

CAN THE RENMINBI MAKE THE SDR MORE ATTRACTIVE?

As part of discussions on reforming the international monetary system, there has been renewed interest in the Special Drawing Right (SDR). In April 2011, the finance ministers and central bankers of the G20 decided to work on a “criteria-based path to broaden the composition of the SDR”.¹ In practice, this would lead to the inclusion of the Chinese currency in the SDR, alongside the dollar, the euro, the yen and the British pound. This project is motivated by two main objectives: first, to make the SDR more attractive as a store of value and unit of account; second, to strengthen international monetary cooperation. The main obstacle is that the Chinese currency is not “freely usable”, in the terminology of the International Monetary Fund. Given the ongoing process of internationalization of the currency and flexibilization of the exchange-rate regime, relatively rapid inclusion of the renminbi in the SDR could bring substantial benefits in terms of representativeness, efficiency and stability.

1

■ SDR: a come back

The Special Drawing Right was established in 1969, after years of discussions within the “Group of Ten”, a group then composed of finance ministers and central bankers of the ten largest economies, as a way to complement existing reserve assets, at a time when the amount of gold and dollar had become insufficient to cope with the expansion of world trade. The stock of this new reserve asset, whose value was set at 0.888671 grams of gold (*i.e.* one dollar at that time), has the great advantage not to depend on the balance of payments of the country issuing the reserve currency – the United States – nor on discoveries of gold mines: the amount of SDR is set by the IMF depending on its Members’ needs, and it is allocated to individual Member States in proportion of their quota shares.

Following the abandonment of the gold parity in 1971 and subsequent transition to flexible exchange rates in 1973, the value of the SDR was redefined as a basket of currencies. In the next three decades, the composition of the basket was changed several times. Since 1999, the SDR has been composed of the dollar, yen, the British pound and the euro.

With the generalization of floating exchange rates, the need for reserve accumulation declined. For a while, the reserve assets issued by the United States as a result its balance-of-payments deficits was sufficient to meet the needs of central banks. Thus, despite the commitment of IMF member states in 1978 to make the SDR the principal reserve asset, there were only two waves of SDR allocations before the 2008

1. See <http://www.g20.utoronto.ca/2011/2011-finance-110415-en.html>.

crisis: 1970-1972, and 1978-1981. In spite of the massive allocation decided in 2009, the share of the SDR in global official reserves remains less than 5 percent today. Still, the SDR has received renewed interest in the wake of the crisis, especially after the Governor of the People's Bank of China delivered a much-commented speech in favor of a diversification of reserve assets, in March 2009. In fact, the current international monetary organization around the dollar is increasingly incompatible with the ongoing shift of the global economy towards emerging economies.²

■ SDR: user's guide

The SDR is not a currency, nor is it a claim on the IMF. It is a potential claim on central banks that have freely usable currencies.

The mechanism of allocation and use is as follows: the IMF decides an allocation, which is distributed among the member states according to their quotas. Central banks then see their assets and liabilities increase by the same amount. The same interest rate applies to the SDR as a holding and as a liability. Hence, there is no net interest to be paid or received before SDRs are actually used. Through the designation or the voluntary mechanism, participants with a balance-of-payment deficit may exchange their SDRs for a freely usable currency in order to be able to cope with their obligations. If a country holds less SDRs than it was allocated, a net interest has to be paid to the IMF. Conversely, a country that holds more SDRs than allocated receives a net interest from the Fund which acts as a clearing house.

■ The renminbi in the SDR: What for?

In April 2011, the finance ministers and central bankers of the G20 decided to work on a "criteria-based path to broaden the composition of the SDR". The initiative targets the inclusion, under certain conditions, of the Chinese renminbi in the basket, along with the four currencies that make it up now.

Even though China has undoubtedly become a major economy (and the world's largest exporter of goods), this is not enough for its currency to be included in the SDR. In order to ensure the liquidity of the SDR mechanism, the renminbi would need to become "freely usable", when it is

hardly convertible and very far from playing an important part in foreign-exchange markets. The challenge then is to examine whether this condition of "free usability" could be revised (at least for a limited period), or whether the indicators of "free usability" could be adapted. Above all, it is essential to clearly identify the pros and cons of including the renminbi in the basket.

Because it would lower volatility of the SDR against the RMB, the inclusion of the RMB in the SDR could encourage the PBoC to provide dollars in exchange for SDRs on a voluntary basis, which would open the door to smooth diversification of China's official reserves and thus reduce its dollar exposure. Furthermore, the inclusion of the renminbi in the SDR could suggest a natural venue for monetary coordination around the five currencies of the basket. However, including a non-convertible currency which is quasi-pegged to the US dollar could reduce the attractiveness of the SDR since the latter would appear just as an illiquid substitute for the dollar. In fact, the key question is probably more that of the volatility than that of the liquidity of the SDR, liquidity being already provided by the four currencies of the basket.

