

10 April 2013 | 26 pages Global

# **Global Economics View**

# Cyprus *is* systemically important – it changed the rules of the game

- We discuss various implications of the Cypriot sovereign and bank bailout agreement.
- We highlight that while some features of the Cypriot economy and banking sector are rather unusual among euro area countries, some general lessons apply. In particular, we regard the bail-in of bank creditors, including of senior unsecured bank bondholders, as likely in future bank bail-outs throughout the euro area. Depositors, and in particular insured depositors, should in general be safe, even though if circumstances similar to those that applied in the Cypriot case apply again elsewhere in the euro area, depositors would likely be bailed in again.
- We also discuss the capital controls, potential future bank bail-outs, sovereign debt restructuring and euro area exit in Cyprus, as well as the implications for contagion, and banking union.
- See also our previous publications on the topic:
  - Cyprus Some Form of Debt Restructuring Looks Increasingly Likely, Giada Giani, January 2013, Citi Research
  - Cyprus and Contagion, Giada Giani and Jürgen Michels, March 2013, Citi Research
  - The euro area recovery starts with Cyprus, Willem Buiter et al, March 2013, Citi Research
  - Cyprus Uninsured Depositors Hit By Major Losses, Giada Giani, March 2013, Citi Research

#### Willem Buiter

+44-20-7986-5944 willem.buiter@citi.com

#### Ebrahim Rahbari

+44-20-7986-6522 ebrahim.rahbari@citi.com

#### Giada Giani

+44-20-7986-3281 giada.giani@citi.com

#### Jürgen Michels

+44-20-7986-3294 juergen.michels@citi.com

With thanks to
Deimante Kupciuniene

#### See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

# **Contents**

Cyprus is systemically important - it changed the rules of	
the game	3
Introduction	3
What was agreed for Cyprus's banking sector?	4
Why is the final bank resolution arrangement for Cyprus so much better than the original deal?	F
What is likely to happen to the Cypriot economy now?	7
Are at least the banks safe in Cyprus after the bail-out?	, 8
What is the risk of sovereign debt restructuring in Cyprus in the	Ì
future?	ç
Does the approach to bank resolution adopted for Cyprus	
constitute a 'template' for future approaches to dealing with	
insolvent banks in the euro area?	10
Does the Cyprus template mean that banking union is dead? Legacy assets	13 15
Is the bail-in of unsecured creditors (including depositors) also	
going to affect insolvent banks in countries with fiscally strong	
sovereigns?	15
How long are capital controls in Cyprus likely to continue?	17
Are capital controls likely to lead to a dual exchange rate?	18
Will Cyprus leave the euro area?	19
Contagion	21
Annendix A-1	23

# Cyprus *is* systemically important - it changed the rules of the game

### Introduction

3

Cyprus deal creates an important precedent for future resolution of insolvent banks in the euro area.

The deal that was struck, at the second time of asking, concerning the resolution of the two largest banks in Cyprus creates an important precedent for future resolutions of insolvent banks in the euro area. The key changes in the rules of the game concerning euro area sovereign and bank debt restructuring are, or in our view soon will be, the following:

- 1. Private creditors of euro area sovereigns are safer now than before, because they are politically senior to most unsecured bank creditors, including unsecured senior bond holders, but excluding depositors.
- Insured/guaranteed depositors are most likely safe, even if the national deposit insurance/guarantee scheme is not backed by a fiscally strong sovereign.
- Noninsured depositors will soon be legally senior to unsecured senior bond holders
- 4. Noninsured depositors are at risk in countries with: (a) large banking sectors, (b) a large share of deposits in total bank liabilities and (c) very poor bank asset quality.
- The troika continues to be willing to fund sovereign adjustment programs
  despite a very low likelihood of achieving the hoped-for restoration of
  sovereign solvency. Future sovereign debt restructuring in Cyprus, Greece
  and other euro area member states is therefore likely to involve more OSI
  and less PSI.
- 6. The Eurogroup, the ECB and the European Commission are willing to force a euro area member state to exit from the Eurozone, if there is perceived to be insufficient willingness to: (a) restructure insolvent banks through bail-ins of unsecured creditors, (b) implement sufficient austerity to support a medium-term restoration of fiscal sustainability, (c) implement the minimal structural reforms necessary to relax the supply-side constraints to sustained economic growth to a degree sufficient to make the medium-term restoration of fiscal sustainability a reasonable prospect.
- 7. We believe that the extent of tension and conflict between the European Commission, the Eurogroup and the ECB on the one hand, and the IMF on the other hand have been exaggerated. For starters, the Eurogroup and the ECB are hardly homogeneous entities speaking with one voice. The IMF is a natural ally in many ways of the 'hard core' Eurozone member states. The fact that the IMF decided to co-fund the Cyprus bail-out suggests that the inevitable divergences of views and conflicts of interest remain manageable in our view.
- 8. On balance, the accelerated restructuring of insolvent banks initiated in Cyprus should speed up the arrival of the day that excessive leverage of banks, sovereigns and (in some member states) households, is a thing of the past, thus removing demand-side impediments to sustained growth.

## What was agreed for Cyprus's banking sector?

Based on the Eurogroup's statement of March 25, 2013 and subsequent statements by the Cypriot authorities, the following key measures aimed at Cyprus's banking sector were agreed by the troika and the Cypriot authorities in exchange for €10bn of troika funding and for continued access of the emergency liquidity facilities of the Eurosystem. 1 2

1. Laiki (the second-largest bank by assets) will be resolved immediately – with full contribution of equity shareholders, bond holders (subordinated and senior) and uninsured depositors – based on a decision by the Central Bank of Cyprus, using the newly adopted Bank Resolution Framework.

- Laiki will be split into a good bank and a bad bank. The bad bank will be run down over time.
- The good bank will be folded into Bank of Cyprus (BoC) (the largest bank by assets), using the Bank Resolution Framework. It will take €9bn of ELA with it. The uninsured deposits in BoC will remain frozen until recapitalisation has been effected, and may subsequently be subject to appropriate conditions, such as mandatory conversion into equity until BoC reaches a capital ratio of 9%. Currently, BoC uninsured depositors are set to have 37.5% of their deposits above €100,000 converted into equity, with another 22.5% to be held by the authorities in non-interest bearing accounts while the restructuring plan is completed. These could also be converted into shares. The remaining 40% of deposits over €100,000 will be unfrozen at a later date. According to the Cypriot central bank the final decision on the percentage that will need to be deducted would be made "not later than 90 days after the completion of the valuation".
- The Greek branches of Bank of Cyprus and Laiki (accounting for ½ and 1/3 of their loan books, respectively) have been sold to a Greek bank.
- The Governing Council of the ECB will provide liquidity to the BoC in line with applicable rules. Note [from point (3)] that the €9bn ELA support that used to be given to Laiki will now go to BoC.
- All insured depositors in all banks will be fully protected in accordance with the relevant EU legislation. It is not specified where the resources to protect the insured depositors will come from in the event that even full conversion of the uninsured deposits does not achieve the desired capital ratio. As the German Finance Minister Wolfgang Schäuble pointed out, deposit guarantees are only as good as a state's solvency.3 His subsequent statement that "savings accounts in Europe are safe" is not backed up by similarly convincing logic or fact, in our view.4

Conditions of the €10bn bailout include resolving Laiki bank and restructuring Bank of Cyprus.

All insured depositors in all banks will be fully protected in accordance with the relevant EU legislation.

<sup>&</sup>lt;sup>1</sup> Eurogroup Statement on Cyprus, March 25, 2013, http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/ecofin/136487.pdf

<sup>&</sup>lt;sup>2</sup> The terms on the €10bn funding (one billion of which will be provided by the IMF) are highly concessional: a 2.5% interest rate with a grace period of 10 years

<sup>&</sup>lt;sup>3</sup> From Bloomberg, March 19, 2013, "Cyprus Bank Tax Threatens European Deposit Guarantees Plan" Cyprus's depositors aren't covered by deposit guarantee rules because the state is insolvent, German Finance Minister Wolfgang Schaeuble said today on Deutschland Radio. "The media falsely created the impression that deposits are not safe in other countries," Schaeuble said. "They are safe, though only on the proviso that the states are solvent." http://www.bloomberg.com/news/2013-03-19/cyprus-bank-levy-threatens-european-plan-for-deposit-guarantees.html

<sup>&</sup>lt;sup>4</sup> "Schaeuble says euro zone savings deposits are safe", Reuters, Berlin, Saturday March 30, 2013, http://uk.reuters.com/article/2013/03/30/uk-eurozone-schaeuble-idUKBRE92T02F20130330

Capital controls are an important and controversial part of the programme.

