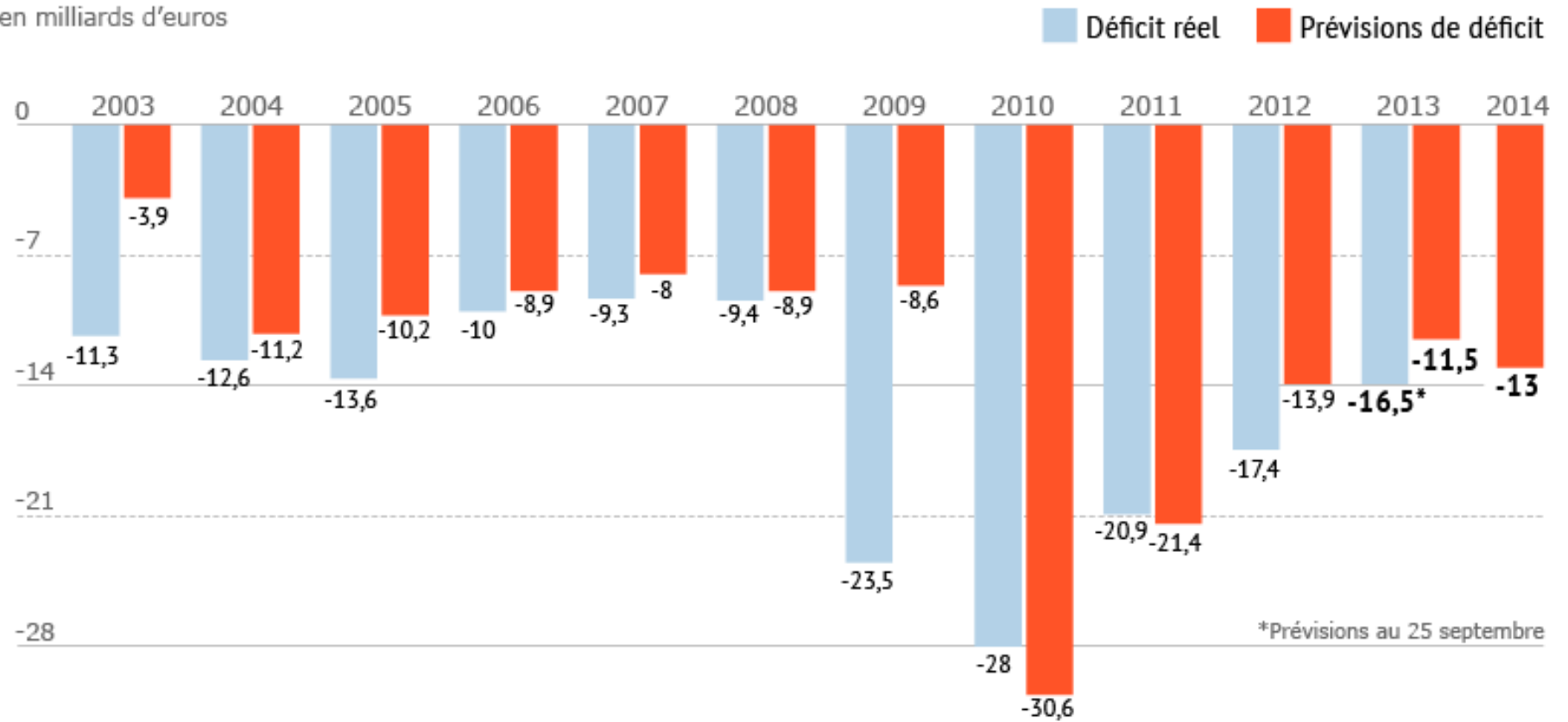


It is difficult to monitor « pay as you go schemes » well...

Une très lente convalescence

ÉVOLUTION DU DÉFICIT DE LA SÉCURITÉ SOCIALE

en milliards d'euros

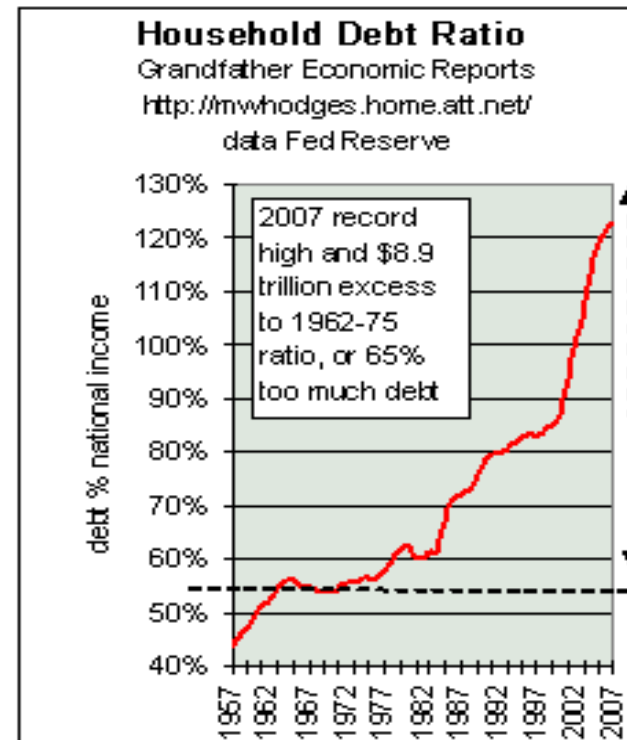
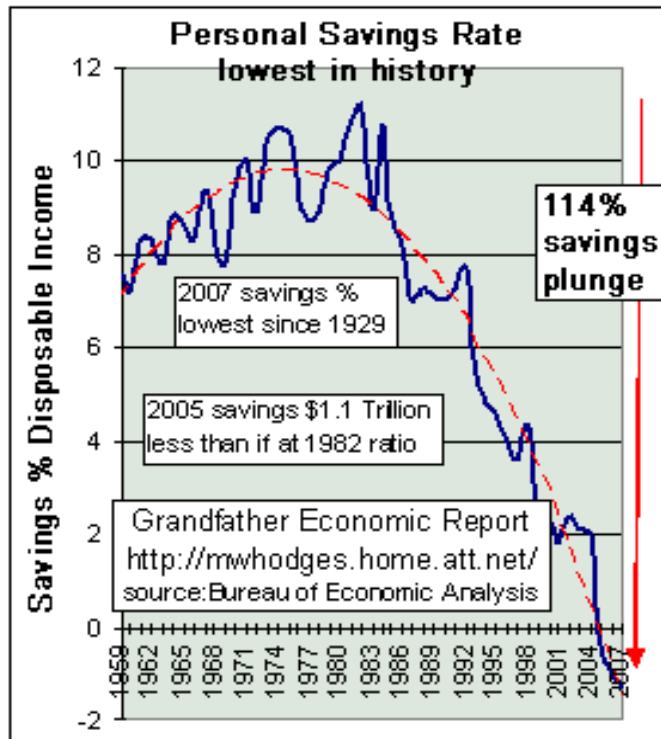


26/09/2013

Source : PLFSS

LE FIGARO · fr

The great leveraging or how to maintain consumption when the average real wage is stagnant.



