

SNB Policy Paper: Swiss franc bond market – smooth sailing through the financial crisis

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Developments in bond markets are of considerable interest to central banks. The reasons why central banks monitor bond markets in domestic currency are manifold. First, certain central banks, such as the Swiss National Bank (SNB), conduct monetary policy by steering the level of the interest rate in the money market.¹ The interest rate in question, the three-month Libor, is a reference rate in the interbank market and acts as a benchmark rate for the broader capital market. It is equally important for both the bond and swap markets. Developments in the bond market are thus important in the transmission mechanism for monetary policy, and provide valuable information for economic and monetary policy analysis. A second reason is that, in Switzerland, as in many other countries, the central bank acts as the government's banker.² As such, it processes payments on behalf of the Confederation, issues money market debt register claims and bonds, handles the safekeeping of securities and carries out money market and foreign exchange transactions. Third, as it holds a significant amount of Swiss franc bonds, the SNB has a direct interest in movements in the Swiss franc bond market. Fourth, bonds denominated in Swiss francs are important for the SNB's eligible collateral for repo transactions. Finally, domestic bond markets can play an important role in measures taken to deal with financial crises. As part of the extraordinary measures taken during the recent cri-

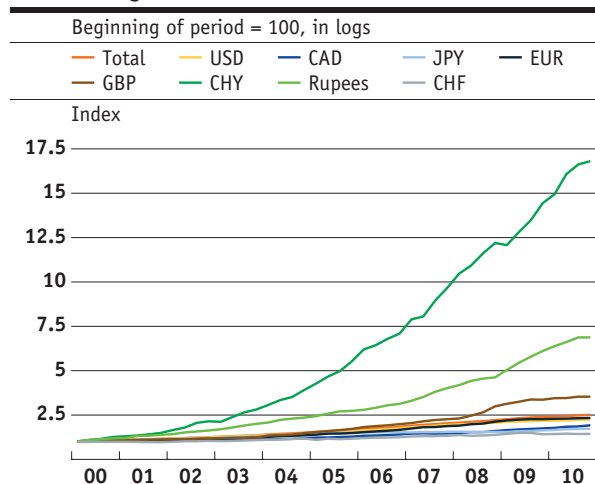
sis, the SNB purchased Swiss franc bonds issued by private sector borrowers, with the goal of preventing a credit crunch in Switzerland. Thus, overall, the domestic bond market constitutes a vital component of the Swiss financial system. More generally, it is a key element of the Swiss economy, as in all industrialised countries.

In its examination of the Swiss franc bond market, this report is structured in two parts. The first provides an overview of the main characteristics of the Swiss franc bond market, while the second reviews market developments, particularly those which occurred before and after the financial crisis. The findings show that this market did not experience a bond market closure in the late 2000s, and foreigners did not alter their demand by significantly increasing their issuance activity in Swiss francs. Similarly, central banks around the world have not appreciably changed their holdings of Swiss franc assets.

1 Characteristics of the Swiss franc bond market

The Swiss franc bond market has three main features. First, in an international context, the growth of the Swiss franc bond market is relatively slow. A second feature is that the private, non-public debt market overwhelmingly dominates the pub-

Chart 1
Outstanding bonds in local currencies

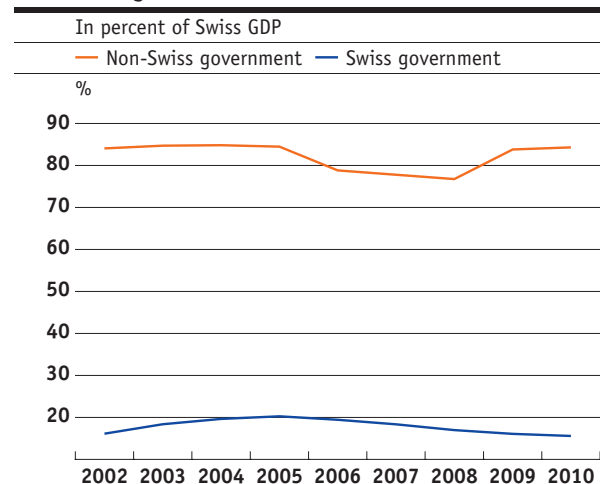


Source: Bank for International Settlements (BIS)

1 Owing to the massive overvaluation of the Swiss franc, on 6 September 2011 the SNB set a minimum exchange rate of CHF 1.20 per euro.