Bailout has to be approved by Cypriot Parliament and ESM board, as well as some national (incl. German and Finnish) Parliaments.

If capital controls endure an exchange rate between a euro note inside and outside Cyprus will emerge.

Cyprus banks' access to Eurosystem funding though conventional repo operations is a thing of the past for most of its banks.

Without access to Eurosystem funding, we believe Cyprus would leave Eurozone.

5

7. The programme money (up to €10bn) will not be used to recapitalise Laiki and Bank of Cyprus. Funds are fungible, so this can only be verified if we know what the counterfactual contribution of the Cypriot sovereign to the recapitalisation of the banks would have been without the programme.

- 8. Not part of the deal with the troika, but an important and controversial component of the Cypriot programme to deal with the crisis in its banking sector were stringent capital controls a Cypriot version of Argentina's 2001 Corralito. We have seen capital controls and foreign exchange controls imposed through a wide range of administrative restrictions on deposit withdrawals, cheque cashing, cash movements abroad, credit card, debit card and pre-paid card use abroad, commercial cross-border payments etc. We can indeed speak of foreign exchange controls here, because a euro note in Cyprus is no longer freely convertible into a euro note outside Cyprus.
- 9. While the measure for restructuring the two banks did not have to be approved by the Cyprus parliament (because the government applied the bank resolution regime law passed the week before), the overall bailout package in the form of the Memorandum of Understanding has to be approved by the Parliament. The MoU was finalised last week and it is now in the hands of the Cyprus government to get it approved. Once that has happened, the Cyprus bailout deal with the associated €10bn ESM loans will have to go through the approval of the ESM as well as of several euro area parliaments, including Germany and Finland. The IMF board will also have to approve its €1bn contribution to the bailout.

An implicit and, if these controls endure more than a few days, explicit (albeit unofficial and black-market only) exchange rate between a euro note in Cyprus and a euro note outside Cyprus will emerge. The Cyprus euro will trade at a steep discount relative to the offshore euro. In that important sense, Cyprus already is, *de facto*, not a part of the Eurozone at this moment. In another sense, Cyprus remains a *de facto* member of the Eurozone as long as the banks of Cyprus have access to Eurosystem funding, either through conventional repo operations with the Eurosystem available through the Central Bank of Cyprus but for the risk of the Eurosystem as a whole, or through the Emergency Liquidity Assistance (ELA) provided by the Central bank of Cyprus, subject to the approval of two thirds of the 23-member Governing Council of the ECB but supposedly for the risk of the Central Bank of Cyprus (and the Cypriot sovereign standing behind it) rather than for the risk of the Eurosystem as a whole.

Both sources of bank funding are subject to the creditworthiness of the borrowing banks and the quality of the collateral they can offer. For Cyprus, regular Eurosystem funding of most of its banks is a thing of the past because of the poor creditworthiness of the banks and the collateral they can offer. This will be restarted only once the ECB's Governing Council is confident that both the banks and the collateral they offer are of minimal acceptable quality. The less exacting standards for eligible counterparties and collateral at the ELA will probably make it possible for the Cypriot banks to fund themselves through that mechanism. However, the ability of a two-thirds majority on the ECB's Governing Council to stop ELA funding means that the continued membership of Cyprus in the Eurosystem is dependent on it maintaining the support of a blocking minority on the ECB's Governing Council. Without the access of its banks to the balance sheet of the Eurosystem, either through the normal liquidity facilities or through the ELA, we believe Cyprus would have no choice but to exit from the Eurozone. Even though political pressures no doubt have been, continue to be and will be brought to bear on the Governing Council as regards Cypriot bank access to the facilities of the Eurosystem and the ELA, we find it extraordinary that so much political power rests with unelected

technocrats. It is reminiscent of the Emminger letter episode, when in a secret document drawn up in 1978, the German Bundesbank President Otto Emminger was granted power by the German Chancellor Helmut Schmidt to ignore formal obligations to support weaker countries via (potentially open-ended) foreign exchange intervention during European currency turmoil. <sup>5</sup>

# Why is the final bank resolution arrangement for Cyprus so much better than the original deal?

The Eurogroup, the IMF and the ECB all went along with the Plan A resolution proposal, which had three fatal flaws and one minor flaw. All three fatal flaws were corrected in the new deal.

- The original proposal bailed in *insured* depositors by imposing a tax on all deposits of all banks operating in Cyprus. This makes no sense to us unless (a) even a complete wiping out of all existing equity holders and a 100% levy/haircut on uninsured depositors (and all other unsecured creditors) would not suffice to restore the capital adequacy of the banks and (b) there is not enough money in the deposit insurance/guarantee fund (or from the banks collectively backing the deposit guarantee or from the domestic taxpayers) to make good on the deposit guarantee. It is true that the Cypriot deposit insurance quarantee scheme was (like the Icelandic one in 2008/09) not prefunded and not guaranteed by the Cypriot sovereign (though we wonder what that guarantee would have been worth). The EU mandates member states to guarantee deposits up to €100,000 but does not back this mandate with funding. In the Cypriot case there most likely are enough unsecured creditors (mainly uninsured depositors) in the Cypriot banks that jointly and severally back the deposit guarantee scheme, to adequately recapitalise BoC (with the good bank part of Laiki added). Fairness ('widows and orphans'), microefficiency (grandpa should not have to practice due diligence for all banks in which he could deposit his meagre savings) and deposit flight risk and other contagion risks are all grounds for not bailing in insured depositors. It is also
- 2. The notion that no deposits, regardless of size, should ever be bailed in (haircut or converted into equity) is based on fuzzy thinking, in our view. The very fact that in the EU the authorities have mandated that deposits below €100,000 be guaranteed (albeit without ensuring that this mandate is backed up by funding) surely suggests that deposits above the €99,999.99 limit are *not* guaranteed and therefore subject to the credit risk of the bank in which they are held.

rather questionable to label something 'insured' or 'guaranteed' and then to levy a tax on it. That is not the way to build trust between citizen and sovereign.

- 3. The original proposal did not bail in the unsecured senior bond holders or wipe out the shareholders of the insolvent banks, yet did bail in, or rather, taxed, other unsecured creditors, mainly depositors, of the insolvent banks and of other banks operating in Cyprus, both solvent Cypriot banks and subsidiaries and even branches of foreign-owned banks that were not viewed as insolvent. Violating creditor seniority in this without powerful arguments would seem to be thumbing one's nose at the rule of law.
- 4. The original proposal was a (selective) wealth levy rather than a bail-in of unsecured creditors of insolvent banks. This was clear from (1) and (2), but also from the fact that even depositors in solvent banks, including Cypriot

The new deal corrected the fatal flaws of original plan:

- The original proposal bailed in insured depositors
- But did not bail in the unsecured senior bond holders or wipe out the shareholders of the insolvent banks, yet did bail in other unsecured creditors
- The original proposal was a (selective) wealth levy rather than a bail-in of unsecured creditors of insolvent banks

6 citivelocity.com

.

<sup>&</sup>lt;sup>5</sup> See David Marsh (2013), "The Emminger letter reappears. Parallels between Cyprus and Bundesbank 1970s episodes", *The OMFIF Commentary*, Tuesday 2 April, Vol.4 Ed. 14.1

branches and subsidiaries of foreign-domiciled banks, were to be subject to the levy. We believe wealth levies should be used, for both fairness and efficiency reasons, to deal with problems of excessive sovereign debt – problems of sovereign insolvency, and then only under the right conditions – basically if they are unexpected and can be implemented swiftly. They are not a fair or efficient tool for recapitalising banks if there still exist unsecured creditors of these banks (other than insured depositors) that benefit from positive recovery rates. Bail-ins of unsecured creditors of banks instead are designed to resolve bank insolvencies, for reasons of both fairness and efficiency (moral hazard). The only feature shared by wealth levies and creditor bail-ins is that the *anticipation* that both will give rise to an enhanced risk of capital flight, if the assets to be taxed or the debt to be bailed in, are mobile. This one shared attribute is, however, no excuse for confusing the two.

There was a further undesirable feature of the original proposal – one that, regrettably, is still present in the revised proposal. Under EU rules, domestic banks and subsidiaries of foreign banks domiciled in the EEA (European Economic Area) fall under the domestic/host country regulator and supervisor and are covered by the domestic/host country deposit guarantees. Branches of foreign banks are not. Specifically, they are regulated and supervised by home country regulators and supervisors and are covered by home country deposit insurance. Depositors of foreign branches of Laiki and the Bank of Cyprus therefore should have been treated the same way as depositors of these banks at branches in Cyprus. Yet depositors of the Greek branches of Laiki will be spared because these branches were, at the last minute, taken over by a Greek bank – Piraeus Bank. Even if the letter of the law and the rules were observed, we feel the spirit was not upheld here.