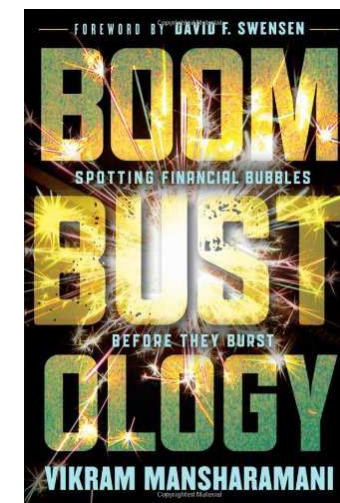
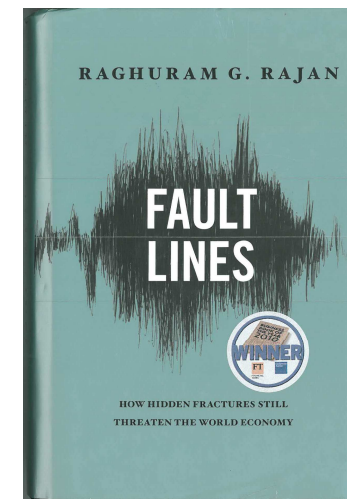
Dumb question ? « **Why are they lending money to people who can't afford to pay it back ?** »

An inconvenient truth: the last 30 years growth was not sustainable

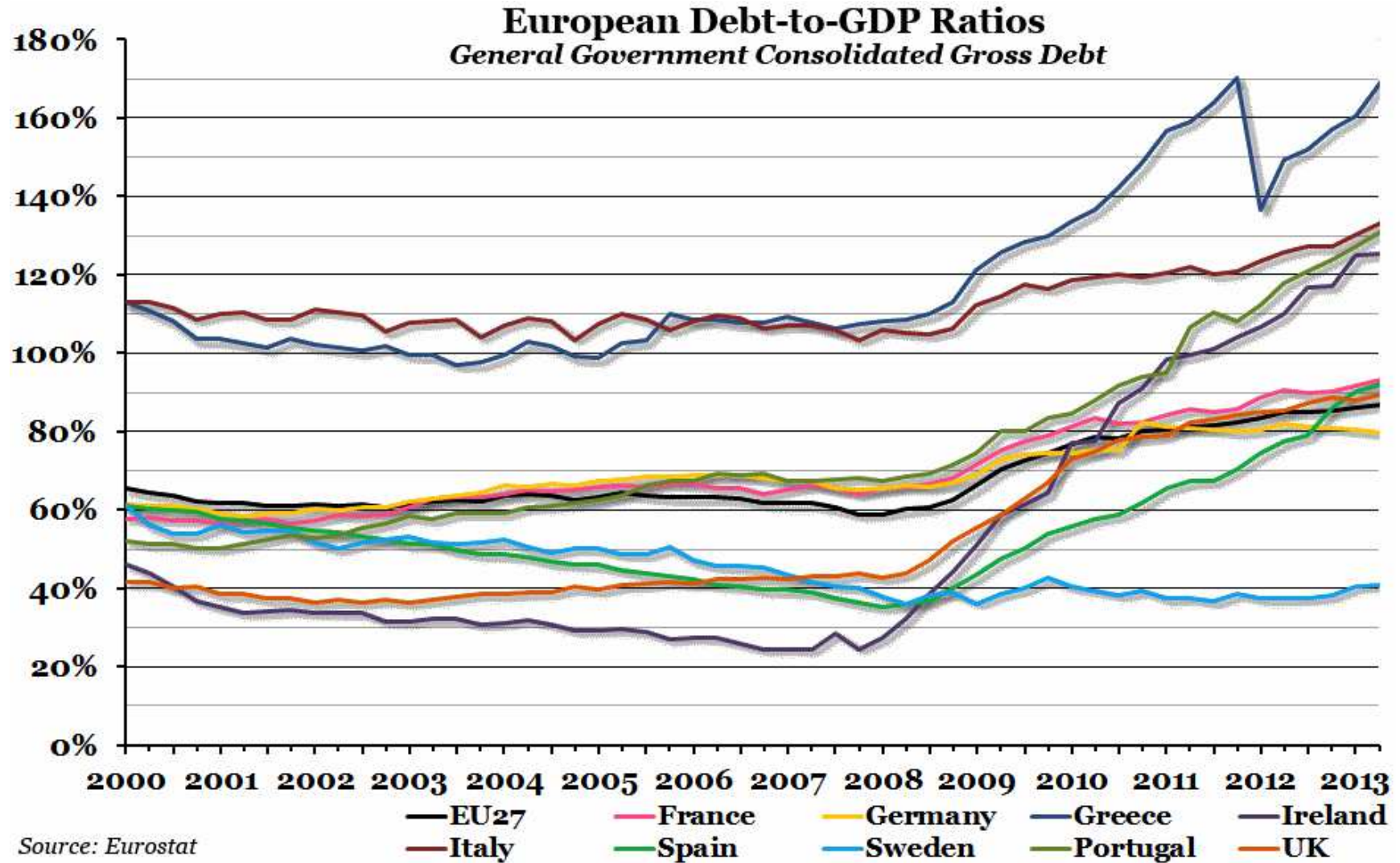


"As long as the music is playing, you've got to get up and dance. We're still dancing".

Chuck Prince,
ex Citi CEO



Public indebtedness was already high before the crisis



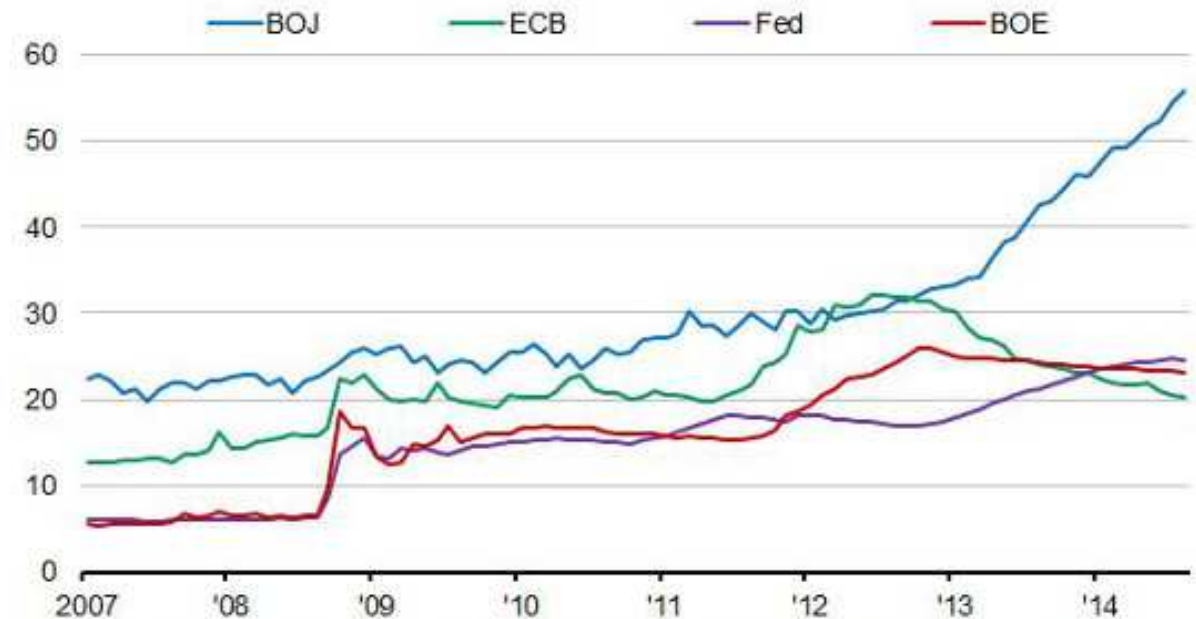
Monetary base has strongly increased

But with what impact:

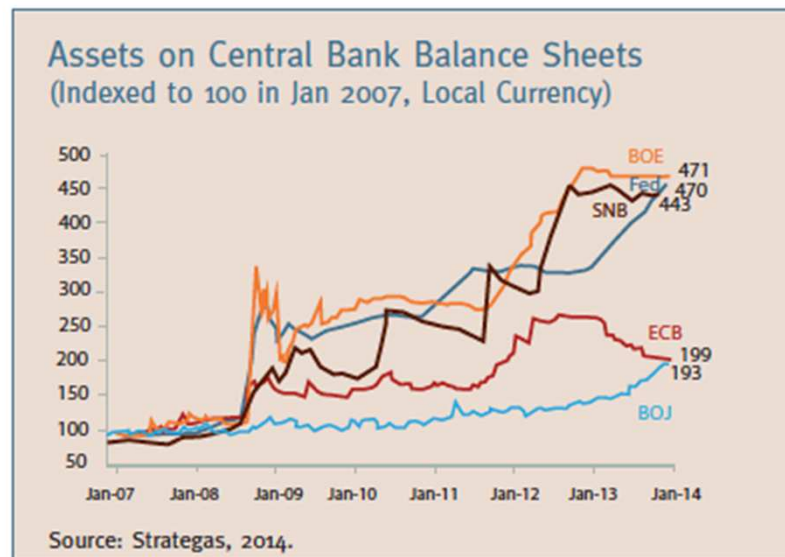
- on prices?
- on demand?

Bank of Japan Sets the Pace

Central bank assets as percentage of domestic GDP.



Source: Central banks via St Louis Federal Reserve; IMF 2014 based on forecast | WSJ.com



Source: Strategas, 2014.

Getting closer to a very scary situation: outright deflation!

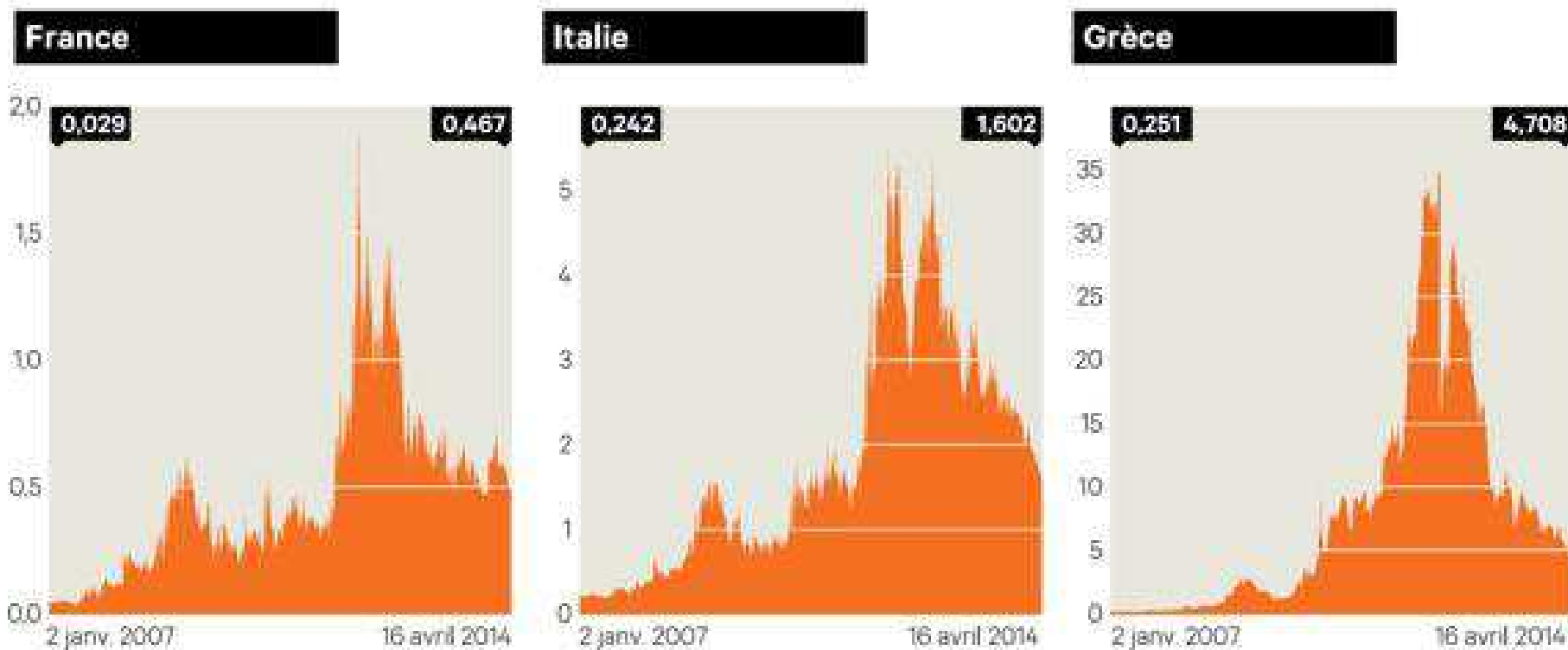


Liquidity has to go somewhere...A lasting low yield environment?

After too much pessimism back to too much optimism???

Les écarts de taux diminuent en Europe

Les « spreads » entre le taux à 10 ans de chaque pays et le taux à 10 ans allemand, en points.