2 According to art. 5 para. 4 and art. 11 of the National Bank Act (NBA), the SNB is required to provide banking services to the Swiss Confederation.

Chart 2
Outstanding CHF bonds



Sources: SIX Swiss Exchange Ltd, SNB

lic debt market. This stands out when comparing the Swiss market with those of other industrialised nations. Third, the specific structure of the Swiss franc bond market shows that the market for foreign issuers is larger than that for domestic, Swiss-based borrowers.

a) Slow growth compared to international bond markets

The growth of the Swiss franc bond market has been comparatively sluggish, one of the slowest internationally, attaining only subdued levels over the past decade.³ With the worldwide volume of bonds outstanding continuously experiencing robust growth, bond market growth is particularly strong in certain emerging economies, such as China or India. In contrast, the Swiss franc bond market has experienced one of the slowest growth rates internationally (cf. chart 1).⁴

b) Dominance of private debt capital market

Total market capitalisation of the Swiss franc bond market reached a level of more than CHF 570 billion by end-2010. This currently constitutes about 115% of Swiss GDP, corresponding to the average size of an advanced economy's bond market.⁵ In contrast to other advanced countries, however, the Swiss private debt market is significantly larger than its public counterpart. Over the past

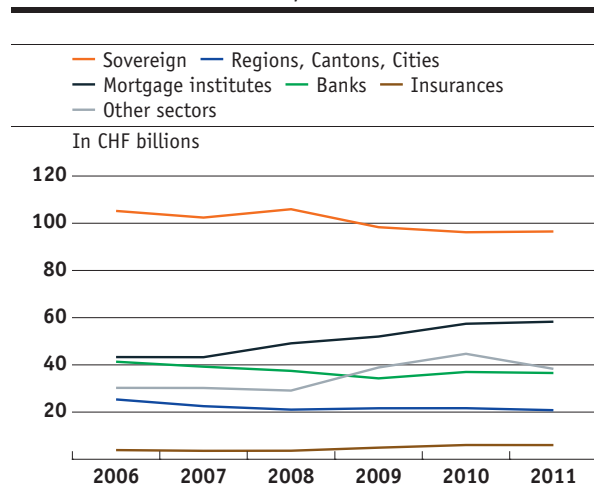
five years, the volume of outstanding Swiss government bonds has been steadily decreasing relative to the size of the economy. This reflects the sound fiscal policy pursued by Swiss federal and local government authorities over an extended period of time.

c) Specific structure of Swiss franc bond market: market for foreign issuers is larger

Foreign issuers hold a larger share of the Swiss franc bond market than domestic ones. While, to a large extent, most countries' bond markets consist of domestic debt securities, on the Swiss franc market, the situation is different.⁶ Here, a greater share of bonds is issued by foreign – as opposed to domestic – issuers.⁷ In terms of overall volume, the market capitalisation of foreign issuers is also larger than that of domestic issuers, and this has been the case for several years.⁸ For domestic borrowers, the market capitalisation of public issuers (Confederation, cantons and cities) has steadily declined.

In Switzerland, *Pfandbriefe*, which are similar to covered bonds in other countries, represent a key segment of the Swiss franc domestic bond market, serving as a cost-efficient instrument with which banks can raise long-term funding. *Pfandbriefe* are standardised fixed-rate debt securities, and collateralised by domestic mortgages. Currently, they represent around one fifth of outstanding debt securities in Switzerland.⁹

