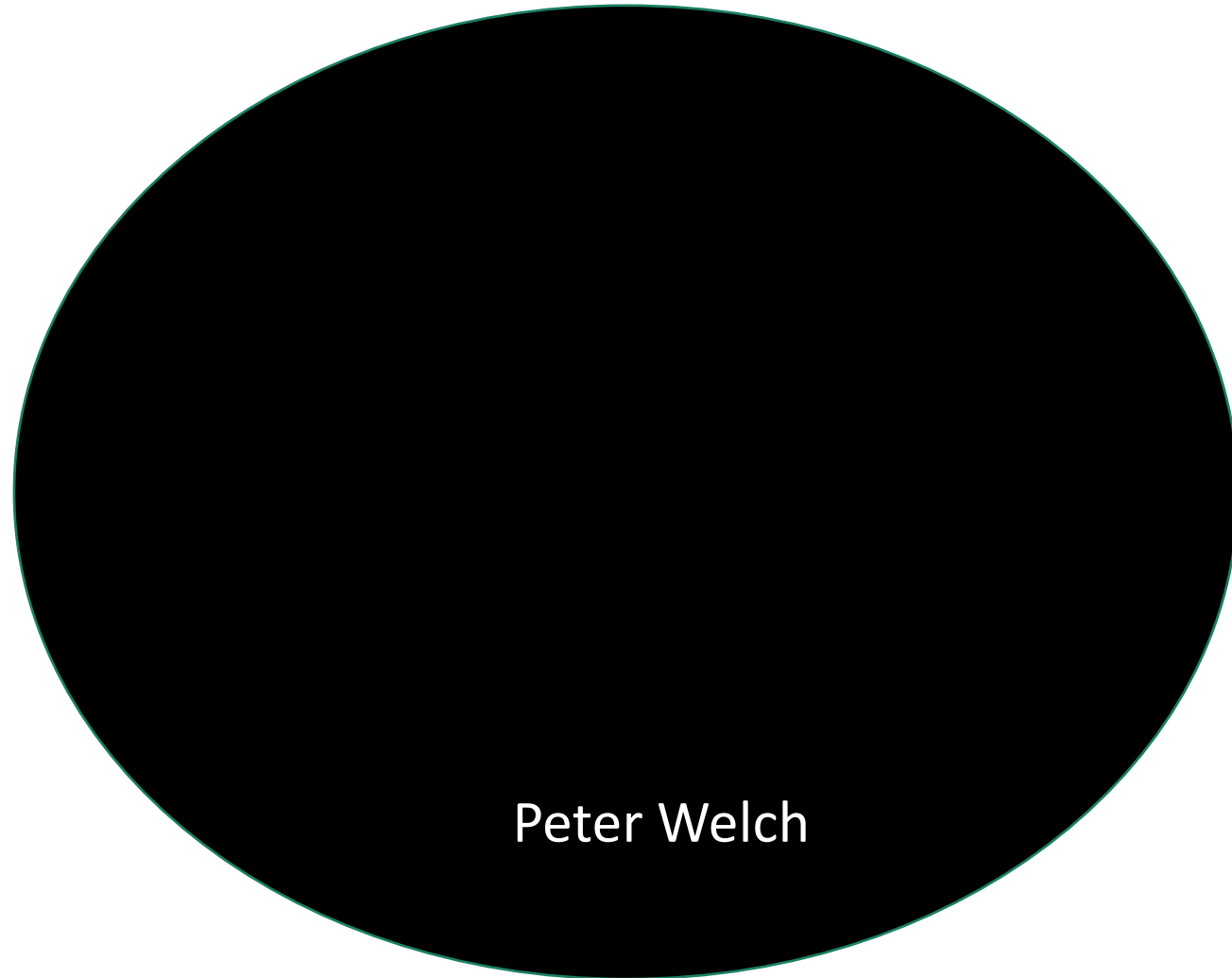
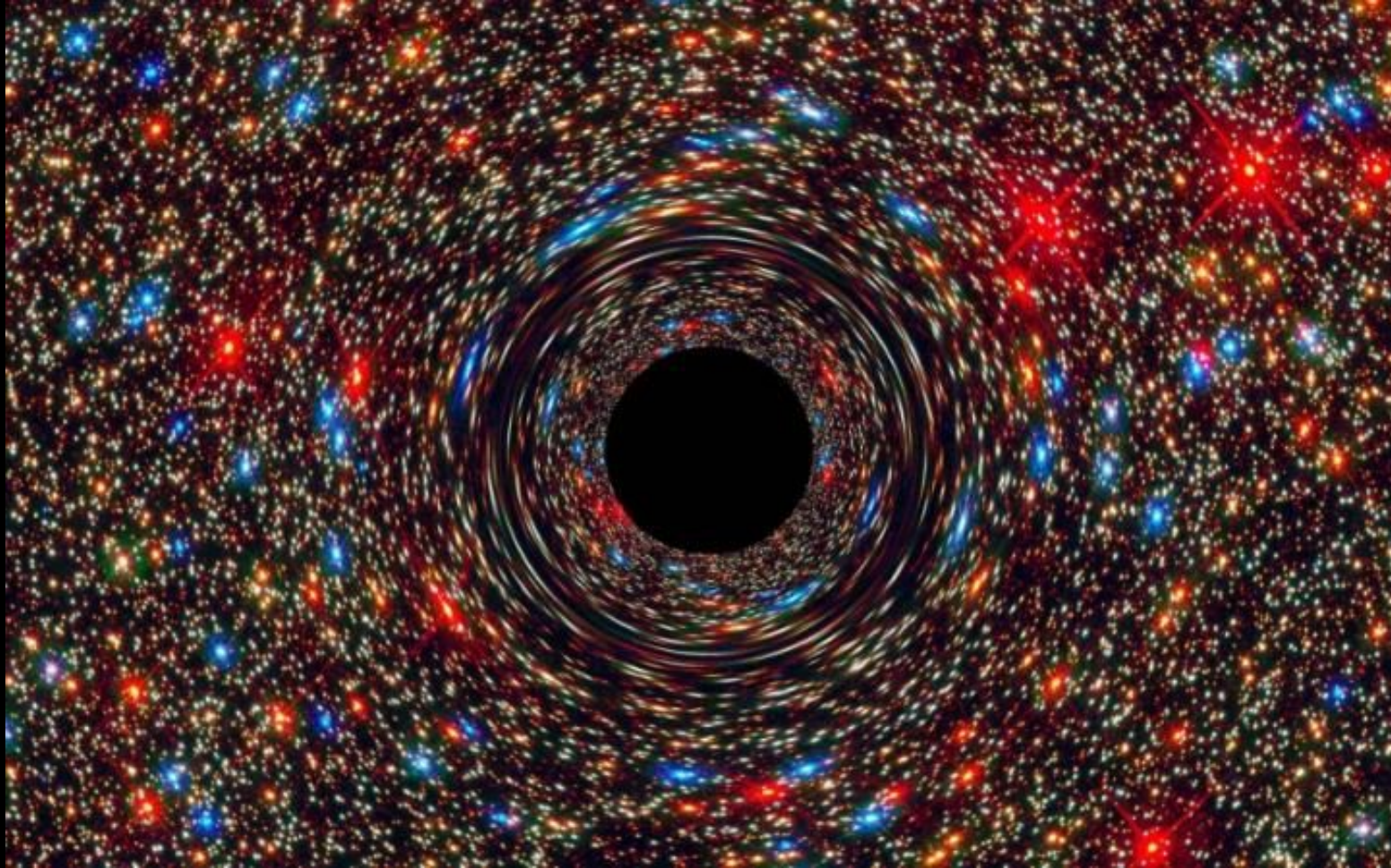


