

# Stabilization policies and growth in a low interest rate environment



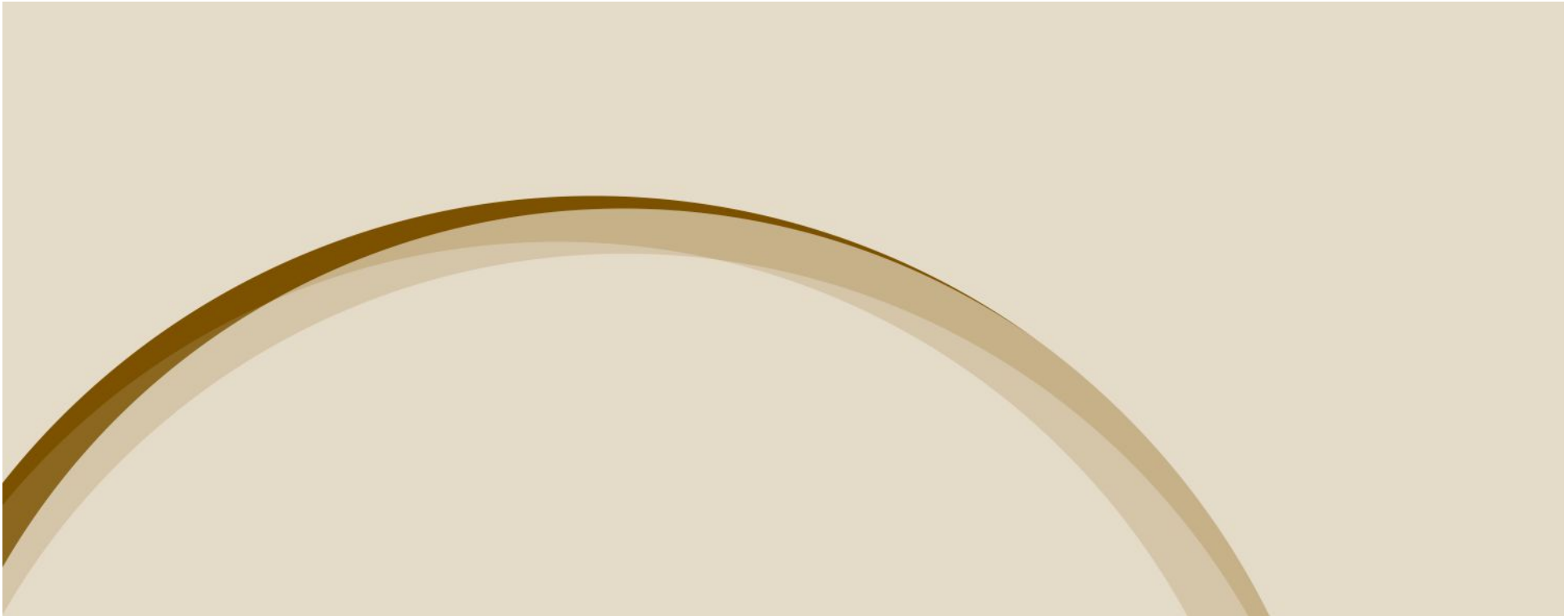
BANCO DE PORTUGAL  
EUROSYSTEM

Isabel Correia

Banco de Portugal, Católica School of Business and Economics and CEPR

ARC 2015

November 23, 2015





- 1. Fiscal policy before the crisis**
- 2. Fiscal policy after the crisis – stabilization policies and growth in a low interest rate environment**
- 3. Investment and growth**
- 4. Unconventional fiscal policies**
- 5. Stabilization and growth**
- 6. Coordination**
- 7. Evidence**



**After strong changes in the 70's and 80's monetary policy recover its importance during the 90's:**

**a) average inflation declines strongly during that period;**

**b) average growth on most economies;**

**c) low volatility of real aggregates over the business cycle;**

**The movement toward rule-based monetary policy is widespread. By 2002, 22 countries had adopted monetary frameworks that emphasize inflation targeting.**