The fact that in Cyprus, insured depositors were deemed appropriate targets for a haircut/levy by the troika is set to have lasting, damaging consequences throughout the euro area, and possibly beyond it. Although we believe the troika in the end produced the right package, this does not undo the damage caused by its earlier seemingly rudderless course.

### What is likely to happen to the Cypriot economy now?

The near-term outlook for the Cypriot economy is likely to be very poor, with a depression more likely than a recession. Before the bail-out agreement, the European Commission in late February expected GDP in Cyprus to contract (in volume terms) by 3.5% in 2013 and 1.3% in 2014. The MoU setting out the terms of the Cyprus deal expects real GDP to fall by 8% in 2013 and 3% in 2014. In light of the capital and currency controls, deposit freezes and other disruptions of the payment system, the significant fiscal austerity (Cyprus is expected to bring its primary general government budget deficit from 4.25% of GDP in 2014 to a surplus of 4% in 2017, the drastic downsizing of the banks and the financial sector in Cyprus (in 2011 financial, insurance and real estate activities accounted for 20.5% of GDP/GVA)<sup>8</sup> and overwhelming policy uncertainty, even the MoU's projections seem to be far too optimistic. A decline in real GDP in excess of 10% appears likely for 2013, with further significant declines in the following years.

The near-term outlook is a depression more likely than a recession.

A decline in real GDP in excess of 10% appears likely for 2013, with further significant declines in the following years

 $\label{lem:http://www.mof.gov.cy/mof/cystat/statistics.nsf/All/8BF6A12A299484E4C2257712003C1BDF/\$file/NATIONAL\_ECONOMIC\_ACCOUNTS-prov2011-200412.pdf?OpenElement$ 

<sup>&</sup>lt;sup>6</sup> See Eichengreen, Barry (1989), "The Capital Levy in Theory and Practice", NBER Discussion Paper No. 3096, September. http://www.nber.org/papers/w3096.pdf?new\_window=1

<sup>&</sup>lt;sup>7</sup> The latest IMF estimates are from October 2012. They suggest a GDP decline of 1% in 2013 and a return to growth in 2014.

<sup>&</sup>lt;sup>8</sup> Source: Republic of Cyprus *STATISTICAL SERVICE* (2013), NATIONAL ECONOMIC ACCOUNTS 2011, (Provisional Estimates),

Whether this deterioration over time is also a deterioration that can be attributed to the programme agreed with the troika depends on what one believes the relevant counterfactual scenario to be. No doubt the decline in GDP we anticipate for the next two or three years is much larger than the decline that would have occurred had the member states of the euro area and the ECB been willing to make up, through grants or equivalent financial manoeuvres, the capital deficiency of the Cypriot banking system. If, in addition, the troika had been willing to provide the Cypriot sovereign, on highly concessional terms, not just with the €10bn worth of concessional funding included in the programme, but also with sufficient additional funding to prevent the need for the fiscal tightening measures agreed in the MoU with the troika of 30 November 2012, then any decline in real GDP might well have been avoided. This MoU calls for fiscal austerity totalling 71/4% of GDP in 2012-16 (2012-13: 3% of GDP; 2014: 13/4% of GDP; 2015: 11/2% of GDP; and 2016: 1% of GDP) to achieve a 4% of GDP primary balance in 2017 and maintain at least such a level thereafter.9 Clearly, the picture for the real economy would be even brighter if the Russian Government were to ease the terms on its outstanding €2.5bn loan to the Cypriot sovereign, let alone if any Orthodox solidarity were to express itself through a cancellation of that debt and additional financial support from the Russian sovereign.

The alternative to the bailout would have likely implied an even worse near-term outcome.

We believe a more realistic counterfactual considers Cyprus without troika financial support, either for the banks at the ELA or through the budgetary contributions. This would mean: (1) no Eurosystem or ELA funding of its banks until their solvency is assured (presumably through a restructuring very much along the lines of what is included in the current approach), (2) no ESM financial support (i.e. no €10bn) and (3) no further Russian support. Under these conditions, with a collapsed banking system and no voluntary external or domestic funding of the sovereign, we believe Cyprus would have little option but to exit from the Eurozone and, after defaulting on its outstanding sovereign debt (either through write-downs or write-offs or through redenomination into New Cyprus Pounds), fund its sovereign through additional austerity, financial repression (effectively levies on captive financial institutions) and monetary financing. Given the size of the primary deficit, hyperinflation would be likely to result. Depression is a euphemism as a characterization of what would be likely to happen to output, employment and standards of living under this probably realistic counterfactual of Cyprus-going-it-alone.

## Are at least the banks safe in Cyprus after the bail-out?

Continued deposit outflows from Cypriot banks are likely.

eased, continued deposit outflows are likely. These banks are likely to use Eurosystem funding to replace the deposits and other funds that have departed (under normal refinancing operations for as long as the Eurosystem considers these institutions solvent, and under emergency liquidity assistance (ELA) temporarily as the banks await recapitalization), but liquidity pressures are likely to be severe – further undermining economic recovery by tightening credit conditions.

We think this is most unlikely, for two reasons. First, if and when capital controls are

The future capital hole in the banks is likely to be bigger than initially thought.

Second, the much worse macroeconomic outlook implies that the future capital hole in the banks is likely to be bigger than initially thought. Additional bail-outs or bail-ins are therefore likely for BoC as for other Cypriot banks not thus far affected by restructuring. Only after all banks have recognized all legacy losses, have provisioned adequately for expected future losses and contingencies and have built up adequate capital and revenue reserves – buffers that that will likely be sufficient to cope with the very difficult future economic environment they will be operating in, will the banks cease to act as a brake on private domestic demand.

<sup>&</sup>lt;sup>9</sup> See Memorandum of Understanding on Specific Economic Policy Conditionality, http://www.sigmalive.com/files/manual-uploads/Cyprus.pdf

# What is the risk of sovereign debt restructuring in Cyprus in the future?

Clearly, the decision to make Cypriot (and Eurozone-wide) taxpayers senior to unsecured bank creditors helps the creditworthiness of the Cypriot sovereign compared to the alternative scenario in which the sovereign would have guaranteed the unsecured debt of its banks. This counterfactual improvement in sovereign creditworthiness is, however, perfectly compatible with a rapid further deterioration during the coming weeks and months of Cypriot sovereign creditworthiness.

The risk of sovereign debt restructuring in Cyprus remains substantial, in our view.

The risk of sovereign debt restructuring in Cyprus must be substantial. Prior to the crisis, the EC expected the Cypriot general government gross debt/GDP ratio to reach 97% of GDP in 2014 when the fiscal deficit would still run at 3.8% of GDP. The Eurogroup's statement on March 16, 2013, envisaged that under the Cypriot troika programme, Cypriot general government debt would be at 100% of GDP in 2020. <sup>10</sup>The very poor macroeconomic outlook will imply both higher deficits, lower real GDP growth and lower inflation and thus a much worse public debt burden trajectory than forecast. <sup>11</sup>

Further future bank bail-outs, should they occur, may also put pressure on government finances, even though it seems likely that the bail-in of unsecured creditors rather than of Cypriot taxpayers and beneficiaries of public spending would remain the first resort for future bail-outs, too.

An upside remains from the possibility of large increases in gas production.

An upside remains from the possibility of large increases in gas production. We are not in a position to assess the likelihood, timing or likely size of any eventual government revenues and therefore of their contribution to restoring fiscal sustainability in Cyprus, through securitization or the sale of rights to their exploitation. A possible obstacle to early exploitation of the natural gas wealth is the continued division of Cyprus between the Greek Cypriot and Turkish Cypriot parts, and the rival and conflicting claims made by these two communities to the offshore natural resource wealth of the island. On the plus side, the fact that exploitation of the offshore gas resources will most likely require an agreement between the two communities on the division of costs and revenues may make a broader reconciliation and, eventually, a reunification of the island more likely.

Restructuring of Cypriot sovereign debt, both through PSI and through OSI during the next year or two is very likely.