The search for Black Holes



Peter Welch

New kid on the block



Picture:
NASA

US debt will soon eclipse GDP, says Controller General

New American, 4/10/2016

What the papers say

Alastair Campbell says Brown's spin 'shyster' broke law

Labour plans have '£27bn black hole'



Doctors die as Islamist gunmen open fire

Prime says final porn addict set

The man who sells art to the A-list Times2

the game World Cup special 16-page pullout inside

£2bn NHS black hole will cause care crisis

Experts predict cuts and delays due to shortfall

Michael Savage, Chris Smith, Laura Pitt

An emergency £2 billion bailout of the NHS is being demanded within the government amid high levels of fears of an approaching crisis in patient care.

Ministers have been given dire warnings about the consequences of a rail on hospital budgets next year. Experts are predicting longer waiting times and staff cuts as hospitals sink into the red without extra funds from the Treasury.

The shortfall is so pressing that there are demands for George Osborne to take action in his last substantive statement before the election. If he refuses, he will find himself in a confrontation with doctors, who declare today that the NHS has already been cut to the bone.

Medical staff say that there is no "vast pot of unspent billions in the NHS" and the only way to cope with an ageing population is more money. After four years of trying to make savings totalling £20 billion to cope with rising demand, the head of the British Medical Association says that care will suffer if more money is not made available.

Experts have warned that a cash shortage is inevitable after the election, as £1 billion is taken out of the NHS next year to pay for past projects with square.

Health chiefs have been told to find more efficient ways of working, but Mark Porter, chairman of the BMA council, said that it was "economic illiteracy" to expect the health service to improve without extra resources.

"The NHS does work very efficiently, but you can't carry on doing everything with less resources. That's the basic fundamental contradiction in this," he said.

"The national health service is by objective measurement the most efficient health service on the planet" Jeremy Hunt, who has begun his fight within the coalition for more funding to be provided for 2015. It is understood that Nick Clegg, the Lib Dem leader, will be approached over a demand for an extra £2 billion during negotiations over the autumn statement. The deputy prime minister will hold meetings in the coming weeks with those calling for a top-up for the £10 billion NHS budget.

"All the indicators are pointing in the wrong direction," an informed source said. "We have an ageing population, new medicines are developed all the time and we have to deal with more and more lifestyle diseases."

The deficit reduction plan being pursued by the government dictates that £2 billion in spending cuts, efficiencies

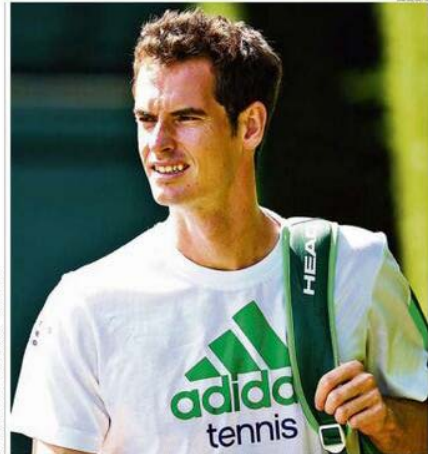
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Mass man Andy Murray begins the defence of his Wimbledon title today. The club's dress code will be strictly enforced