■ Impact of renminbi inclusion in the SDR: stability

The stability of the SDR basket – stability of both its composition and its value – is a key condition for its attractiveness as a unit of account and a store of value. Here we present a projection of the composition of the SDR based on the IMF methodology and on simple assumptions regarding the future of world trade and of the composition of official reserves (see Box 1). We compare the results obtained depending on whether the renminbi is included in the basket or not. The results are reported in Table 1.

Had the renminbi be included in the SDR basket during the 1990s and 2000s, it would not have made a significant difference due to its very limited weight (less than ten percent). However, our calculations suggest that the renminbi could become the first or second currency of the basket by 2040. Waiting too much before the RMB is included in the basket (because it is not yet freely usable) would incur the risk of a significant discontinuity in the SDR behavior when the inclusion is eventually decided. The principle of a stable composition also argues against a wide broadening of the basket since including smaller

2. See A. Bénassy-Quéré & J. Pisani-Ferry (2011), "The long march towards a multi-polar monetary regime", *La lettre du CEPII*, No 308, February.

Box 1 – Simulation Method

Our counterfactual inclusion of the renminbi in the SDR relies on the method of the International Monetary Fund (IMF, 2010). The weight $w_{i,T}$ of each currency i , fixed for each five-year period T (the current period spanning from 1 January 2011 to 31 December 2015) is a function of foreign exchange reserves denominated in this currency $R_{i,T}$, and country (or currency area) i 's exports $X_{i,T}$, averaged over the five years preceding the revision of the basket. Denoting by R_T and X_T the value of reserves and exports, respectively, at the global level, we have:

$$w_{i,T} = \frac{R_T}{R_T + X_T} \frac{R_{i,T}}{R_T} + \frac{X_T}{X_T + R_T} \frac{X_{i,T}}{X_T}$$

For past periods, the weights $w_{i,T}$ can be recovered based on IMF data, although some gaps may appear with official weights due in particular to rounding rules. As for projections, we assume constant weighting of exports and reserves in the above formula (hence constant $R_T / (R_T + X_T)$). Future weights of each country in total exports are based on long-run projections from the MIRAGE model. Two extreme scenarios are successively considered for the structure of foreign-exchange reserves: the conservative scenario assumes a constant currency-composition of global reserves, equal to that observed in 2010 (which implies a negligible share of the RMB at the 2050 horizon); in turn, the multipolar scenario assumes that the currency-distribution of official reserves is gradually aligned with the distribution of GDPs. In the conservative scenario, the RMB would become the second currency in the SDR basket in 2050 (see Table 1); it would become first one in the multipolar scenario.

The impact of RMB inclusion on the volatility of the SDR is then calculated under the conservative scenario. Two alternative hypotheses are considered: a pegged Chinese currency, or a floating RMB (whose volatility characteristics in terms of variance and covariance are approximated by the one of the others basket currencies).*

* The methodology is detailed in A. Benassy-Quéré & D. Capelle (2011), "On the inclusion of the renminbi in the SDR basket", *CEPII Working Paper*, No 2011-19, July.

countries would encounter the risk of having to revise the composition of the basket regularly to account for changes in country rankings.

The impact of RMB inclusion on the volatility of the basket value will crucially depend on the Chinese exchange rate regime: assuming the RMB is pegged to the dollar, the volatility of the basket vis-à-vis the euro or pound would

rise significantly over the next decades, whereas the SDR would be stabilized against the US dollar, the renminbi and a number of third currencies (Figure 1). In contrast, a flexible exchange rate regime would dramatically limit the impact of RMB inclusion, assuming that a floating RMB behaves similarly as existing floating currencies in terms of variance and covariance (Figure 2).

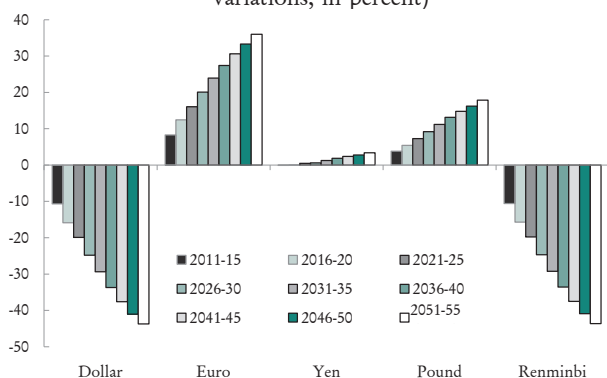
Similarly, including the renminbi in the basket while it is significantly under-valued would weaken the value of the SDR. These results are strong arguments in favor of postponing RMB inclusion until it is made more flexible and has adjusted somewhat towards equilibrium. However, waiting too much would introduce a discontinuity in the composition and thus in the behavior of the SDR. Furthermore, the inclusion of the RMB in the SDR would counterbalance a depreciating trend of the SDR in real effective terms in relation with the Balassa-Samuelson effect and the cumulated US deficits, as the US dollar represents 42 percent of the basket. Indeed, China is likely to experience strong real exchange-rate appreciation in the future in line with productivity catch up and/or current-account adjustment. This feature could raise the attractiveness of the SDR as a store of value, in particular for emerging economies outside the basket. Additionally, the impact of RMB inclusion on the SDR interest rate should be limited.