9

While the possibility of anticipating future gas revenues is an upside risk to sovereign solvency, the downside risks, from much weaker than officially projected economic activity to the risk of a potential 'Cyprexit', dominate, in our view, and a restructuring of Cypriot sovereign debt, both through PSI and through OSI (the €2.5bn Russian loan and the €10bn ESM-IMF loan) during the next year or two is very likely. Statements from Eurogroup finance ministers, heads of state and heads of governments, from EC officials and from central bankers that there will be no more PSI for sovereign debt are simply not credible, in our view, because the arithmetic of funding needs, political limits to austerity and political limits on mutualisation through the front door (fiscal facilities like the ESM) or through the back door (quasi-fiscal transfers by the ECB/ Eurosystem) are still likely to leave a gap that can only be filled by sovereign debt restructuring.

<sup>&</sup>lt;sup>10</sup>See http://eurozone.europa.eu/newsroom/news/2013/03/eg-statement-cyprus-16-03-13/

<sup>11</sup> The bail-out agreement announced on the night of March 24 stressed that no bail-out funds were to be used for recapitalizing the banks, implying somewhat more money to be available for funding the sovereign than in any preliminary agreement. However, we doubt that this re-direction of some of the bail-out funds will be sufficient to compensate for the larger economic and fiscal deterioration to be expected.

# Does the approach to bank resolution adopted for Cyprus constitute a 'template' for future approaches to dealing with insolvent banks in the euro area?

The answer is an unambiguous: 'yes' and 'no'.

Cyprus is an extreme application of a new template – the unsecured creditor bail-in template – for dealing with insolvent banks in the Eurozone. Yes, Cyprus is a unique and special case. But so are the 16 other member states of the Eurozone – each one unique and special in its own unique and special way.

Cyprus is a template insofar as future bank insolvencies will be resolved in the first instance by wiping out the existing shareholders and bailing in the unsecured creditors. The answer is clearly yes, insofar as future bank insolvencies will be resolved in the first instance by wiping out the existing shareholders and bailing in the unsecured creditors, starting from the most junior and progressing as high up the seniority ladder as is (a) necessary to ensure that the diminished value of the assets is at least as large as the restructured liabilities, plus, if the bank is restructured as a going concern, an adequate capital buffer and (b) politically feasible. The unsecured creditor bail-in will start with cocos (contingent convertible debt instruments that either get converted into common tangible equity or wiped out when some capital adequacy threshold is breached) even before the point of insolvency is reached. This will be followed, if capital adequacy requirements demand it, once the bank enters insolvency or is saved from insolvency only by being forced to enter a special resolution regime, by the bail-in of other hybrid debt-equity instruments, unsecured subordinated debt, unsecured senior bonds and noninsured/non-guaranteed deposits. Everything possible will be done to keep insured/guaranteed depositors whole, but, as the German Finance Minister Schaueble correctly pointed out, a deposit guarantee is only as credible as the financial resources (other banks, the sovereign, an as yet non-existent EA-wide deposit insurance scheme that is ultimately jointly and severally guaranteed by the 17 sovereigns) that stand behind it. If there are other banks in other countries where there are too few unsecured creditors, other than depositors, to fill the solvency gap of systemically important banks, then depositors will be bailed in again. Political constraints on bail-in will, in our view, after Cyprus no longer prevents unsecured senior bond holders and other unsecured senior creditors from being bailed in. Should insolvency hit a bank where, as in Cyprus, the overwhelming majority of the unsecured creditors are depositors, we think it is possible that large, noninsured depositors will be bailed in. Considerable efforts will be devoted by the Eurogroup as a whole (even by those who don't cease pointing out that there is no mutualised deposit guarantee scheme in the Eurozone) to stop small, insured depositors from being bailed in everywhere.

But the liability structure of the Cypriot banks was extraordinary and unlike anything seen elsewhere thus far in the Eurozone. The answer is clearly 'no', in that the liability structure of the Cypriot banks was extraordinary and unlike anything seen elsewhere thus far in the Eurozone.

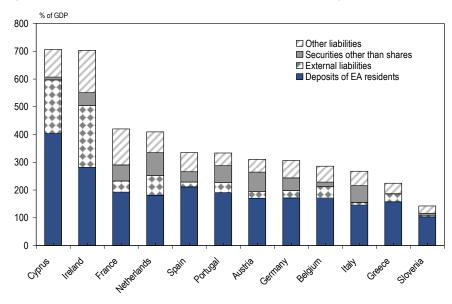


Figure 1. Euro Area – Composition of MFI Liabilities (% of GDP), January 2013

Note: MFI – Monetary Financial Institutions, excluding Eurosystem. Note: external liabilities category includes deposits by non-EA residents. Source: ECB and Citi Research

We expect that it will be possible either to liquidate or to recapitalise most of the EA banks in need without bailing in any depositors, even the noninsured ones.

We therefore expect that it will be possible either to liquidate (if they are not deemed systemically important) or to recapitalise (if they are deemed systemically important) most of the Euro Area banks that will turn out during the coming months and years to have material solvency gaps, without bailing in any depositors, even the noninsured ones. Senior unsecured bond holders are, however, fair game since the Cyprus bail in, following the earlier bailing in of owners of hybrid instruments and subordinated bond holders in Ireland, Spain and the Netherlands (SNS Reaal).

Clearly, as shown in Figure 2, there are Euro Area member states countries with huge banking sectors, as measured by the size of the balance sheet relative to annual GDP – Luxembourg stands out at more that 21 times annual GDP; and in Malta, Cyprus and Ireland, the MFI sector balance sheet exceeds 700% of annual GDP. There is no unique way of defining the banking sector, including by ownership (domestic, foreign subsidiary, foreign branch), type of activity (retail, corporate, investment banking) etc. etc. Figure 2 uses the ECB's concept of MFI to determine which institutions are and are not included. <sup>12</sup>

There are also countries and banks that have a large share of deposits in total bank liabilities (e.g. Slovakia, Slovenia and Greece have deposits in excess of 70% of the total size of the balance sheet, but the differences between countries are not as extreme as for MFI sector size). Note that, given the large share of non-euro area deposits in Cyprus banks, ECB data (which accounts non-euro area deposits in external liabilities) do not truly represent the importance of deposits in total liabilities of Cyprus banks. If external liabilities are added to total deposits held in Cyprus banks by Cypriot and other euro area residents, their share on total bank liabilities is close to 85%.

citivelocity.com

11

<sup>12 &</sup>quot;Monetary Financial Institutions" (MFIs) are central banks, resident credit institutions as defined in Community law, and other resident financial institutions whose business is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credits and/or make investments in securities. Money market funds are also classified as MFIs. http://www.ecb.int/stats/money/mfi/general/html/index.en.html. The numbers in Figure 2 exclude central banks.

Figure 2. Euro Area – Assets and Deposits in MFI Sector, February 2013

	Assets	% of Assets		
	(% of GDP)	Deposits from EA residents	External Liabs.	EA Deposits plus external liabilities
SVK	84.2	73.4	3.3	76.7
EST	113.2	66.1	17.7	83.8
SVN	143.1	72.6	4.2	76.8
GRC	222.1	69.7	13.5	83.2
ITA	269.8	54.9	3.5	58.3
BEL	286.9	59.4	14.2	73.7
FIN	293.5	31.1	25.7	56.8
DEU	306.2	55.9	8.6	64.5
AUT	308.0	55.1	7.6	62.7
PRT	333.3	57.5	11.0	68.5
ESP	334.2	63.3	5.4	68.6
NLD	408.7	44.0	17.7	61.7
FRA	426.3	45.4	9.8	55.2
IRL	676.2	39.0	32.0	71.0
CYP	706.7	56.9	27.7	84.7
MLT	801.6	36.0	40.8	76.8
LUX	2178.9	45.3	32.0	77.3

Note: MFI – Monetary Financial Institutions, excluding Eurosystem. External liabilities include deposits from non-EA residents. Assets divided by GDP in 2012. Source: ECB and Citi Research

Deposit insurance in the EU is a classic example of the European Commission mandating without funding. We know from Iceland's experience since 2008, that there are (or were) national deposit guarantee schemes in the European Economic Area that did not have the resources to make good on even a deposit guarantee up to a €20,000 limit. The EFTA Court that ruled on the dispute between the Icelandic, British and Dutch authorities concerning the Icelandic sovereign's duty to back up Iceland's deposit insurance scheme with sovereign resources, found in favour of Iceland: deposit guarantees are not a sovereign obligation. It is clear that there are countries in the Eurozone today where the sovereign would not be able to make good on the nation's deposit guarantee commitments, even if the sovereign were in principle willing to do so. Unless we have a Eurozone-wide deposit insurance fund that stands behind all insured deposits and is either jointly and severally guaranteed by the collective sovereigns, or backed by the infinite euro resources of the ECB, the statements by the Eurogroup leaders, the ECB and the IMF that insured deposits are now safe, are no more than an expression of hope in our view.

