

The new agreement on the distribution of SNB profits: some implications

Preliminary version. Comments and suggestions are welcome.

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Most recent version on: github.com/dankaufmann/snb_profits

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This note provides historical simulations of the distribution of SNB profits to the Confederation and Cantons under the new agreement between the Swiss National Bank and the Federal Department of Finance. The findings suggest:

- The average profit distribution will likely increase in the coming years.
- Annual fluctuations of profit distributions will likely increase which may hamper budgetary planning.
- Profit distributions will likely be lower (higher) during economic recessions (booms).
- Although the SNB's profit distributions take center stage in public discussions, its share in total government expenditures is relatively modest.
- Because Cantons have less favorable access to capital markets than the Confederation, and because SNB profits play a larger role in financing Cantonal expenditures, annual fluctuations of profit distributions may hamper their budgetary planning more.

Introduction

On 29 January the Swiss National Bank (SNB) and the Federal Department of Finance (FDF) announced a new agreement on the how the SNB distributes its profits to the Confederation and Cantons (see FDF, 2021). According to Art. 31 of the National Bank Act (NBA), 1/3 the total net profit (after distribution of a dividend to stock holders) accrues to the Confederation and 2/3 to Cantons (see NBA, 2020). However, the SNB and the FDF must set up rules with the aim of avoiding excessive annual fluctuations.¹ Indeed, strong

¹ NBA (2020) Art. 31. al. 2: “*The Department and the National Bank shall, for a specified period of time, agree on the amount of the annual profit distribution with the aim of smoothing these distributions in the medium term. The cantons shall be informed in advance.*”

fluctuations of these distributions may hamper governments' budgetary planning. In practice, the SNB and the FDF fix the distribution rules for a five-year period.

Brunetti and Föllmi (2021) explain thoroughly how and why the SNB can distribute profits. In addition, they favour a rules-based distribution scheme, such as the one laid out in the new agreement between SNB and FDF, because it reduces political pressure on the SNB to generate profits. Little is known, however, how the new agreement affects the annual distributions and whether it indeed smooths these distributions. In addition, although the SNB's profit distributions feature prominently in the media, we rarely discuss how important the SNB's profits are for financing government expenditures.

Therefore, this article analyses the implications of the new agreement. I apply the new agreement to the SNB's performance over the past 15 years to show how it would have affected profit distributions in the past. I then discuss to what extent these insights are relevant going forward.

Key balance sheet items

For understanding the size and timing of the distributions the balance sheet item *distributable profits* plays a key role.² Distributable profits comprise SNB's annual profit/loss and the *distribution reserve*.³ The annual profit depends on the performance of the SNB's assets (changes in the value of stocks, bonds, gold, mostly denominated in foreign currency) and on its monetary policy operations (e.g. asset purchases or sales that increase or lower the monetary base, and/or charging or paying interest on SNB liabilities). The distribution reserve serves to smooth profit distributions over time. If the SNB makes a large profit, it attributes the part that exceeds the agreement with the FDF to the distribution reserve for future distributions. Meanwhile, if the SNB makes a loss, but the distribution reserve is large enough according to the agreement with the FDF, it may still distribute a profit.

The new agreement

The new agreement implies that the SNB can distribute 2 bio., if distributable profits amount to at least 2 bio. (in other words, if the SNB does not make a net loss after distributing the profits). This part resembles previous agreements. The new agreement adds that the SNB distributes 3, 4, 5, or even 6 bio., if distributable profits reach 10, 20, 30, or 40 bio., respectively.

Because the four additional thresholds allow higher distributions, the SNB will distribute more profits on average (more precisely, it will not distribute less than under the old agreement). If distributable profits change over time, however, the various thresholds imply larger annual fluctuations in profit distributions, which may hamper budgetary planning.

To support these two arguments, I apply the new agreement to the evolution of distributable profits in the past. In this exercise I assume that the amount distributed does not impact the

² See also SNB (2021) for a useful Q&A on the distribution of profits.

