Links between central banking and fiscal policy

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Outline

1. Monetary and Fiscal Policies – Pre-crisis
2. Monetary and Fiscal Policies – The crisis
3. Monetary Policy – where do we stand?
4. Monetary and Fiscal Policies – where do we stand?
   - Some Examples
   - Some Experiments
5. And the future?

The crisis brought strongly to the discussion economic policy.

The role of theory shaping policy.

In practice, of course, causality runs in both directions.

Theorists often work on problems motivated by specific policy questions and specific experiences.

These days more than ever…

After strong changes in the 70's and 80's monetary policy recover it's importance during the 90's.

The movement toward rule-based monetary policy widespread.

a) average inflation declines strongly during that period;

b) average postive growth on most economies;

c) low volatility of real aggregates over the business cycle frequency.

By 2002, 22 countries had adopted monetary frameworks that emphasize inflation targeting.

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.

Pre-crisis times, good times for stabilization policy:

Era of control of aggregate volatility, seen also as a by product of policy.

Success of stabilization policy in normal times:

- Stabilization policy - task of monetary institutions.

- Fiscal policies, authomatic stabilizers built in, not amplifying the cycle, plus “rules” that guarantee the sustainability of public debt.

Clear division of institutions, instruments, objectives.

But still:

- FTPL
- LLR

While monetary policy advanced from discretionary (noisy) to feedback rules (dicussed below in more detail)

In fiscal policy no similar changes were seen.

Even if:

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.

Why not design better stabilizers?

Few advances: except McKay and Reis (2013)

Most of the measured welfare benefits from automatic stabilizer come from the provision of insurance (through changes in precautionary savings) and from redistribution.

High transfers to the unemployed and poor quite effective at lowering volatility. Effect on averages depend on the specific design to avoid cutting incentives.

This work find that, in general, monetary policy is the preferred stabilization tool. Constraints on this policy, gives a role to redistributive policies to give a stimulus.

Aggregate effects coming from heterogeneity.

The crisis challenged these achievements:

- Monetary Policy:

Policy rate lowered toward its effective ZLB.

CB purchase private and public assets (longer maturities).

- Fiscal Policy:

Fiscal stimulus came back.

Not as discretionary measures but as a reaction to a large shock.

CB and Governments found themselves without conventional instruments: ZLB and higher levels of public debt.

Now focus on unconventional monetary policies and on fiscal consolidation (with political stress).

Balance sheet with risky assets.

Risks materializes the treasury should be ready to receive less remittances (or to recapitalize??)

Why a CB balance sheet matters? Del Negro and Sims (2015)

Consequences of the lack of fiscal support for the CB.

Meaning committment from the government to never recapitalize the CB.

Is the CB able to control inflation? Doing it turns insolvent.

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:

Agents may be restricted in the setting of prices, wages, or in the choice of portfolio composition.

The severity of these restrictions determines the strength of the transmission mechanism of monetary policy.

Even though monetary policy can have beneficial effects, it is not possible to use this policy systematically to take advantage of these effects.

New impetus for stabilization policy.

The same frictions that give power to monetary policy open a role to Monetary Policy: can be used in response to shocks.

How should monetary policy be conducted in response to shocks in the economy?

How relevant is the transmission mechanism of monetary policy, for the conduct of this optimal policy?

How costly can a single monetary policy be when countries don't share a single monetary transmission mechanism?

Or in summary how to conduct short-run (stabilization) monetary policy?

Ireland (1996) first to apply Ramsey to a monetary model with nominal rigidities.

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."

Which wedges can really monetary policy minimize? Very important question these days!

Policy role not to close gaps but to minimize wedges: welfare or efficiency criteria.

To apply to monetary policy a framework developed mainly for fiscal policy: Ramsey and Primal.

First works focus only on monetary policy.

Fiscal reduced to lump sum taxes/transfers.

- Under sticky prices the policy maker is able to use nominal rigidities to get better outcomes than when monetary policy is neutral.
- To side step the zero bound restriction on nominal interest rates and achieve higher utility.

Through ex-post mark-ups being contingent, reacting to the shocks.

Showed that an optimal stabilization policy could even lead to more volatility when compared with the outcome when policy does not react to the shock.

Very interesting theoretical results but, more important, shaped the way we think about stabilization policies nowadays.

Understanding that the channels of transmission are very similar to those described in the optimal fiscal policy literature:

The following step was to study the interaction with fiscal policy.

And here some relevant advances were done and we are somewhat far way in the theoretical ground from the policy applications.

Next revisiting these advances to understand that there exist a large gap between theory and policy in the interaction between monetary and fiscal policy. That can be very relevant these days.