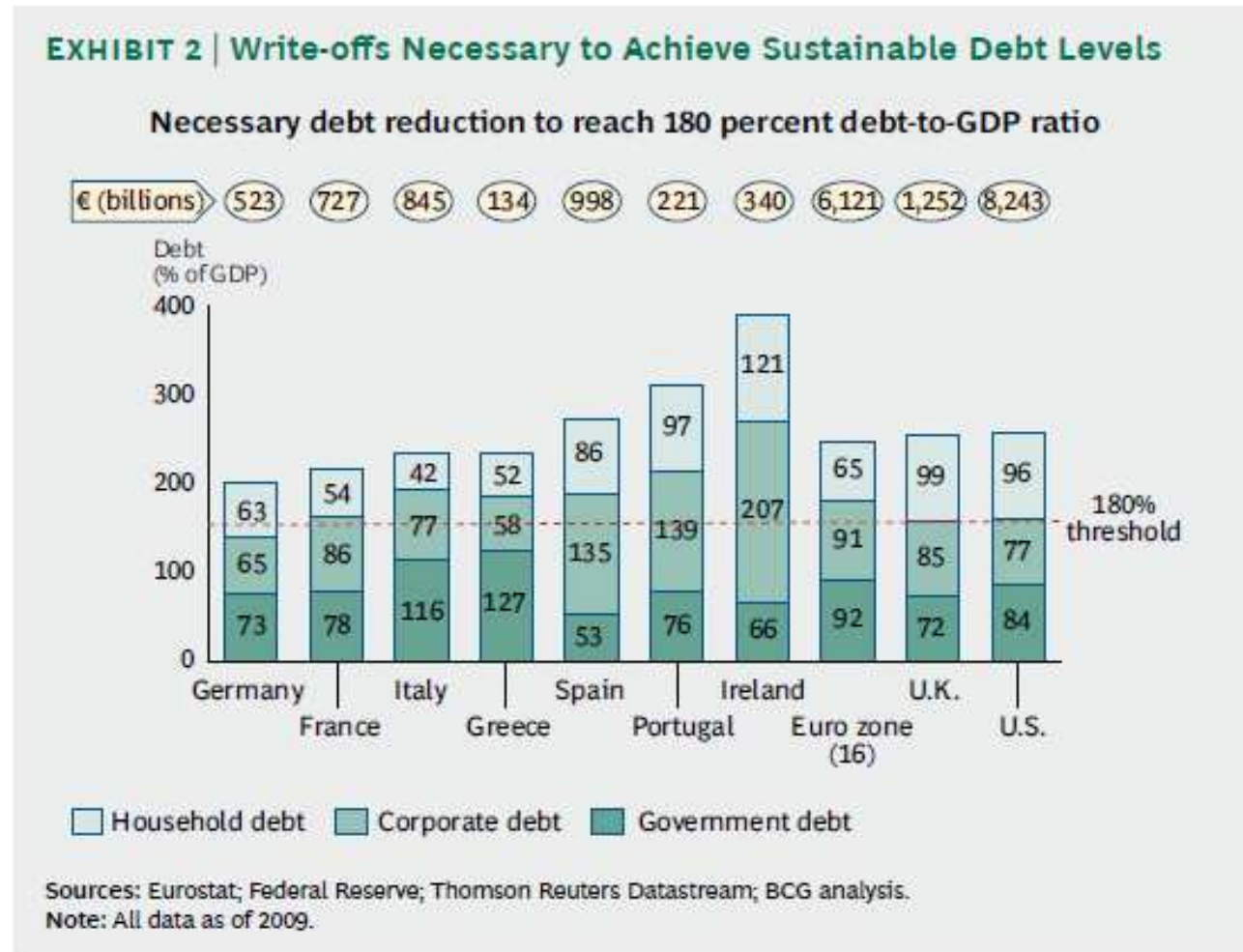


LES ÉCHOS / SOURCE : BLOOMBERG

Will there be a restructuring of the debt?

BCG 2011 : the looming threat of debt restructuring

<http://www.bcg.com/documents/file87307.pdf>



ERAFP'S KEY CHARACTERISTICS

45 000
employeurs

Régime additionnel
obligatoire,
par points,
entièrement financé,
et à cotisations
définies

21,07 Mds €
d'encours
Valeur boursière
au 31/12/2014

Crée en

2005



100%
ISR

Cash flows nets
positifs

> 2 Md €
→ 2023

4,5 millions
de fonctionnaires
bénéficiaires

Taux de couverture
des engagements
106,7%

→ A PUBLIC PENSION FUND

- Collective Defined Contribution scheme
- A fund that has put intergenerational equity at the core of its governance
- A fund monitored through a « point system »

AN INCONVENIENT TRUTH : MOST OF THE TIME RETIREMENT SCHEMES ARE « UNFAIR »

- Intergenerational equity and « sustainability »
 - Technical yield of a retirement scheme = « how much I get for how much I contributed » ;
 - « Implicit life expectancy » = how long will it take for my recouping my contributions.

- Assuming an observed life expectancy of 25 years (after people have retired at 62), how can we qualify a retirement scheme, in which, to recoup your contributions it takes :
 - 50 years, or on the contrary;
 - 10 years.

- If implicit life expectancy is lower than « observed » life expectancy, what can we conclude? Is it fair for young contributors?

AN INCONVENIENT TRUTH : WHAT CANNOT LAST FOREVER...WILL STOP !

- ➔ For a retirement scheme « sustainability » means **not to distribute benefits that are paid by *the « sacrifice » of the young contributors.***
- ➔ « Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. » (Bruntland report 1987)

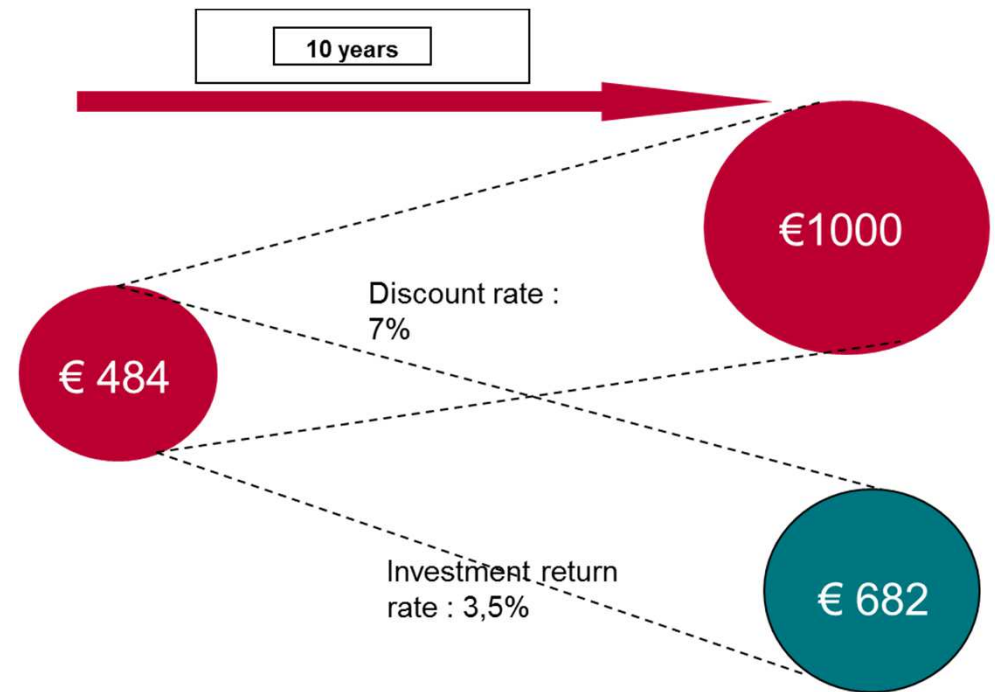


- ➔ Being optimist, one can estimate it takes 50 years for an oak to grow
 - ➔ What % of the forestry can be harvested every year?
 - ➔ What happens, if one harvests 10% of the forestry every year?

OVER OPTIMISTIC ASSUMPTIONS AND ENDURING INVESTMENT ?

Liabilities have been
"underpriced"

- ← Retirement benefits too generous
 - The higher the discount rate the cheaper the cost
 - What happens if the actual rate of return is much lower than the discount rate
 - If the actual return is 3,5% (vs. an expected return of 7%),
- I am short by **318**



Don't promise more than what you can deliver!

RUDE AWAKENING OR HARD LANDING!!!!



Pension funding gaps, big and small

Adjusted net pension liabilities
as % of state revenues, 2012 or latest available

Rank	State	%	Rank	State	%
1	Illinois	241	41	S. Dakota	21
2	Connecticut	190	42	Ohio	20
3	Kentucky	141	43	Tennessee	19
4	New Jersey	137	44	Florida	19
5	Hawaii	133	45	N. Carolina	18
6	Louisiana	130	46	New York	17
7	Colorado	118	47	Iowa	16
8	Penn.	105	48	Idaho	15
9	Mass.	100	49	Wisconsin	14
10	Maryland	100	50	Nebraska	7

Source: Moody's

RAFP is a Collective Defined Contribution Retirement Scheme

→ Collective Defined Contribution

- By contributing I am acquiring the right to an annuity
- It is collective and ensures mutualization
- It can ensure intergenerational equity
- It is much cheaper (and fees do matter!!!!!!)

RAFP MADE 2 CHOICES

- ➔ To put intergenerational equity at the core of its management
 - ➔ The advantages of the « Point technic » ;
 - ➔ A « pricing » deliberately prudent.

- ➔ The choice to invest according to its own SRI Charter
 - ➔ Values that coalesce the big issues that determine the passage towards sustainable development ;
 - ➔ Why the Best in Class makes sense.

FROM THE COTISATIONS TO THE PENSIONS HOW ARE RIGHTS ACQUIRED ?