³ The distributable profit (loss) is the remainder after the SNB attributes a certain part of its revenues to the *provisions for currency reserves*. This balance sheet item serves to bolster the capital of the SNB. Therefore, even if the SNB makes a net profit, the distributable profit may actually be negative (net loss). See also Canetg (2021).

performance of the SNBs portfolio.⁴ Under this assumption, we can calculate a hypothetical path of the distribution reserve by adding the actual past distributions and subtracting the distributions implied by the new agreement.

Figure 1: Distribution reserve and distributable profits

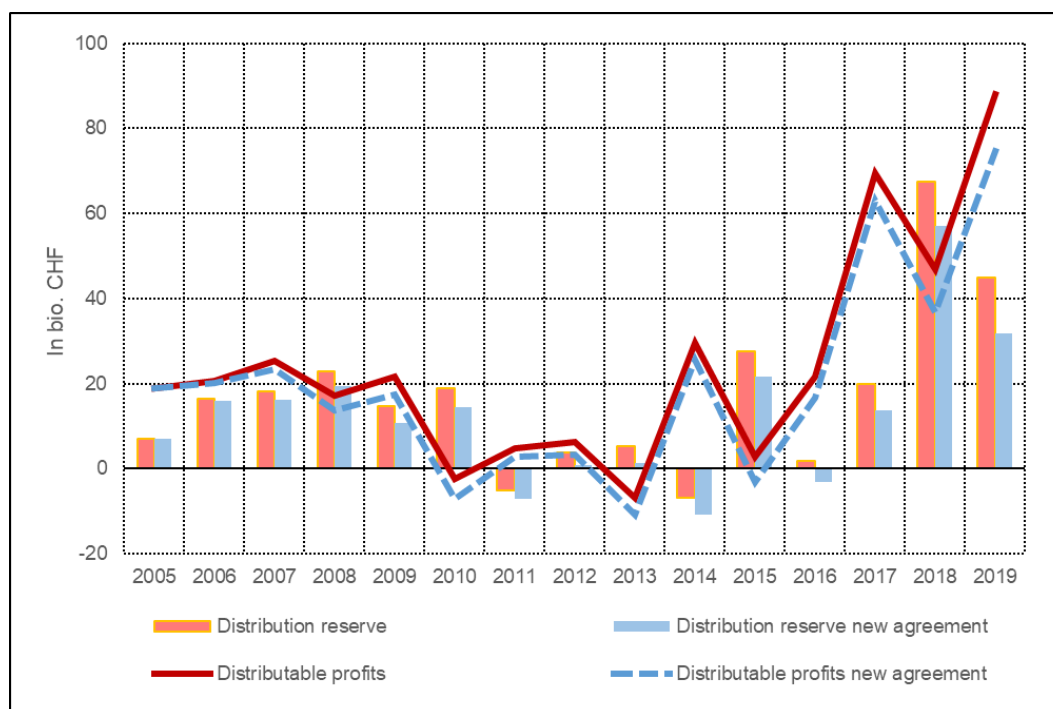


Figure 1 shows the actual distributable profits and the distribution reserve from 2005-2019 (in red). In addition, it shows the evolution under the new agreement (in blue). Two observations are in order. First, the distributable profits fluctuate more strongly than the distribution reserve, in particular, in the wake of the financial and euro area debt crisis. This is a consequence of the increase in the SNBs balance sheet and fluctuations in the value of the Swiss franc that lead to more volatile SNB profits. Second, the distribution reserve and distributable profits are always lower under the new agreement, which is a consequence of higher profit distributions.