Table 1 – Composition of the SDR per year of review,* with and without RMB, in percent

		2000	2010	2020	2030	2040	2050
USD	Without RMB	45.0	41.9	41.5	41.1	41,0	40.7
	With RMB	44.0	37.6	37.9	36.7	35.7	35,0
EUR	Without RMB	29.0	37.4	38.1	37.9	37.5	37.3
	With RMB	28.0	33.4	30.9	27.8	25.1	23.3
GBP	Without RMB	11.0	11.3	10.4	10.3	10.2	10.2
	With RMB	10.0	10.1	8.3	7.3	6.5	6,0
JPY	Without RMB	15.0	9.4	10,0	10.7	11.3	11.7
	With RMB	14.0	8.4	7.5	6.9	6.3	5.8
CHN	Without RMB	-	-	-	-	-	-
	With RMB	4.0	10.5	15.5	21.3	26.4	29.9

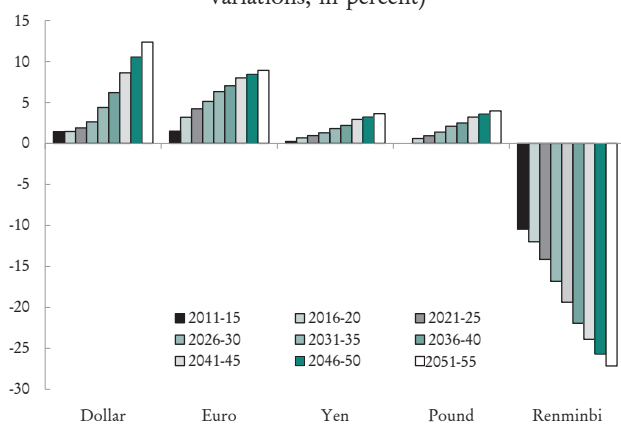
* Weights apply for five years starting the year following the year of the review. Source: IMF and authors' calculations.

Figure 1 – Impact of RMB inclusion on the volatility of the SDR – RMB pegged to the US dollar (change in standard deviation of monthly exchange-rate variations, in percent)



Source: Authors' calculations.

Figure 2 – Impact of RMB inclusion on the volatility of the SDR – floating RMB (change in standard deviation of monthly exchange-rate variations, in percent)



Source: Authors' calculations.

Conclusion

During the G20 conference on the international monetary system in Nanjing in March 2011, the US Treasury Secretary Timothy Geithner raised agitation by posing a more flexible exchange rate as a pre-condition for the inclusion of a new currency in the SDR basket. The US administration seemed to have found a new lever to accelerate the adoption of a flexible exchange-rate regime in China. The above analysis suggests that the flexibilization of its exchange rate may actually be more important for enhancing the attractiveness of the SDRs as a unit of account and a store of value, than its “free usability”, although it is difficult to consider the inclusion of a currency that lacks a liquid market. To the extent that it would no longer be pegged to the dollar, the renminbi could reduce the volatility of the SDR and counterbalance a possible downward trend of the value of the basket over time. The inclusion of the renminbi would also be consistent with the emergence of China as the first exporter of goods and it could contribute to a more harmonious development of its role in the international monetary system.

Agnès Bénassy-Quéré & Damien Capelle
beatrice.postec@cepii.fr

LA LETTRE DU CEPII

© CEPII, PARIS, 2011
EDITORIAL OFFICES
Centre d'études prospectives
et d'informations internationales
113, rue de Grenelle
75700 Paris SP 07
Tél. : 33 (0)1 53 68 55 14
Fax : 33 (0)1 53 68 55 03

PUBLISHER:
Agnès Bénassy-Quéré
Director of CEPII

CHIEF EDITOR:
Gunther Capelle-Blancard

DTP:
Laure Boivin

DIFFUSION:
DILA
Direction de l'information
légal et administrative

SUBSCRIPTION only to the original,
French version (11 issues per year)
France 60 € VAT
Europe 62 € VAT
DOM-TOM (NET, econ. air mail)
60,80 € NET
Other countries (NET, econ. air mail)
61,90 € HT

Please send your orders to:
**Direction de l'information légale et
administrative (DILA)**
23, rue d'Estrées - 75345 Paris cedex 07
commande@ladocumentationfrancaise.fr
tél. : 33 (0) 01 40 15 70 01

WEB site: www.cepii.fr
ISSN 0243-1947
CCP n° 1462 AD

23 September 2011
Imp. Centre d'analyse stratégique
Printed in France

*The CEPII is entirely responsible for the
Lettre du CEPII and its on-line, English
translation. The opinions expressed are
those of the authors.*