1. A widespread increase in CB balance sheet

In all major economies, Central Banks' balance sheets have dramatically increased in size and as a percentage of GDP. That movement was temporarily reversed in the euro area, but our balance sheet is set to increase again following the recently decided -and implemented - asset purchase programs, most notably the Public Sector Purchase Programme (PSPP).

Since 2007, the aggregate size of central banks' balance sheets over the world has tripled, reaching the amount of 22 trillion dollars at the end of 2014. Interestingly, this increase has been almost equally split between advanced and emerging economies. In advanced countries, Central Banks have acquired domestic assets. On average, their balance sheets have grown from 10 to 20% of GDP over the last seven years. In emerging economies, accumulation of foreign exchange reserves accounts for most of the expansion. Situations remain very diverse among advanced economies: while the balance sheet of the Bank of Canada amounts to 5% of its nation's GDP, the Swiss National Bank holds assets equivalent to 80% of the Swiss GDP.
Discretionary and technical factors both explain those differences and evolutions. The former holds for countries that choose to accumulate foreign exchange reserves. The latter is topical in the case of the euro area: the ECB's balance sheet performs an intermediation function between National Central Banks through the so-called Target 2 system. So, as a mechanical phenomenon, balances in the system tend to grow in times of market segmentation i.e. an impaired interbank market and strong capital flows inside the euro area. Similarly, conducting monetary operations via open market or via repos makes the size of the balance sheet more or less dependent on the size of the interbank market.

However, the recent increase in size mainly results from a shift in the monetary policy regime. Central Banks have taken a proactive – rather than purely passive – approach to their balance sheets. They have, according to the common parlance, "put these balance sheets to work". And, as a result, in the formulation of monetary policy, "quantities" – the amounts of assets and liabilities – have come to play an increasing role as compared to "prices" – the level of interest rates.

This, of course, is a component and a consequence of unconventional monetary policies. Traditional channels, - through interest rates- have become ineffective: first of all because economies have hit the zero lower bound; and in some case, like in the euro area, because transmission – through credit – has been clogged. The expansion of balance sheets results from attempts to overcome those limits and allow monetary policies to fulfill their mandates via large scale of assets purchases.

2. Is it the size of the balance sheet or the means of its increase that matter?

The causes and consequences of changes in balance sheets size are rather diverse. Broadly speaking, both liabilities and assets of Central Banks matter. An expansion of liabilities occurs when, as the Eurosystem did in many instances, the Central Bank increases liquidity provision to the banking sector, with the explicit objective of easing pressures on funding, reducing its costs, and ultimately, influence lending behavior. Expansion of liabilities may be more passive though when setting an exchange rate floor such as in the case of the SNB. Looking, now, at the asset side, asset purchases bring down risk premia, they trigger portfolio rebalancing, flatten the yield curve, increase risk taking in the private sector and shift expectations in a more positive territory. As you all know, the Eurosystem has now embarked into a major purchase program, the PSPP, that follows other programs of smaller sizes for asset-backed securities (ABSPP) and covered bonds (CBPP3).
There are many technical discussions. Some people would argue that the stocks of assets held by Central Banks matter more than the flows of purchases. Others would contend that the composition and size of purchases are the real levers. The issue boils down to whether an expansion in the monetary basis is enough to trigger credit expansion or whether the latter is correlated to banks’ willingness to expand credit and more importantly to the appetite of economic agents to borrow. Based on how monetary policies have been conducted for the past several decades, banks have always had the ability to expand credit at a given level of interest rate irrespective of the size of the Central Bank’s balance sheet. Being at the ZLB does not change that simple reality. Hence I would tend to argue that, given the transmission channels of an asset purchase program, its composition and length may matter as much as its size.

In any event, increasing the size of the Central Bank's balance sheet, via large scale asset purchases, sends very important signals. This "signaling" operates at several levels. It may contribute to strengthening forward guidance on the policy rate. More importantly, it may have a direct impact on inflation expectations, therefore contributing to lowering real interest rates. When the balance sheet size is explicitly linked to the achievement of an inflation objective as in Japan, it may prove an effective tool to communicate the monetary authority's determination - what economists would call a "commitment device".

Signals on the Eurosystem's balance sheet have played a great role in the recent past. In November 2014, the Governing Council stated that the balance sheet was expected to move toward the dimensions it had at the beginning of 2012. Markets started to anticipate an asset purchase program. More recently, the asset purchase program which will last until end-September 2016 has been an important and clear signal of the expansionary monetary policy stance over an extended horizon.

Those signaling effects have been very effective and following the announcement of the expanded asset purchase program on 22 January, significant movements took place on financial markets with, inter alia a decline in the forward interest rates across all maturities, a decline in government and corporate debt yields, and a rise in equity prices.

3. **Are there drawbacks to be feared from the increase in CB Balance sheets?**

The active use of their balance sheets by major Central banks has raised a number of concerns. I shall focus on three questions.

