

Central banks: money, macro and finance.

A 9 hour introductory applied macro
course for 1st year undergrads, City
University, 2019

Tony Yates

Lecture1: central banks at the pivot points of history

9 hour course on Central banks:
money, macro and finance, City Uni,
Feb 2018.

Tony Yates

Lecture 1 plan

- Why should we learn about central banks?
Why are they important?
- Some stories with central banks in the thick of major world historical events.
- Quick taster on scope of later lectures.
- Admin:
 - about me / essay assessment / timetable / register/office hours/course materials

Understanding the causes and consequences of the financial crisis, and how to avoid another one, or respond better to it when it comes.

MOTIVATION

September 2008

- Financial markets globally sent into panic by the news that Lehman Brothers investment bank was bankrupt.
- Presumption that Lehman's, like Bear Sterns, which the US Federal Reserve had intervened to save, would be 'too big to fail', was wrong. [Subsequently right?]



Effect of crisis amplified by global media, and shots of redundant staff leaving LB HQs with cardboard boxes full of their personal effects.

- In UK, collapse of Northern Rock, previously a rising star of the UK mortgage market, provided a warning shock in Summer of 2007.
- Northern Rock gained market share by borrowing more wholesale, more short-term, at unprecedentedly low rates.
- Bucked trend of struggling Northern industries. Lots of local charitable giving.



These are people in the UK's first bank run since 1844. Queuing to get their deposits. Many will be disappointed.

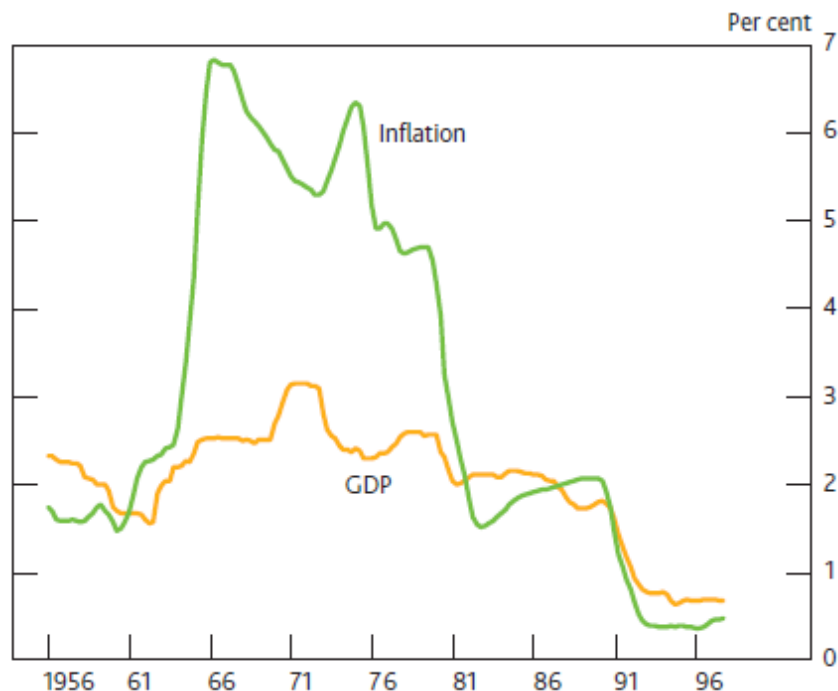
This crisis, key elements of which were broken by Robert Peston, made his career. From being an obscure business reporter, he became a national superstar figure.

Controversy still over whether his broadcasts fuelled the crisis, or was just neutral reporting that helped people protect themselves against it and hold the authorities to account.



- Crisis would mean govt had to make £50bn equity injections into Royal Bank of Scotland and Lloyds TSB.
- Barclays close. Secured Quatari investment, but some contend a result of under-reporting its cost of funding.
- Controversy over whether BoE/HMT involved in encouraging that to avoid another bail-out.

Chart 2 Inflation and real output growth volatility in the United Kingdom



Notes: Rolling ten-year standard deviations of four-quarter GDP growth and RPIX (RPI before 1976) inflation. Standard deviations are leading, so the final observation on the chart is 1998 Q1 showing the standard deviation over the subsequent ten years.

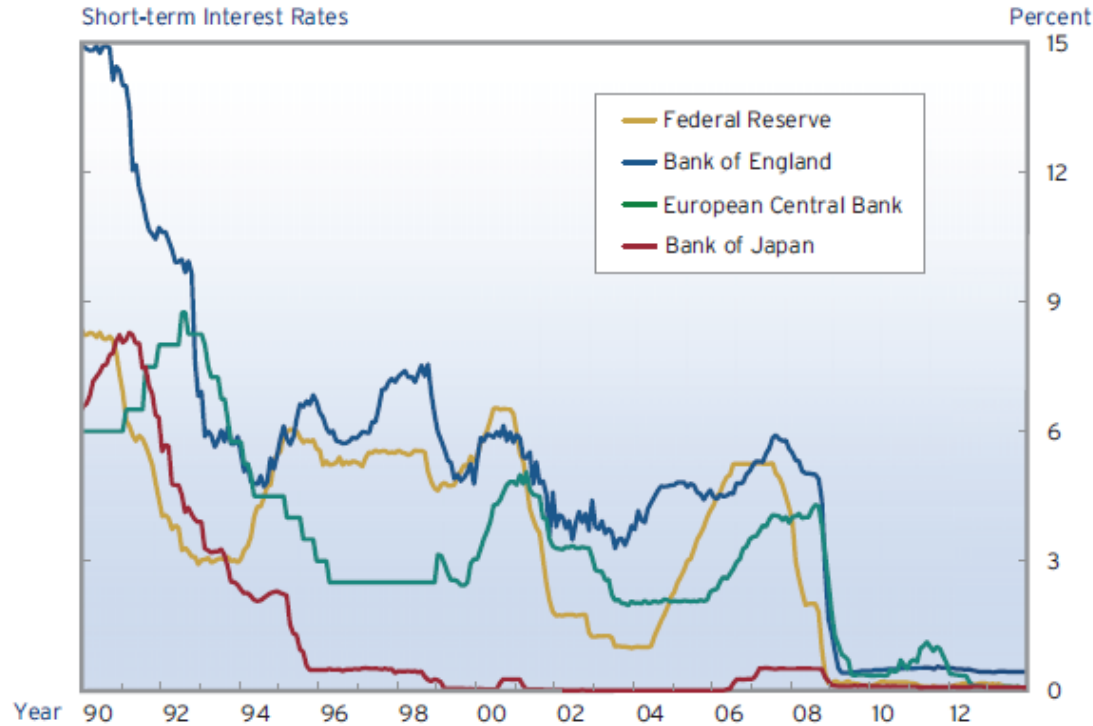
Crisis broke during a BoE conference on 'The Great Stability'.

While senior people left to check their Blackberries [yes, pre-iphone]....

....we debated whether the great new world was good luck or better policy.

Source: Young, G (2008), 'On the sources of macroeconomic stability'

FIGURE 1. The ZLB: Not Just an Academic Concern



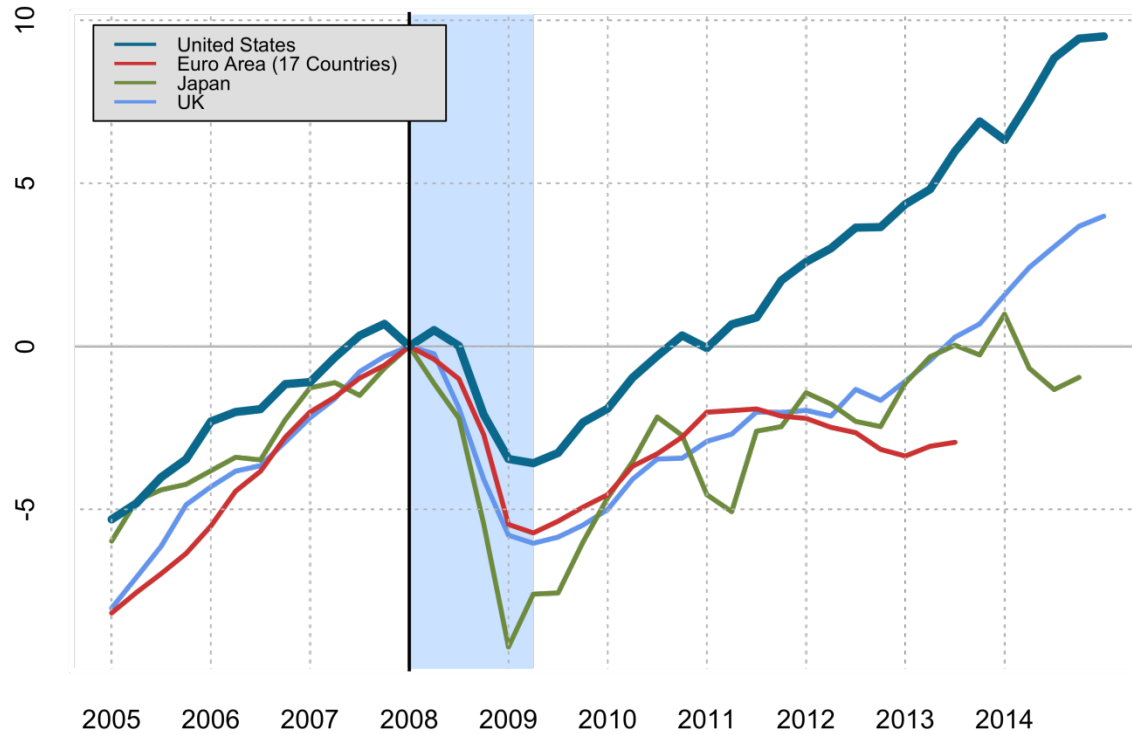
Sources: Board of Governors of the Federal Reserve System (2013); Organisation for Economic Co-operation and Development (OECD; 2013).

Central banks scrambled to cut their interest rates to the floor of 0. [Q's for us, why the interest rate? Why was the floor 0?]