Do the white thing, Wimbledon orders

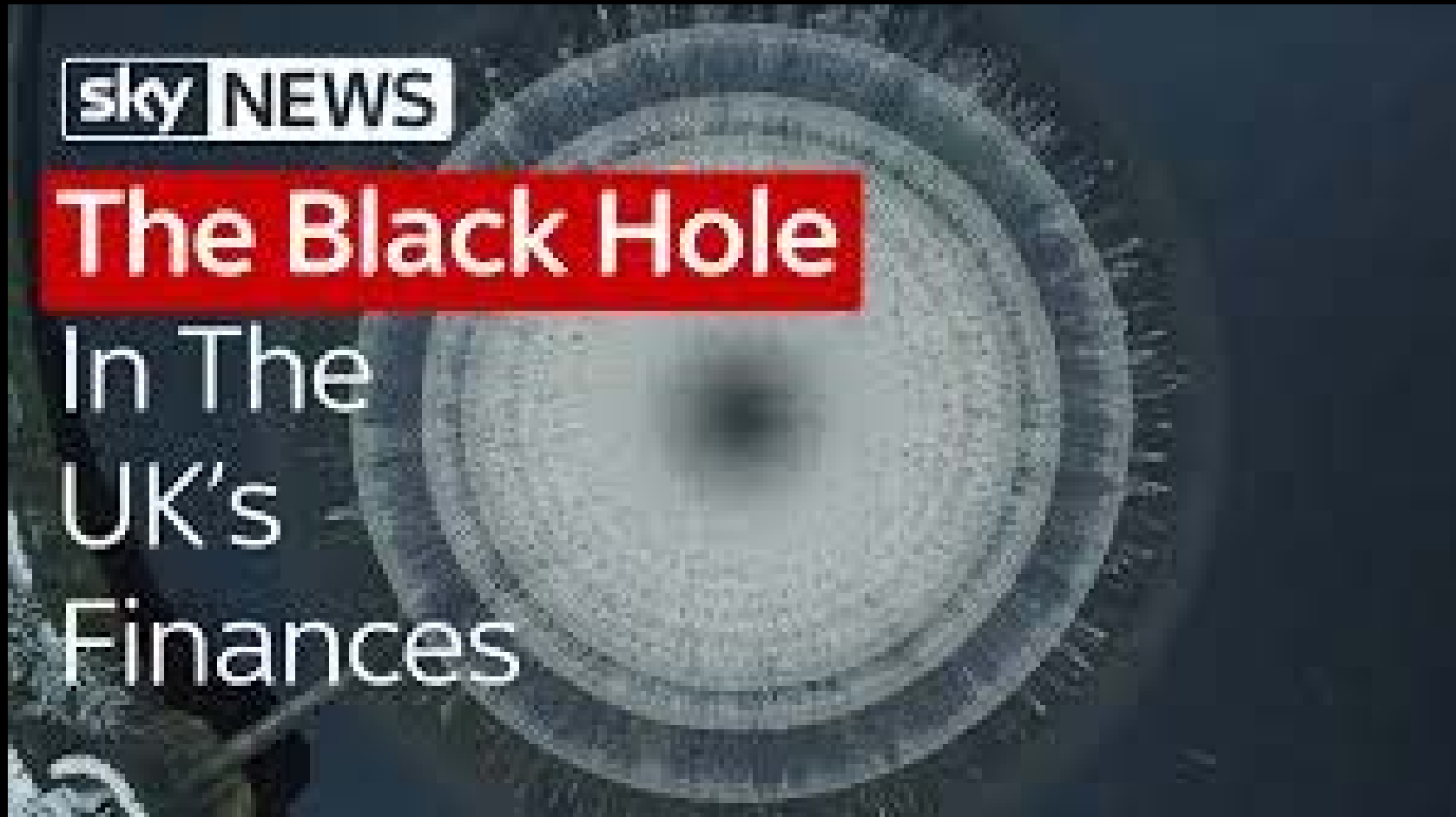
David Sanderson, Danielle Sheridan

Wow bet! Andy Murray if he opts for a 12-ten t-shirt on his tennis whites today. Wimbledon's style police have

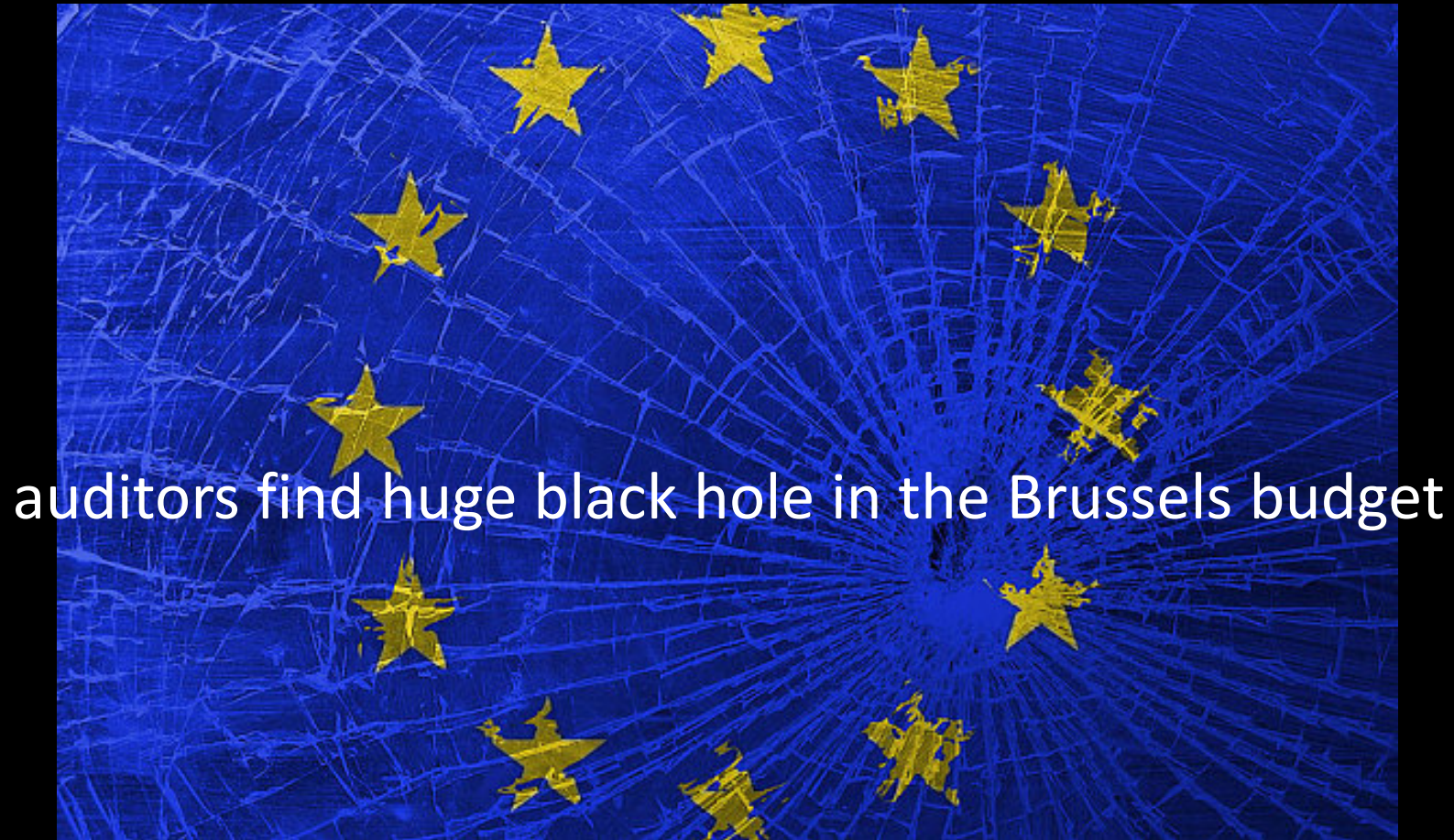
than last year. So there will be no repeat of Roger Federer's orange-tinted trainers from last year, or Adriano Panatta's khaki red knickerbockers from a few years ago, nor John McEnroe's

