Discussion of

“Time consistency and the duration of government debt: a signalling theory of quantitative easing”

By Saroj Bhattarai, Gauti B. Eggertsson, and Bulat Gafarov

ECB workshop on Non-standard Monetary Policy Measures

Roberto M. Billi

Sveriges Riksbank

Frankfurt, October 7, 2014
The signalling channel of quantitative easing (QE)

- The paper offers a useful theoretical framework for thinking about monetary policy and government debt management.
- It is conceptually well-understood that, QE works by shortening the maturity of the public debt held by private investors, as a policy lever to support aggregate demand.
- Yet the key insight of this paper is that, in a liquidity trap, the government is not indifferent between rolling over short-term debt and issuing long-term debt.
- Issuing short-term debt, while resulting in low current interest payments, leads to higher interest payments in the future.
- Thus, the government has the incentive to keep real interest rates low, to reduce the costs of servicing the debt.
The signalling channel of quantitative easing (QE)

- The paper offers a useful theoretical framework for thinking about monetary policy and **government debt management**
- It is conceptually well-understood that, QE works by **shortening the maturity of the public debt** held by private investors, as a policy lever to support aggregate demand
- Yet the **key insight** of this paper is that, in a liquidity trap, the government is not indifferent between rolling over short-term debt and issuing long-term debt
- Issuing short-term debt, while resulting in low current interest payments, leads to **higher interest payments in the future**
- Thus, the government has the **incentive to keep real interest rates low**, to reduce the costs of servicing the debt
The signalling channel of quantitative easing (QE)

- The paper offers a useful theoretical framework for thinking about monetary policy and government debt management.
- It is conceptually well-understood that, QE works by shortening the maturity of the public debt held by private investors, as a policy lever to support aggregate demand.
- Yet the key insight of this paper is that, in a liquidity trap, the government is not indifferent between rolling over short-term debt and issuing long-term debt.
- Issuing short-term debt, while resulting in low current interest payments, leads to higher interest payments in the future.
- Thus, the government has the incentive to keep real interest rates low, to reduce the costs of servicing the debt.
The signalling channel of quantitative easing (QE)

- The paper offers a useful theoretical framework for thinking about monetary policy and government debt management.
- It is conceptually well-understood that, QE works by shortening the maturity of the public debt held by private investors, as a policy lever to support aggregate demand.
- Yet the key insight of this paper is that, in a liquidity trap, the government is not indifferent between rolling over short-term debt and issuing long-term debt.
- Issuing short-term debt, while resulting in low current interest payments, leads to higher interest payments in the future.
- Thus, the government has the incentive to keep real interest rates low, to reduce the costs of servicing the debt.
The signalling channel of quantitative easing (QE)

- The paper offers a useful theoretical framework for thinking about monetary policy and government debt management.
- It is conceptually well-understood that, QE works by shortening the maturity of the public debt held by private investors, as a policy lever to support aggregate demand.
- Yet the key insight of this paper is that, in a liquidity trap, the government is not indifferent between rolling over short-term debt and issuing long-term debt.
- Issuing short-term debt, while resulting in low current interest payments, leads to higher interest payments in the future.
- Thus, the government has the incentive to keep real interest rates low, to reduce the costs of servicing the debt.
A New Keynesian model with long-term public debt

- The **household** consumes both private and public goods
- **Firms** face a cost of changing prices, as in Rotemberg (1983)
- The **fiscal authority** sets taxes and manages public debt, while the **monetary authority** sets the nominal policy rate subject to the zero lower bound (ZLB)
- The two government authorities **coordinate policies** and together seek to **maximize welfare**
- Finally, the benevolent government acts with **discretion** in setting policy each period
A New Keynesian model with long-term public debt

- The **household** consumes both private and public goods
- **Firms** face a cost of changing prices, as in Rotemberg (1983)
- The **fiscal authority** sets taxes and manages public debt, while the **monetary authority** sets the nominal policy rate subject to the zero lower bound (ZLB)
- The two government authorities **coordinate policies** and together seek to **maximize welfare**
- Finally, the benevolent government acts with **discretion** in setting policy each period
A New Keynesian model with long-term public debt

- The **household** consumes both private and public goods.
- **Firms** face a cost of changing prices, as in Rotemberg (1983).
- The **fiscal authority** sets taxes and manages public debt, while the **monetary authority** sets the nominal policy rate subject to the zero lower bound (ZLB).
- The two government authorities coordinate policies and together seek to maximize welfare.
- Finally, the benevolent government acts with discretion in setting policy each period.
A New Keynesian model with long-term public debt

- The **household** consumes both private and public goods
- **Firms** face a cost of changing prices, as in Rotemberg (1983)
- The **fiscal authority** sets taxes and manages public debt, while the **monetary authority** sets the nominal policy rate subject to the zero lower bound (ZLB)
- The two government authorities **coordinate policies** and together seek to **maximize welfare**
- Finally, the benevolent government acts with **discretion** in setting policy each period
A New Keynesian model with long-term public debt