Crash brings a great contraction

Real GDP

Percentage Change from 2008 Q1, Seasonally Adjusted

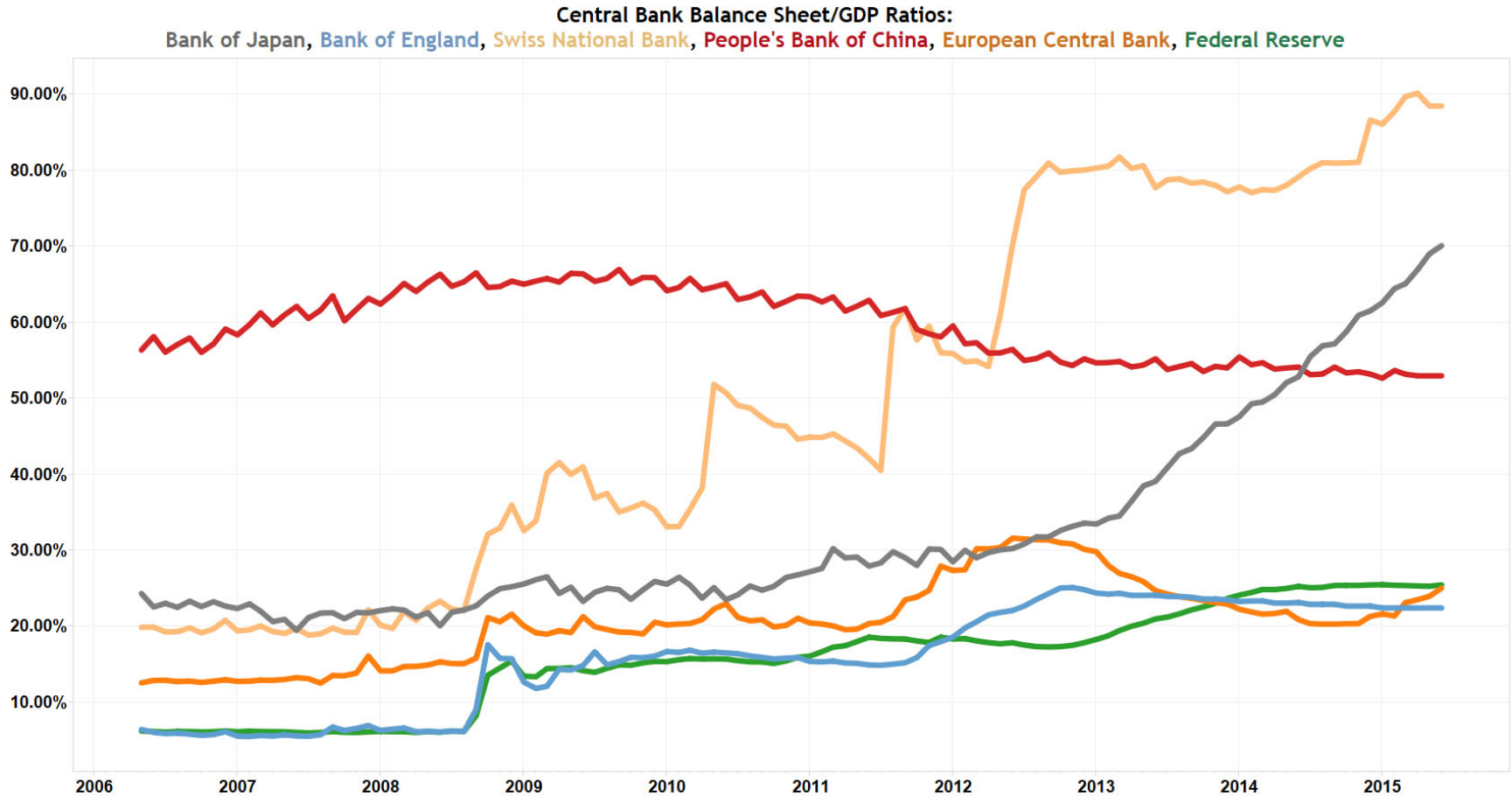


Econsnapshot.com

Source: OECD Main Economic Indicators, GDP Constant Prices

[Link to source](#)

Cbs improvise QE,etc



Source: 'National Inflation Association', which is 'preparing Americans for hyperinflation' (!)

Table 1.2. General Government Debt, 2008–15*(Percent of GDP)*

	2008	2009	2010	2011	2012	2013
Gross Debt						
World ¹	65.5	75.9	78.3	79.2	81.1	79.7
Advanced Economies	79.4	92.8	99.3	103.3	107.6	106.2
United States ²	72.8	86.1	94.8	99.0	102.5	104.2
Euro Area	70.3	80.2	85.9	88.3	92.9	95.2
France	67.0	78.0	80.8	84.4	88.7	91.8
Germany	66.8	74.6	82.5	80.0	81.0	78.4
Greece	112.9	129.7	148.3	170.3	157.2	175.1
Ireland	42.6	62.2	87.4	98.9	111.4	116.1
Italy	106.1	116.4	119.3	120.7	127.0	132.5
Portugal	71.7	83.7	94.0	108.2	124.1	128.9
Spain	40.2	54.0	61.7	70.5	85.9	93.9
Japan	191.8	210.2	216.0	229.8	237.3	243.2
United Kingdom	51.9	67.1	78.5	84.3	89.1	90.6
Canada ²	70.8	83.0	84.6	85.9	88.1	88.8

Source: IMF(2014), 'Back to work: how fiscal policy can help', fiscal monitor 2014,2, p4

Financial crisis wrecks government finances; political dividing lines over need for 'austerity' vs counter-cyclical stimulus.

Fallout of the crisis

- The end of 'New Labour'.... giving rise to Corbyn.
- Obama presidency [2008-2016] consumed with aftermath of the crisis.
- Eurozone crisis leading to much larger [circa 25%] drops in GDP in Portugal, Ireland, Spain, Greece.
- Populist anti EU movements in many EU countries.

From the outside, central bank buildings look pretty dull and conservative.

They are big. So you get the feeling that they might be important.

Size has historical connections to the days when it was a lot about guarding gold and shifting it around.





There is still a lot of gold at the BoE.

The floors in the vaults had to be specially reinforced to take the weight.

But the vast majority of it now is other countries' gold.

The UK sold off most of its own when Gordon Brown was Chancellor.

This selling off hints at a development in the history of money and the security of financial markets.

Initially gold was money. Then paper claims to it. Then the paper claims were detached from it. But countries had large gold reserves anyway as a back up.

Now? Not so much.



The Riksbank in Sweden is the oldest central bank, created in 1668, and run by the old 'estates assembly' which had representatives of different strata of society. It was set up to be kept away from interference by the King.

Its predecessor collapsed for issuing too much paper money. It was a private bank but the King of Sweden chose the management.



This is the current BoE monetary policy committee. The DG has his tie done up, which is quite unusual.

There are stories behind the faces reflecting a real life institution, with stresses and strains, and one that is evolving.

This is the equivalent in the US, the Fed's 'Federal Open Markets Committee'.

Not just more suits in offices.

Also an unusual story here reflecting the origins of the US Federal Structure.

I trust I am winning the battle to make you excited about this!



Central banks and our society

- Central banks are places where appointed technocrats make obscure decisions that affect finance / economics / politics.
- But are also products of deep economic and social forces....
- ... records of past social upheaval, failure, experimentation, disruption, innovation.

CENTRAL BANKS AT THE PIVOT POINTS OF GLOBAL HISTORY

Some stories about the importance of money and central banks

- French revolution of 1789
- Venezuela, oil, money, paper [and crypto!]
- Kurdish Iraq, Swiss Dinars and Sadaam futures.
- WW1, reparations and German hyper-inflation.
- The Greek and Eurozone crisis, and the doom-loop.

- Stories an attempt to convince you that:
 - Central banks often in the heat of the world crises
 - Major world events constantly throwing up deep questions about money, finance and public finance.
 - Current difficulties and the future you will have to grapple with have deep routes and echoes in modern history.

HOW RESTRICTIONS ON THE RIKSBANK HINDERED EFFORTS TO FUND IMPERIAL WARS

Riksbank history

- 'Banco' was a private bank with management chosen by the King.
- Collapsed for issuing paper notes far exceeding deposits.
- Riksbank succeeded it. Not allowed to issue paper, management chosen by the 'estates' or precursor to Parliament.
- King waged wars on Denmark, Norway, Russia, all at once.
- Had to resort to minting coins. Apparent desperation meant that they traded at < face value. So difference between value and cost smaller. Inefficient financing.

Riksbank history

- Sweden's role as an imperial power constrained as a result?
- Debatable. More expenditure might have destroyed Swedish economy through the note issue.
- Turns on whether Swedish Riksbank notes would have been like government bonds [ultimately redeemed] or money [never redeemed].
- Takes us into deep matters of monetary theory and public finance.
- Parallel with modern debate about heli money vs QE vs debt financed fiscal policy as a means to respond to the crisis.

Riksbank history, sources:

- Story told to me by [Josh Hendrickson](#), AP of Econ at Ole Miss, USA.
- Reading suggested by him: ‘[Money and Power](#)’, published by Riksbank.

**HOW THE FRENCH REVOLUTION
PROMPTED AN EXPERIMENT IN PAPER
MONEY**

A story from the French Revolution about early paper money



This is Robespierre. He became leader of France during the Revolution in 1789.

During that time a lot of people had their head chopped off.

Ironically, that's how he ended up too.

1789. French get fed up with the King and his family. Middle classes and intellectuals don't like him spending their taxes on palaces and wars.





This was Marie Antoinette, the King's wife.

She was not very popular with the people either.



A story about her – probably not true – is that she once was told that the peasants – poor people in the country – had no bread.



And she was supposed to have said:

‘Let them eat cake!’

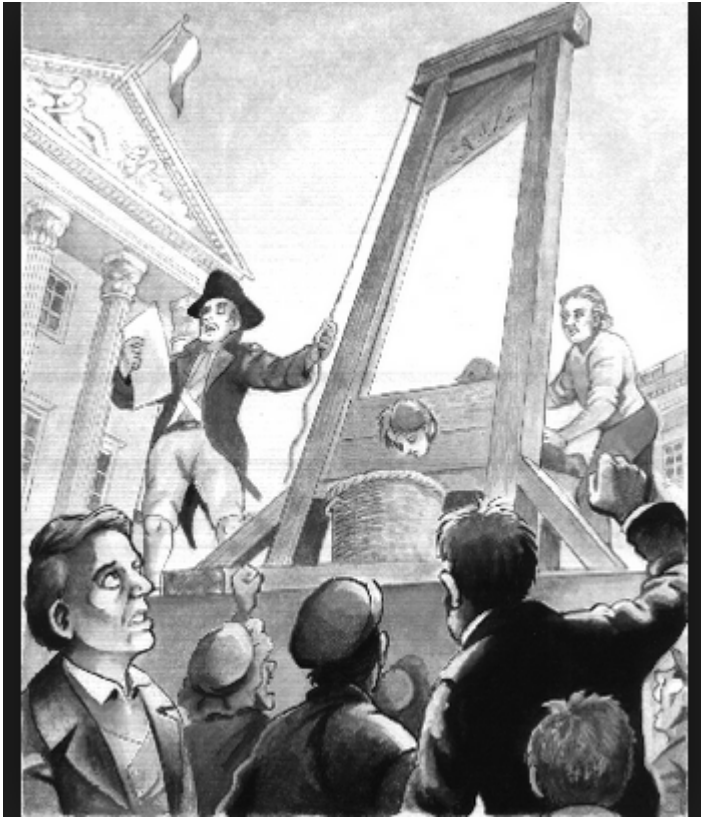
The story was probably made up by people to make her look bad.