- ➔ The contributions are declared annually by the employer and converted into **points**.
- ➔ The points earned by each beneficiary are based on the **purchase value**, which is set every year.
- ➔ The total number of points acquired can be consulted on-line (www.rafp.fr).

POINT PURCHASE VALUES

Source – ERAFP

YEAR	2005	2006	2007	2008	2009	2010	2011	2012	2013
Purchase value (€)	1	1.017	1.03022	1.03537	1.04572	1.05095	1.05620	1.07420	1.0850
Change	—	1.70%	1.30%	0.50%	1%	0.50%	0.50%	1.70%	1%

A capacity to acquire points growing steadily

FROM THE COTISATIONS TO THE PENSIONS HOW ARE BENEFITS CALCULATED ?

- The amount of the annual pension payment is calculated by multiplying the number of points acquired by the **service value**, which is also set annually.
- Payments may only start after the age of 60*.
- The entitlement is paid out in annuities, unless the number of points acquired is too low .

POINT SERVICE VALUES

Source – ERAFP

YEAR	2005	2006	2007	2008	2009	2010	2011	2012	2013
Service value (€)	0.04	0.0408	0.04153	0.04219	0.04261	0.04283	0.04304	0.04378	0.04421
Change	—	2.00%	1.80%	1.60%	1%	0.50%	0.50%	1.70%	1%

A technical yield just above 4% is *consistent* with an observed life expectancy of 25 years

→ It is sustainable

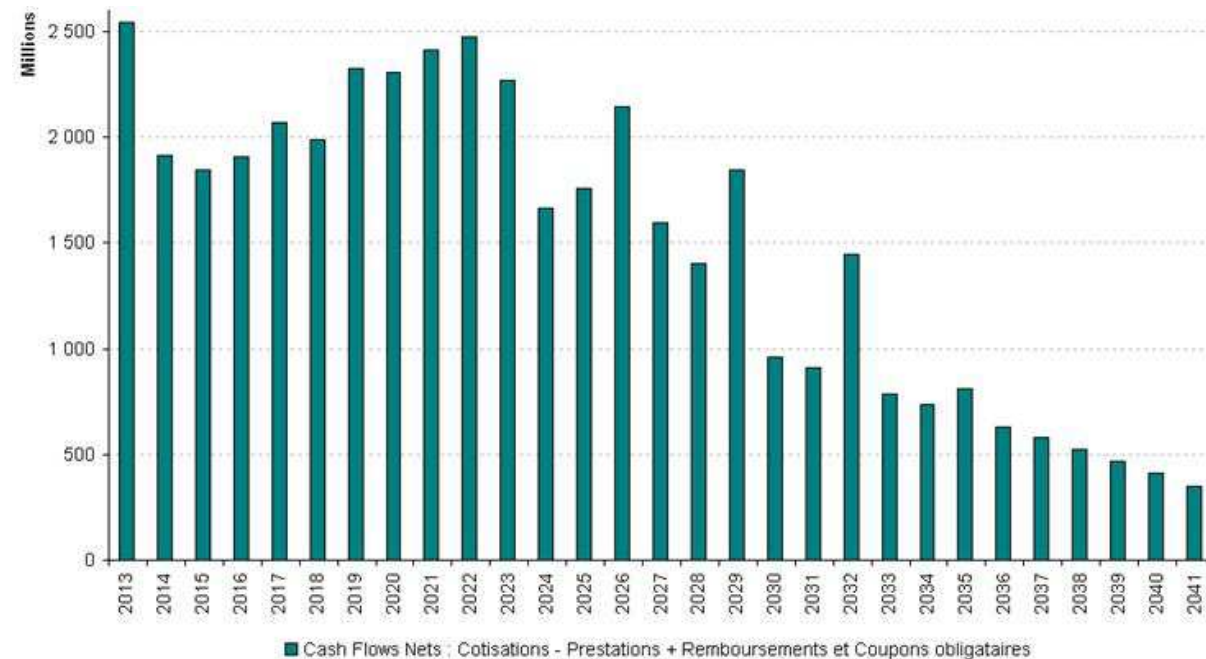
RAFP

A LONG TERM INVESTOR CONFRONTED WITH A LOW RETURN ENVIRONMENT AND A GLOBAL THREAT

- Long duration and huge net positive cash flows
- Diversify the asset allocation
- Should we fear inflation or deflation?

Extracting value from a long liquidity position

- Created in 2005, ERAFP is just at the beginning of its ramping up period:
 - The duration of our liabilities is long;
 - Based on civil servants' remunerations, cash flow projections are highly reliable;
 - There is not hidden put option: members cannot cash in their holdings before retirement.
- Average net positive cash flow: 2 b€ per year for the next 10 years
 - We can « hold » assets for a very long time:
 - We think long term;
 - We can invest for the long term.



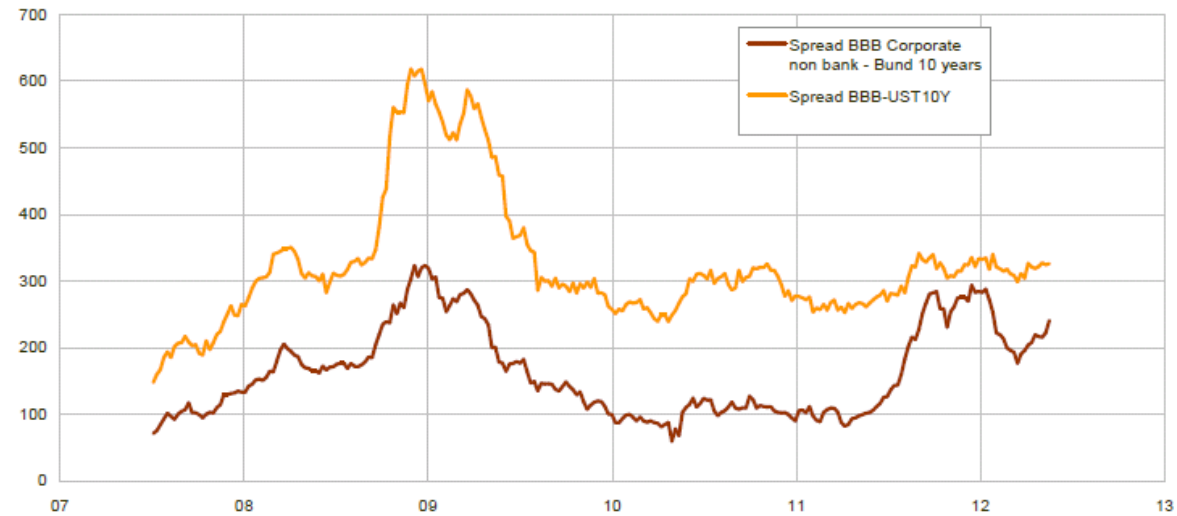
Our long liquidity position = an asset

DIVERSIFICATION SHOULD BE THE ESSENCE OF ASSET ALLOCATION (PART 1)

- If Bonds are to remain the main asset class it is important to increase Corporate bonds exposure
 - States levy taxes in the limits of their frontiers
 - Global companies do business on 5 continents
- Are you better off investing in
 - over leveraged Sovereigns, or
 - big global companies?

Markets give the answer

But corporate bonds are getting pricy.
It's almost too late!