- The **household** consumes both private and public goods.
- **Firms** face a cost of changing prices, as in Rotemberg (1983).
- The **fiscal authority** sets taxes and manages public debt, while the **monetary authority** sets the nominal policy rate subject to the zero lower bound (ZLB).
- The two government authorities **coordinate policies** and together seek to **maximize welfare**.
- Finally, the benevolent government acts with **discretion** in setting policy each period.
In a liquidity trap, QE supports aggregate demand

- As a result of QE, economic activity contracts by less and therefore the economy suffers less deflation
- For example, as the calibrated model shows, if the maturity of government debt is reduced by 7 months, then output falls about 1.5% less and annual inflation falls about 1% less
- Shortening the maturity by 20 months, economic activity would not contract at all during the liquidity trap
- The findings are shown to be robust, for example, to different levels of debt and to the maturity changing over time
In a liquidity trap, QE supports aggregate demand

- As a result of QE, economic activity contracts by less and therefore the economy suffers less deflation.
- For example, as the calibrated model shows, if the maturity of government debt is reduced by 7 months, then output falls about 1.5% less and annual inflation falls about 1% less.
- Shortening the maturity by 20 months, economic activity would not contract at all during the liquidity trap.
- The findings are shown to be robust, for example, to different levels of debt and to the maturity changing over time.
In a liquidity trap, QE supports aggregate demand

- As a result of QE, **economic activity contracts by less** and therefore the **economy suffers less deflation**
- For example, as the calibrated model shows, if the **maturity** of government debt is **reduced by 7 months**, then output falls about 1.5% less and annual inflation falls about 1% less
- Shortening the maturity by **20 months**, economic activity would not contract at all during the liquidity trap
- The findings are shown to be **robust**, for example, to different levels of debt and to the maturity changing over time
In a liquidity trap, QE supports aggregate demand

- As a result of QE, economic activity contracts by less and therefore the economy suffers less deflation.
- For example, as the calibrated model shows, if the maturity of government debt is reduced by 7 months, then output falls about 1.5% less and annual inflation falls about 1% less.
- Shortening the maturity by 20 months, economic activity would not contract at all during the liquidity trap.
- The findings are shown to be robust, for example, to different levels of debt and to the maturity changing over time.
Lack of policy coordination leads to suboptimal outcomes

- The paper assumes *in theory* optimal *coordination* of monetary and fiscal policy, which in theory would imply full cooperation in setting policy each period.

- But *in practice*, Federal Reserve and Treasury policies with regard to U.S. government debt have been *pushing in opposite directions* in recent years.

- In fact, while the Fed used QE to reduce the supply of long-term government debt, the Treasury decided instead to lengthen the average maturity of the debt, see Chart.
Lack of policy coordination leads to suboptimal outcomes

- The paper assumes *in theory* optimal coordination of monetary and fiscal policy, which in theory would imply full cooperation in setting policy each period.

- But *in practice*, Federal Reserve and Treasury policies with regard to U.S. government debt have been pushing in opposite directions in recent years.

- In fact, while the Fed used QE to reduce the supply of long-term government debt, the Treasury decided instead to lengthen the average maturity of the debt, see Chart.
The paper assumes *in theory* optimal coordination of monetary and fiscal policy, which in theory would imply full cooperation in setting policy each period.

But *in practice*, Federal Reserve and Treasury policies with regard to U.S. government debt have been pushing in opposite directions in recent years.

In fact, while the Fed used QE to reduce the supply of long-term government debt, the Treasury decided instead to lengthen the average maturity of the debt, see Chart.
Fed and Treasury policies pushed long-term rates in opposite directions

On net, weighted average duration of Treasury debt fell.

While **optimal coordination** is a useful normative benchmark, it may not be a very good description of the current practice of Federal Reserve and Treasury policies with regard to U.S. government debt.

- An alternative would be to allow for separate policy objectives and thus study the interaction between monetary and fiscal policy.
- Still, the paper provides a very useful theoretical framework for thinking about the appropriate role of QE in supporting aggregate demand in a liquidity trap.
While **optimal coordination** is a useful normative benchmark, it may not be a very good description of the current practice of Federal Reserve and Treasury policies with regard to U.S. government debt.

An alternative would be to allow for **separate policy objectives** and thus study the **interaction between monetary and fiscal policy**.

Still, the paper provides a very useful theoretical framework for thinking about the **appropriate role of QE in supporting aggregate demand** in a liquidity trap.
• While **optimal coordination** is a useful normative benchmark, it may not be a very good description of the current practice of Federal Reserve and Treasury policies with regard to U.S. government debt

• An alternative would be to allow for **separate policy objectives** and thus study the **interaction between monetary and fiscal policy**

• Still, the paper provides a very useful theoretical framework for thinking about the **appropriate role of QE in supporting aggregate demand** in a liquidity trap