But it gives you an idea how her enemies wanted to make her look mean.



The people took over Paris, broke into the main prison, the Bastille, and let everybody out.

And they imprisoned the King and his family after they tried to escape.



The Revolutionaries ordered that the King – Louis – have his head chopped off.



The French got into a war with Prussia [a bit of what's now Germany].

There were a lot of wars then.

The French were having trouble getting enough money to pay for it.

The church had a LOT of land



So the Revolutionaries decided to confiscate it all.

Then they had a bright idea to get some money for the war.....



They decided to hold auctions...

where people would bid against each other...

to buy the Church lands off the Revolutionary government.



People would bring gold – probably in coins- and get an Assignat. Just a bit of paper....

Here is an Assignat.

People would take these to the auctions and use them to try to buy the church land.





These assignats were just like fairground tokens that you buy when you go to the fair.

You hand over money. They give you tokens.

Then you buy rides with the tokens.





This is a hammer that the auctioneer hammers down when something is sold.

For some reason they still do this even now. "SOLD!"

The revolutionary government didn't hold many auctions, but they kept on selling the tickets, the Assignats anyway, and the gold kept coming in for a while.



| We'll just carry on selling the tickets for gold, and keep hold of the church lands, they thought.

But then people realised the auction tickets would not get them anything, so no-one wanted them any more.

It got harder and harder to persuade people to buy the tickets with gold.



The Assignats became worthless,
so people wanted to use things like
wine and cheese as money.

Everyone likes wine and cheese.

And they keep for ages.

In fact the longer the better.



The government didn't want people to use wine and cheese for money, because that took away their business raising funds for the war against the Prussians.

So they told people you'd get your head chopped off if you were caught doing that.

That is a guillotine, a big blade that would slide down and do the job.

French Rev, recap: what did we learn?

- An early experiment in ‘inconvertability’, which went badly wrong.
- Public finance problems created inflation.
- How an extreme legal tender law affected what people used as money.
- Inflation and financial repression as government expropriation or tax.

**HOW PAPER MONEY IN KURDISH IRAQ
SURVIVED TEMPORARY LACK OF A
CENTRAL BANK**

Reading on French Revolution and money

- ‘[Macroeconomic aspects of the French Revolution](#)’, Sargent and Velde, JPE, 1995.
- ‘[Stuff and money in the history of the French Revolution](#)’, Rebecca Spang, 2016.

How you don't need central banks to have a functioning money

THE SWISS AND IRAQI DINARS AND KURDISH-CONTROLLED IRAQ



US, UK and France [until 1998] enforces a 'No Fly Zone' on Iraq after first 1991 Gulf War.

Claim authorization from UN Resolution 688. But no explicit text there. Boutros-Gali later brands them 'illegal'.

Protect Kurds in North; Shia in South. Also make it harder to invade Saudi Arabia and Kuwait, securing the oil there for the West.

Creates de facto and defensible independent Kurdish region in the North.

- UN sanctions, high military expenditure, cause financing problems for Sadaam Hussain's government.
- So he starts printing money to pay government bills, generating inflation.
- Sanctions mean new notes have to be printed locally, using inferior technology.
- Old ones were printed using plates made by Swiss company De La Rue in England, hence 'Swiss Dinar'.
- [Wikipedia seems confused about this, but take it from me].

Old Swiss 25 dinar note circulating in only Kurdish Iraq after 1993.



Iraqi dinar note, 250, circulating only South of the northern NFZ, printed on local paper using local plates.



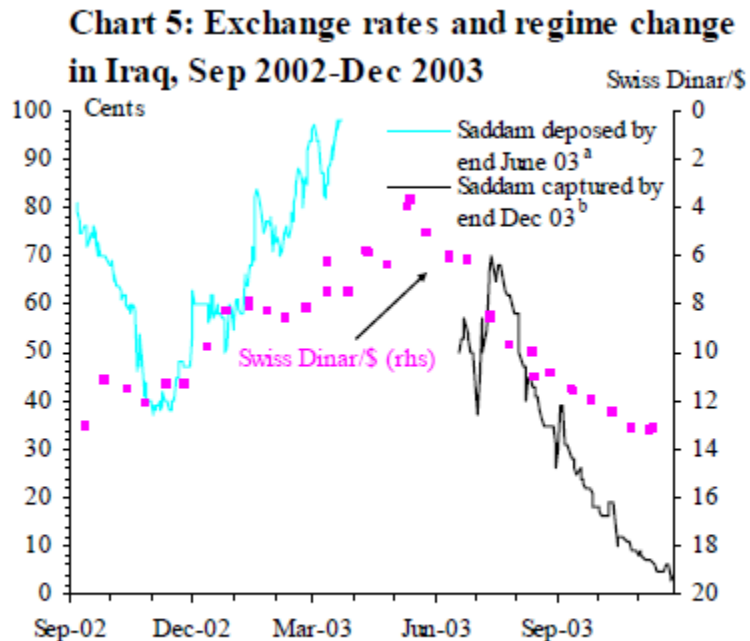
- 1993: Sadaam announces withdrawal of 25 dinar note and reissue.
- You have to exchange your old note at a bank [south of the NFZ of course] to get a new one.
- No Kurds are going to do this; Sadaam is hoping he will successfully expropriate Kurds and destabilise their local economy.
- It doesn't work. Swiss dinars circulate regardless.

Swiss dinar circulated without a central bank, and without any law of legal tender.

Exchange rate against US\$ rose and fell with prob of Sadaam being deposed and captured [see futures prices in chart]

Value of Swiss dinars depended in part on being redeemed or backed at some point by a new post Sadaam Western central bank.

This is actually what happened. Swiss dinars exchanged at par for new ones created by the Western proxy govt after the 2003 invasion.



Source: United Nations, Central Bank of Iraq, Tradesport Exchange Limited

^a Value in cents of a contract that paid 100 cents if Saddam is deposed by the end of June 2003, and 0 otherwise

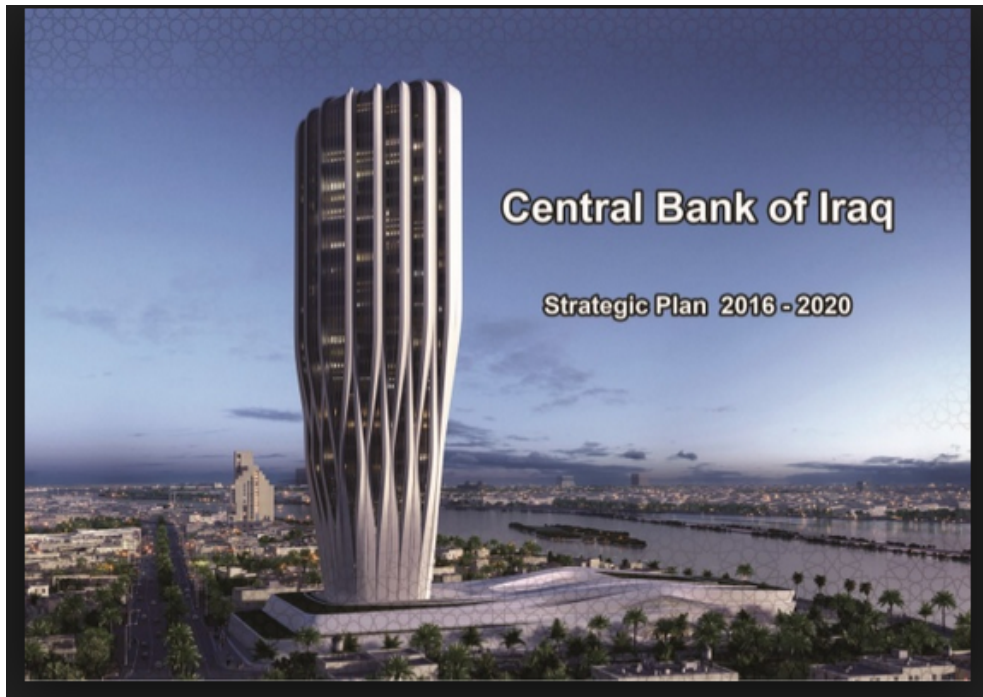
^b Value in cents of a contract that paid 100 cents if Saddam was captured by the end of December 2003, and 0 otherwise



CBI headquarters in 2003 guarded by US troops.

Creating the new currency was exciting dangerous work for seconded central bankers. BoE staff member involved.

Money printed outside Iraq. Airlifted into airports under attack. Transported in military vehicles by road under armed guard.



Bold new building, trying to express confidence that Iraqi finances are ok and the security problem is sorted.

Of course although the Swiss dinar holders were made good, Iraq faces many problems, including ...

The war against ISIS;

Kurdish separatism [presumably right now Kurdish economists are thinking about their own note issue].

Sunni-Shia sectarianism;

Influence/subversion by Iran.