DIVERSIFICATION SHOULD BE THE ESSENCE OF ASSET ALLOCATION (PART 2)

→ There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns – there are things we do not know we don't know.
R. Rumsfeld

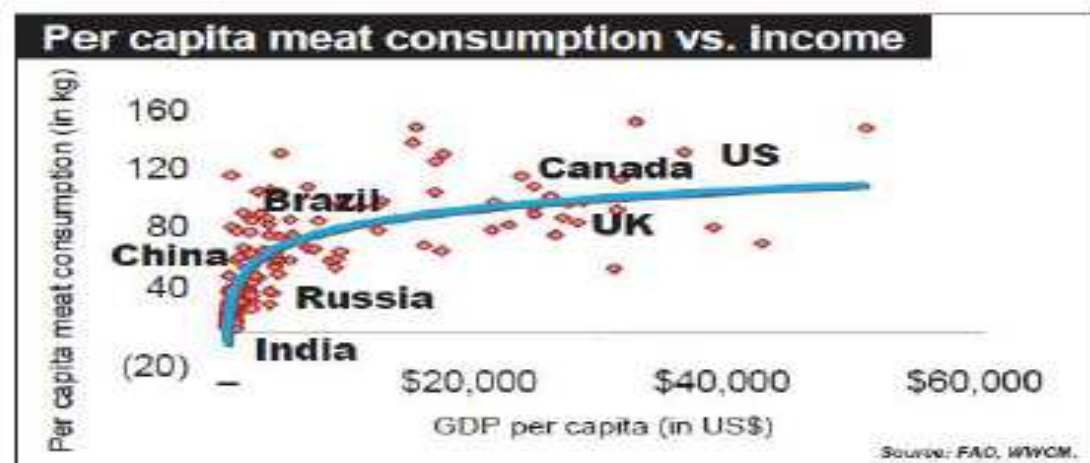
→ Unknowns:

- interest rate in 5 years not to say 10;
- inflation rate (idem) ;
- perimeter of €zone.

→ What do we know?

- more than 2b people to feed as of 2050 ;
- infrastructures need huge investing ;
- 1b people with no access to tap water.

INVESTING IN RESOURCE SOLUTIONS					
Investment opportunities across more than 20 sectors					
Water	Agribusiness	Renewable Energy	Cleaner Solutions/Resource Efficiency		
Technology	Producers	Wind	Clean Energy	Recycling & New Materials	Energy Efficiency
Infrastructure	Suppliers	Solar	Natural Gas	Recycling	Power Transmission
Utilities	Processors	Biomass			Carbon Capture
	Services	Fuel Cells			Transport Efficiency
		Wave/Tidal			Motor Efficiency
		Geothermal			Automation & Process Controls



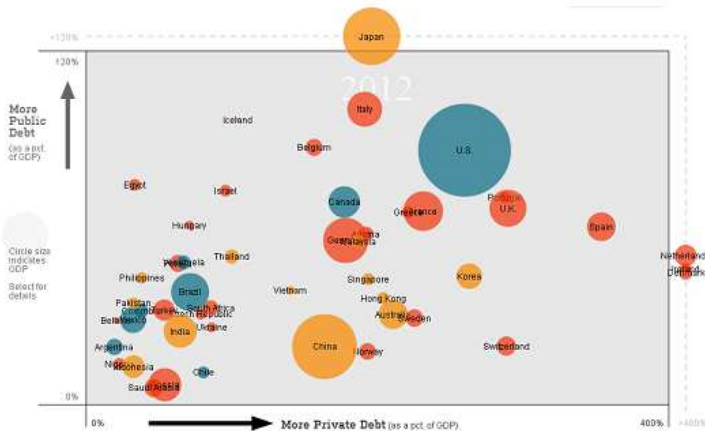
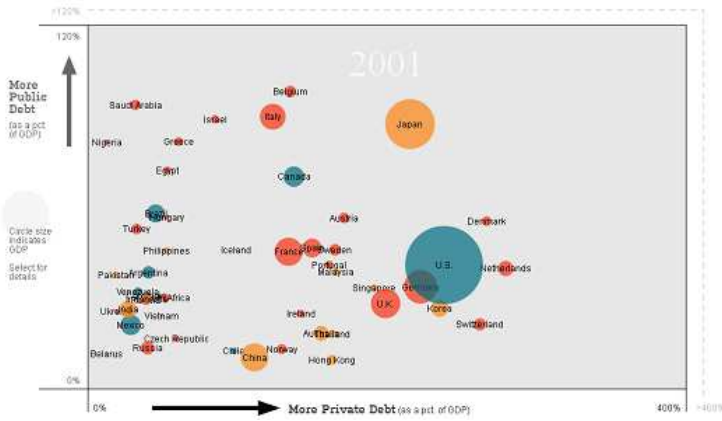
There are no easy ways out of debt?

Yes we can inflate our way out of the crisis (can we?)



A NEW GLOBAL THREAT : debt overhang and the risk of deflation ?

Click to see how global economic forces have affected debt-to-GDP ratios



Source: Real Time Economics

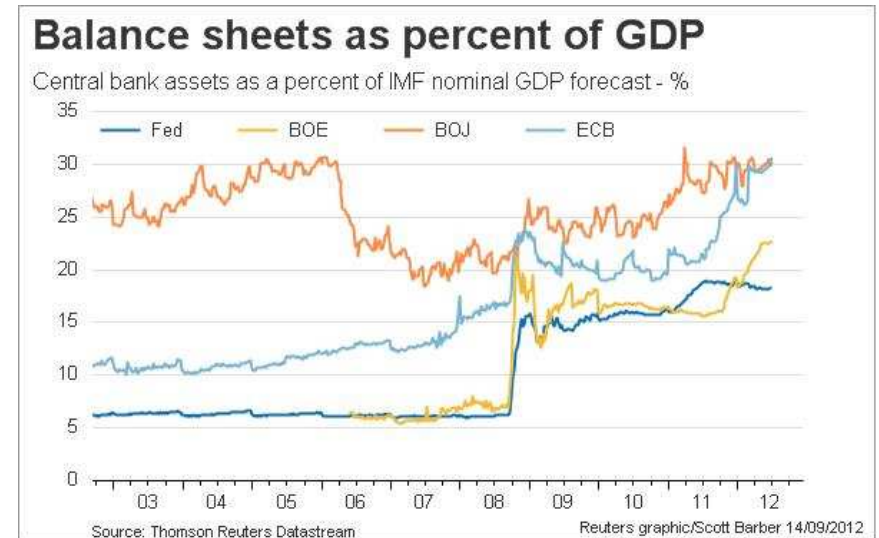
<http://www.riskreversal.com/2013/05/28/chart-of-the-day-global-debt-dynamics/>

Not so many options to solve a debt overhang

- **Jubilee Debt** (Deuteronomy 15: The Year for Cancelling Debts)
- **Outright default** (Russia, Argentina)
- **Inflation** (Versailles treaty: Germany to pay **269** billion Gold Marks).

Inflation was exacerbated by workers in the Ruhr going on a [general strike](#), and the German government printed more money in order to continue paying them

Can you push on a string?