Importance of thinking of policies as a repose to shocks, or feed back rules!

Monetary policy shocks differing effects in the economy depending on the type and degree of rigidity (on the frictions).

But similarly exogenous shocks, to technology, preferences, government expenditures, also affect the economy differently depending on the frictions.

The combined effect of the exogenous shocks and the response of policy is invariant with the friction.

For example the type and degree of price rigidity is irrelevant, or in environments with different price setting restrictions the same policy should be used and the same outcome can be achieved.

The transmission is very relevant when policy is discretionary or when is very far from efficient.

Otherwise environments with different price setting restrictions are equivalent.

These are very powerful results.

The stronger the frictions the largest is the distance of the outcome from the no friction world as a response to shocks.

The more you need a policy instrument the more effective it is.

Let me stress two corollaries, both under a notion of the Divine Coincidence:

1. It is difficult to take a position on the causes of the great moderation. Different transmisson of shocks or the same with better response of policies.

Observationally Equivalent environments without restrictions or with restriction but with policy reacting in an optimal way.

2. Does it help to measure the multiplier (a G discretionary shock?) in designing the best response to the present crisis.

The effect should be the mix of the shock and the policy response.

The results of equivalence of environments are obtained using minimal sets of instruments.

In particular, we show that state-contingent debt is a redundant policy instrument as long as both consumption and labor income taxes are available.

The main policy lesson: when state-contingent fiscal and monetary policy are decided jointly price stability is a requirement of efficiency.

This is a normative statement, stronger than the Ramsey prescriptions. It also appears to be consistent with generalized recent practice by central banks.

With these useful insights we went to discuss theoretically important policy questions for these days.

I think that these cases help us to answer the question of the relation between monetary and fiscal policy.

Let me present, shortly, three of them:

- Fiscal devaluation
- The cost of the ZLB
- Credit easing policies

1 - How large the costs of a fixed exchange rate regime (common currency) when there is a role for stabilization policy?

Allowing for heterogeneity in the shocks and the response to them, restrictions on the mobility of factors and incompleteness of asset markets, as is standard in the optimal currency area literature.

The main difference is that fiscal instruments may be used fully for stabilization policy, meaning in reaction to shocks, in the absence of independent monetary policy.

Consumption taxes have a direct effect on the relative price and change in response to shocks so that the necessary adjustments take place.

Labor income taxes will also have to be adjusted.

2 - Can we overcome the costs of the ZLB?

Arbitrage between money and bonds restricts nominal interest rates from becoming negative.

But, if policy rate should be lower and we are already at the ZLB...

Is fiscal policy able to avoid a downturn when the ZLB constraint binds?

Attention has shifted to alternative policies: G stimulus and size multipliers, Christiano, Eichenbaum, Rebelo (2009), Eggertsson (2009), Woodford (2010), Mertens and Ravn (2010).

Is there a restriction to outcomes when policy is more generally considered to include both fiscal and monetary instruments?

The ZLB is also a key component in the numerical work that evaluates the American Recovery and Reinvestment Plan by Romer and Bernstein (2009).

Blanchard, Dell'Ariccia and Mauro (2010) argue for a better integration between monetary and fiscal policy.

But we can go deep into the joint fiscal and monetary policy when the ZLB is reached.

If the nominal interest rate is zero, taxes can play the role of the nominal interest rate would play.

Whatever policy can do with the nominal interest rate can also be done with a combination of labor income, consumption, and capital income taxes.

Prices that matter for intertemporal decisions are consumer prices, which are gross of consumption taxes.

Temporarily lower consumption tax, induces inflation in consumer prices, keeping producer price inflation at zero.

The result is negative real interest rates, avoiding the distortions associated with producer price inflation.

Adjust labor and capital taxes.

3 - Credit easing policies

The recent crises, financial and sovereign, have shown the limitations of standard interest rate policy.

The literature on optimal fiscal and monetary policy under flexible prices is that the zero bound on nominal interest rates is not a restriction to policy. ZLB comes from nominal rigidities.

However in those models there are no credit spreads, there is only one nominal interest rate.

Let us take a simple monetary model similar to the ones in that early literature and impose the need for financial intermediaries subject to an enforcement problem.

Firms must borrow to pay wages, those loans must be intermediated, and banks can do that at cost.

Not a resource cost, for simplicity we assume to be zero, but an efficiency cost resulting from the incentive problem that bankers can divert part of the bank's assets.

There is an alternative technology, that the CB can use, without the enforcement problem but paying a resource cost.

Model similar to the one in Gertler and Karadi (2011). Banks must earn rents. They charge spreads, that generate profits that are accumulated as internal funds.

