Benoît Cœuré: The international role of the euro – concepts, empirics and prospects

Speech by Mr Benoît Cœuré, Member of the Executive Board of the European Central Bank, at Saint Joseph University, Beirut, 2 October 2015.

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Introduction

M. Dean, Ladies and Gentlemen,

Thank you for the opportunity to address you today and to testify to the trust and friendship between European institutions and Lebanon.

The international use of the euro and the evolution of the international monetary system have attracted renewed interest from academics and policy-makers alike since the onset of the financial crisis.

The euro is used not only as legal tender by the 340 million residents of the 19 euro area countries.[1] It is used in private and official transactions outside the euro area, too.

The euro is used inter alia to settle international transactions, to issue debt in international financial markets and to store value in the form of official reserve holdings or private international bank deposits. For instance, about 25% of foreign currency debt securities issued this year in Lebanon were in euro. The euro is well established as the second most important currency in the global monetary and financial system.

That the euro could play an important role internationally, alongside the US dollar was, in fact, considered by some observers as one motivation underlying the creation of the single currency.[2] I would not, however, regard this reason as the most important one: completing the single market was arguably the most important motivation, and promoting the international role of the euro is nowhere to be seen in the Treaty.

Sixteen years after the euro's creation, and seven years after the start of the global financial crisis, developments in the global monetary and financial system in general, and in the euro's international status in particular, give rise to two related paradoxes.

The first paradox is that the global economy has just been hit by the most severe shock since the Great Depression. The Great Depression led to the collapse of the gold standard. But the sub-prime crisis did not deter investors from holding US dollars, nor did the euro area crisis deter them from holding euros. The roles of the US dollar and the euro in the global monetary and financial system remain broadly unaltered across various dimensions of international currency use.

The second paradox is that prospects of the evolution of the system towards greater multi-polarity, i.e. a system in which the US dollar, the euro, and the renminbi would all play

1 The euro also has legal tender status in smaller non-EU jurisdictions such as Monaco and San Marino, which are tied to the euro area by an exchange rate agreement. Montenegro and Kosovo have unilateral euroisation regimes.

2 See Bergsten (1997) and Feldstein (1997) for a review of the debate. For instance, Bergsten stressed that "The creation of a single European currency will be the most important development since the adoption of flexible exchange rates in the 1970s. The dollar will have its first real competitor since it surpassed sterling" (Bergsten, 1997, p. 83).

significant roles, have been increasingly discussed by both academics and policy-makers. But, so far, the US dollar has remained clearly the leading international currency, with the euro a distant second, and the renminbi still lagging far behind.

Solving these paradoxes and peering into the future requires us to review some of the conceptual and empirical issues that underlie international currency status. This is what I will be doing in my speech today.

1. Theoretical definition and determinants

Consider first the definition of an international currency and the theoretical determinants of international currency status.

We have learned from Benjamin Cohen and Paul Krugman – who studied the cases of the pound sterling and the US dollar, respectively – that an international currency fulfils the standard Aristotelian functions of money (medium of exchange, store of value and unit of account) for private and official transactions between residents and non-residents.[3]

An international currency can thus be a medium of exchange, for instance a vehicle to transact two other currencies in the foreign exchange market. It can be a store of value, for instance as the currency of denomination of financial assets held by central banks, sovereign wealth funds or international private investors. And it can be a unit of account, for instance to invoice international transactions in goods and services, which will be particularly unsurprising in this country.

The Phoenicians, who owed much of their prosperity to international trade, were after all among the first peoples in antiquity to mint coins, which gained international status across the Mediterranean world and the Middle East. The parallel use in the Achemenid period of Phoenician shekels and Athenian tetradrachms is an example of what would now be called a "multipolar international monetary system".[4] The European citizens can remember this period when looking at the image of Europa, daughter of the king of Tyre, which is featured in the new series of euro banknotes.[5]

Economies of scope suggest that these functions tend to reinforce each other. But an international currency does not need to fulfil all of them necessarily. For instance, the use of the Chinese renminbi as a store of value, i.e. in official foreign reserves and private financial holdings, or as a funding currency in international debt markets, remains limited to date, but it is already significant in the invoicing of international trade transactions.[6]

Several determinants buttress the international status of a currency.