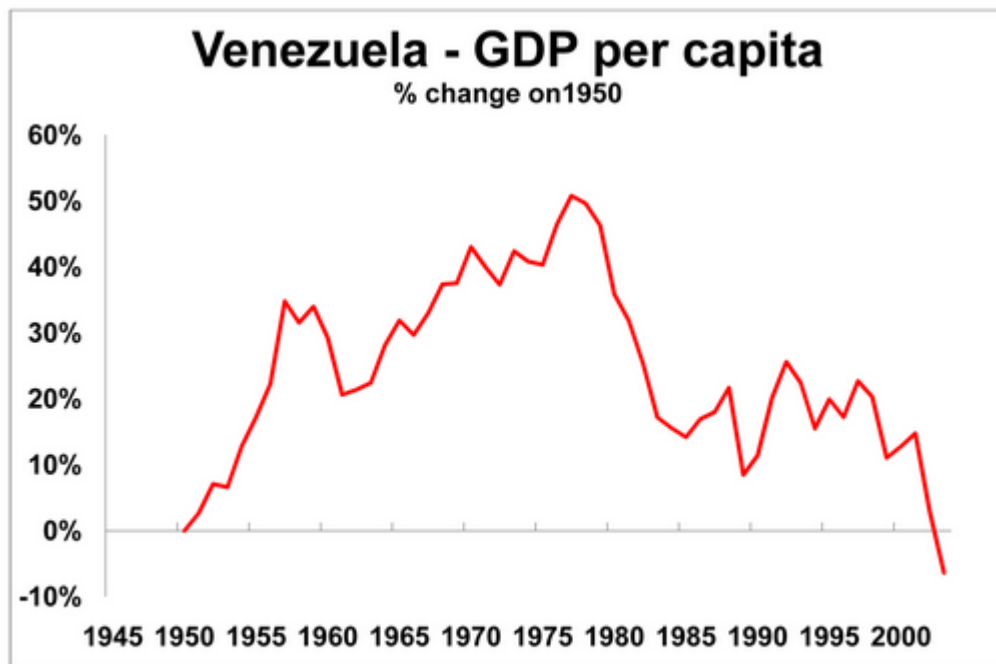
Iraq, recap: what did we learn?

- Money can exist without a central bank or legal tender. It's about trust and coordination.
- The Swiss dinars were not an entitlement to anything: gets at the fundamental theoretical questions regarding the nature and existence of money.
- If we can do without central banks, what exactly are they for?
- Currency invalidation and reissue [what Sadaam did to the Kurds] can be a military and political weapon.
- West used sanctions and inflation as a weapon against Sadaam himself, just as he hoped 'inflation' would undermine the Kurds.

**VENEZUELA'S COLLAPSING OIL
OUTPUT, HYPERINFLATION, PAPER
SHORTAGES**

Some very quick historical context

- Troubled political and institutional legacy.
- Spanish ran it as part of larger extractive colonial entity.
- Independence meant local elites, not mass population, got control of land and wealth.
- Subsequent outside interference by eg US who preferred capitalist autocracies to socialist economies.
- Post war nationalism involved taking back control of natural resources, often previously licensed under deals that were generous to Western companies.



Venezuelan output per head tracks the rise in the oil price during the Arab oil embargos of 73 and 79, imposed at protest against US policy in favour of Israel and against Palestine.

Fails to recover even as oil prices rise again during the 2000s.

This shows the decline of Venezuelan oil capacity, eroded by political patronage, lack of investment, US sanctions.



Hugo Chavez.

Former general, who organized a coup.

Rehabilitated and became President, promising a socialist revolution.

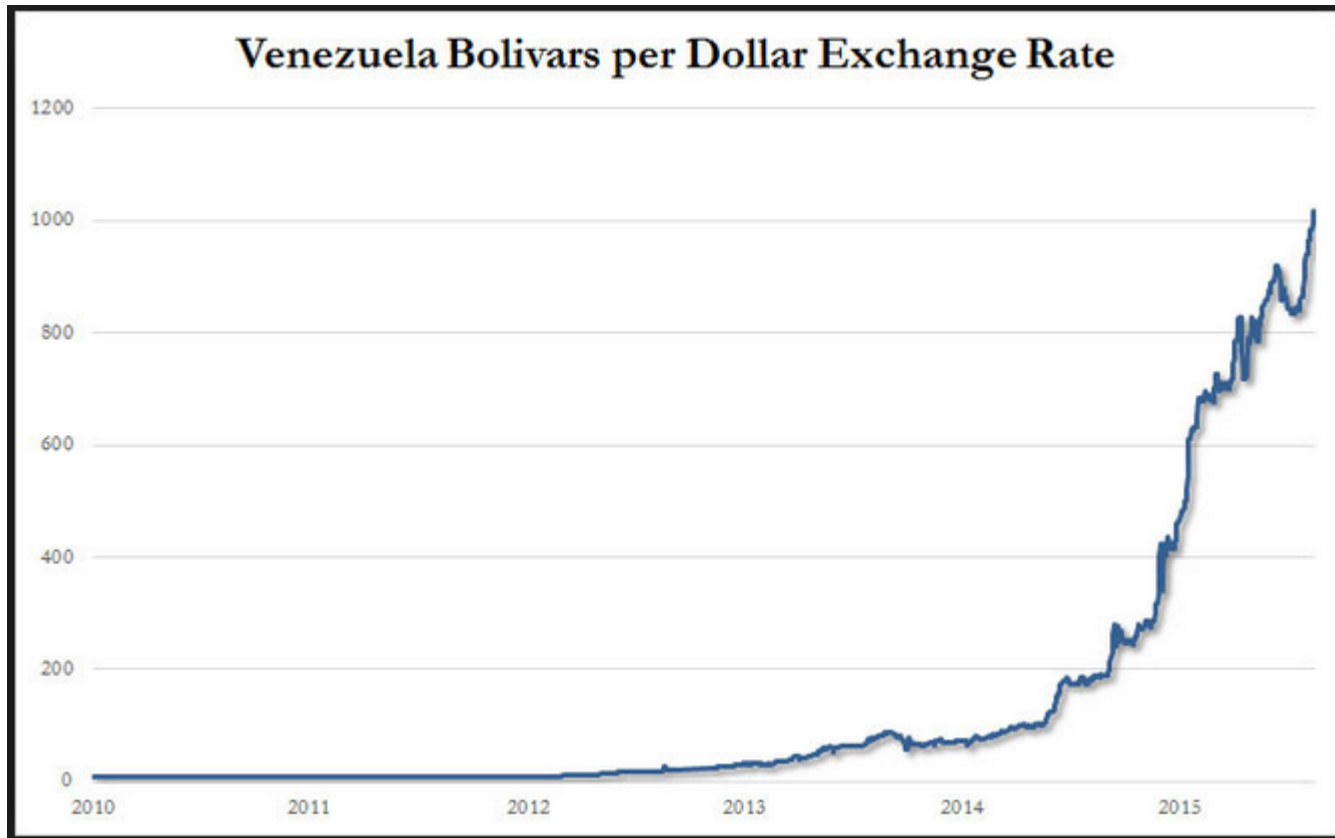
Rejection of foreign interference, ownership, capitalism.

Massive redistribution programs.

Also nationalisations and expropriation.

Oil industry appointments used as patronage.

Subsidised oil given away cheaply to political targets like Castro's Cuba, struggling after fall in aid from former USSR.

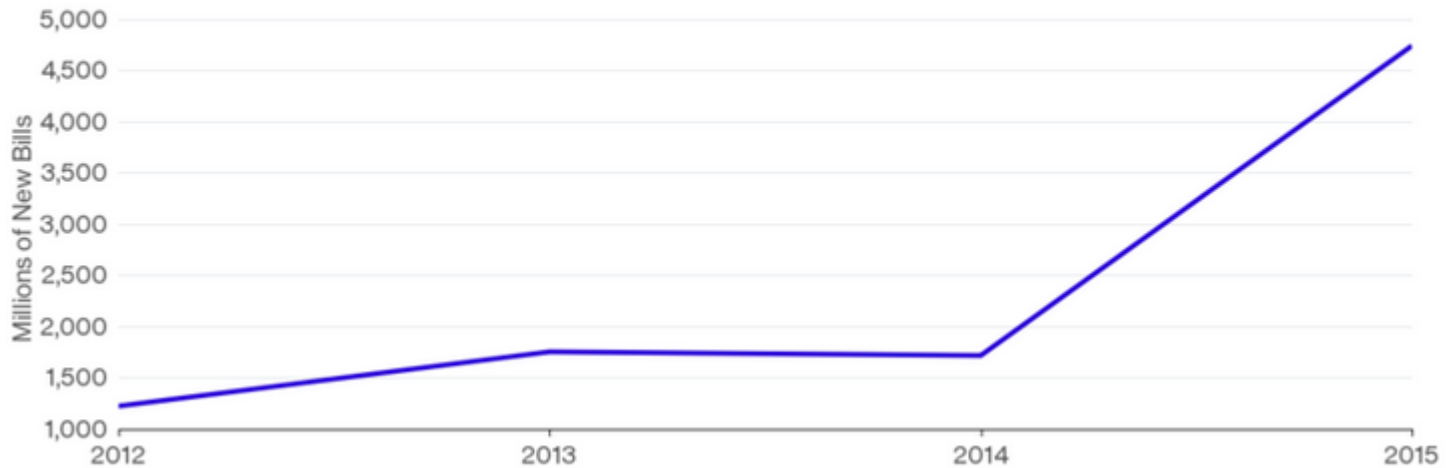


Collapse of oil and other production caused tax revenues to decline, and money-printing to rise as a substitute.

This expansion of the money supply caused the exchange rate to fall [translate: number of Bolivars you have to spend to get a \$ to rise].

Bills, Bills, Bills

Venezuela's rampant inflation is driving a huge increase in bills in circulation



Source: [Bloomberg](#)

One factor limiting currency implosion and inflation is paper shortages.

Government claimed to be running out of money to pay for the paper used to print it.

In a system where everyone has accounts in well-functioning banks, money can be created digitally by the central banks. But that is not what Venezuela is like.



One way to economise on paper, of course, is to redenominate the notes. This one is from Zimbabwe, which had a recent hyperinflation [we'll talk about it later].

But redenominating requires organising a new note design, a new printing plate, and in the midst of an inflationary collapse this can be difficult, even unaffordable. Often the afflicted countries can't do it locally, and might be excluded from buying foreign notes due to sanctions.

Stop press! Venezuela's 'Petro' crypto

- Venezuela unable to issue bonds due to financial sanctions and falling oil revenues...
- Plan to launch 'Petro' an ICO [initial coin offering] 'backed' [or not] by oil.
- Govt said:
 - it would take them back as payment for taxes.
 - You can't buy the Petros with the Bolivar currency.
- Is this new money? Or a bond? Or an equity share in something?
- Return to crypto currencies in final lecture.

Petro vs the Assignat

- Assignat 'backed' by repossessed church lands. Church complicit in past exploitation.
- Petro 'backed' by oil. Oil repossessed from predatory Western corporates.
- Both were attempts to raise money in the midst of distressed government finances.

Venezuela, recap: what did we learn?