Higher, but more volatile profit distributions

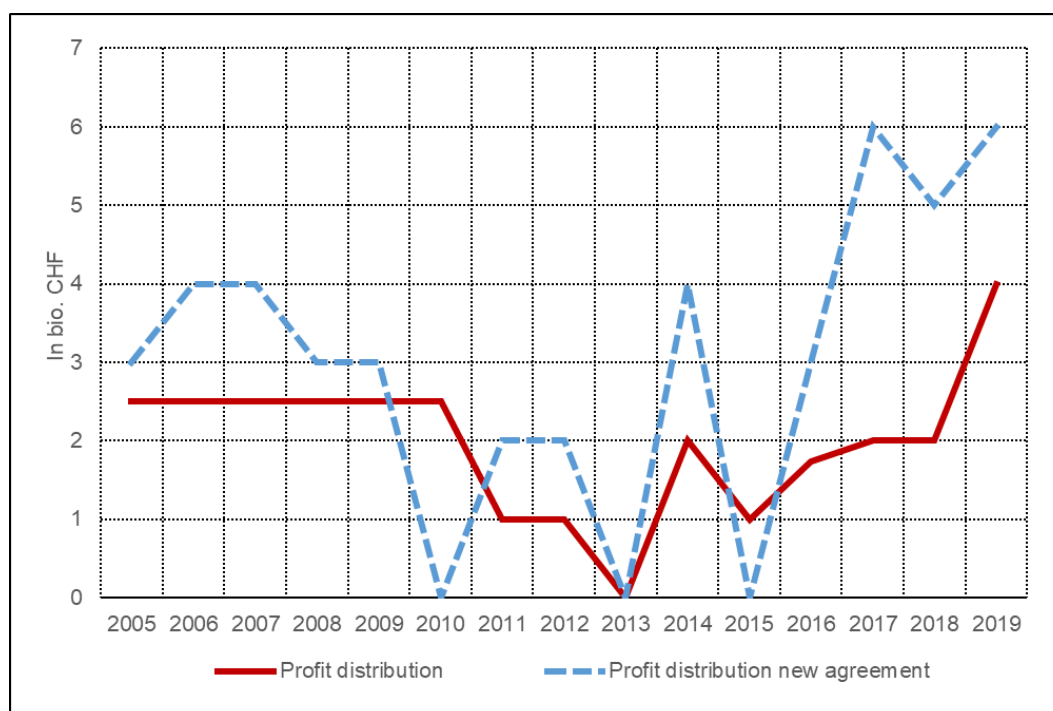
The previous section suggests that profit distributions are higher under the new agreement but, because distributable profit change over time, could lead to stronger fluctuations in profit distributions.

Indeed, Figure 2 shows that on average, the profit distributions are higher under the new agreement (blue dashed line). Under the old agreement, the SNB distributed 2 bio. on average per year. The new agreement leads to an average distribution of 3 bio. But, the new agreement leads to higher annual fluctuations. There were some years (2010, 2015) during which, and in contrast to the old agreements, the new agreement implies no distribution. Note that these years were characterised by a substantial strengthening of the Swiss franc.

⁴ This assumption may be violated, for example, if higher distributions lead to a more expansionary fiscal policy which impacts the monetary policy stance, the Swiss franc exchange rate, and/or the performance of domestic assets.

Therefore, distributable profits were probably too low to warrant a distribution because of book losses on foreign assets in terms of Swiss franc. Then, there are years where the new agreement distributes substantially more (e.g. 2011, 2014, 2017, 2018, 2019). Not surprisingly, perhaps, these were years with a relatively weak Swiss franc and good stock market performance.