**Even with after the crisis: this two works maintain that rule.**



## Before the Great Recession

### Widespread feeling that the Hero was Monetary Policy:

- **CB as an independent institution;**
- **Concrete goal: low inflation;**
- **Precise instrument: policy rate;**
- **Credibility came as a by product of this institutional arrangement;**



**Fiscal policy far from that point.**

**Milton Friedman (1948) famously railed against the use of discretionary policy to stabilize the business cycle.**

**He defended the power instead of fiscal automatic stabilizers as a preferred tool for countercyclical policy**

**More recently, Solow (2005) strongly argued that policy and research should focus more on automatic stabilizers as a route through which fiscal policy could and should affect the business cycle.**



**On the research front we came from being able to support the robustness of average low inflation to being able to explain the gains of using monetary policy as a stabilization policy:**

**Coming from explaining why the so called Gaps can really be read as Triangles or wedges which policy should smooth across time and states.**

**“...successful macroeconomic policies fill in troughs without shaving off peaks.”**

**But difficult for fiscal policy...**

**From discretionary policies to automatic stabilizers to rules?**



## Definition of secular stagnation:

- **(More) Negative real interest rates needed to equate saving and investment**
- **ZLB hard to improve that equilibrium**

## Important to understand whether:

**1-Low sustained growth rate**

**2-Persistent deviation of actual growth from potential**

**First:**

**Prolonged stagnation (level) with lack of demand**



## **Excessive savings (insufficient demand!) and no market mechanisms**

**This paper is a model that tries to present that equilibrium.**

**Good to have a model!**

### **This model**

**Strong static Phillips curve for non-positive inflation**

**As well as a static aggregate demand (OLG intertemporal decisions across generations but not in aggregate consumption)**

**To produce a stagnation in levels we lost the intertemporal NK of the IS and of the Phillips curve!**

**Persistent imbalances (debtor and creditor country) depends on very ad-hoc constraints**





- **Monetary policy:**
  - regime of inflation targeting;
  - $\pi = \pi^*$  target inflation when  $i > 0$ ;
  - or  $\pi < 0$  when  $i = 0$ .
- **Production Economy:**
  - labor only;
  - nominal wage downward rigidity (indexed by the target);
  - wage higher than full employment.

**Equilibrium: Steady state with persistent output gap**



**The main point is that the natural rate is too negative..  
It is a theoretical possibility.  
But the stagnation came from the interaction with monetary  
policy.**

**Q1:No equilibrium with stable inflation?**

**Q2:ZLB without money. If money would be introduced (given  
to the old) as usual a different OLG equilibrium. Taylor rule  
is the problem?**

**Q3:Theoretical prescription if inflation target increased  
strongly but multiple equilibria.**

**Q4:Theoretical model with paradoxes, ready to be used for  
policy?**



**But in addition is clearly an open empirical question.**

**Q5: Being a good model to illustrate the point, can it be taken seriously to confront with data?**

**1: Is it the borrowing constraint of the young that drives the result? Do we observe low consumption of the young generation? Europe welfare state large amount of transfers to the young!**

**It seems that a large share of transactions across generations is not done through capital market: part in the household; large share welfare state: to the youngest and to the older (pay as you go)**

**- Most transactions would be across working age and from households to entrepreneurs /firms.**



**Stagnation could come from constraining more the demand of loans.**

**2: Can we talk on deleveraging? Revising down the future stream of income. Recognizing that should cut now consumption: so paying some debt. Not clear the effect on savings. Is the forecast of a stagnation the result or the cause? Timing is different first crisis, after growing indebtedness and ZLB, and after deleverage.**

**3: How different the story if different reason for higher savings: uncertainty induce precautionary savings as a buffer against future shocks?**

**4: And as in the present paper, demographics. The increase of life expectancy (if not accompanied by a corresponding increase in the retirement age) is likely to increase savings as workers save more to finance consumption through a longer retirement.**