ERAFP'S REGULATORY REQUIREMENTS AND CURRENT ASSET ALLOCATION

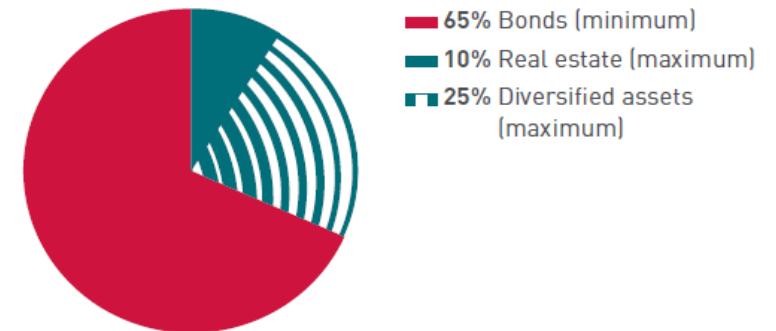
- **SOVEREIGN BONDS** (internally managed)
- **EQUITY**
 - 9 SRI management mandates (eurozone & OECD), of which:
 - 2 SRI passive management mandates (ERAFP specific SRI index)
 - 4 SRI active management mandates (with a benchmark)
 - 3 SRI active management mandates (without benchmark)
- **CORPORATE BONDS** (eurozone)
 - 2 SRI management mandates (without benchmark)
- **CONVERTIBLE BONDS** (eurozone & OECD)
 - 2 SRI management mandates (without benchmark)
- **REAL ESTATE**
 - 3 SRI management mandates (France & Europe)
- **MULTI ASSETS (SRI FUND OF FUNDS)** – launched in 2013
 - 1 SRI management mandate (World)

BREAKDOWN OF ASSETS BY ISSUER CATEGORY

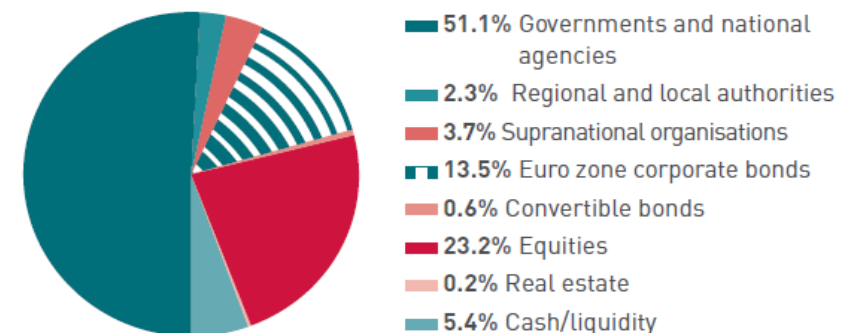
[AT 31 DECEMBER 2012]

A diversified portfolio within a prudential framework

CURRENT REGULATORY REQUIREMENTS APPLICABLE TO THE RAFP



ASSET ALLOCATION BY ISSUER CATEGORY



RAFP

A GOVERNANCE ACTIVELY INVOLVED AND DETERMINED TO PROMOTE A NO NONSENSE SRI INVESTMENT POLICY

- Why SRI is not an option for a pension fund like the RAFP

IMPLICATIONS OF ERAFP'S SPECIFIC GOVERNANCE SYSTEM

ERAFP'S BOARD OF DIRECTORS:

- 8 civil servants representatives, nominated by trade unions
- 8 employers' representatives
- 3 qualified personalities



ERAFP'S OBJECTIVES:

- Intergenerational equity
- Preservation of civil servants' purchasing power over the long term
- An ambitious socially responsible investment policy



BOARD OF TRUSTEES HAS REAL POWERS

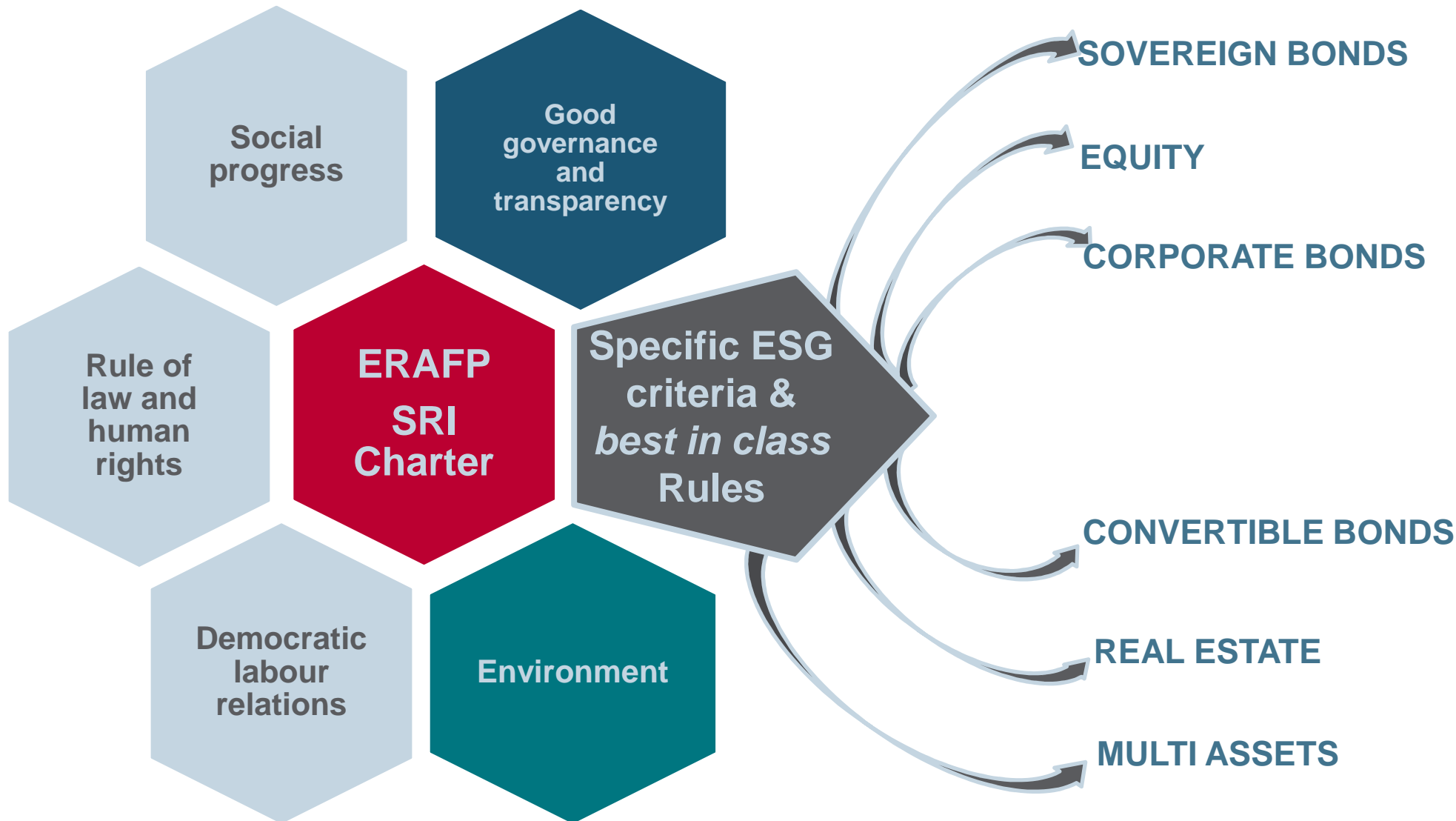
ERAFP'S BOARD OF DIRECTORS votes every year :

- the strategic asset allocation
- by which % the price of the point as well the annuity value of one point should be raised
- the discounting rate that directly impacts the level of the reserving and the funding ratio



ERAFP'S BOARD OF DIRECTORS has adopted an integral but pragmatic SRI policy

ONE OVERARCHING SRI CHARTER AND VARIOUS *BEST IN CLASS* STRATEGIES



WHAT IS AT STAKE? CHANGING OUR INVESTMENT PROCESS?

- A new world is coming : What are the issues that no one should ignore?
 - we are discovering that scarcity will very directly impact our lives
 - externalities will be more and more « internalized ».