Figure 2: Profit distribution

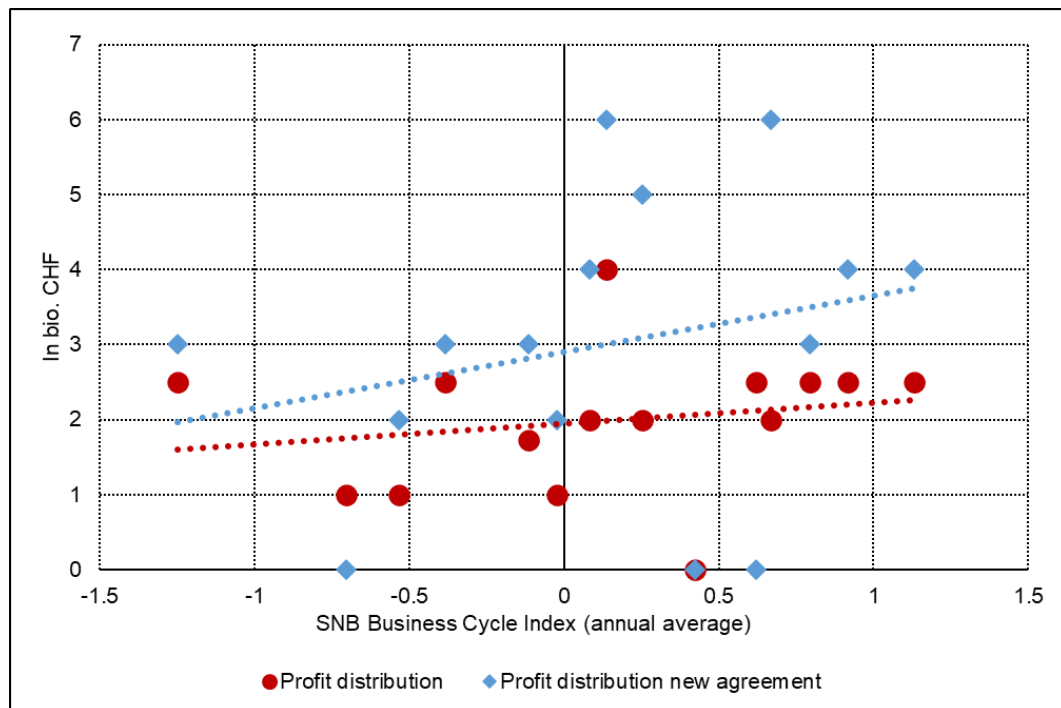


Distributions tend to be pro-cyclical

SNB profits depend to a substantial degree on the Swiss franc exchange rate (an appreciation implies book losses, a depreciation book gains on foreign assets), the performance on (foreign) stock exchanges and (foreign) bond markets. Because Switzerland is a small open economy, its real economic performance also depends to a relevant extent on foreign developments and on the strength of the Swiss franc. This implies that the distribution of SNB profits may be higher in an economic boom than in a recession. In other words, we may expect that the distribution of SNB profits tends to be pro-cyclical. If governments just spend what they earn, this may lead to a pro-cyclical fiscal policy and therefore make one of the SNB's task, supporting the economy when prices are falling in a recession, more challenging.

Figure 3 shows a scatter plot of the distribution of profits against the SNB's business cycle index, an indicator measuring the Swiss business cycle based on many economic series (see Galli, 2018). The actual profit distributions under the old agreements (red dots) are slightly pro-cyclical (the trend line has a positive slope; the correlation amounts to 0.19). Under the new agreement, the distribution of profits becomes slightly more pro-cyclical (the slope is steeper; the correlation amounts to 0.25). Therefore, governments tend to receive more money when the economy is doing well, and less money if the economy is doing badly. This implies that governments receive less SNB money when their revenues already decline because of lower tax receipts during recessions.