Chart 3
Domestic issuer market capitalisation

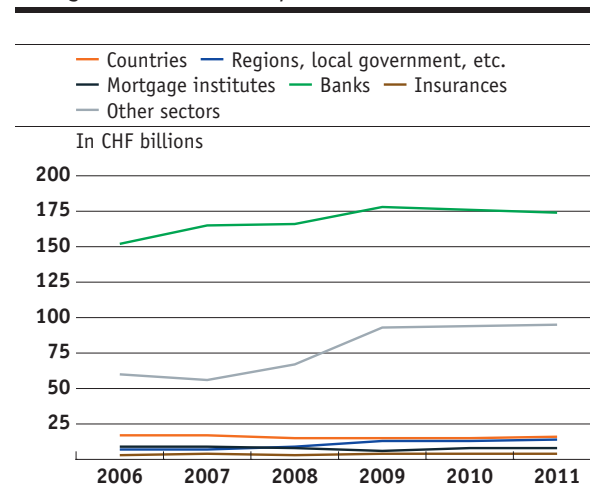


Source: SIX Swiss Exchange Ltd

3 Note that, from a historical point of view, there is no Eurobond market in Swiss francs of a significant size. One main reason for this, as suggested by Christensen (1986), is that the SNB discouraged the emergence of a Eurobond market in Swiss francs. Cf. B. V. Christensen (1986), *Switzerland's Role as an International Financial Center*, IMF Occasional Paper No. 45 (International Monetary Fund, Washington, DC, 1986), p. 40.

4 Chart 1 shows the nominal growth of outstanding bonds in local currencies. The real growth of these markets shows a similar picture.

Chart 4
Foreign issuer market capitalisation



Source: SIX Swiss Exchange Ltd

5 For an international comparison, cf. G. DeBelle, The Australian bond market in 2011 and beyond, the Kanga News Australian DCM Summit, Sydney, 15 March 2011.

6 In many advanced as well as emerging economies, the size of the domestic bond market far outweighs that of the foreign market. An exception to this is the sterling market, where, much like the Swiss franc market, the foreign market dominates.

7 More precisely, the share of the Swiss franc in the international bond market currently stands at above 1%, while the share in domestic bonds reaches a meagre share of only 0.4% in global outstanding debt obligations.

As for the foreign sector, after an increase in 2008/2009, market capitalisation of foreign banking entities has remained steady. The market capitalisation of other sectors, including non-financial corporations, increased markedly at the height of the financial and economic crisis in 2008 and 2009.

This section has reviewed some of the main characteristics of the Swiss franc bond market. They include slow growth compared to international bond markets, the domination of the public debt market by the private debt market and the larger share of foreign issuers than domestic ones. Furthermore, the majority of Swiss franc bonds are traded on the SIX Swiss Exchange, while in other countries, most trades are conducted as over-the-counter deals. The Swiss franc bond market is also characterised by the above-average underlying credit quality of its issuers.

2 The Swiss franc bond market and the financial crisis

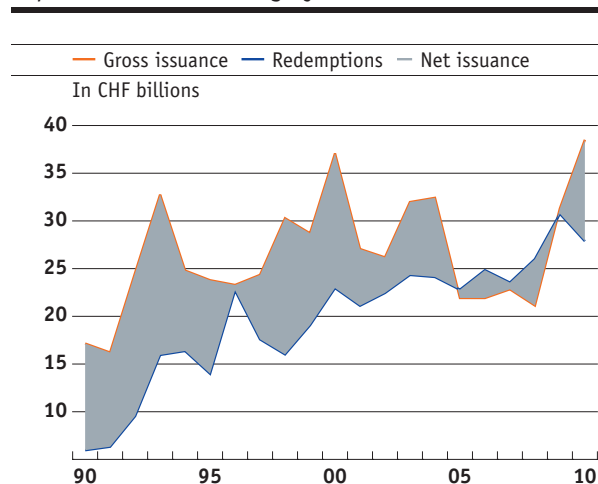
The recent financial crisis has not led to major changes in the Swiss franc primary capital market. In 2010, no major changes were recorded in overall Swiss franc bond issues compared to previous years. However, some striking differences can be observed when capital market borrowing by domestic issuers of Swiss franc bonds is compared to that of foreign

issuers. On the one hand, issuance by domestic borrowers did not collapse during the recent financial crisis, indicating that no bond market closure occurred in Switzerland (cf. section a). On the other hand, there were no portfolio shifts by foreign issuers into this market either, as illustrated by the negative level of net issuances by foreigners in 2010. Thus, foreign financial flows into this market – possibly inducing higher foreign demand for the Swiss franc – did not occur (cf. section b below). Finally, there was no increased demand for Swiss franc bonds by international reserve managers.

a) No bond market closure in Switzerland

Capital market borrowing by domestic issuers in Switzerland was buoyant in 2010. Banking sector issuances increased markedly, causing issuance volumes to more than triple. This occurred after levels had been depressed subsequent to the outbreak of the global financial crisis in 2007. By contrast, industrial firms decreased their issuing activity in 2010. However, this followed a very active year in 2009. Despite the worst economic downturn in decades, industrial firms' issuances were buoyant in 2009, showing that companies were in a position to tap the Swiss domestic bond market on a continuous basis. More generally, however, capital market tapping by domestic industrial firms represents a limited proportion of this market, overall, reflecting the fact that the country's corporate sector

Chart 5
Capital market borrowing by domestic issuers¹⁰



Source: SNB

8 Swiss domestic market capitalisation attained a level of more than CHF 260 billion by end-2010, while foreign issuers' market capitalisation totalled CHF 310 billion.