First, when unconventional monetary policies started to be implemented, many analysts were worried that the expansion of the monetary base would trigger inflationary pressures and Central Banks would lose
control over price stability. As we all know, the reverse happened. Broad money aggregates have been basically flat – in the euro area- over the last eighteen months, the money multiplier collapsed and inflation has decreased well below our definition of price stability.

Second, other, stronger, questions are raised as to the "quasi fiscal" implications of Central Banks’ balance sheets. There is a perception that expanded balance sheets create a new environment where the relationship between Central Banks and governments gets more complicated. Basically, the expansion would expose Central Banks to new risks, increase their vulnerability and compromise their independence.

Third, there is a huge theoretical literature on Central Banks' solvency. I read the conclusions as follows. Nearly all analysts agree that a Central bank cannot go technically bankrupt as it can issue as much currency and reserves as needed to face its payments and commitments. Indeed, a few Central banks with great reputation have operated in the past with negative net equity for long periods of time. Most economists would point, however, that unlimited issuance of base money would certainly endanger price stability in ordinary circumstances. So, while the existence of a Central bank cannot be put into danger by its technical insolvency, its ability to fulfill its mandate might certainly be compromised. And so would its independence as the Central bank would depend on the Government to rebuild its capital.

It is very important to understand that the Eurosystem is fully protected against such a contingency. It has been created with a solid capital base and has kept strengthening it through retained profits and occasional recapitalizations. The Eurosystem is unique, in this regard, amongst advanced economies. Both its independence and ability to fulfill its mandate are guaranteed even in very adverse economic circumstances. While it should not lead to complacency and negligence, the existence of such buffers should alleviate any concerns about the potential risks that the expansion of the balance sheet may entail.

Finally, huge Central Banks' balance sheets may be seen as influencing the allocation of resources, or effecting implicit fiscal transfers, an issue of special sensitivity inside the euro area. To discuss this question, it is useful to refer to the famous Musgrave classification of public policies between three purposes: allocation, distribution and stabilization. There is no doubt that monetary policy is only and exclusively concerned with stabilization – and a very focused part of it: price stability. No monetary policy action should be taken for any other purpose. So to the extent that "unconventional" tools are implemented, there should be no ambiguity as to their close link with the Central Bank's mandate of price stability. I believe that has been the case in all major countries and certainly so in the Eurozone.
4. **How to mitigate unintended consequences?**

The truth is, however, that the real world does not always fit perfectly with the beauty of Musgrave's classification. Some public policies may aim at several objectives. Others may inadvertently, have unintended side effects. All public policies with no exception, health, energy, infrastructures, unwillingly affect some citizens more than others.

Those side effects should be minimized, but cannot always be totally avoided. Monetary policy is not immune from the complexity of the real world. For instance, some unconventional policies may have had unintentional distributional consequences by pushing up asset prices, hence benefiting some households with important financial wealth. On the other hand, fostering economic recovery and reducing unemployment goes in the direction of helping the most vulnerable part of the population. In other cases, strong intervention may raise legitimate moral hazard concerns. Should Central Banks have refrained from acting at the risk of not fulfilling their mandate?

Those simple questions remind us that decision making always involves some tradeoffs. It is all the more important that policy makers keep a clear focus on their ultimate objective. Central Banks should do their utmost to avoid any undesirable allocation or distribution effects of their policies. Those policies should be designed as neutrally as possible. This being said, the possibility of unintended side effects should not paralyze decision making when required by the situation in order to fulfill their mandates.

The Eurosystem has faced such a situation when deciding on its program of large-scale asset purchases. I believe the decisions taken reflect an appropriate balance between the necessity of achieving the mandate and the desire to avoid undesirable side effects. Key principles underlying the implementation of the PSPP have been the minimization of unintended consequences and full neutrality, as illustrated for instance by the choice of the capital key to allocate purchases between various Governments debts.

It is also important to note that unwanted side effects can be minimized if different public authorities operate in a well-defined and respected framework. We have such a framework in the Eurozone. It is based on fiscal discipline leading to debt reduction. If those disciplines are not respected or implemented with insufficient vigilance, then monetary policy through public sector debt securities purchases may be perceived as creating strong moral hazard, thereby weakening the necessary consensus and compromising its efficiency.
When fiscal transfers take place between countries of the Eurozone, they are implemented through mutually agreed and conditional programs. There are permanent temptations to blur the distinction between those fiscal programs and the monetary and liquidity operations of the Central Bank. Those temptations should be resisted. This is the reason why the Eurosystem has been extremely rigorous in implementing its collateral rules in a transparent and neutral way.

Let me conclude.

Unconventional monetary policies are necessary but complex. They create more interference with markets than policies conducted in ordinary times. As a consequence, it becomes more difficult to avoid unintended spillovers of stabilization policies on the allocation and distribution of resources. This reality should not prevent Central Banks from acting decisively when there are risks for price stability. But such actions demand rigor and precision in their implementation. For Central Banks, their balance sheet has become the main tool of monetary policy for the foreseeable future. It has proven effective. It can and will be deployed all the more efficiently that the rest of the policy environment remains sound.