One such determinant is *inertia*. In international currency use, inertia effects may have a variety of causes, including habit formation, sunk costs, network increasing returns or a lack of credible alternatives. The idea that these effects may be important rests, in turn, on an observation based on the work by Robert Triffin, according to which there was a lag of more

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[3] See Cohen (1971) and Krugman (1984).

[4] See Elayi and Elayi (1993).

[5] A Phoenician coin depicting Europa riding a bull was unearthed in 2012 by a British Museum team in Saida, Lebanon.

[6] The renminbi's role as an international invoicing and settlement currency for China's international trade grew rapidly from essentially nought in 2009 to 25% at the end of 2014.

than 70 years between the United States overtaking Britain as the largest economy (in 1870) and the US dollar overtaking sterling as the leading international currency (in 1945).[7]

A number of recent studies have challenged this conventional wisdom, however. They use new data to show that the US dollar had already overtaken sterling in the mid-1920s. This suggests, in other words, that inertia effects are less strong than previously supposed and that the advantages of incumbency are not insurmountable.[8]

Another determinant is *economic size*. The currencies of the largest economies in global output and trade, with the deepest and most liquid financial markets, tend to be used internationally.

This is also what the historical record suggests. Sterling was the leading international currency in the 19th century when the UK was the world's largest economy and the City of London the dominant financial centre. The dollar was the leading international currency in the 20th century when the United States was the world's largest economy and New York the dominant financial centre. Some observers argue that the international use of the renminbi will increase still further, as China's economy grows larger, along with the roles of Shanghai and Hong Kong as financial centres.[9]

This is also what theoretical models of random matching games predict, insofar as they see the emergence of international currencies as the solution to a "double coincidence of wants" problem. The incentive of an agent to accept the currency issued by a particular country depends on how often he or she trades with a resident from that country.[10]

A third determinant of international currencies is *credibility*. Stable currencies, from an internal and external perspective, are attractive to non-residents as stores of value.[11] The ECB's independence and its commitment to maintaining price stability in the euro area over the medium term is therefore a supportive factor, albeit an indirect one, in the euro's international status. I doubt that a currency can gain international status if investors do not trust its issuing central bank to be free from political interference.

Other policies can have a bearing on a currency's international role. The rule of law and the enforcement of financial contracts support a currency's role as medium of exchange and store of value. Financial market infrastructures contribute significantly to a currency's liquidity, which is a key determinant of its international standing. Various challenges may also exist in processing cross-border transactions. For example, the absence of common or interoperable technical standards leads to higher failure rates and costs. The recent setting up of renminbi clearing arrangements in several euro area financial centres will facilitate cross-border payments in euro and renminbi, with benefits for corporates and financial actors, both in the euro area and in China.[12] The October 2013 currency swap agreement between the European Central Bank and the People's Bank of China is based on this prospect.

Capital account openness and regulatory policies more broadly are important, too. Given the economies of scale and network externalities arising from the international status of

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7 See Triffin (1960).

8 See Eichengreen and Flandreau (2009), Chiţu, Eichengreen and Mehl (2014), Eichengreen, Chiţu and Mehl (forthcoming (a)).

9 See e.g. Subramanian (2011).

10 See Matsuyama, Kiyotaki and Matsui (1993) and Rey (2001).

11 See Devereux and Shi (2013).

12 See Coeuré (2014).

a currency, regulatory changes can be the "push factor" from one equilibrium, involving a dominant currency, to a different equilibrium.[13]

II. Recent developments

Consider now the developments since the start of the global financial crisis. ***The roles played by the US dollar and the euro in the global monetary and financial system have remained broadly unaltered since 2007–2008***, despite signs of a gradual ascent of the Chinese renminbi. This was also true, albeit to a somewhat lesser extent, during the acute phase of the European sovereign debt crisis in 2011–2012. This stability testifies to the importance of inertia effects, to the size of the US and euro area economies, to their deep and liquid financial markets, and – well, if I dare say – to the credibility of their central banks' policies.