The lending spreads can be particularly high when banks' internal funds are low as a result of exogenous shocks, that can be interpreted as shocks to the value of collateral.

There is a sense in which lending rates may be too high in these economies. They are too high, or too volatile, when policy can be used to lower them, or to smooth them, increasing welfare.

In these economies lending rates are too high on average, but volatility in lending rates due to volatile spreads may also be undesirable.

Monetary policy can be used to partially correct those distortions.

A very low policy rate, possibly zero, will minimize the lending rates and their effect on allocations.

Banks will still charge spreads, but the resulting lending rates will be lower.

The ZLB imply that lending rates may still be too high and too volatile.

Interest rate policy does not act directly on the spreads. The spreads are whatever they need to be to align the incentives of banks.

Interest rate policy reduces the financing costs of banks, reducing the financing costs of firms.

If the policy rate could be negative, and if it could be financed with lump sum taxes, then it would be possible to achieve the first best in these economies.

Credit subsidies play the same role as the policy interest rate, even if acting through very different mechanisms.They decline the effective cost of lending.

They are not subject to any restriction such as the ZLB.

Credit subsidies are therefore not substitutes but complements to conventional monetary policy,

The policy rate could be set at some arbitrary level, possibly close to the zero bound.

Banks would charge time varying spreads, and lending rates. But the rates paid by borrowers net of credit subsidies could be smooth and very low.

This is true for the first best, but it is also true for a second best in which lump sum taxes are ruled out.

The budget implications of the policy rate and the tax subsidies are the same.

And unconventional monetary policy?

Credit easing does not appear to be a good alternative.

Because of the resource costs, the reason to do it would have to be the distortions caused by financing the subsidies.

Resource cost versus deadweight loss.

Caveats??

Unconventional fiscal policy, as normal with feed back rules that react to endogenous variables, require information.

But the same is true for the change in exchange rates or interest rates in the described examples that would be necessary to accomplish the same goal.

Fiscal instruments very flexible, avoiding the idea of lags in decision and/or implementation.

If there are institutional reasons that impose lags in the decision or implementation of state contingent taxes in normal times, this is not the case is times as the one in the 2008-2009 financial crisis, the Great Recession and sovereign debt crisis.

Empirical evidence on unconventional fiscal policy

D'Acunto et al. (2016), the effect of unconventional fiscal policy on households' willingness to purchase goods through the inflation expectations channel.

Natural experiment: November 2005, the newly formed German government unexpectedly announced a 3% increase in the VAT effective in January 2007. As expected, a large positive shock to German households' inflation expectations.

Higher consumption expenditure, as long as nominal interest rates is maintained.

The average treatment effect dropped to zero in January 2007 once VAT actually increased and higher inflation materialized.

Another experiment:

"The Japanese government could announce that it will raise the current 5 percent value added tax by 1 percent per quarter and simultaneously reduce the income tax rates to keep revenue unchanged, continuing this for several years until the VAT reaches 20 percent." Feldstein (2003).

In his presidential address to the 2011 American Economic Association Annual Meeting, Bob Hall (2011) reiterated Feldstein's ideas.

Japan announce (October 2013) an increase of the consumption tax in two phases (April 2014 and October 2015).

Economic activity grew strongly in 2014Q1, especially consumption but contracted afterwards. The second plan postponed to April 2017.

Interaction of Monetary and Fiscal policies: Substitutes and/or complements

Taking seriously the lessons: Leaving discretionary (and automatic stabilizers) aside.

Much stronger that simply a FTPL or fiscal/monetary dominance.

CB use of traditional (and unconventional) monetary policies. Not clear the ability to commit.

Balance sheet with risky assets.

Consequences of lack of fiscal support for the CB.

What we mean by independence when the limits on actions impose that the mandate can be violated?

Redistributional effects of unconventional monetary policy. Credit policy.

What divides Monetary from Fiscal?

Going unconventional fiscal policy should be taken more seriously, more efficient. And therefore should stabilization policy be determined jointly?

Crisis change previous consensus.

Looks like more intervention.

But heavy government involvement per se can threat growth prospects.
Micro turbulence necessary for growth!

But clearly more unknown territory: Large set of experiments to be analysed

The design of policies from this point:

With no disregard long run effects - innovation, reallocation and political economy.

Legacy of the crisis: New experiments and new tools.
More than stabilization policy.

Tax code reform: less distortive, larger base, simple
Medium term budget framework
Medium term redistribution strategy
Structural objectives
New set of institutions

- New monetary: goals (financial stability and macropru, LLR)
- New fiscal: goals, new instruments (rules), new PFC.

Keeping the research agenda updated more important than ever .

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