## **Fiscal Policy prescription:**

**Stimulus or government debt.**

**Issue of government debt = decline saving glut**

**Ricardian equivalence does not hold.**

**Models without Ricardian equivalence typically imply that there are winners and losers associated with additional government debt issuance.**

**Redistribution....**

**Positive spillovers: coordination better than Nash.**



## **Neil's one side of the equation ( $S=I$ )**

**But what about investment, or storage technology or durable good?**

**- In Neil's it means that marginal productivity of real capital negative?**

**We have to understand the reasons for (relatively) low investment.**

**Low investment, besides a lower labor force:**

- Collapse financial intermediation**
- Firms too leveraged**
- Declining prices of capital(?)**
- Different types of capital in services high tech. Physical capital may be low in these sectors, but human capital is very high.**



**But then we cross with the first paper:**

**-focus on low potencial growth and low investment.**

**We know that medium to long run growth mainly driven by low TFP growth**

**Why low sustained growth?**

**Economic growth rates have significant medium to long-term variability.**

**One reason for these movements is that major innovations seem to come in bundles.**

**Economic historians name these bundles (or clusters) industrial revolutions.**

**These waves of innovations take time to be fully implemented, and can be costly in the short to medium run.**

**Difficult to forecast.**



## Other reasons to expect slower growth:

- **Demographic developments – slower population growth and population ageing – are expected to continue to decrease GDP growth (per capita) through a relative lower growth in the working age population.**
- **The gains from universal education have been exhausted in the US and some European countries (not so in Portugal) and therefore education is no longer expected to contribute as significantly to output growth as in the past.**
- **Debt overhang.**





- investment in innovations determine endogenously growth growth rate of TFP and potential output, here by increasing the goods quality
- investment related with future profits positively related with demand.
- low growth through intertemporal decisions decline today's consumption, and
- low demand implies low investment (lower demand) and low future growth.
- Low growth associated with low real interest rate.



### **As before:**

- **wage rigidity implies output gap (unemployment);**
- **due to linear technology picks inflation (constant inflation);**
- **monetary policy trying to close the gap achieves the ZLB.**

### **Two non-stochastic steady-states:**

- steady-growth full employment;**
- low growth and unemployment steady-state= stagnation trap;**



**Let us assume that policy should be used to address a problem of insufficient demand induced by negative natural rates and the ZLB.**

**Most adequate policies:**

**Solve the friction or distortion**

**Unconventional Fiscal Policy**

**Tax schemes can fully overcome the zero bound constraint.**

**If consumption taxes are expected to rise, induces negative real rates.**

**Lower real rates can thus be achieved through a temporary reduction or an announcement of a future increase in consumption taxes.**

**This policy should be supplemented with temporary investment tax credits and compensating labour income taxes.**



**This type of policy was recently implemented in Japan:**

**An increase of the consumption tax in two phases (April 2014 and October 2015) was officially announced in October 2013.**

**Economic activity grew strongly in 2014Q1, especially private consumption, but contracted in the following two quarters.**

**As a result, the second planned tax increase was postponed to April 2017.**



**The proposal of Gianluca of a fixed subsidy to entrepreneurs is quite unconventional! (countercyclical subsidy)**

**Q9: Enforcement (coordination across entrepreneurs)?  
Taxes distortions?**

**Q10? Could it be public investment that are complementary to private investment in innovation? On education, where rates of returns are high and there are enforcement problems with private contracts.**

**I has a short/medium demand effect and a longer run innovation /growth effect.**

**Then could have the advantage that will perform in both stories!**



**Set of different structural changes (let us call them increasing Globalization) which would imply strong resources reallocation across sector and in each sector across firms.**

**This reallocations did not occur: some countries just stop growing and show persistent Current Account deficits;  
More or less intervention?**