- Political interference in oil production eroded capacity, which damaged tax revenues.
- Expropriations in wider economy, price controls, caused output to fall.
- Spending on programs and patronage continued; tax revenues fell; money printing to fill the gap.
- Bad monetary policy an episode with long and deep historical causes with roots in colonialism, inequality, the cold war battle of ideologies.
- General: link between politics, tax revenues, money creation, inflation.



Demonstrations against President Maduro [picture – NY Times]

[2.3 million refugees left Venezuela since 2014.](#)

Reading on Venezuela

- [My FT Alphaville post](#) of 26 Feb.
- Haussman, Project Syndicate articles
 - [D-Day Venezuela](#)
 - [Venezuela's unprecedented economic collapse](#)
- 3 pieces on the Venezuelan Petro:
 - [Lex, FT](#)
 - [Patricia Layes](#), Bloomberg
 - [Camilla Russo](#), Bloomberg

WORLD WAR 1, REPARATIONS AND HYPERINFLATION



Allied powers [UK/US/France/Italy] defeated Germany in WW1 in 1918 after 4 years of expensive and bloody stalemate. That is a photo from the air of what some of the trenches look like now.



The war was very very expensive. Roughly 20 million died; 20 million wounded.

UK and empire spent about \$47 billion in 1913 US dollars [obv much more at today's prices]; running down assets accumulated during the industrial revolution.

US made large loans to UK and France.



At the peace conference in the palace of Versailles, France got US to agree to press Germany for enormous reparations, which Keynes, advising US delegation, realised Germany could not pay.

[Adam Tooze](#) actually blames the Americans, contradicting the account in Keynes' 'Economic consequence of the peace', saying that the US could have solved the problem by forgiving its loans to France, but decided not to.

France's grab for reparations was to repay the US as much as retribution.



Reparations collapsed German government finances and money printing used to plug the gap. Led to hyper inflation in early 1920s.

Hyperinflation wiped out savings and made everyday life difficult. Helped discredit young democracy of Weimar Republic, and fuel resentment at Allies on which Hitler capitalised.

New Bundesbank established as independent, with constitutional mandate for price stability. To try and avoid a repeat of the 1920s.

Model of independence repeated around the world.

Lisbon Treaty prohibited 'money financing' to satisfy demands of German constitution.

German constitutional court often figured during Eurozone crisis as we wondered whether policy x proposed by EU/ECB would be permissible.

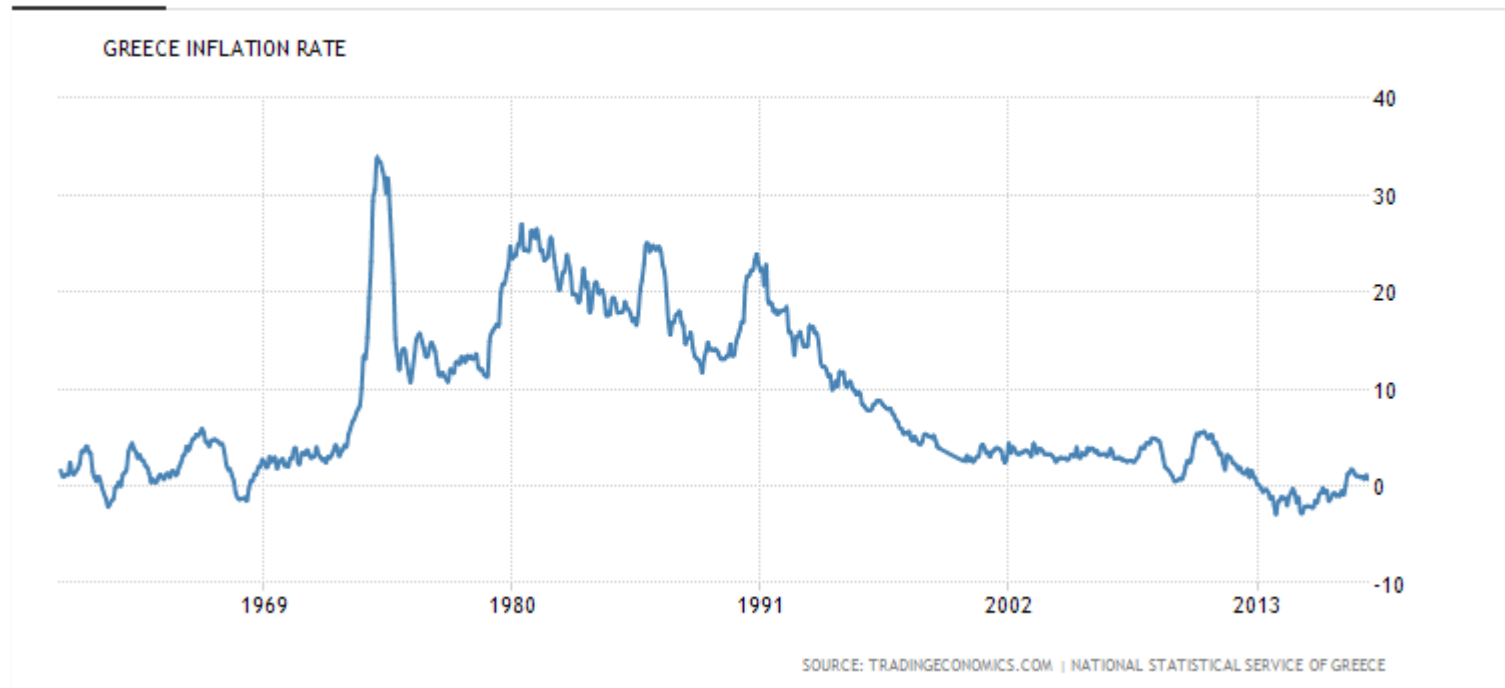


Reading on WW1 and reparations

- ['Economic consequences of the peace'](#), Keynes.
- ['The Deluge...'](#) Adam Tooze.

Another, different lesson on the costs of not having your own central bank

GREECE AND THE EUROZONE CRISIS



Modern Greek governments struggled to control inflation and public finances [the two were linked].

Troubled legacy of the past. Weak state due to long repressive occupation by the Ottoman empire [which eventually shrank into and became modern Turkey].

Central government not perceived as delivering good services, or legitimate. So tradition of tax avoidance. Therefore no money to deliver good services....

Greece: historical context

- Many convulsions leaving the state weak and divided....
 - Occupation by Nazis in WW2.
 - Western and local Orthodox church and conservative support for right wing govts in post WW2 civil war, to resist Soviet incursions in Europe.
 - Military coup of 67 and confrontation with Turkey over Greek Cyprus in 73.

Modern Greece

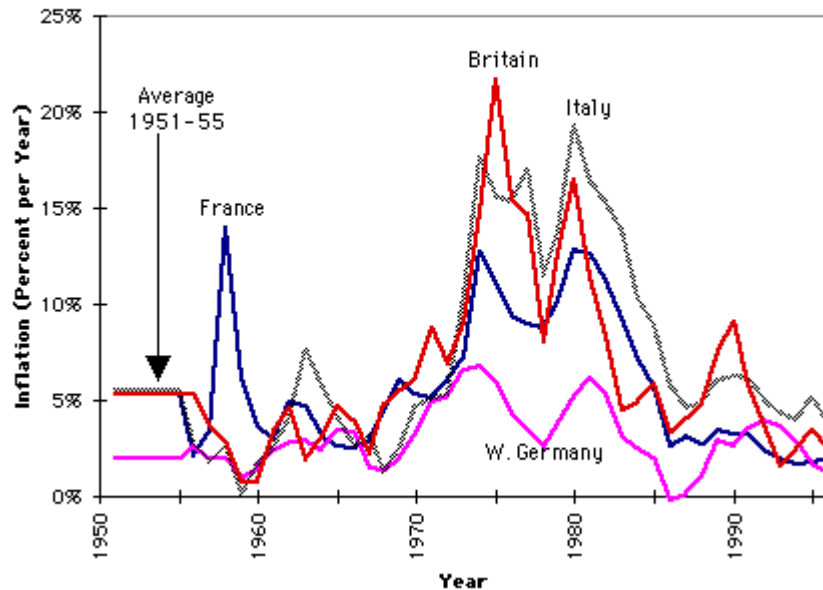
- Modern democratic state dysfunctional...
- Bloated public sector, very low productivity, bureaucratic, corrupt.
- Senior public jobs offered as patronage, not on merit. Low performance of public sector bodies as a result.
- Private industry uncompetitive, oligarchic. Labour unions drive restrictive employment practices as a counterbalance.
- Each party has its own political clients: right has the oligarchs; left has the unions.
- Persistent inflation and deficits.
- Membership of Euro seen as a way to rescue monetary and fiscal policy.

Birth of Euro, and Euro as salvation

- Allies forced constitution on defeated Germany including an independent central bank, and constitutionally required 'price stability'.
- Bundesbank more successful in controlling inflation during the 70s and 80s.

Inflation rose throughout Western Europe, but much less in Germany than other countries.

Western European Inflation, 1950-1996



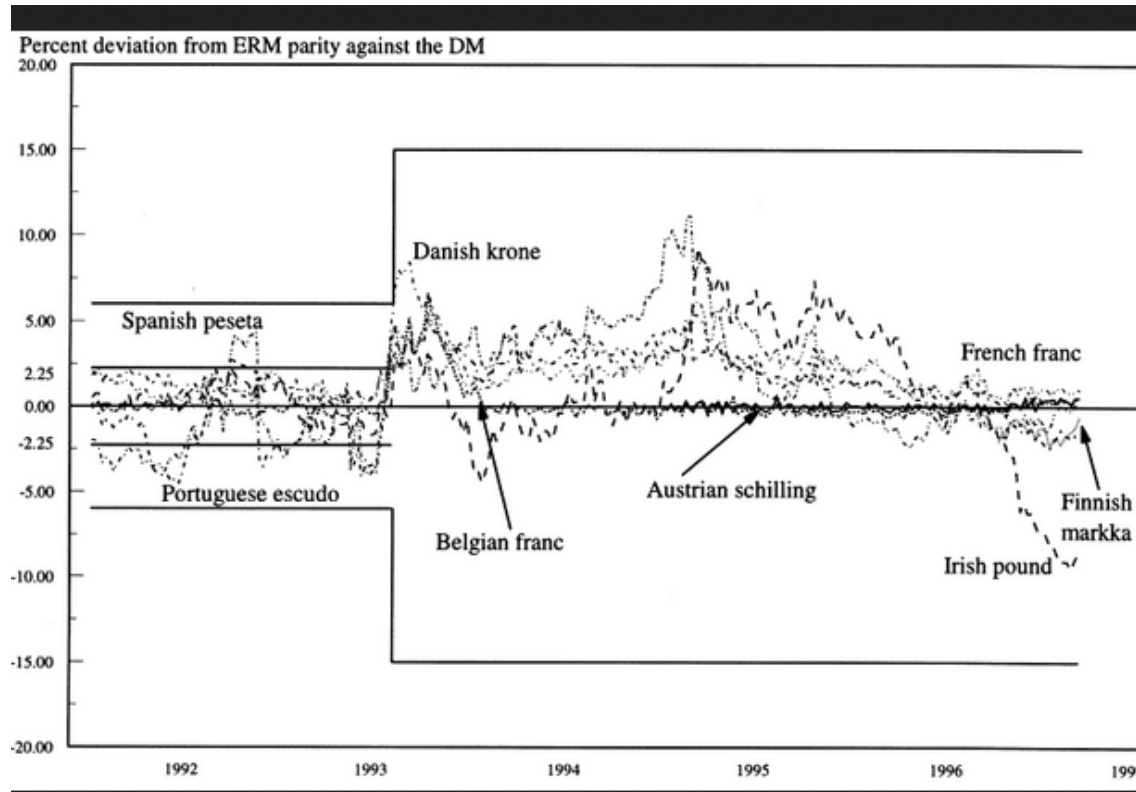
This helped the Bundesbank develop a reputation for keeping its inflation promises.