9 In Switzerland, two institutions are authorised to issue *Pfandbriefe*. Overall, the Swiss *Pfandbrief* market is characterised by comparatively strict legislation.

10 SNB Bills are not included in chart 5.

does not rely heavily on bond financing (cf. table 1). Much higher levels of primary market issuances via covered bonds (the Swiss *Pfandbriefe*) are noticeable since 2007. These represent a relatively inexpensive way of refinancing for the banking sector, whose comparatively high levels of activity in this period correspond to the increasing total mortgage amounts in Switzerland. The Confederation has continued to maintain negative net overall issuance in recent years, thus further reducing the levels of outstanding debt in Switzerland. This is in line with a further decline in the debt ratio for the entire state sector and the lowering of Swiss public debt levels. Overall, issuances by domestic borrowers reached CHF 38 billion in 2010, roughly 50% above the levels during the crisis period of 2007–2009 and about one-third above pre-crisis averages. Note that there is a negative relationship, in empirical terms, between the issuance volumes of domestic borrowers and economic activity in Switzerland. This indicates that, during recent economic downturns, Swiss domestic borrowers have increasingly been tapping the capital market for their financing needs, thereby taking advantage of a favourable interest rate environment.

The Confederation's low rate of issuance activity, which has reached negative net issuance levels in recent years, is due to the healthy state of Swiss public finances. In particular, the fiscal rule at the federal level (the 'debt brake'), which was first applied in the budget of 2003, has helped to modify the budget process in a way that is compatible with the principles of debt stabilisation.¹²

While Switzerland experienced a steep rise in its debt ratio during the 1990s, this expansion of federal debt was halted in the early 2000s and its debt ratios were significantly reduced thereafter. The Swiss Confederation's healthy finances helped ensure that levels of net issuance activity remained close to zero, or negative, which has been the case since the mid-2000s in Switzerland. As a result, the Swiss public debt-to-GDP ratio has been declining and stands at comparably low levels.

Since 2008, SNB Bills, which are interest-bearing debt certificates with maturities of up to one year, have been used to absorb liquidity, as part of the SNB's open market operations (cf. chart 7).¹³ The issuance of the SNB's debt obligations since October 2008 has not led to a crowding out of other debt instruments by the Swiss government, as

Issuance activity by domestic issuers of CHF bonds¹¹
In CHF millions

Table 1

	Averages p.a.		
	2000–2006	2007–2009	2010
Confederation			
Gross issuance	11 518	3 471	4 682
Net issuance	7 532	–3 330	–4 221
Mortgage bond institutions			
Gross issuance	5 076	8 075	11 449
Net issuance	818	2 096	5 417
Industry			
Gross issuance	1 028	3 128	1 831
Net issuance	28	1 398	1 072
Banks			
Gross issuance	4 737	3 993	9 392
Net issuance	–1 708	–2 638	2 929
Others			
Gross issuance	7 137	6 429	11 156
Net issuance	–1 659	809	5 436

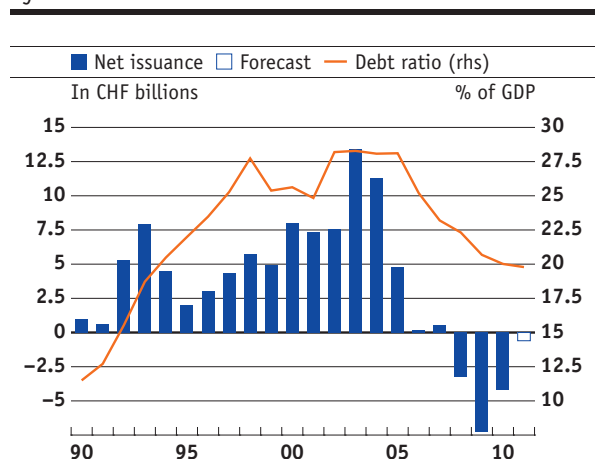
Source: SNB

11 SNB Bills are not included in table 1.

12 The debt brake rule requires budgetary surpluses while the economy is booming, largely removing the need for substantial adjustments during a consecutive downturn and mitigating the problem of pro-cyclical policy. The rule is also sufficiently flexible to handle exceptional situations. It has modified incentives within the budget process towards a better implementation of deficit and debt objectives.