allowed a certain latitude with their undergarments, the critics are being light-hearted this year. Again, only a couple, lots of coloured trim will be permitted. Players of both sexes have been told

And not just the papers



We have had our own Black Hole headlines



auditors find huge black hole in the Brussels budget

Graphic: Daily
Telegraph

But there is a bigger Black Hole waiting if we take the Brexit...



AFP

“

Our tax receipts would face an annual £36 billion black hole... equivalent to 8p on the basic rate of income tax.”

George Osborne, Chancellor



EU REFERENDUM
REALITY CHECK

BBC

Then, at Heathrow, on my way here...

Globalisation's big fight back — WOLFGANG MÜNCHAU, PAGE 11

Africa Stalls
Hopes fade for new investment frontier — BIG READ, PAGE 9

Lucy Kellaway
of commuting

Crisis fears as China's debt load surges

China's debt load grew at its fastest ever pace in the first quarter, soaring to western levels of 257 per cent of gross domestic product and raising the risk of a financial crisis or prolonged slowdown. Total net debt of Rmb163tn (\$25tn), which is much higher than in other developing nations, rose Rmb6.2tn — more than 50 per cent ahead of last year's level, according to Financial Times calculations.

Economists are concerned that the massive increase in lending will trigger either an acute financial crisis — a "Lehman moment" reminiscent of the US in 2008, when banks failed and paralysed credit markets — or a Japan-style "lost decade" of slow growth and deflation.

Rapid climb page 7

Year	US	China	India
1999	65	15	10
2001	70	20	12
2003	75	30	13
2005	80	45	14
2007	85	100	15
2009	90	150	16
2011	95	200	17
2013	100	250	18
2015	100	257	18

Beijing skyline
Source: Bank for International Settlements
Photo: Getty

Transport crunch opens '£16bn black hole' for Heathrow runway

● TfL says plan's road and rail upgrade costs are too low ● Airport dismisses City Hall estimate

JIM PICKARD
CHIEF POLITICAL CORRESPONDENT

Heathrow faces a "black hole" of more than £16bn to fund the upgrade of road

decision on where to authorise a new runway in the south-east after years of political wrangling. The calculation is vastly higher than the £5.7bn produced

further research on the environmental impact of a third runway at Heathrow.

The Airports Commission suggested last summer that the £5.7bn would have

son, the Tory mayor of London, who has been a relentless campaigner against the third runway, but it is an apolitical taxpayer-funded agency.

Briefing

- **Obama**
Barack Obama and Angela Merkel trade deal the chance
- **Inter**
A group of Yorkshire unit in the facilities
- **Impe**
"All this h ex-US an South An uproar — poll four were 'no
- **ECB**
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- **Hun**
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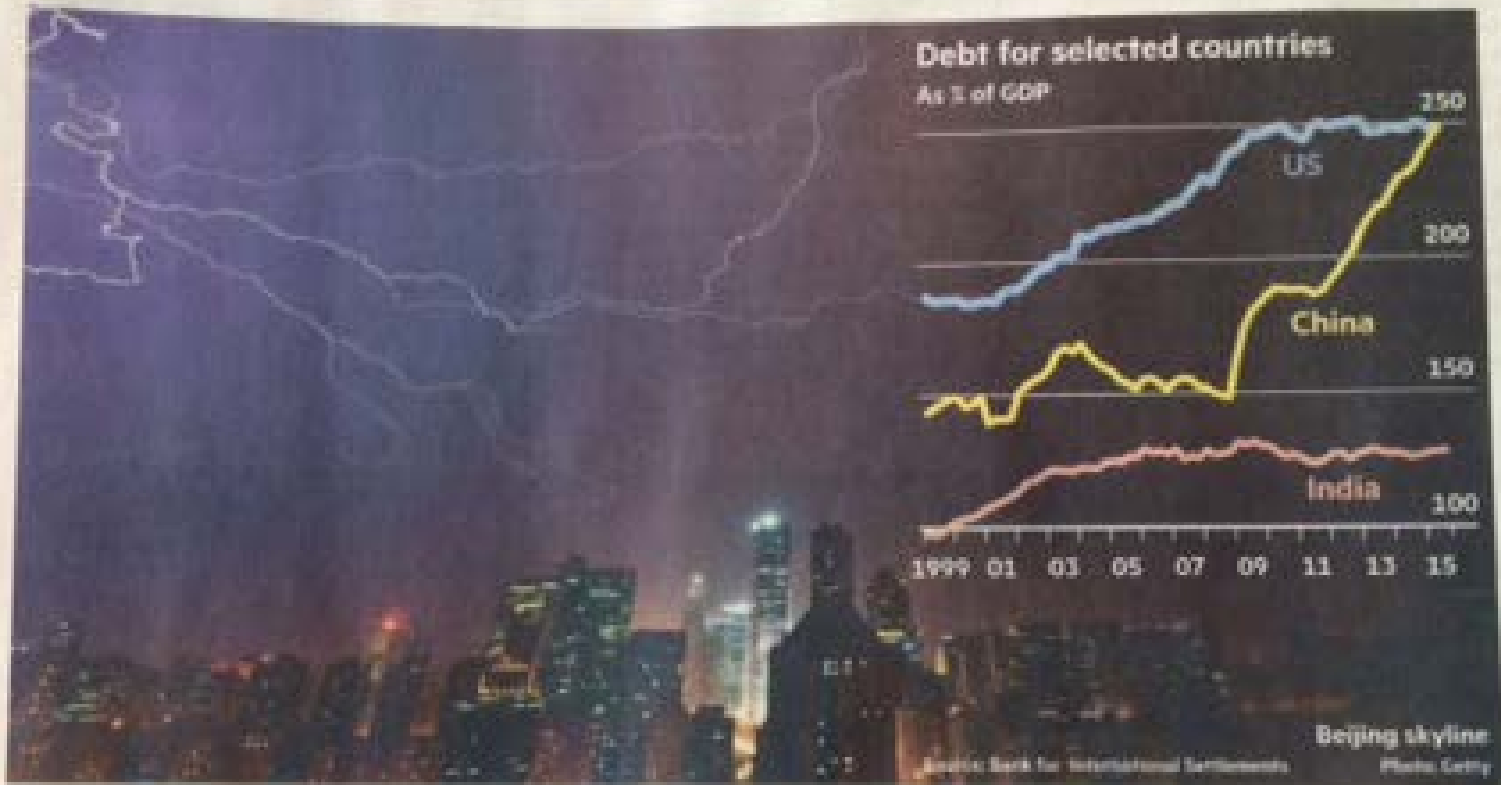
Did you spot the second black hole?