That was a direct result of the constitutional price stability clause...

In turn a historical echo of the hyperinflation of the 20s.

- Euro forged as part of project to form ‘ever closer political union’, a legacy of the centuries of nation state war that would be prevented.
- Precursor was Exchange Rate Mechanism. Countries would peg their exchange rate to the DM. Bundesbank would generate low German inflation, through low money expansion in Germany.
- Rest of Europe would fix exchange rates and get low inflation for themselves.

ERM and fixing exchange rates.



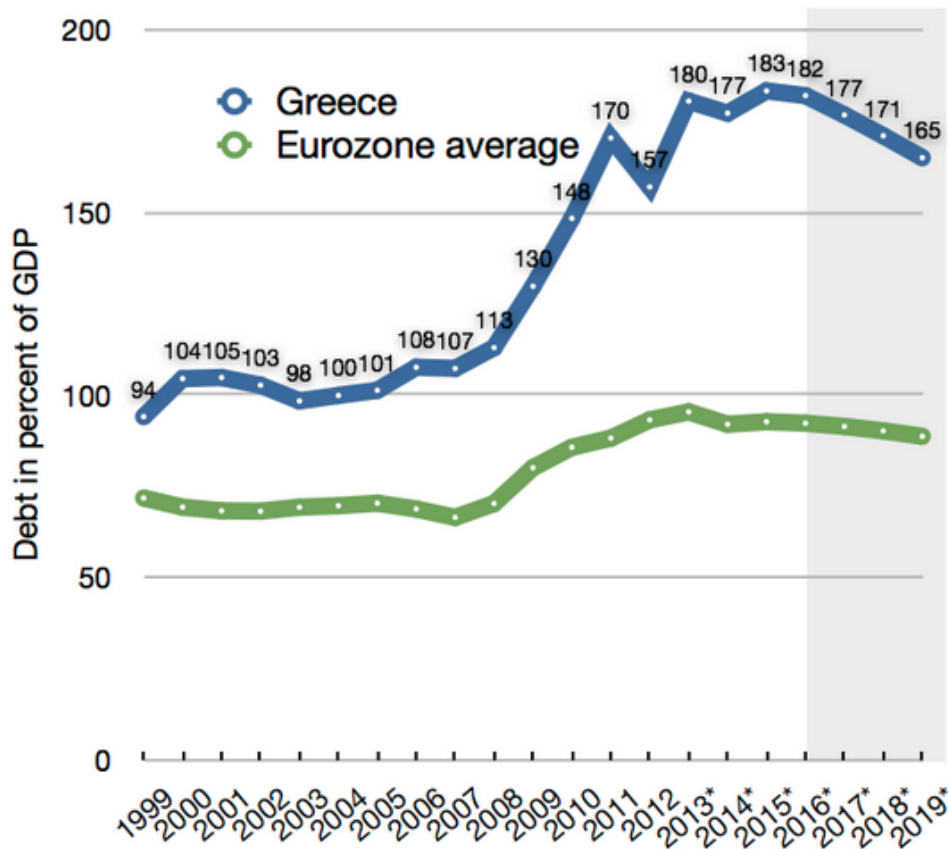
Countries promised to keep their exchange rates within tight bands around an agreed 'parity' with the old German Deutschemark [DM]

Exchange rate pegging: how to

- If value of your currency goes too high, you print some, buy foreign currency. Demand for foreign currency rises. Supply of your own rises.
- To bid up your currency, you have to have reserves of foreign currency to buy it. That requires having sound public finances so that you have things that are of real worth [like foreign government bonds, or tax revenues] to buy the foreign currency.
- ERM imposed monetary AND fiscal discipline.

Next step: Euro

- ERM involved periodic crises [eg UK in 1992].
- Euro was meant to lead to no further crises.
- Germany forced 'growth and stability pact'.
- Tight requirements on debt/GDP and deficits.
- Idea: prevent the ECB from being used to print money to bail out member governments.
[memory of Weimar Republic finances].
- Also – cement single market and prevent war of devaluation and retaliatory restrictive practices.
- But the idea lead to many problems!



Source: Eurostat

* Ernst & Young using data from Oxford Economics

Greece entered with high debt, and did not meet the fiscal criteria. Figures probably massaged at the time.

Boom in Greece. Very low interest rates [‘imported’ from rest of Europe].

Political, monetary and fiscal future seemed assured.

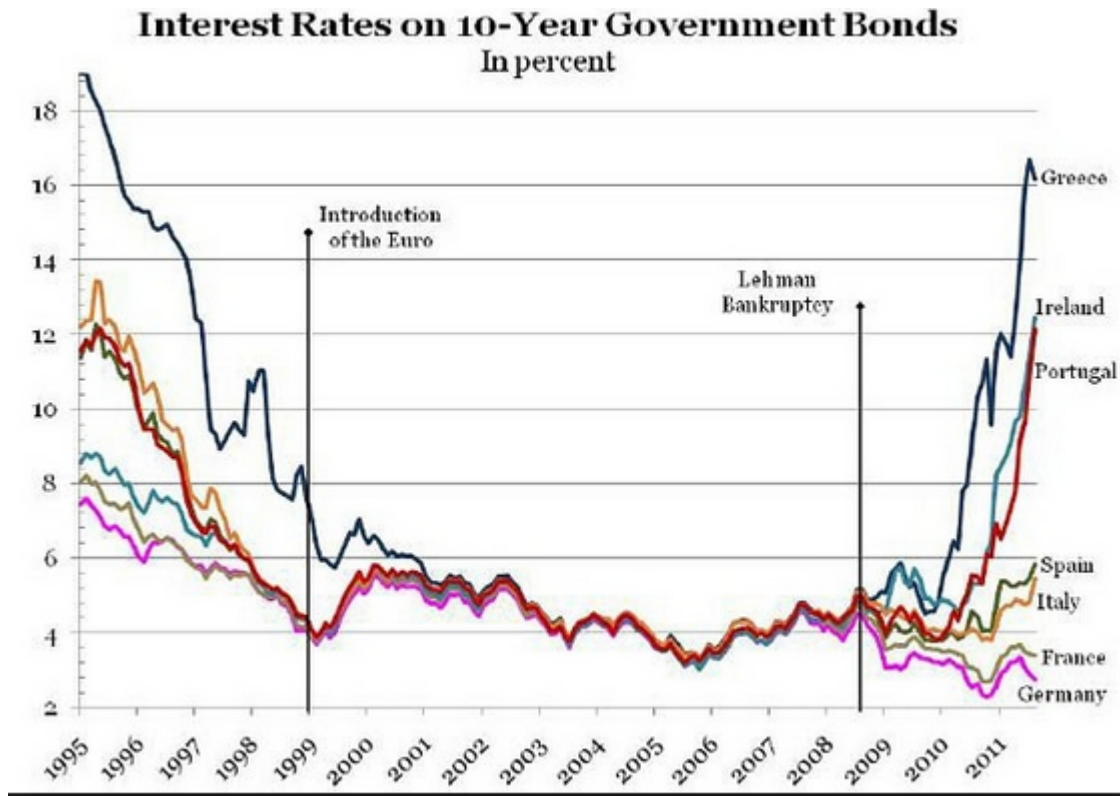
High private borrowing given fast catch up and expected future income gains.

Greek banks exposed to Greek government as they held lots of Greek govt bonds.

European banks also held those Greek govt bonds as they were deemed [inc by the ECB] to be very low risk.

The doom loop for Greece

- Financial crisis caused a re-evaluation by markets of what was and wasn't risky.



The doom loop

- Governments not a good bet to lend to because everyone worries they will have to bail out the banks.
- Banks not a good bet to lend to because markets know they are holding government bonds that might not get redeemed.

Vicious circle of public finance

- High interest rates means cost of servicing debt rises.
- Chance of default rises. Markets won't buy long term, only very short term bonds.
- As chance of default rises and maturity falls, cost of finance rises further....
- Eventually govt loses market access entirely.

Greek crisis

- Greek govt has to finance pensions, benefits, salaries for health service and schools and local government... possibly even bail out the Greek banks.
- But no revenue to do it.
- Either gets aid, or creditors go hungry, or...
- Greeks issue their own quasi or actual currency.

Greek central bank impotence

- Part of the difficulty is that the local Greek central bank can't cut interest rates to stimulate Greek economy.
- Traditional route out, eg Iceland, is that exchange rate devalues and boosts the economy and tax revenues...
- But it gave up that power in the first place because local institutions did not generate good monetary policy.

Icelandic vs Greek crisis

Iceland built up a huge banking sector that was poorly regulated.

3 largest banks had assets = >11* GDP.