For depositors to be at risk, three conditions have to be satisfied. First, there have to be systemically important banks, that is banks whose insolvency would cause economic and financial damage significantly larger than the losses of the directly involved bank creditors. This likely requires a large banking sector (as measured, say, in the first column of numbers in Figure 2). Second, depositors have to be a large share of total bank funding, as measured by the second and (partly) third column of numbers in Figure 2. Third, the banks have very poor asset quality and are insolvent, with the insolvency gap exceeding the value of the banks' unsecured liabilities other than depositors. Unfortunately, there is no third column of numbers, containing the true, fair value of the assets of the bank in it.

We know very little about the asset quality of most banks in the euro area. Lender forbearance (extend-and-pretend behaviour by banks vis-à-vis creditors that cannot meet the terms of their contractual agreements) has been enabled by regulatory forbearance by national regulators and supervisors towards such behaviour. Legacy losses from years ago likely continue to be carried by banks at inflated values in obscure corners of the balance sheet or off-balance-sheet. Only where the depth of the financial crisis overwhelms the ability of the national sovereign to bail out its banks is there likely to be clarity about the true condition of the balance sheet. The devastation of the balance sheets of most of the Irish banks and most of the Spanish cajas could no longer be hidden.

It is hard to conceive of banks anywhere else in the Eurozone having an asset quality as poor as the two Cypriot banks that are being restructured – banks that rushed in to increase their exposure to the Greek sovereign and other Greek assets when everyone else was headed for the exit. But until banking supervision is removed from national control, we are unlikely to be able to put our minds at rest as regards the quality of euro area bank assets.

Our ignorance of what banks hold on their balance sheets can sometimes lead to widespread underestimation of the quality of bank assets. There have, in the current crisis, been examples of bank resolution and the revelations associated with it, that have brought positive surprises. The three largest Icelandic banks, for instance, were brought down by a classic bank run (sudden funding stop) in the absence of a credible lender of last resort (much of the balance sheet of the banks was in foreign currencies; the Central Bank of Iceland could print only Icelandic Kroner). <sup>13</sup> However, the recovery rates for the unsecured creditors since the banks became

<sup>&</sup>lt;sup>13</sup> See Willem H. Buiter and Anne C. Sibert "The Icelandic banking crisis and what to do about it: The Iender of last resort theory of optimal currency areas," CEPR Policy Insight No. 26, Oct. 2008.

insolvent was already above 80% by the end of 2012 and is expected to reach 90% or higher – far above what was generally expected at the time of the defaults (October 2008). 14

It is conceivable that in a country with a large banking sector and a large share of deposits in total bank liabilities, losses could be so large that depositors (or at any rate noninsured depositors) would have to be bailed in, in the absence of non-bank sources of loss absorption (national taxpayers or an EA-wide facility like the direct recapitalisation facility that the ESM will acquire once the ECB becomes the effective Capo of the Single Supervisory Mechanism, probably some time in 2014).

Cyprus makes clear that all unsecured bank creditors other than depositors are henceforth fair game when dealing with insolvent banks. So, yes, Cyprus provides the template, but only as regards the sequencing of the shareholders and the unsecured creditors of insolvent banks that qualify for future bail-ins, not as regards the level of seniority at which the bail-in stops because sufficient capital has been generated, or as regards the magnitudes of the haircuts imposed on the various classes of unsecured creditors. It is clear, in our view, that all unsecured bank creditors other than depositors, that is, including unsecured senior bond holders, are henceforth fair game when it comes to bail-ins through haircuts or mandatory conversion into equity.

Indeed, Cyprus is a special case and quite unique. And so is each of other 16 members of the EMU. All children are special and unique, yet behave in remarkably similar ways when confronted with similar initial conditions and incentives.

# Does the Cyprus template mean that banking union is dead?

Cyprus template does not mean an end to banking union.

Not at all. Banking union has three dimensions. (1) A single supervisory mechanism (SSM) headed by the ECB enforcing a single regulatory framework/rulebook. (2) A single bank resolution, restructuring and recapitalisation mechanism, backed by a mutualised recapitalisation fund. Ideally, this would not be the ESM, which has unfortunately been given provisionally the role of recapitalizing banks directly (without going through the national sovereign) once the SSM becomes operative. The same institution (ESM) should not both provide contingent liquidity support to sovereigns and contingent capital injections for banks. (3) A mutualised deposit insurance mechanism, with ultimately jointly and severally guaranteed financial backing.

Single supervisory mechanism probably to start early in 2014.

There will be a single supervisory mechanism, probably early in 2014, headed by the ECB, immediately covering the most important 150 EA banks and ultimately covering all banks in the Eurozone. One of the good things to come out of the Cypriot situation is that it may bring forward this phase of banking union. The third dimension of banking union, mutualised deposit insurance, although less important for financial stability in our view than the other two dimensions of banking union, is also likely to be implemented earlier than previously expected because of the outrage created by the prospect of a haircut/levy for insured depositors under the Cyprus Plan A.

<sup>&</sup>lt;sup>14</sup> See http://www.icenews.is/2012/05/22/icelands-kaupthing-bank-repaid-billions/

Single resolution, restructuring and recapitalisation mechanism, will, in our view, act according to a strict sequence of three steps or stages.

- 1. The first stage is the bailing in of the insolvent bank's unsecured creditors.
- 2. The second stage is the bail in of the national taxpayers of the country where the bank is domiciled.
- 3. The third stage is where the remaining euro area taxpayers are bailed in.

The most important dimension of banking union, a single resolution, restructuring and recapitalisation mechanism, will, in our view, act according to a strict sequence of three steps or stages. We base this partly on the sequence of official statements on the subject from the German Government, the ministers of finance of the Eurogroup and the European commission since the early summer of 2012, and partly on the inexorable political and economic logic of the approach sketched below.

The first stage is the bailing in of the insolvent bank's unsecured creditors.

If a bank domiciled in a member state is insolvent, it either gets liquidated, if it is deemed not systemically important or recapitalised, if it is deemed systemically important. If it gets liquidated, shareholders and unsecured creditors (hopefully excluding depositors and most hopefully excluding insured depositors) will get bailed in/haircut, respecting seniority, to the extent necessitated by the recovery value of the bank's assets.

If the bank is recapitalised as a going concern (or if parts of it are bundled with parts of other banks to function as a going concern), existing equity holders will be extinguished and, again respecting seniority, unsecured creditors will be bailed in, most likely by converting them into equity, up to the point that the bank is adequately capitalized.

The second stage is the bail in of the national taxpayers of the country where the bank is domiciled. This only occurs if the maximum possible bailing in of unsecured creditors (at least up to the level of senior unsecured bond holders, but possibly extending to the non-insured depositors) does not generate enough new capital to leave the bank adequately capitalized. Note that this only applies to banks that are deemed systemically important.

The third stage is where the remaining EA area taxpayers are bailed in. Only if the maximal bail in of the unsecured creditors of the bank and the maximal bail in of the national taxpayers of the country where the bank is domiciled does not suffice to adequately recapitalise a systemically important bank is there a case for bank recapitalisation out of euro area-wide financial resources, e.g. through direct capitalization by the ESM. Mr Dijsselbloem, the Netherlands' minister of finance and head of the Eurogroup expressed the hope and expectation that there might never be any need for the ESM to recapitalise banks directly. He may well get what he hopes and expects, at least for the recapitalisation of banks for losses on assets put on the books before the creation of the SSM, that is, for legacy assets. The combination of maximal bail in of unsecured creditors (below the (insured) depositor level) and maximal bail in of the national taxpayer should suffice to keep the ESM out of the direct bank recapitalisation game for the time being.

So what is dead is the specific model of banking union that would have the Eurozone-wide taxpayer bailed in before either the national taxpayer or the unsecured creditors of the bank.

14

So what *is* dead, is the specific model of banking union that would have the Eurozone-wide taxpayer, through the ESM or a similar debt mutualising body, bailed in before either the national taxpayer or the unsecured creditors of the bank. Those who expected that form of banking union were obviously unaware of the political realities in the Eurozone. What remains very much alive is banking union in the sense of a mutualised back-up for systemically important banks, after both the unsecured creditors and, for legacy assets and losses, the national taxpayers have been bailed in to the fullest possible extent.

### Legacy assets

Time passes, even in the Eurozone. We think it is both fair and efficient that the taxpayers of countries whose banks have got into trouble as a result of assets put on the books on the watch of a national supervisor and under national banking sector regulation, be asked to contribute to the recapitalisation of these banks provided: (1) the shareholders and unsecured creditors of these banks have given their all and (2) the banks are systemically important. The nation's supervisors and regulators (and the legislatures and executive branches of government standing behind them) allowed the banks to break it; the national taxpayer should own the systemically important part of it. That is the only fair and efficient way to deal with losses on 'legacy assets'.