Crisis fears as China's debt load surges

China's debt load grew at its fastest ever pace in the first quarter, soaring to western levels of 237 per cent of gross domestic product and raising the risk of a financial crisis or prolonged slowdown. Total net debt of Rmb46.3tn (\$25tn), which is much higher than in other developing nations, rose Rmb6.2tn – more than 50 per cent ahead of last year's level, according to Financial Times calculations.

Economists are concerned that the massive increase in lending will trigger either an acute financial crisis – a "Lehman moment" reminiscent of the US in 2008, when banks failed and paralysed credit markets – or a Japan-style "lost decade" of slow growth and deflation.

Rapid climb page 7



Is it more than a metaphor?

- the similarity between financial collapse and gravitational collapse is not merely a metaphor. In fact, it is possible to construct a mathematical theory that applies equally to gravitational collapse and to financial collapse. The key ingredient is the existence of negative energy: in both Newton's and Einstein's theory of gravity, the energy in matter is positive, but the energy in gravity is negative. In the universe as a whole, the positive energy of mass and kinetic energy is exactly counterbalanced by the negative energy of the gravitational field, so that the net energy of the universe is effectively zero.
- Seth Lloyd, Professor of Quantum Mechanical Engineering, MIT

Back on earth: stock and flow

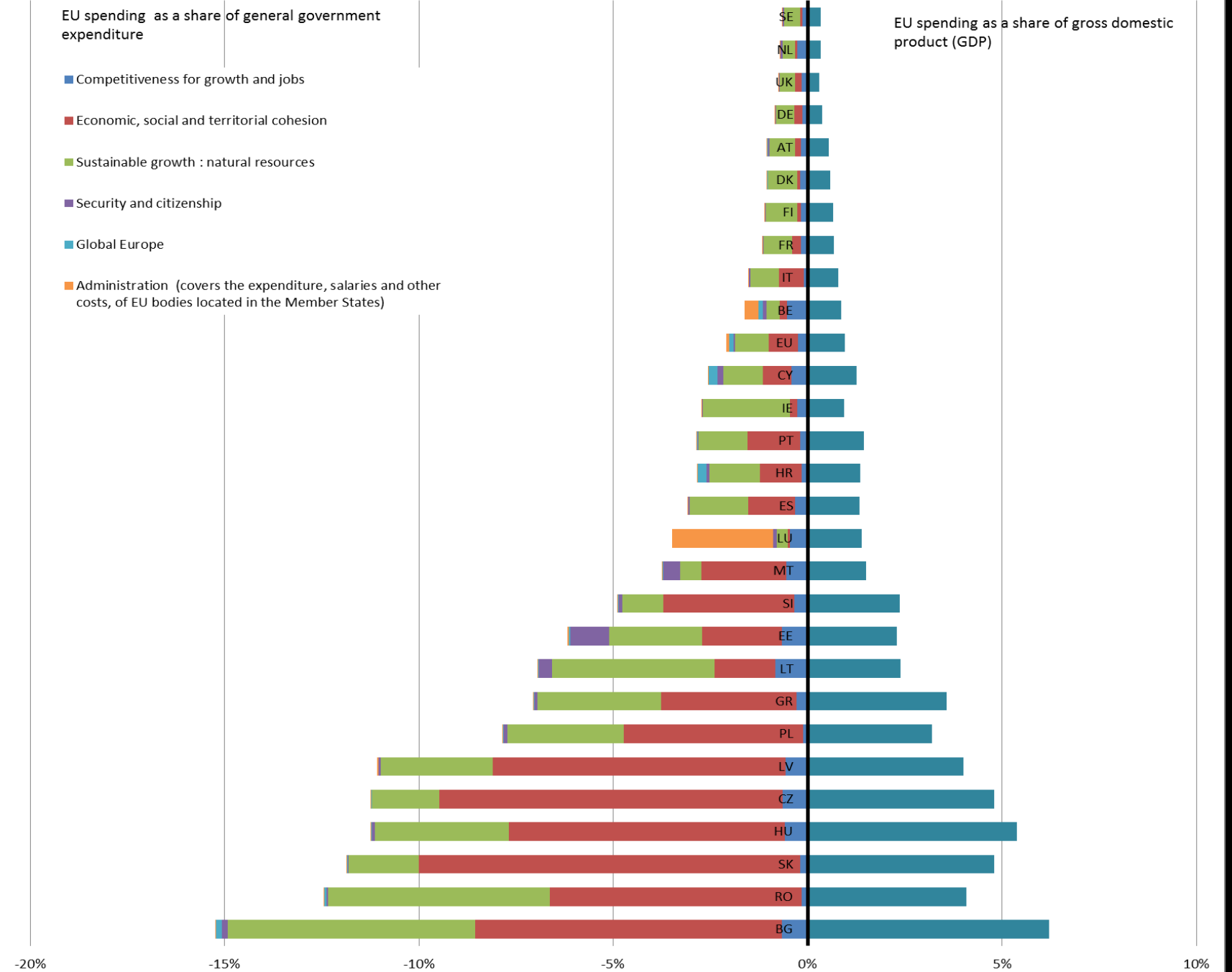
- Sums you have promised to pay exceed your expected revenue
- Net DCF of current spending and revenue projections is negative
- Sums you have promised to pay and liabilities you have incurred exceed your ability to raise revenue and borrow
- Promises, liabilities and foreseeable events exceed your ability to raise revenue and borrow