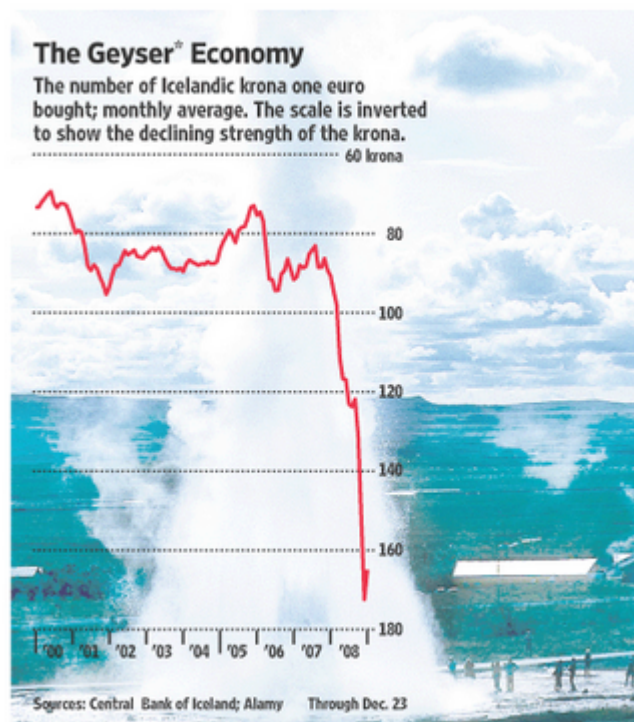
Exchange rate fall helped boost the Icelandic economy.

But Greeks unable to do this.

Could have exited the euro but journey would not have been smooth.

No notes and coins ready to go. [Part of the commitment to the Euro].

Reintroducing drachma would have meant defaulting on euro contracts.



*The word geyser comes from the Icelandic 'geysir.'

Greece vs the Euro Area

- EA could have allowed Greece to write off its debt.
- But would have meant 1) bailing out own banks and 2) setting a bad example for others, perhaps leading to more bail outs.
- Instead it: lengthened maturity of debt a lot; lowered interest rates; gave more loans conditional on review of reforms to taxes, spending, pensions, state asset sales.

Varoufakis and the Greek bluff

- Syriza, a hard-left populist party in Greece, brought Sypras to power as PM and Varoufakis, a formerly obscure econ academic, as finance minister.
- Bluff: bargain for hard terms, threaten to leave and default, betting that EA would worry about Euro unravelling and systemic risk to its own banks.
- Tried to bolster themselves with an Ohe! Result in a referendum on the bail-out terms.

Greek bluff fails

- Markets don't take fright that other countries might follow Greece out, or at the health of other governments' finances or banks.
- Other anti-Euro populist movements: Podemos, Five-Star, FN.
- Greeks lose their leverage and fold.
- Greek crisis highlighted lack of fiscal transfer union at the centre of EA dysfunction.
- Still not addressed.

Greek crisis recap: what have we learned

- Costs and benefits of having your own independent monetary policy and central bank
- Pressure of public finances on monetary policy
- The doom loop between governments and banks.
- How bad politics and public institutions feeds through into the monetary and financial system, and back into bad politics.
- Bad monetary and fiscal policy are proximate, not ultimate causes, often.
- Requirements [fiscal union] for a well functioning monetary union.

Old historical routes of the Greek crisis

- Era of unstable great imperial nation warfare leads to weak Greek state and a defeated Germany after WW1.
- France and UK pursue reparations against Germany, leading to hyperinflation.
- Hyperinflation discredits German democracy and gives rise to Hitler.
- Hitler causes WW2. Defeat leads allies to impose constitution, central bank independence.

Historical roots of the Greek crisis again

- Long memories of hyperinflation lead to conservative Bundesbank monetary policy.
- Conservative views imprinted on ECB.
- Failing peripheral states import German financial institutions via Euro.
- Part of political union project to avoid another war.
- Lack of genuine political union leads to Greek crisis.

Reading on Greek Crisis

- ‘[Modern Greece: what everyone needs to know](#)’, Stathis Kalyvas
- ‘The global minotaur’, Yannis Varoufakis
- ‘[Adults in the room...](#)’, Yannis Varoufakis
- [Adam Tooze’s Review of Adults in the Room](#), NYRB.

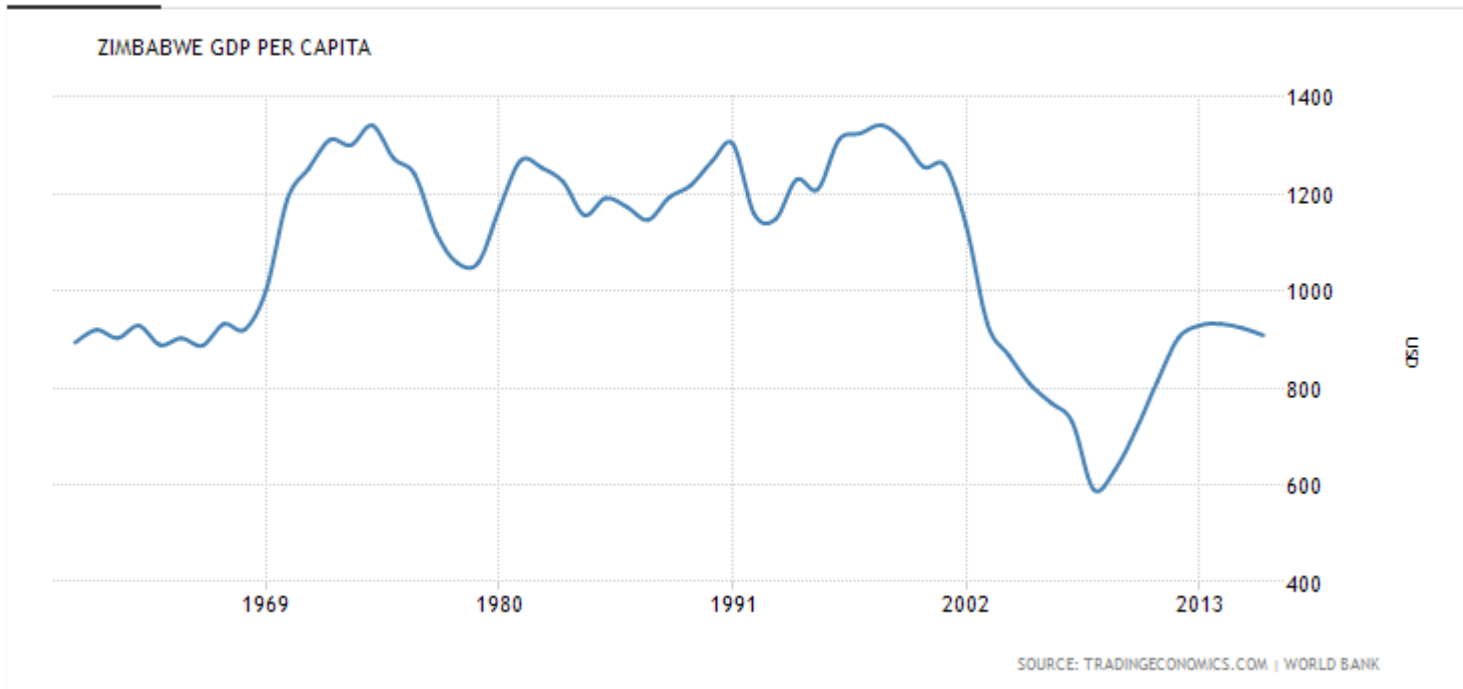
Zimbabwe inflation: always and everywhere a political phenomenon

- Long history of predatory rule.
- Protectorate of British South Africa Company [quasi-state-corporate] like East India Company. Head=Cecil Rhodes.
- Colony of UK ['Rhodesia'] until 1965 when whites only govt declared independence.
- 1965-80: sanctions, and civil war against Mugabe's Zanu-PF.

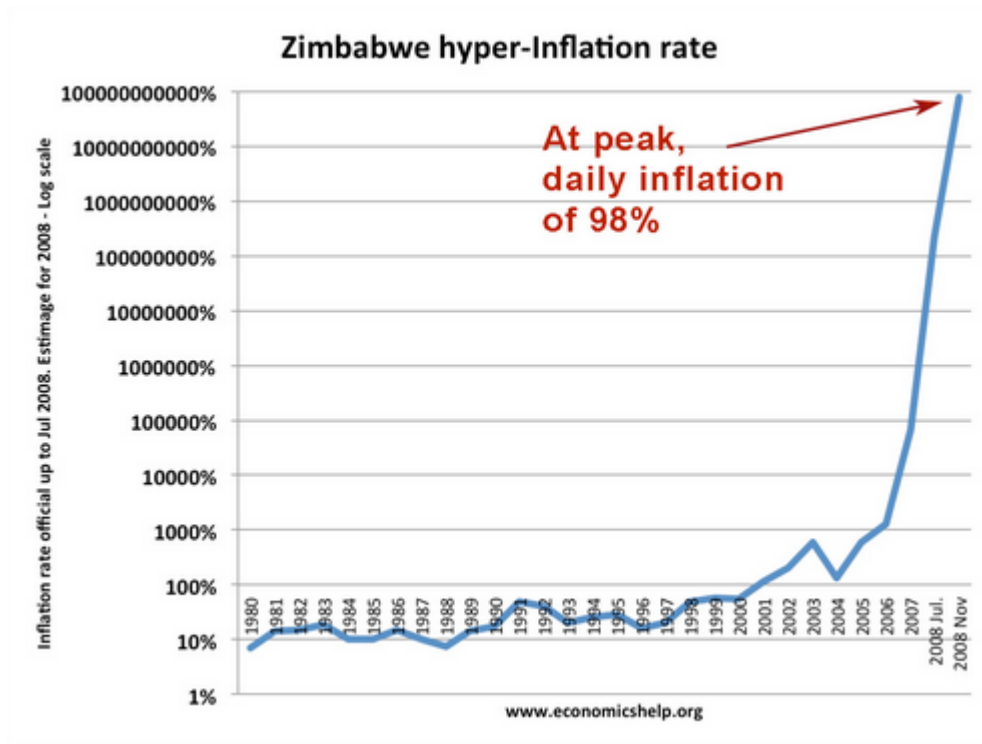
- Land reform : UK would fund ½ cost of voluntary Zimbabwean govt purchases of land for redistribution.
- Blair govt ended this. Mugabe responded with accelerated 'expropriation'. [Quotes because whose it was is controversial].
- Economic and then govt finance collapse followed.
- Hyperinflation. Dollarization.

Zimbabwe GDP/head

Historical Alerts Data API Forecast Survey



GDP per head collapses in late 90s after chaotic forced redistribution of farm land.



Govt has to meet obligations to pay wages, so forces central banks to print money.

More money means higher prices.