**“Growth-oriented regulation” are much better description of what needs to be done.**

**A growth-oriented tax system taxes consumption, not income. When we tax income that is saved, or the investment income that results from past saving, we reduce the incentive to save, invest, start companies and build them, vs. enjoy consumption immediately.  
Should tax at a very low rate with a very large base.**

**The current tax discussion understates the importance of simplicity in the tax code.**

**A simple code makes its incentives transparent. A simple code vastly reduces compliance costs.**

**And most of all, a simple code is much more clearly fair.**



**The details of a stimulus plan should be designed so as to cause minimal disruption to the process of reallocation and innovation.**

**Much of creative destruction takes place at the micro level, but not all of it.**

**Many companies are large and replacement of their core businesses by new firms and new products will have aggregate implications.**

**Equally importantly, businesses and individuals make decisions under imperfect information and potentially learning from each other and from past practices.**

**This learning process will introduce additional correlation and co-movement in the behavior of economic agents, which will also creative destruction from the micro to the macro.**



**The higher interconnectedness through goods supply chains and financial markets improve efficiency and growth. But co-movements should increase.**

**Coordination of policies.**

**There is no coincidence of economic and policy spaces.**

**Subsidiarity and transnational policies.**

**Coordination and not harmonization.  
Gains to explore!!**





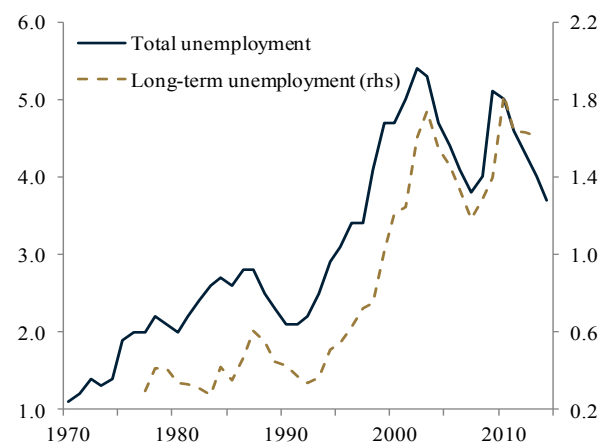
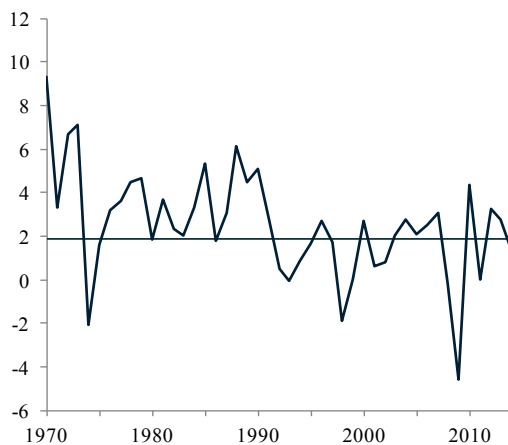
## Japan over the last two decades

all ingredients seem to be there: a financial distressed economy, an ageing population and a central bank committed not to inflate.

However, a closer look that corrects for demographics shows an economy with growth rates close to those of a mature economy.

Moreover, Japan has very low levels of unemployment.

Real GDP per working-age population  
(% change)





## **US, the data tells a different story**

### **Secular stagnation?**

**Even though GDP growth rates remain below pre-crisis levels, when corrected for demographics they are relatively high.**

**Slack in the labor market seems to be going down.**

**Europe, recovery from the joint financial and sovereign debt crises very slow.**



**Germany, growth remains low, even when corrected for demographics, but unemployment is low.**

**Italy, Spain and Portugal, unemployment remains high.**

**Slack in these countries due to the zero lower bound?**

**Slack in the economies hit by the sovereign debt crisis is largely due to the adjustment, with the sectorial reallocation that this requires.**

**In any case the problem of negative natural rates should be less severe in these countries.**

**Real depreciation, the natural rates in these countries should be higher than elsewhere.**