Once the SSM and the common rule book are in place, the Euro area taxpayer rather than any particular set of national taxpayers should have the ultimate financial responsibility for new assets that go bad.

The unsecured creditors, however, ought to account for the lion's share of bank recapitalsations, both now and once SSM is in place.

However, once the SSM and the common rule book are in place, it is a single euroarea-wide supervisor and regulatory mechanism that becomes responsible for ensuring that appropriate prudential standards are in place and enforced effectively. For new assets (put on the banks' books post the effectiveness date of the SSM) that go bad, the Euro area taxpayer rather than any particular set of national taxpayers should have the ultimate financial responsibility. As time passes, the share of legacy assets in total bank assets should shrink and the share of Eurozone/ESM assets increase. Ten or 15 years from now, the second stage of the bank resolution process, the national taxpayers' contribution stage, should have shrunk dramatically at the expense of the Euro area-wide, mutualised back-stop fiscal support for systemically important banks. Stage 1, the unsecured creditors' bail in stage ought, however, to account for the lion's share of bank recapitalsations, both now and then.

In view of this likely evolution, as legacy assets and losses shrink and assets taken on since the establishment of the SSM grow, it would make sense to require that all euro area banks be incorporated as Societas Europaea. <sup>15</sup>

# Is the bail-in of unsecured creditors (including depositors) also going to affect insolvent banks in countries with fiscally strong sovereigns?

The answer to this question is the convolution of the answers to the following three questions.

Is the sovereign *able*, that is, fiscally and financially strong enough to bail out its banks should there be a bank solvency gap that the markets will not fill?

This depends on the size of the resources of the sovereign relative to the size of the possible losses of the banking sector. These losses depend on the size of the banking sector's assets and the likely loss ratio.

15 citivelocity.com

-

<sup>&</sup>lt;sup>15</sup> The Council Regulation on the Statute for a European Company establishes the rules for a public EU company, called a Societas Europaea, or "SE". An SE can register in any member state of the European Union and transfer to other member states. As of January 2011, at least 702 registrations have been reported. Examples of companies registered as a European Company are Allianz SE, BASF SE, Strabag SE, Gfk SE, and MAN SE. (Source: Wikipedia).

# Is the sovereign *willing*, that is, politically able, to bail out its banks even if it has the fiscal-financial resources to do so?

We believe that the political acceptability in both the periphery and the core of large injections of taxpayers' money into insolvent banks is declining steadily, except in the case of depositors – and *a fortiori* in the case of insured depositors.

# Are EU state-aid rules and regulations going to allow a government that is able, fiscally/financially and as regards domestic politics, to bail out its banks from bailing these banks out in practice?

Again, we believe that, unless it comes to the bailing in of depositors (and certainly of insured depositors), it will be increasingly difficult for national sovereigns to bail in their taxpayers to bail out their insolvent banks, even if these national authorities have the fiscal-financial means to do so and even if domestic political opposition to bail-outs for bankers can be overcome. Banking union requires a common rule book for sovereign fiscal support for the banks. We expect that insolvent banks in countries with (relatively) fiscally strong sovereigns will increasingly be treated, as regards the bailing in of unsecured creditors, the same way that they have been treated in Cyprus and that will be treated in other periphery countries with insolvent banks and fiscally weak sovereigns.

State aid is strictly regulated and heavily constrained under European rules.

State aid is strictly regulated and heavily constrained in the European Union. As state aid goes to the very heart of the functioning of the single market, vetting, approving and where necessary banning specific forms of state aid is a competency of the European Commission. Three Directorate-Generals carry out state aid control. Two of these are sector specific (Fisheries and Agriculture). The Directorate-General for Competition deals with all other sectors, including the financial sector and state financial support for banks. Thus far, the Commission has tended to go along with most of the proposals for state financial support made by national governments. Subsequent to that aid being granted, the Commission has subjected the beneficiary banks to often severe discipline. ING had to split its banking arm from its insurance arm. RBS and Lloyds Bank have to sell branches and other units. Commerzbank had to divest significant activities. Fortis, Dexia and the Spanish banks that survived only due to government support, like Bankia also had material restrictions imposed on the scope and scale of its activities.

A new European rule may be imposed for unsecured creditors other than depositors to be bailed in before any state financial aid goes into the banks. This retroactive imposition of penalties/sanctions for state aid granted under emergency conditions when ex-ante vetting of the state aid would only have been possible by risking a disorderly collapse of the afflicted banks will no doubt remain part of the arsenal of the Commission. We do expect it to be complemented, however, by a Commission-imposed requirement (probably in agreement with the European Single Resolution Mechanism, once this has been established) that unsecured creditors other than depositors be bailed in before any state financial aid goes into the banks. To make this credible, there would have to be legislation, either at the level of the EU as a whole or in each member state individually, that makes depositors senior to all other senior unsecured creditors. We expect to see such legislation introduced and passed soon.

Banks reopened on March 28 with a number of capital, deposit and currency controls.

Some controls have already been lifted, but crucial ones remain in place in their original form.

If it is maintained (for more than a couple of months at most), we believe Cyprus will *de facto* no longer be a member of the EMU, whatever the (non-existing) legal procedures for Cyprexit.

## How long are capital controls in Cyprus likely to continue?

The capital, deposit and currency controls imposed by Cyprus initially – a first for the euro area – are severe and comprehensive. When the banks reopened at noon on Thursday, March 28, after being closed for 12 days:

- Cash withdrawals were capped at €300 per day.
- Cypriot residents travelling abroad could only take a maximum €1,000 worth of bank notes with them.
- Credit and debit cards used by Cypriot residents abroad were restricted to €5,000 per month (domestic use is unrestricted).
- Cheques could not be cashed.
- Time deposits had to be held until maturity.
- The central bank had to vet all commercial transactions between €9,000 and €200,000.
- Larger commercial transactions HAD to be approved on a case-by-case basis

The authorities announced at their introduction that these initial measures were strictly temporary. Some of the limitations on domestic transactions have been lifted since then to allow for larger bank transfers between banks. However, the limit on daily cash withdrawals and on capital movements abroad remains in place in their original form.

Capital, deposit and currency controls (and also, effectively, exchange controls) of this kind are also fundamentally incompatible with membership in the Economic and Monetary Union – a euro currency note held in the jurisdiction of the Cypriot authorities is no longer freely convertible for a euro currency note held outside it. If it is maintained for any significant amount of time (more than a couple of months at most), we believe Cyprus will *de facto* no longer be a member of the EMU, whatever the (non-existing) legal procedures for Cyprexit.

Cypriot banks reopened on March 28 for the first time in almost two weeks and stayed open for six hours. Given the tightness and severity of the controls, it is not surprising that there was not a significant run on the banks and deposit drain in Cyprus. What was encouraging was that, first, the process of rationing cash at the banks through queuing and limited withdrawals was orderly, and, second, that there was no evidence of significant deposit flight out of weak banks in other Eurozone nations with financially and fiscally weak government.

The rationale for the deposit, currency and capital controls in Cyprus is that, without controls, officials feared there would be a run on deposits after Nicosia agreed to a €10bn bailout that imposes losses on big depositors — a first in the three-year-old eurozone debt crisis. This argument makes no sense to us unless these officials think that even after the restructuring of the two largest banks and the bail-in of the large depositors, either the restructured bank(s) or one of more of the banks left untouched are likely insolvent. In that case, the solution is to bail-in additional unsecured creditors to the point that there is no longer any doubt about the solvency of the restructured banks. Of course, this would require the restructuring to take place rapidly, preferably overnight or at most over a weekend. Why this process should take weeks or even months is a mystery to us. Several stress tests by the European Banking Authority (EBA) and a recent further stress test by PIMCO, verified by BlackRock, ought to have provided those responsible for the bank restructuring with all the information needed to determine the necessary magnitudes of both haircuts and deposit-to-equity conversion.

for internal transactions.

Even if the banks are properly recapitalised, deposit outflows may continue – either, because depositors (now erroneously) believe that the banks are still insolvent, or as they (rightly or wrongly) fear an exit of Cyprus from the euro area. In that case, the funding lost should be readily replaced by additional recourse to the funding facilities of the Eurosystem.