Higher inflation reduces the demand for, and therefore value of money further.

Fall in value of money is a rise in prices.

Next round of govt obligations requires even more money printing. Circle continues.

Zimbabwe: what caused inflation?

- Proximate cause of inflation was central bank money printing.
- Proximate cause of that was govt revenue collapse.
- Proximate cause of that was falling output, as businesses feared to invest in companies in case they were expropriated.
- Proximate cause of that was chaotic redistribution.
- Proximate cause of that was predatory colonisation!
- Proximate cause of that was concentrated location of development / industrial revolution 1000-1900AD!
- Proximate cause of that was ???

**REFOCUSING ON IMMEDIATE CRISIS
MOTIVATION FOR OUR CENTRAL
BANKING COURSE**

Central bank context at start of the 2008 crisis

- Independent central banks
- Following 2 per cent inflation targets
- Using interest rates [at first] to boost the economy
- BASEL framework for regulating banks
- Euro Area with only 1 central bank
- Fiscal policy only used with 'automatic stabilisers'

Crisis response

- Interest rates pushed to the floor of 0. And below.
- Quantitative and credit easing used for more stimulus.
- Some banks bailed out. Others not.
- International aid with strings attached to Ireland, Greece, Portugal.
- Revised policy frameworks for financial stability...

Crisis response: financial stability

- Macro prudential policy.
- Targets for long term tighter capital requirements.
- New resolution regimes for failing banks.
Living wills for banks.
- New Committee [in the BoE]: the FPC.

Questions on central bank independence

- What is central bank independence?
- What are its costs and benefits?
- What different kinds of central bank independence are there?
- Is it sustainable in the future?

Questions on inflation targeting

- What is an inflation target?
- Why did govts / central banks choose this as a target?
- How did they fix on the answer 2 %
- Is inflation targeting at 2% ok for the future?

Questions on the nature of money

- What is money?
- What functions does it serve?
- How does policy affect how well those functions are performed?
- Does the government have to provide the money or can we have private monies?
- Do countries need to have their own, or can they use someone else's?
- What might money be in the future? Bitcoin and digital money.

Questions on central bank policy instruments

- How do central banks control inflation with interest rates?
- What is the connection between money and prices?
- Why can't they be cut below zero?
- What is quantitative easing and does it work?
- What is credit easing, and does that work?
- Should central banks be doing credit easing?

Questions on financial policy frameworks

- Why are banks risky?
- How are they regulated and protected?
- What are the costs and benefits of interfering?

Questions about monetary and fiscal interaction

- What did the fiscal authorities do and why?
 - In the US
 - In Japan
 - In the UK
 - In the Eurozone
- Could they have done more?

Questions about lessons learned and institutional reform

- What has happened to banks and banking regulation and is it enough?
- Has the Eurozone taken the necessary steps to survive another 2012?
- What are the options in the future at the zero bound?
- What will Bitcoin or crypto currencies do to central banks, monetary and financial policy?

Next lectures

- Lecture 2 : Central bank functions and policies
- Lecture 3: Financial crisis: causes and responses
- Lecture 4: Crypto currencies and central banking

ADMIN THINGS

About me

- 21 years at the Bank of England, 1992-2013
- 2 years at Bristol as a reader
- 2 years at Birmingham as Professor of Econ
- Now freelance. Visiting here at City.
- Write occasionally for FT/NS/Indy/Guardian/Times, see [media page](#).
- Blog at www.longandvariable.wordpress.com
- Twitter: [@t0nyyates](#)
- [Homepage](#) with all course material:

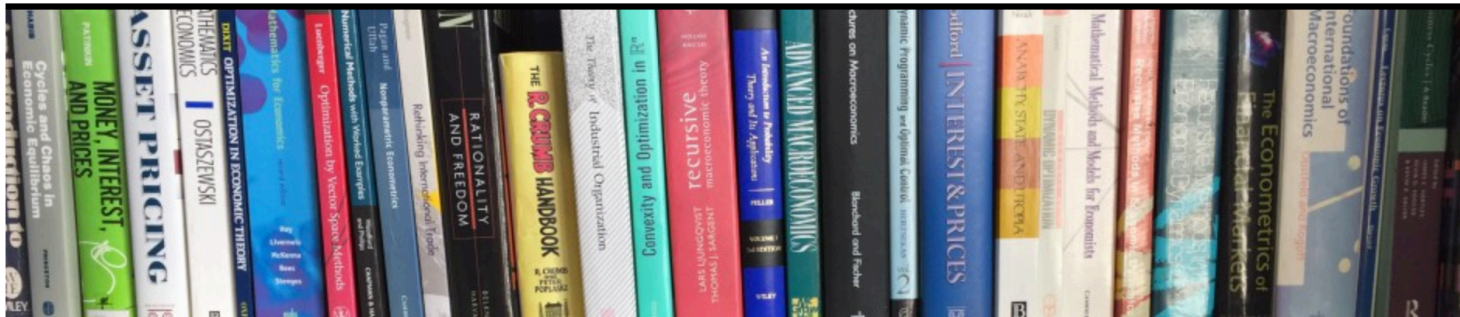
Blog

Reader

Write

longandvariable

A blog on macroeconomics and public policy by Tony Yates. 'The Velvet Underground of Blogs' [Toby Nangle].



[Home](#) [About me and this blog](#) [Econ resources and links](#) [Homepage \[teaching, research...\]](#) [Interesting papers](#)

[Other econ blogs, writing, Twitter follows](#) [Selected blog posts by topic](#)

The death of the Bitcoin coder

Posted on [January 20, 2018](#)

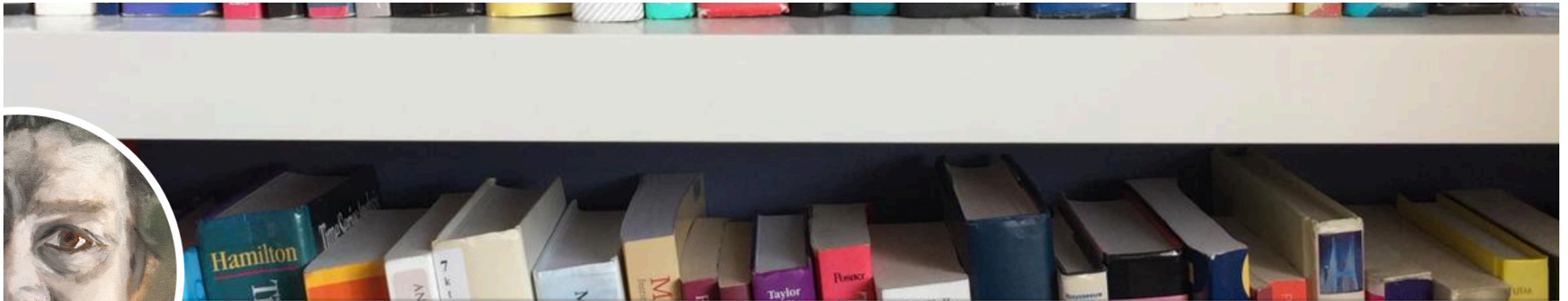
One of the few ideas in literary theory that made its way across the chasm that separates me from it is the notion of the 'death of the author'. By analogy with the original idea, with no more than a cursory link to [the Wikipedia entry](#) and disregarding Barthes and

Recent Posts

- [The death of the Bitcoin coder](#)
- [Bitcoin and the underpinning of illicit fundamentals](#)
- [Moving the Bank of England to](#)


Customize

Twitter



Tweets **48.5K** Following **601** Followers **8,552** Likes **22.2K** Lists **1** Moments **0**

Tweets **Tweets & replies** Media

 **Deep state rep of yesteryear** @t0nyyates · 32m
Favourite Alexa command so far is getting it to recite pi to a large number of digits.

2 1 3

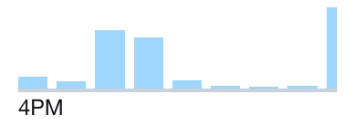
You Retweeted

 **Paul McNamara** @M_PaulMcNamara · 2h
The journo who triggered this is someone I respect. But I've Twitter-known @grodaeu for years so:

grodaeu @grodaeu

Your Tweet activity

Your Tweets earned **37,836** i over the last **24 hours**



[View your top Tweets](#)

Who to follow · Refresh

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ot writing a book. Ex Prof
oEngland old-timer. Macro,
ry econ, occasional

table.wordpress.com

Homepage

**Tony Yates: research, teaching, media, blog,
Twitter**



Posted on [July 5, 2013](#)

I am currently an economist working independently, doing a bit of consulting, and trying to pull together a book on central banking.

In first instance, and as an infallible backup, all my materials posted on the 'Teaching' sub page on this site. Hover over the word 'teaching' and a drop down menu of my courses appears. This [City module](#) is at the bottom.

My homepage site for this course

- Lectures likely to be changed right up until the day of the lecture.
- 2 versions of slides. PPTX [with functioning links to sources]. And PDF for robust display here at City and also on mobile devices.
- You can post comments at the bottom. If they are information questions, all can share the answers.
- Will be uploaded eventually to Moodle.

Notes to be posted idc.

- Homepage has vacant slots for notes that I will write on the lectures.
- I'll post these as soon as I can.
- Little or no new material in the notes.
- But hopefully resolve any ambiguity in the slides, + help those who don't make or slept or Tweeted through the lectures.

Format of course

- Poynton Lecture Theatre, Centenary Building
- Three 2 hour lectures 1-3pm; 1 hour 'tutorial' 4-5pm. Breaks at 1 and 2 hour mark.
- Dates: 31 Jan, 7 and 14 Feb.
- Office hours: 11.30-12.30 am each Friday following the lecture [1,8,15 Feb]. Location tbc.
- Assessment: a 1k word 'essay'.

'Tutorial?'

- No formal exercises or problem sets, so no traditional tutorial.
- Proposal:
 - You pose me your questions on money, macro, banks and central banking
 - Whatever time left over, we just plough on with the lectures.

Essay question

- 1000 word limit.
- Essay q to be released after the last lecture.
- A short essay can't cover the whole course.
- If I reveal the question now, you will know which lectures you can miss!
- Don't bet on last year's question being the same as this year's!

Essay rules

- Deadline for submission: about 3 weeks after last lecture.
- Show your word count. Will not mark excess words.
- Don't plagiarize.
- Don't waste space with introductions and conclusions. Cut to the chase and answer the question.
- Note form is fine.
- If you use facts you find, cite the source.