The US dollar remains the leading international currency, accounting for 50 to 60% of international transactions across various metrics of international currency use. The euro remains the second most important currency internationally, accounting for 20 to 25% of transactions. Its role is particularly significant in countries neighbouring the euro area. All other currencies, the renminbi included, remain well behind the US dollar and the euro, although the rise of the renminbi as an international payment currency – which reflects the leading role played by China in global merchandise trade – is notable.

There is therefore evidence that, despite the euro area crisis, economic players all over the world have maintained their confidence in the euro. And this holds true for the euro's use as a reserve, financing and invoicing currency.

At constant exchange rates, the euro's share of global foreign exchange reserves has remained broadly unchanged since 2007–08. The decline in 2014 in the share of the euro at market exchange rates was a reflection of the depreciation of the euro. There is therefore no evidence that global foreign exchange reserve managers actively rebalanced their portfolios away from the euro in 2014, or in 2011–2012 for that matter. This year the euro has been increasingly used as a funding currency by international borrowers, owing to the historically low interest rates in the euro area. Investment-grade corporations in advanced economies, mainly the United States, were particularly active issuers of international bonds denominated in euro, whose proceeds are swapped back into dollars. In April 2015 Mexico became the first sovereign state to issue a bond denominated in euro with a maturity of 100 years.[14] Moreover, the share of the euro as an invoicing or settlement currency for extra-euro area trade remained broadly stable again last year. Finally, the euro is used as a reference currency for the anchoring of exchange rates, mainly in countries neighbouring the euro area and countries that have established special institutional arrangements with the EU or its Member States.[15]

III. Welfare implications

Those are the recent developments. But to what extent do they matter? What are the implications of international currency status? In other words, what are the benefits and costs?

One starting point here is the striking diversity of policy positions towards currency internationalisation across countries and over time. In the 1970s, Germany and Japan maintained tight controls and regulatory restrictions to limit foreign holdings of their

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[13] Still now, capital controls in place in some emerging markets are believed to help explain the development of offshore markets in their currencies, as well as of certain financial derivative instruments, such as non-deliverable forward exchange rates.

[14] Similar evidence is presented in BIS (2015).

[15] With the exception of the countries participating in ERM II, the decision to use the euro as an anchor currency is a unilateral one and does not involve any commitment on the part of the ECB. The US dollar, on the other hand, continues to be widely used as an exchange rate anchor both in Asia and in Central and South America.

currencies.[16] In contrast, the United States has always been open to the international use of the dollar. China is now promoting the global role of the renminbi, an objective which it also uses as an anchor for domestic reforms.[17] And the ECB's position is one of neutrality. We view the international role of the euro as being primarily determined by market forces and we neither hinder nor promote it.

One reason for such diverse approaches is that the benefits and costs of international currency status differ from country to country and are difficult to measure.[18]

Take the benefits first. ***One benefit is seigniorage***, i.e. interest-free loans to the issuing central bank from non-residents who hold the international currency. In the current environment of low interest rates, this benefit is arguably very limited.

But international currency status also creates efficiency gains in financial intermediation and lowers transaction costs. For instance, size and liquidity effects lead to the emergence of new financial market segments denominated in the international currency. Bid-ask spreads in wholesale and retail foreign exchange markets are lower for international currencies than for other currencies, and this phenomenon is self-reinforcing, which gives rise to the vehicle role of such currencies.[19]

The "exorbitant privilege" – an immensely popular phrase, albeit one with somewhat mysterious origins, since it has been alternately ascribed to Charles de Gaulle, Valéry Giscard d'Estaing and Jacques Rueff – is yet another benefit. International currency issuers can issue debt to non-resident investors at lower interest rates than other issuers (to the extent that the currency is perceived as safe and liquid) and moreover they can invest the proceeds in higher-yielding foreign assets.[20] The magnitude of this differential remains a subject of heated debate, however.

But what we have also learned since the global financial crisis is that international currency status provides partial insulation from external disturbances, in particular those arising from exchange rate movements. Recent studies suggest that exchange rate pass-through to import prices and domestic prices declines significantly, even at distant horizons, if a significant share of imports of goods and services is invoiced in the domestic currency.[21]

For instance, one study by ECB staff found an economically large link between choice of invoicing currency and exchange rate pass-through. According to the study, an increase in the share of the euro as an invoicing currency for extra-euro area imports of 10 percentage points lowers the degree of exchange rate pass-through to import prices by almost 7 percentage

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[16] Japan moved on eventually to encourage the international role of the yen for some time.