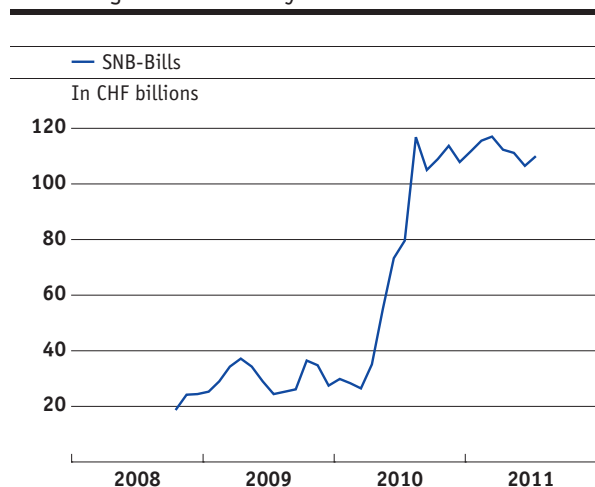
13 SNB Bills may be issued publicly by auction or through private placement. They are included in the list of collateral eligible for SNB repos and may thus be used in SNB repo transactions. The first SNB Bills auction was held in October 2008.

Chart 6
Net issuance activity and debt ratio
by the Confederation



Source: The Federal Finance Administration (FFA), SNB

Chart 7
Debt obligations issued by the SNB



Source: SNB

Capital market borrowing by foreign issuers of CHF bonds
In CHF millions

Table 2

	Averages p.a. 2000-2006	2007-2009	2010
European Union			
Gross issuance	28 898	39 624	35 028
Net issuance	10 022	15 981	3 718
US, Canada			
Gross issuance	7 137	10 396	2 743
Net issuance	1 754	2 913	-5 161
Others			
Gross issuance	9 888	10 869	8 405
Net issuance	1 137	1 860	1 406

Source: SNB

14 For a more detailed analysis of Swiss Treasury auctions for Confederation bonds, cf. "Swiss government bonds: Thirty years' experience with uniform-price auctions", by A. Ranaldo and E. Rossi, mimeo.

there has been no significant decrease in demand for Confederation-issued debt obligations or for the Confederation's money market debt registers claims.¹⁴ Starting in August 2011, the SNB – as a measure to expand significantly the supply of liquidity to the Swiss franc money market – repurchased outstanding SNB Bills.

b) No portfolio shifts by foreigners into the Swiss franc bond market

Patterns of capital market borrowing by foreign issuers paint a different picture when compared to domestic borrowers. While, in 2009, international issuances reached record highs, 2010 saw a significant drop in foreign borrowing, with a marked decrease in both gross and net issuances. For international issuers, the Swiss franc bond market is an integral component of their global funding strategy. In part, foreign issuers are attracted to the market because it offers a low interest rate environment. In addition, the Swiss franc bond market provides the opportunity to diversify and strengthen their investor base by opening up a market in a country well known for its political and economic stability. This notwithstanding, many foreign issuers have no direct currency exposure to the Swiss franc and swap their Swiss francs into their domestic currencies. In 2010, foreigners were generally less active on this market because of a sharp decrease in net issuances of borrowers from

the European Union and North America. One possible explanation for this is the relatively high hedging costs of Swiss franc exposure. Overall, total issuance volumes by foreign borrowers amounted to CHF 46 billion in 2010, roughly 20% less than during the crisis period of 2007–2009, corresponding to pre-crisis levels.