Perhaps the controls will evolve to apply only to withdrawals of funds from specific institutions of still-doubtful solvency. That would be an improvement over the existing Cypriot Corralito, we believe. 16

### Are capital controls likely to lead to a dual exchange rate?

Corralito-type controls on bank deposit withdrawals and associated foreign exchange controls and capital controls have typically been associated with the unsuccessful defense of a fixed exchange rate regime (or currency board) in an economy with an insolvent banking sector and a most likely insolvent sovereign. As soon as the controls were imposed, a highly informal type of dual or multiple exchange rate regime must have emerged.

The Cypriot situation as regards cash and other liquid onshore financial instruments is complicated. There are limits on the ability to withdraw currency from the banks (and from ATMs), that is, there are limits on the internal convertibility of currency for deposits. There are also limits on the ability to take euro currency notes out of the country, on cross-border card-based or electronic payments, and on the ability to convert euro-denominated onshore instruments, like deposits, into offshore instruments, that is, there are limits on the external convertibility of the onshore euro and of other euro-denominated liquid instruments.

The lack of internal convertibility of euro notes will, if capital controls persist for more than a few weeks, likely lead to a search for alternative media of exchange The lack of internal convertibility of euro notes (through the limitations on cash withdrawals and on electronic payments) will, if they persist for more than a few weeks, likely lead to a search for alternative media of exchange for internal transactions. IOUs of large, respected enterprises could for example be countersigned and start to circulate more widely as media of exchange and means of payment. This was the case, for instance, during the 1970 bank strike in Ireland, uncleared cheques were made negotiable (like bills of exchange) and pubs and shops served as credit verifiers. 17 These could later develop into more full-fledged parallel currencies, if internal euro liquidity in Cyprus remains very scarce.

If a parallel currency developed, the New Cypriot Pound (NCP), say, its impact on the speed and cost of the necessary downward adjustment of real wages and international competitiveness would depend on whether domestic wage and price setting would shift from using the euro as numéraire to using the NCP, and on whether, if the NCP were to become the new unit of account, contracting and invoicing currency for domestic transactions, these NCP money wages and prices would be sticky in nominal terms, rather than increasing in line with the increasing value of the euro in terms of NPCs.

<sup>&</sup>lt;sup>16</sup> The Corralito was the name given to the economic measures imposed in Argentina at the end of 2001, by Domingo Cavallo, minister of the economy, to stop a bank run and preserve the Argentine currency board with the US dollar. It officially ended on December 2002. The currency board collapsed in January 2002 and the peso rapidly depreciated from a 1 for 1 exchange rate with the US dollar to 4 pesos to a dollar.

<sup>&</sup>lt;sup>17</sup> See Antoin E Murphy (1978), "Money in an economy without banks: the case of Ireland", The Manchester School, 46(1), pp. 41 – 50. http://www.scribd.com/doc/121706134/Money-in-an-Economy-Without-Banks-the-Case-of-Ireland.

The external inconvertibility of the onshore euro will likely lead to financial innovation even before the limited internal convertibility of deposits and onshore euros. Since a euro note within the jurisdiction of the Cypriot authorities is no longer freely convertible into a euro note outside their jurisdiction, the incentives for exchanging the one for the other at a non-unitary exchange rate (and with the Cypriot euro note at a discount) exist. <sup>18</sup> The means are not hard to find. Cypriots planning a holiday abroad with friends abroad planning a holiday in Cyprus could make mutually advantageous and effectively untraceable currency swaps, possibly involving time delays. Companies with cross-border activities and other entities with legal personality can use a wide variety of stratagems to avoid and evade the administrative restrictions imposed on the free movement of capital, deposits, currency and credit across the Cypriot border. At a one-for-one exchange rate of 'onshore' euro currency, euro-denominated deposits and credit for their 'offshore' counterparts, there is almost certainly a massive excess supply of onshore euros and euro-denominated financial instruments.

The ad-hoc, pair-wise matching of buyers and sellers of onshore euros and eurodenominated instruments will, if the controls remain in place, rapidly evolve into a still informal and unofficial, but much more organised and efficient 'curb market', involving specialized market makers and intermediaries. The "black market" price of the onshore euro will be well below the official one-for-one exchange rate with the offshore euro. We think it will, if controls last more than a few weeks, become a useful indicator of the exchange rate of a new, distinct Cypriot currency that would emerge if Cyprus should exit the monetary union.

Should the capital controls, exchange controls, currency controls and deposit controls last, the gradual development of an alternative internal currency to cope with the scarcity of onshore currency and deposits, and the creation of a black market exchange rate between onshore and offshore euros could merge and produce a full-fledged parallel currency. These developments would be greatly accelerated if and when Cyprus moves towards euro area exit.

### Will Cyprus leave the euro area?

As noted, when Cyprus imposed its capital, currency, exchange, payment and deposit controls, it effectively ceased to function as a member of the EMU. A formal, or *de jure* exit from the EMU can certainly not be ruled out, in our view. It becomes more likely, the longer the controls remain in place.

There is no Treaty-based obstacle to the imposition of capital controls, currency controls, deposit controls and payment controls of the kind introduced by Cyprus. It is true that Article 63 of the Treaty on the Functioning of the European Union (TFEU) appears rather unambiguously to rule out each one of the controls imposed by the Cypriot authorities:

"Article 63 (ex Article 56 TEC):

1. Within the framework of the provisions set out in this Chapter, all restrictions on the movement of capital between Member States and between Member States and third countries shall be prohibited.

A formal exit can certainly not be ruled out, in our view. It becomes more likely, the longer the controls remain in place

<sup>&</sup>lt;sup>18</sup> Note that it is the location of the currency note inside or outside Cyprus that matters for its value, not whether the currency note was issued by the Central Bank of Cyprus or by some other national central bank (NCB) or by the ECB. Only the ECB can authorise the issue of notes within the Eurozone, but most notes are issued by the NCBs of the Eurozone. The issuing central bank can be identified from the serial number. Each NCB is now responsible for the production of certain denominations, as assigned by the ECB (source: Wikipedia). Cyprus does not print its own euro currency notes. These are printed in plants in France and the Netherlands.

There is no Treaty-based obstacle to the imposition of capital controls, currency controls, deposit controls and payment controls of the kind introduced by Cyprus.

2. Within the framework of the provisions set out in this Chapter, all restrictions on payments between Member States and between Member States and third countries shall be prohibited."

However, one of the great strengths of the European Treaties is that if something is forbidden in one part of the Treaty, there is almost always another part of the Treaty where it is allowed. Even if that fails, the general EU operational principle also holds that almost anything can be done under the Treaties if all members agree on the issue. Unanimously agreeing to do something that is against the Treaty is much easier than having a formal Treaty revision, which can take years and may require submitting the changes to popular referenda.

Article 63 is no exception to the rule that everything is possible under the EU Treaties. An exception to Article 63 for FDI to or from third countries (non-EU member states) is contained in Article 64.

Article 66 (ex Article 59 TEC), appears to offer an escape route for wider capital controls, but does not:

"Where, in exceptional circumstances, movements of capital to or from third countries cause, or threaten to cause, serious difficulties for the operation of economic and monetary union, the Council, on a proposal from the Commission and after consulting the European Central Bank, may take safeguard measures with regard to third countries for a period not exceeding six months if such measures are strictly necessary."

Article 66 permits capital controls only vis-à-vis third country. Even if we interpret this as third countries vis-à-vis the economic and monetary union, that would still mean that Cyprus could impose such controls only vis-à-vis non-EU member states, and possibly vis-à-vis the UK and Denmark, the only two EU members with an opt-out from the obligation to move towards full economic and monetary union.

Fortunately, Article 65, and specifically 65b comes to the rescue: "1. The provisions of Article 63 shall be without prejudice to the right of Member States ... (b) to take all requisite measures to prevent infringements of national law and regulations, in particular in the field of taxation and the prudential supervision of financial institutions, or to lay down procedures for the declaration of capital movements for purposes of administrative or statistical information, or to take measures which are justified on grounds of public policy or public security.

Public policy or public security includes effectively everything under the sun, so the legality of the administrative measures imposed by the Cypriot authorities is not an issue. If Cyprus were to leave the euro area, it won't be the laws, regulation or Treaties that force it out. It is more likely to be a concoction of economics and politics.

The bail-out agreement, if passed by the various parliaments (and the ESM Board) that need to approve it before it takes effect, including the Cypriot parliament, staves off the risk of imminent Cypriot exit from the euro area. Absent an agreement, we think that the ECB would have been likely to stop the provision of ELA by the Cypriot central bank, which would almost surely have led to exit. If the sovereign gets no financial support from the ESM and the Cypriot banks cannot fund themselves at either the regular Eurosystem facilities of the Central Bank of Cyprus or at the ELA, then we see no point in continuing to be a member of the monetary union.