[17] As re-emphasized by Premier Li Keqiang on 9 September 2015 "The continued devaluation of the yuan is definitely not conducive to the currency becoming internationalized. This is not our policy preference."

[18] To paraphrase the first ECB Monthly Bulletin article on the international of the euro: "The list of potential benefits and costs for euro area residents is for the time being of a rather speculative, forward-looking nature. Many benefits are difficult to measure with precision." (*Monthly Bulletin*, August 1999, p. 43; **http://www.ecb.europa.eu/pub/pdf/other/p.31_53_mb199908en.pdf**).

[19] See Krugman (1980).

[20] Gourinchas et al. (2010) estimate that the United States earned a positive return differential on its external balance sheet of about 2% per year in real terms over the period 1952–2009; other studies find smaller effects. Moreover, it can be disputed as to whether this "privilege" also holds for countries with a currency with a status less important than the US dollar.

[21] For instance, Gopinath, Itskhoki and Rigobon (2010) find large differences in the extent of long-run exchange rate pass-through to US import prices between US dollar-priced goods (25%) and non-US dollar-priced goods (95%).

points.[22] This might be particularly relevant in circumstances when importing deflation might create risks to price stability over the medium term.

At the same time, low pass-through may exacerbate real exchange rate volatility as relative prices adjust less strongly, thereby failing to dampen movements in the nominal exchange rate. International currency status may therefore partly hamper the benefits of having a flexible exchange rate.

Currency internationalisation may generate costs, too. It may make monetary developments more difficult to interpret, with shifts in non-resident demand for banknotes and deposits having a direct impact on money aggregates. It may complicate the conduct of monetary policy if money demand and capital flows become unstable as a result of external shocks, as the experiences of the Deutsche Mark and the Swiss franc after the demise of the Bretton Woods system starkly illustrate.

The outbreak of the global financial crisis has even added some new dimensions to the debate.

One cost which has now become more apparent is the "exorbitant duty" of international currency issuers, the flipside of "exorbitant privilege". International currency issuers provide insurance to the rest of the world in times of global financial market stress, which gives rise to potentially large financial transfers between economies.[23]

Moreover, we are now even more aware than in the past that with international currency status come greater responsibilities and challenges at the international and domestic level.

At the international level, one challenge is about global liquidity risk. For instance, central banks in major advanced economies have been called upon by emerging markets to establish a structured network of currency swap agreements to mitigate the risks of international currency liquidity shortages. Such agreements are however possible to the extent that they are in line with the domestic mandate of the central bank of issue, i.e. in case of concerns that liquidity stress in global markets could materially impair the pursuit of domestic policy goals. Further progress in global and regional financial safety nets would help overcome this limitation.

At the domestic level, another challenge is about foreign exchange risk. In this respect, the marked rise in foreign currency-denominated borrowing since the financial crisis, in particular in US dollars and more recently also in euro, could lead to increased demand for currency swap agreements. Currency mismatches may create financial stability risks in some emerging market economies in the event of a significant appreciation of the international currency, and the central bank of issue may be called to the rescue as "hedger of last resort" of foreign currency risk, which falls clearly outside of its domestic mandate.[24]

IV. Prospects

Let us go back to where we started and refocus our attention on the future. That the roles of the US dollar and the euro have remained broadly stable since the global financial crisis is one

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22 See Gräb and Lafarguette (2015) and ECB (2015).

23 As argued by Gourinchas et al. (2010), this is epitomised, for example, by the fact that the decline in the value of US external asset holdings was more sizeable than the decline in the value of foreigners' holdings in the United States in the period 2007–09 (the net foreign position of the United States worsened by 19% of GDP). This arose because of strong valuation effects that occurred after the sharp appreciation of the dollar in the wake of the collapse of Lehman Brothers.

24 Exiting from currency mismatches is not easy either. The statutory conversion of FX loans may result in a decline in international reserves, entail financial costs for the banking sector, and raise concerns for macroeconomic and financial stability. See the ECB Opinions on the conversion of foreign exchange loans in Hungary (CON/2014/87), Poland (CON/2015/26), and Croatia (CON/2015/32).

thing, but whether or not the global monetary and financial system will remain frozen in its current state is quite another.