c) No increased demand for Swiss franc assets by international reserve managers

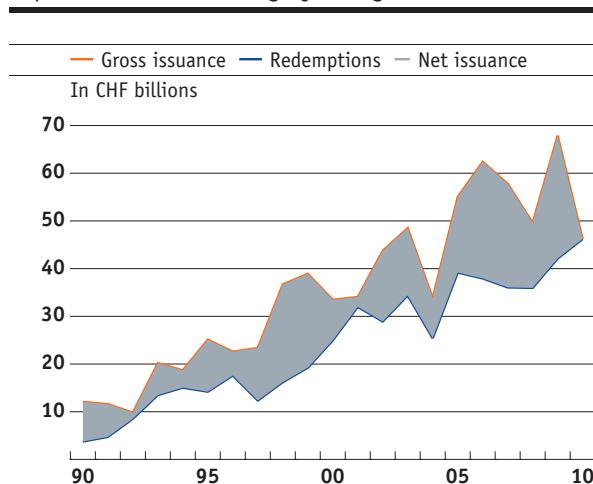
The previous two sections outlined the behaviour of borrowers in the Swiss franc bond market. In this section, the focus is on the demand for Swiss franc assets by international reserve managers. In this examination, the available data has shown that the share of Swiss franc bonds in international reserves has not increased. Most of international reserve managers continue to hold only limited reserve assets in Swiss currency. While the Swiss franc is among the ten most traded currencies in the world,¹⁵ official foreign exchange holdings in Swiss francs continue to be fairly negligible. The currency composition of global reserves shows that claims in Swiss francs represent a mere 0.10% of global reserves, which currently corresponds to a nominal value of around CHF 9 billion. Total reserve holdings continue to be largely dominated by US dollars, whereas the euro has been able to expand its relative position in recent years. Globally, official foreign exchange reserves continue to

grow at a significant rate, surpassing the USD 9 trillion level at the end of 2010. This is a continuation of a recent trend towards the accumulation of foreign exchange reserves by emerging and developing economies, levels of which surpassed the USD 6 trillion mark by end-2010. As a result, the reserves held by these economies collectively amount to twice the level of those held by their counterparts in the advanced economies.

Conclusion

The Swiss franc bond market fared well during the financial crisis. Between 2008 and 2009, this market, which is average in size when compared to those of other industrialised economies, experienced neither a temporary closure, nor a dearth of capital market borrowing by foreign issuers. Foreign central banks also do not seem to have altered their investment strategy with respect to Swiss franc assets, keeping a continued low share of reserves in Swiss francs. In conclusion, taking a general view of recent developments in the bond market, it is clear that the Swiss franc bond market has maintained its reputation of stability, enabling it to sail through the recent crisis with comparative ease.

Chart 8
Capital market borrowing by foreign issuers

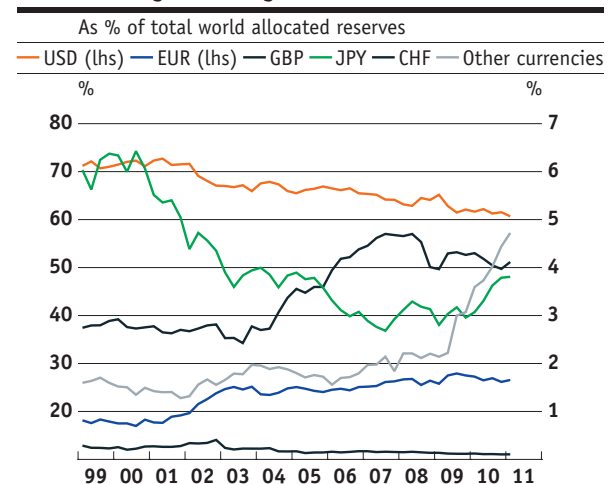


Source: SNB

15 Cf. Bank for International Settlements (BIS), *Triennial Central Bank Survey Foreign exchange and derivatives market activity*, April 2010.

16 Source: IMF Statistics Department COFER database and International Financial Statistics. COFER is an IMF database that keeps end-of-period quarterly data on the currency composition of official foreign exchange reserves. The currencies identified in COFER include the US dollar, euro, pound sterling, Japanese yen, Swiss

Chart 9
Official foreign exchange reserves¹⁶



Sources: International Monetary Fund (IMF), SNB

franc and other currencies. Foreign exchange reserves in COFER consist of the monetary authorities' claims on non-residents in the form of foreign banknotes, bank deposits, treasury bills, short and long-term government securities and other claims usable in the event of balance of payments needs. COFER data are reported on a voluntary basis. At present, there are 139 reporters, consisting of member countries of the IMF, non-member countries/economies and other foreign exchange reserves holding entities.