Even with the €10bn support for the government in place and continued access of the banks to the Eurosystem, an exit by Cyprus from the euro area is at least a risk, and probably quite plausible.

the banks to the Eurosystem, an exit by Cyprus from the euro area is at least a risk, and probably quite plausible. This is because: i) the economy is likely to go through an extended economic depression with major hardship for significant parts of the population, ii) public opinion may be inclined to consider almost any alternative to continued euro area membership much more attractive than it was viewed by the majority until recently, in part because the financial and economic catastrophe that has befallen the island was quite unexpected, and both as regards its timing and its magnitude. Popular attitudes towards the leadership of the troika, and especially towards the other euro area countries have become markedly more hostile, in part because of the initial botched attempt to bail-in the insured depositors. The fact that the proposal to impose a levy on deposits below €100,000 came from the Cypriot Government rather than from the troika does not appear to allow the Eurogroup leadership to deflect popular anger.

Even with the €10bn support for the government in place and continued access of

Populist anti-European sentiment could go mainstream in Cyprus.

Unlike Italy and Greece, where only fringe economic movements or parties (although the size of these fringes can reach close to 30% of the electorate in Italy and double-digit shares of the popular vote in Greece) now oppose membership in the monetary union, in Cyprus a mainstream party, the Communist Party of Cyprus, (that provided the government until the most recent election) is now engaged in open internal debate about exit from the Eurozone. <sup>19</sup> Populist anti-European sentiment could go mainstream in Cyprus.

Little scope for other EA governments to provide additional funds to Cyprus in the face of likely underperformance of structural and fiscal targets.

Finally, there is likely to be little scope for other euro area governments to provide additional financial support for Cyprus, and to show patience and forbearance in the face of likely underperformance of structural and fiscal conditionality targets set in the bail-out programme. There is, across-the-board, growing resistance in the core euro area member states to providing additional concessional funding for fiscally and financially fragile sovereigns and banking systems. In addition, there is likely less sympathy (not just among the wider euro area population but also among the political classes) for Cyprus than for any other member state in the euro area periphery. This is due to the perception, widely held outside Cyprus, that its banks got into trouble by attracting deposits through the provision of aggressive tax havens and money laundering facilities and by investing the proceeds recklessly in Greek sovereign debt, other Greek assets and Cyprus real estate, even as other investors were headed the other way.

# Contagion from Cyprus's bail-in of As reg

unsecured creditors to the rest of the

euro area periphery: "so far, so good".

### Contagion

As regards contagion from Cyprus's bail-in of unsecured creditors, we can only say: "so far, so good". Clearly, given the controls that have been imposed, Cyprus itself can only be subject to deposit dribbles rather than deposit runs. The other periphery countries with weak sovereigns and weak banks, including Greece and Spain, appear to have suffered some deposit losses, but nothing that would qualify as a run.

The completion of the banking sector resolution and recapitalisation in Greece has been postponed by a few weeks, reputedly in response to Greece's extraordinary decision to fund the take-over of the Greek branches of Laiki Bank by Piraeus Bank with funds from the Hellenic Financial Stability Fund (itself funded by the EFSF/ESM). The risk that senior unsecured bank creditors in Greece, who so far have survived intact, despite private holders of Greek sovereign debt losing 70% or more

<sup>&</sup>lt;sup>19</sup> This is the "Progressive Party of Working People", founded as the Communist Party of Cyprus in 1926.

<sup>&</sup>lt;sup>20</sup> In Germany, the secret service (BND) produced a widely leaked Report arguing that up to \$26bn worth of Russian deposits were held by Cypriot banks.

http://www.spiegel.de/international/europe/german-intelligence-report-warns-cyprus-not-combating-money-laundering-a-865451.html

We believe three conditions must be satisfied to either prevent contagion or to ease its catastrophic consequences

1. Existence of a centralised, EA-wide bank restructuring mechanism.

when it occurs:

- 2. A resolute and effective lender of last resort a task for the ECB.
- 3. An effective, albeit limited EA-wide deposit insurance mechanism.

on their investment, may yet take a haircut is clearly non-negligible. Funding of Greek banks is therefore unlikely to get any easier until this issue is settled.

The recent downgrade of Bankia to junk status by S&P could well be a precursor of the recognition of additional funding needs for the insolvent caja segment of the Spanish banking system. Although less than €40bn of the €100bn recapitalisation fund provided (through the Spanish sovereign) by the ESM has so far been drawn upon, it is quite likely, in our view, that any further ESM support of the Spanish banking sector will be accompanied by larger bail-ins of unsecured creditors.

To either prevent contagion or to stop it from having catastrophic consequences when it occurs, we believe three conditions must be satisfied. The first is the existence of a centralised, euro area-wide process for orderly, swift and simultaneous bank restructuring or bank resolution. Without this, bailing in the unsecured creditors of an insolvent bank could, if these unsecured creditors are other euro area banks or other institutions that play an important role in funding other euro area banks, risk causing or revealing the insolvency of these other euro area banks. This centralised euro area-wide bank restructuring mechanism should gather comprehensive information on all the direct and indirect linkages between euro area banks' balance sheets. Currently, the ECB is expected to conduct such a comprehensive balance sheet assessment for around 150 euro area banks - the most important ones it will supervise directly as the apex of the single supervisory mechanism (SSM) around the middle of 2014. We believe this is likely to be too late, as it is rapidly becoming more and more difficult to hide the holes in the balance sheets of the euro areas banks. The information collection process should not wait until the ECB officially ascends the SSM throne. When that information is transferred from the ECB to the yet-to-be created Euro Area Bank Resolution, Restructuring and Recapitalisation Mechanism, the complete interlocking network of necessary bank restructurings can be implemented simultaneously and fast.

The second key ingredient to prevent or mitigate the consequences of contagion is a resolute and effective lender of last resort – a task for the ECB.

The third key element is an effective, albeit limited (certainly no more than the current €100,000 per person per bank) euro area-wide deposit insurance mechanism. This is as much to buy political support for bank restructuring through bail-ins of unsecured creditors by safeguarding smallish savers, as to stop a deposit run at least for the insured deposits.

Deposit flight is just the most visible and dramatic manifestation of a sudden market funding stop. Non-deposit sources of funding (anything not withdrawable on demand on a first-come, first-served basis) will disappear by not volunteering for re-investment when they mature. With bailing in unsecured creditors, including senior unsecured bond holders and, if all else fails even non-insured depositors now irrevocably on the menu of euro area bank resolution mechanisms, we would expect all bank creditors, including depositors, to become more careful and wary of restructuring risks. Fortunately for the euro area banks, deposits, especially personal deposits and SME deposits, tend to be remarkably sticky, even when the risk of significant haircuts on depositors is there for all to see. Faster money (corporate deposits, wholesale bank funding) is more likely to leave. Argentina in 2000-02 is a spectacular example of retail depositor inertia in the face of imminent disaster.

In the past, most deposit flight out of the periphery has tended to move to the core rather than moving out of the Eurozone completely. From a macroeconomic perspective that may be too bad, as deposit flight in the form of capital flight out of the euro area could weaken the euro's exchange rate, thus providing the kind of monetary conditions relaxation that the ECB, inexplicably, appears unwilling to provide.

# **Appendix A-1**

## **Analyst Certification**

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

### IMPORTANT DISCLOSURES

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/eppublic/citi\_research\_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

#### NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets Ltd

Willem Buiter; Ebrahim Rahbari; Giada Giani; Jürgen Michels

#### OTHER DISCLOSURES

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an of

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Research research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to Citi Research reports.

Important disclosure regarding the relationship between the companies that are the subject of this Citi Research research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.

For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citivelocity.com/cvr/eppublic/citi\_research\_disclosures.

This Citi Research research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of Citi Research. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia through Citi Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC -Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11° andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in Chile through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in France by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong, Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any gueries on or any matters arising from or in connection with this document. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in Israel through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in Japan by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <a href="http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02">http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02</a>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Pakistan by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the Philippines through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul. Senatorska 16, 00-923 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any

information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any gueries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold//Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Spain by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the Republic of China through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F. No. 1, Sonozhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in Turkey through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the U.A.E, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at <a href="https://www.citivelocity.com/cvr/eppublic/citi\_research\_disclosures">https://www.citivelocity.com/cvr/eppublic/citi\_research\_disclosures</a>.

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs) and other product that is made available through other distribution channels only to certain categories of clients to satisfy legal or regulatory requirements, Citi Research concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual Citi Research analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. Citi Research analysts to clients may vary depending on various factors such as the client's individual

preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints. Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters and Datastream.

© 2013 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