Our black hole

- Three ingredients:
 - Commitments
 - Liabilities
 - A revenue constraint

Let's keep
this in
perspective

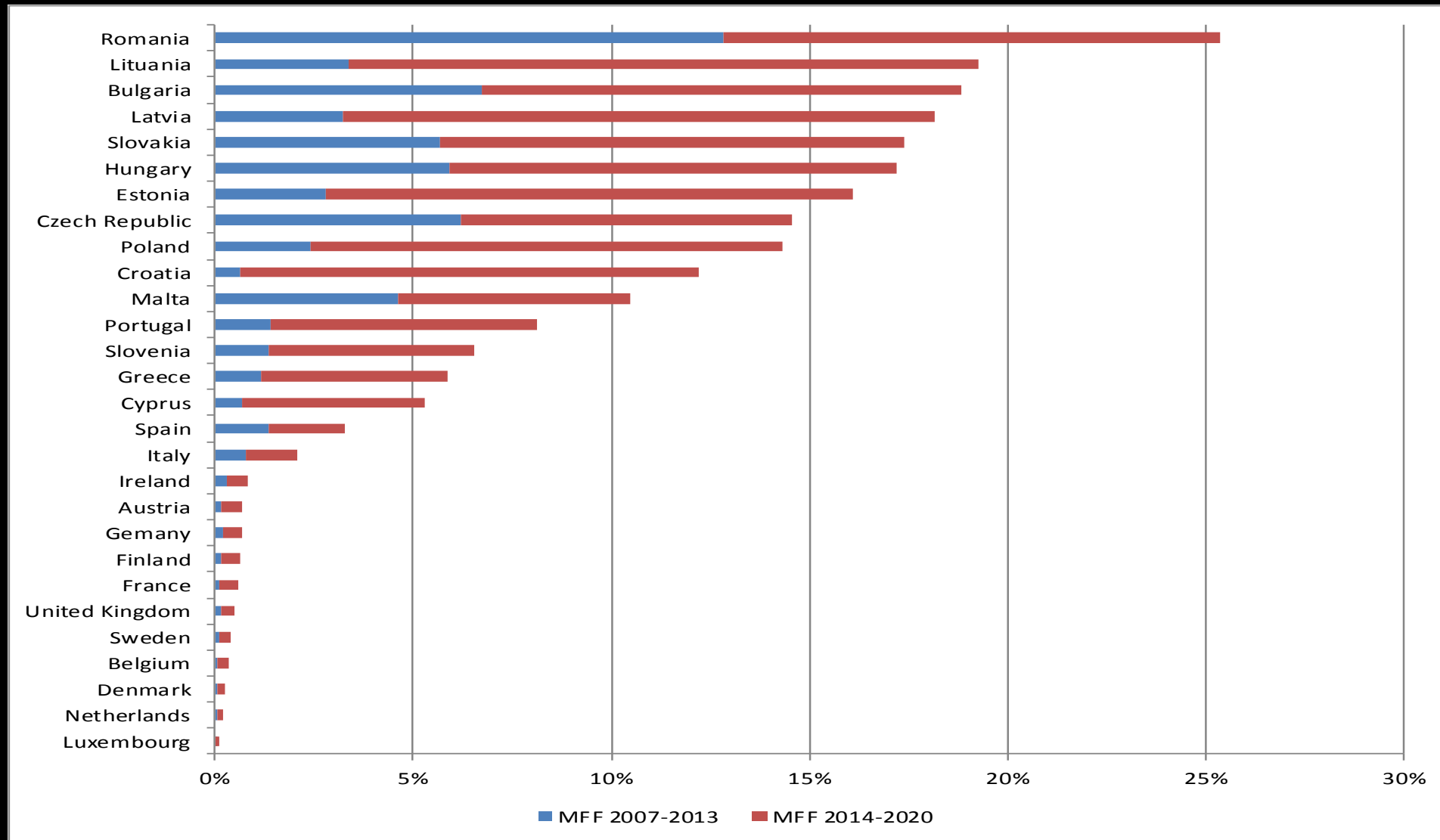
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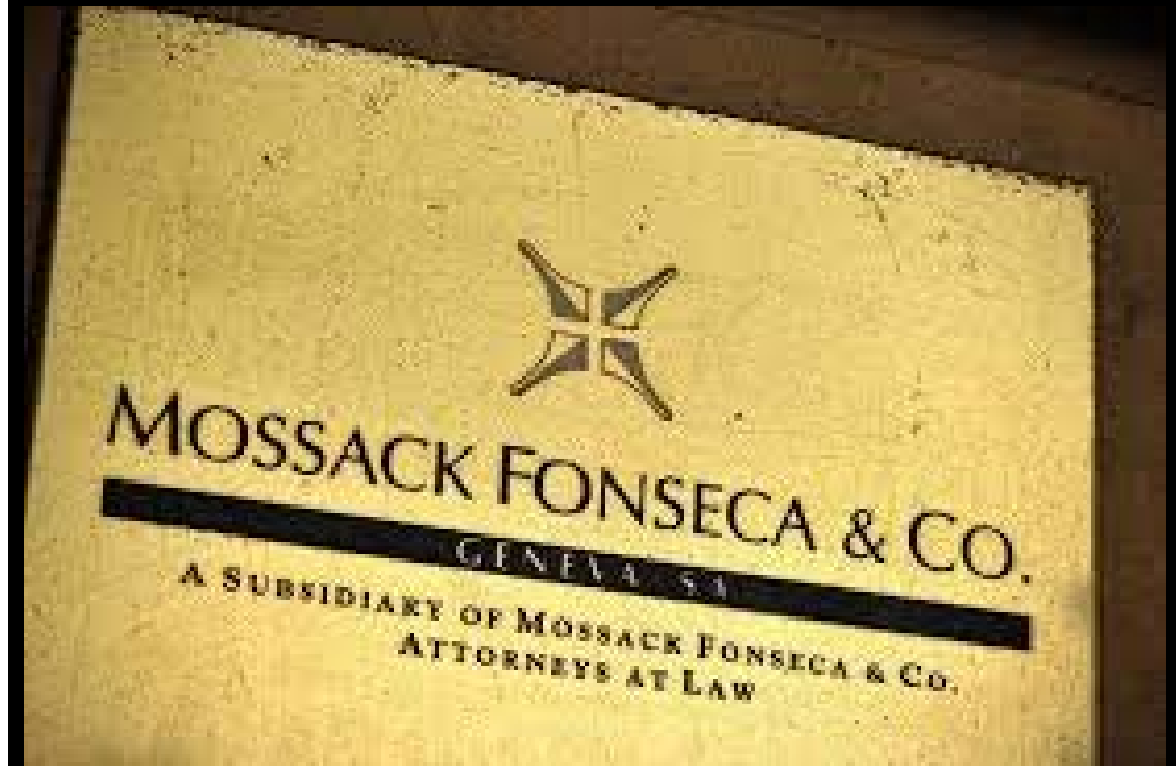
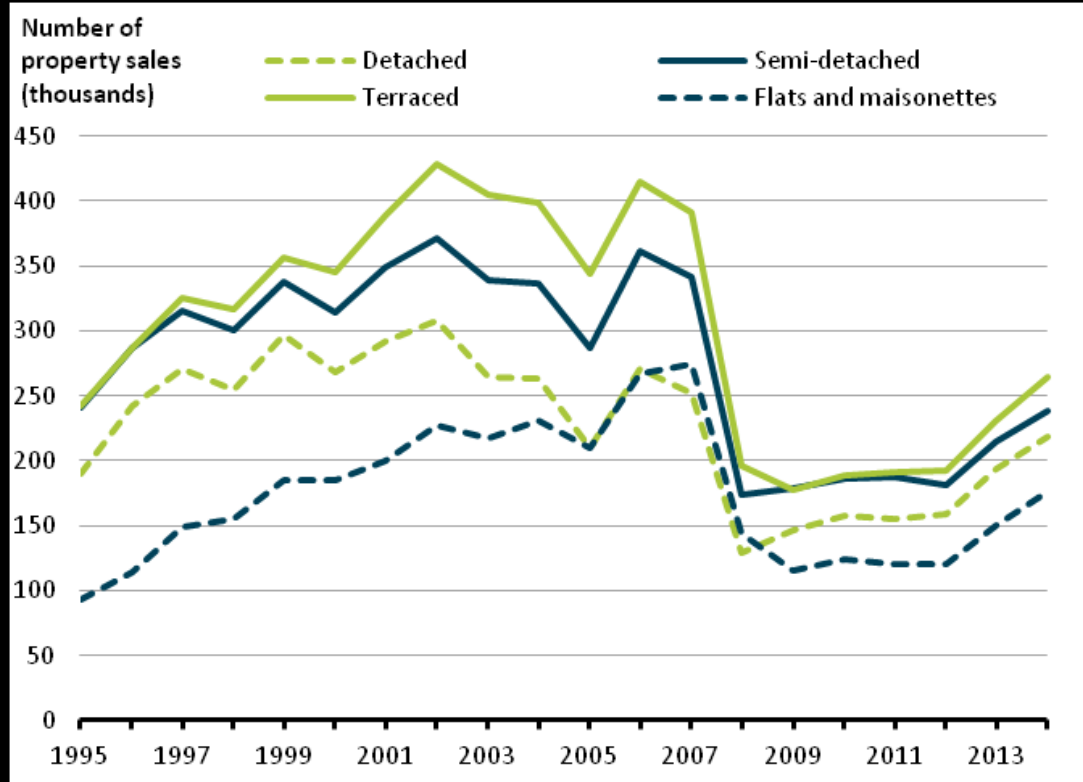
Getting the measures right

- Accumulated commitments = 1.56% GNI
 - Outstanding liabilities without a commitment = 0.87% GNI
 - Annual creation of new commitments = +/- 1.2% GNI
 - Annual creation of new liabilities (pensions, decommissioning) = ?
-
- Absolute spending constraint = 1.23% GNI

But how soon will commitments mature?