In particular, it has been suggested that the global monetary and financial system could become more multi-polar in the years ahead in the light of the growing global importance of the Chinese renminbi.

As we have learned, historical evidence suggests that a multi-polar system is feasible. For instance, while half of identified foreign exchange reserve holdings in 1913 were in sterling, holdings of French francs and German marks were substantial.[25] Even in cases as extreme as markets for homogeneous goods, such as the oil market, where network effects are believed to be so strong as to naturally lead to the dominance of one settlement currency, multiple currencies were used in the past. European oil import settlements around World War II, for instance, were split evenly between the dollar and non-dollar currencies, mainly sterling.[26]

But, from a normative standpoint, is a possible evolution towards multi-polarity desirable?

Some view it with concern.[27] They fear that a multipolar currency system would increase global financial instability. They argue that the likelihood of self-fulfilling runs on reserve currencies would increase, insofar as investors could switch more easily from one currency to another, seeking to convert their holdings first for fear of suffering losses down the line.[28] These concerns might be overblown, however. First, the extent of price adjustments would depend significantly on the degree of substitutability between reserve assets and on whether reserve currencies would be seen by investors as substitutes or complements. Second, official reserve managers have a longer time horizon than private market participants and are therefore more likely to act as stabilising rather than destabilising investors.[29] Third, the sub-prime and euro area crises showed that, even when large shocks occur in reserve-issuing countries, rebalancing in reserve portfolios may remain limited.

Others argue, in contrast, that multi-polarity would create global benefits. They argue that it would help address potential shortages in global safe assets to the extent that their supply could respond more elastically to the growing needs of the global economy and to the demand from emerging market economies. They argue that it would have a stronger disciplinary effect on the policies of reserve currency issuers, which would need to address swiftly any worsening in their fundamentals in the face of competitive pressures created by the existence of other reserve currency issuers.

In any case, from a positive standpoint, a possible evolution towards multi-polarity is a likely evolution, given the increasing importance of emerging market economies in the global economy.

Finally, the question remains of how the euro's international role will develop. In an evolving global monetary and financial landscape, the euro's international status will be determined primarily by market forces, although European authorities may indirectly contribute to it, too, as I will now explain.

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25 At 31% and 15%, respectively. See Lindert (1969) and the discussion in Eichengreen (2014).

26 See Eichengreen, Chiţu and Mehl (forthcoming (b)).

27 See Fahri, Gourinchas and Rey (2011) for a review of the debate as well as Eichengreen (2010) and Bénassy-Quéré and Cœuré (2010).

28 Bénassy-Quéré and Forouheshfar (2015) show that a transitory shock to the current account has less impact on exchange rates when more currencies are international in the sense that they are present in international portfolios. The reason is that the impact of wealth transfers arising from the current account shock is spread over a larger number of currencies.

29 See Eichengreen (2010).

The euro area crisis exposed weaknesses in economic governance and uncovered fault lines in European capital markets. Paradoxically, it may have improved the euro's prospects as an international currency. Completing our Economic and Monetary Union (EMU) in the spirit of the Five Presidents' Report may have indirect consequences for the euro's international status.[30] Deeper and better connected European capital markets, and moving towards genuine financial union, may buttress the depth and liquidity of these markets and, as an indirect result, buttress the euro's international role.

In the light of this, a stronger international role for the euro, while not being an objective per se, would be an indicator not only of the continued confidence of the rest of the world in the single currency and in the euro area, but also of the success of the EU in completing EMU. And vis-à-vis the latter outcome the ECB is definitely not neutral.

Mr. Dean, Ladies and Gentlemen, I thank you for your attention.

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[30] The ECB's annual reports on the international role of the euro released in July 2013 and July 2014 showed that the euro area sovereign debt crisis had weighed on the international use of the euro, which declined in 2011–2012 due to the fragmentation of the euro area financial system that affected euro area capital markets' depth and liquidity. After policy measures were taken at both the European and the national level to reduce the degree of financial fragmentation, there were signs of a turnaround in the international use of the euro in 2013.

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