- Can SRI remain
 - an overlay ?
 - something that concerns just a marginal part of your assets or your funds ?

- When an investor says he is doing some investment in SRI what does it tell about the rest of its investment?

- Why is it so difficult to change?
 - Because most of our decisions do not take into account the long term
 - Because too many vested interests

BEST IN CLASS : THE BEST WAY TO BE PRAGMATIC AND ADAPT TO ASSET CLASS FEATURES ?

- What would be the sense of investing just a fraction according to SRI principles ?
- **Best in Class makes sense** : it does not « unduly » restrict the investment universe it just make possible to:
 - Eliminate those who resist the change that is reshaping the economy ,
 - Identify those who are best positioning themselves to profit from the « new » economy (an economy that promotes sustainability).
- **What does ERAFP promote?**
 - a global but also a pragmatic approach - no sector bias,
 - joining forces by exchanging so we can more efficiently engage,
 - convincing asset managers to integrate SRI analysis in their investment process,
 - developing indexes so other investors can start investing in best in class SRI.
- **Some asset classes have specific features**
 - high unitary amount of the investment means interest to pool together (infrastructure or RE),
 - investment has to be assessed in its environment (for real estate connection to urban transport)



A TRANSVERSAL APPROACH : ENGAGEMENT

- **Robert Urwin** stressed investors responsibility: they should act like conscious « universal owners »
- For too long a time :
 - institutional investors have been consenting victims ;
 - asset owners rights have not been protected as they should have ;
 - fiduciary duty did not extend to shareholders' rights protection.
- « Times there are a changing » :
 - institutional investors talk to each other
 - asset owners want their rights to be taken care of
 - fiduciary duty evolves
 - as a fallout of the crisis authorities are pushing for a change

By demanding to nominate directors you shareholders act as if you own the place



ERAFP released its own Engagement guidelines in March 2012

Provisional guidelines for ERAFP's shareholder engagement

<http://www.rafp.fr/The-SRI-approach-fr-ru136/ERAFPs-shareholder-engagement-ar592>

TOWARDS A LESS CARBON INTENSIVE ECONOMY

Business as Usual is not an option

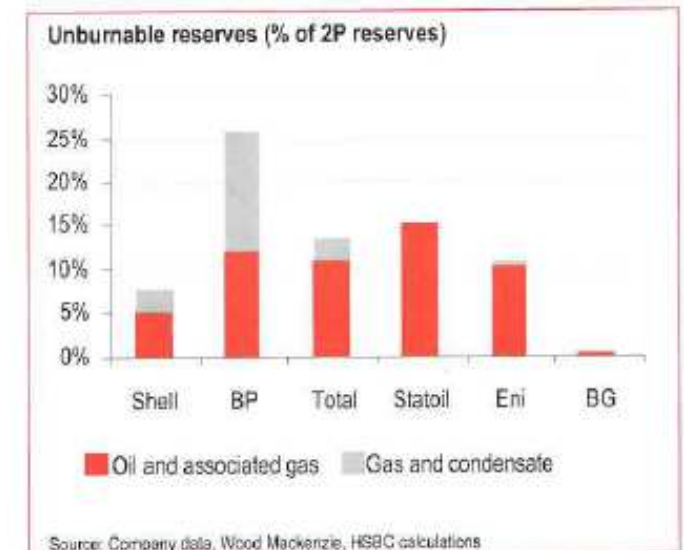
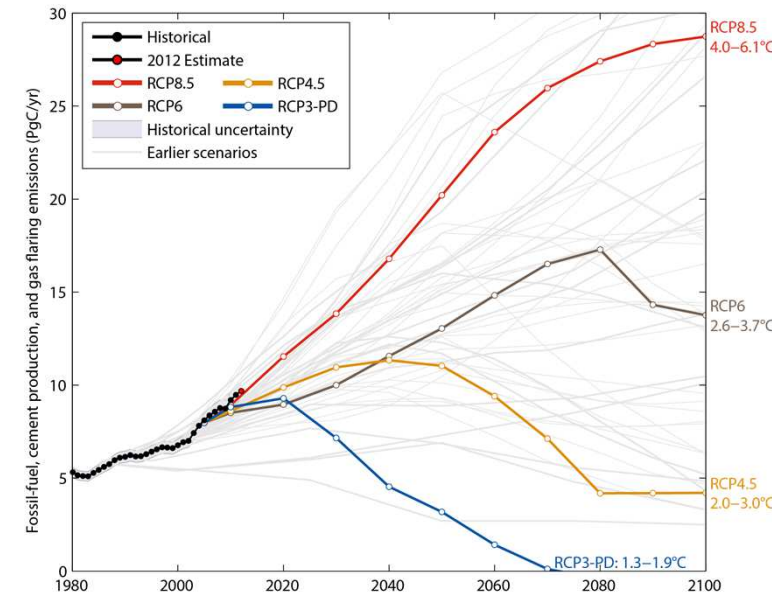
Long term investors should consider the risk of owning assets that are already stranded

ERAFP a taken 2 decisions:

- Join the IIGCC (Institutional Investors Group on Climate Change)
- Publish the carbon footprint of its stock portfolio

What do we need ?

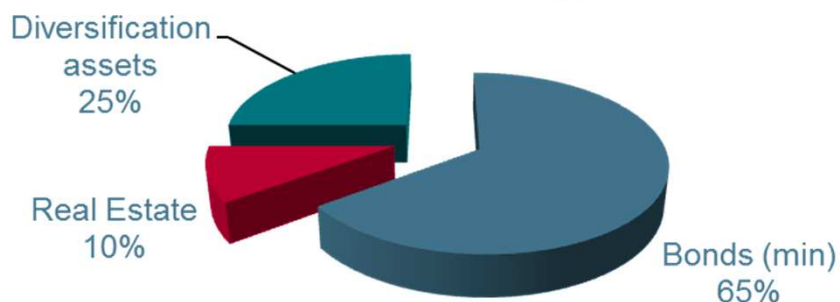
An Efficient carbon pricing mechanism



THIS LONG TERM AND PRUDENTIAL APPROACH APPLIES TO A VERY CONSERVATIVE ASSET ALLOCATION...

→ Current asset allocation and management

Limits defined by law



2014 allocation

As of 12/31/2014

Target 2012 of asset allocation	% of asset
Fixed income bonds	67,5%
of which convertible bonds	1,8%
Equities	24,7,0%
Multi asset	1,4%
Real estate	2,6%
Liquidity	2%

- 65% minimum in bonds
- 90% minimum in euro denominated securities
- 10% maximum in Real Estate
- 5% maximum in FCPR
- 5% maximum in securities issued by a single issuer (except for Sovereign debt issued by an OECD member and CADES)

€ 21,7 billion in assets as of December 2014 (market value)

Average bid yield of the SOVEREIGN GOVERNMENT BOND PORTFOLIO
3.51% since the beginning of the scheme 2005

Average bid yield of the CREDIT CORPORATE BOND PORTFOLIO
3.16% since 2009

TRI of the CONVERTIBLE BONDS PORTFOLIO
5.7% since end 2012

TRI of the EQUITY PORTFOLIO
7.2% since 2007

TRI of the EUROPEAN EQUITY PORTFOLIO
6.1% since 2009

TRI of the INTERNATIONAL EQUITY PORTFOLIO
13.2% since 2009

TRI of the MULTI ASSET PORTFOLIO
8.8% since May 2013

TRI of the US CREDIT PORTFOLIO
0.48% since 2013

THANK YOU FOR YOUR ATTENTION

www.rafp.fr