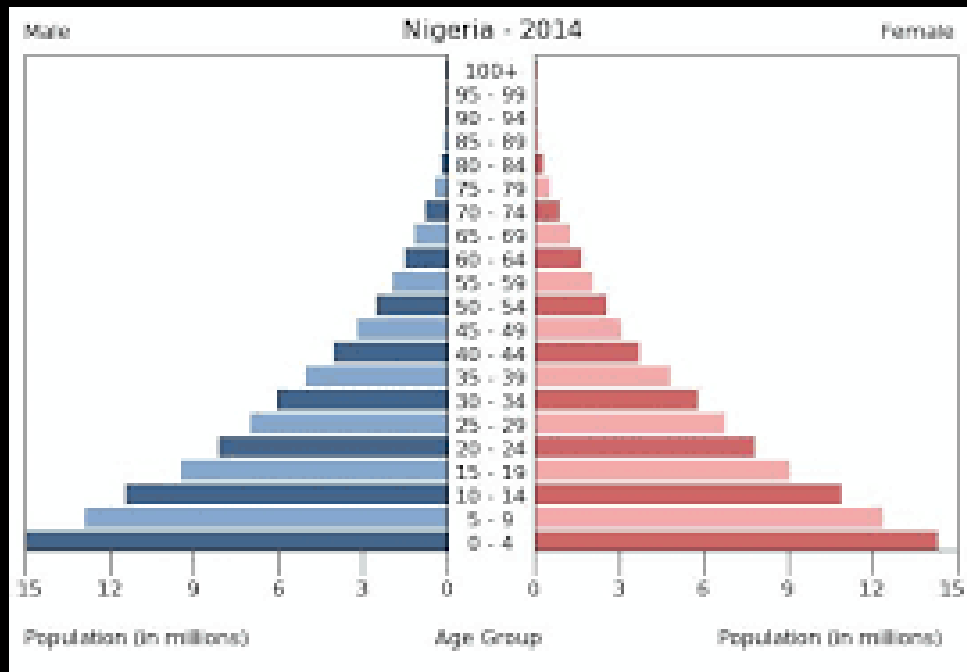


Revenue shocks

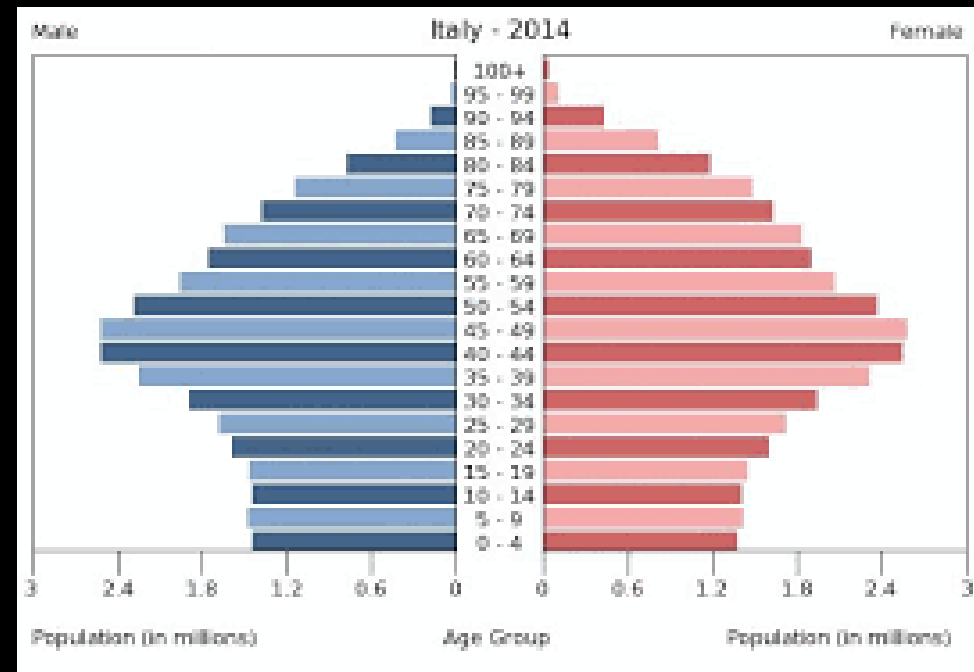


Demographics

Nigeria



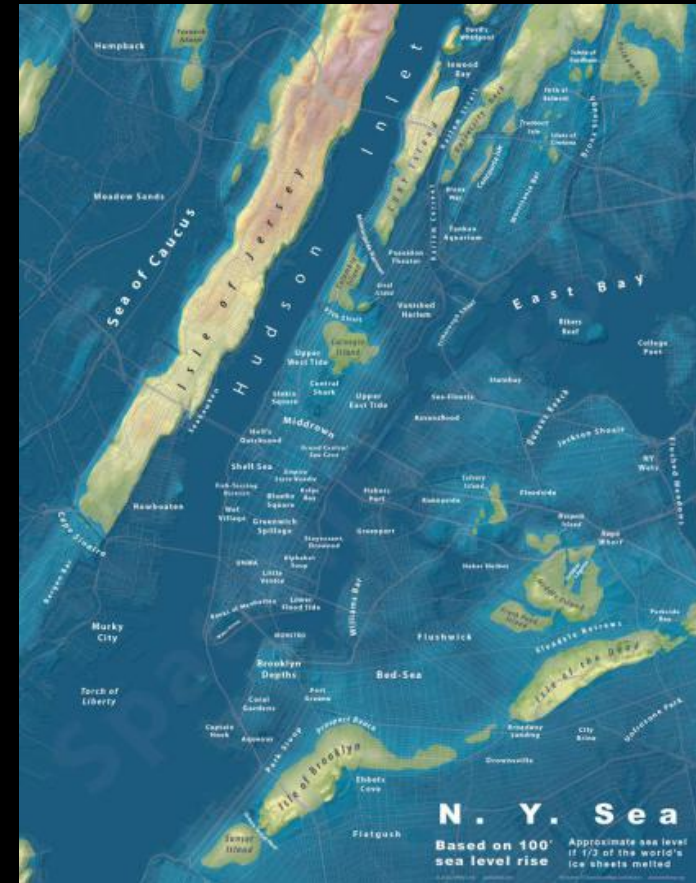
Italy



Natural disasters



Climate change



Happy ending?