Figure 3: Profit distribution and business cycle fluctuations

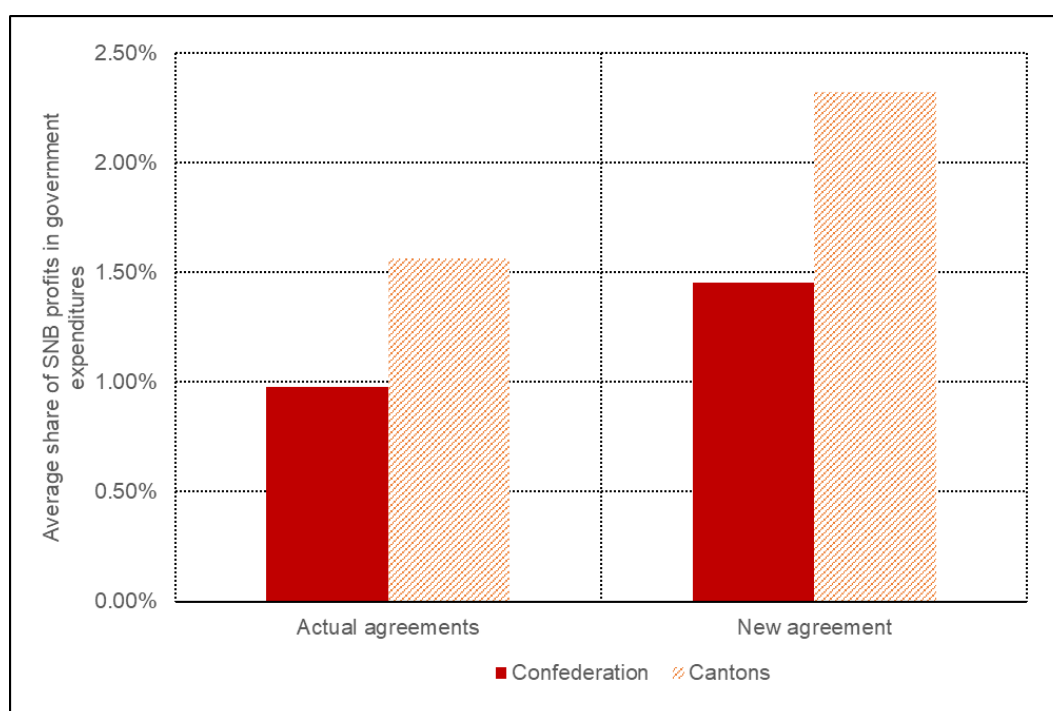


SNB profits more relevant for Cantons...

The pro-cyclicality of profit distribution may not matter much if they are a relatively unimportant source of financing government expenditures. Recall that Cantons receive 2/3 and the Confederation 1/3 of profits. This allows to compute how much of the profit distribution accrues to the different levels of governments. In addition, I obtained data on total annual expenditures at the Federal and Cantonal level from the Federal Finance Administration.

Figure 4 shows SNB profits as a share of total government expenditures, averaged over the period 2005-2018. We see that it is relatively low for both, the Confederation and Cantons. However, it is a slightly more important source of financing expenditures for Cantons. Because we ignore potential effects of higher distributions on government expenditures, this share increases mechanically under the new agreement.

Figure 4: Share of SNB profits in total government expenditures



...but governments may smooth expenditures on their own

It is far from evident that the timing of central bank profit distributions, and therefore the pro-cyclicality of government receipts, matters in practice (see Niepelt, 2020). Indeed, the assumption that governments only spend what they currently receive is not realistic in all cases. There are mechanisms that allow governments to spend more during recessions independent of their revenues. One example is the debt break of the Confederation that allows for higher deficits (and higher debt) during downturns and higher revenues (and lower debt) during economic booms.⁵ For such a mechanism to work, however, a government must be able to obtain funds on capital markets to smooth its expenditures. The Confederation can borrow at attractive interest rates. Therefore, the pro-cyclicality of SNB profit distributions is not much of an issue. However, some Cantons may not be willing (or able) to borrow more on capital markets to smooth volatile profit distributions, so that they must implement austerity programs during recessions (see, for example, Top Online, 2021). Therefore, the pro-cyclicality of profit distributions may be more of an issue for Cantons than for the Confederation.⁶

Keep an eye on the distribution reserve!

Can we extrapolate these historical simulations to the future? Not quite. The SNB's distribution reserve is currently much higher than in 2005. With a higher distribution reserve, distributions are higher if annual profits evolve similarly than in the past.

⁵ I would like to thank Reto Foellmi for pointing this out. Note, that the Swiss debt break tended to be non-neutral over long time periods, that is, Swiss government debt tended to decline before the Pandemic (see Expertengruppe Schuldenbremse, 2017)

⁶ By the same argument, pro-cyclicality of distributions is more of an issue when, as Brunetti and Föllmi (2021) suggest, SNB profits would be directly distributed to the Swiss population.

Figure 5: The impact of a higher distribution reserve

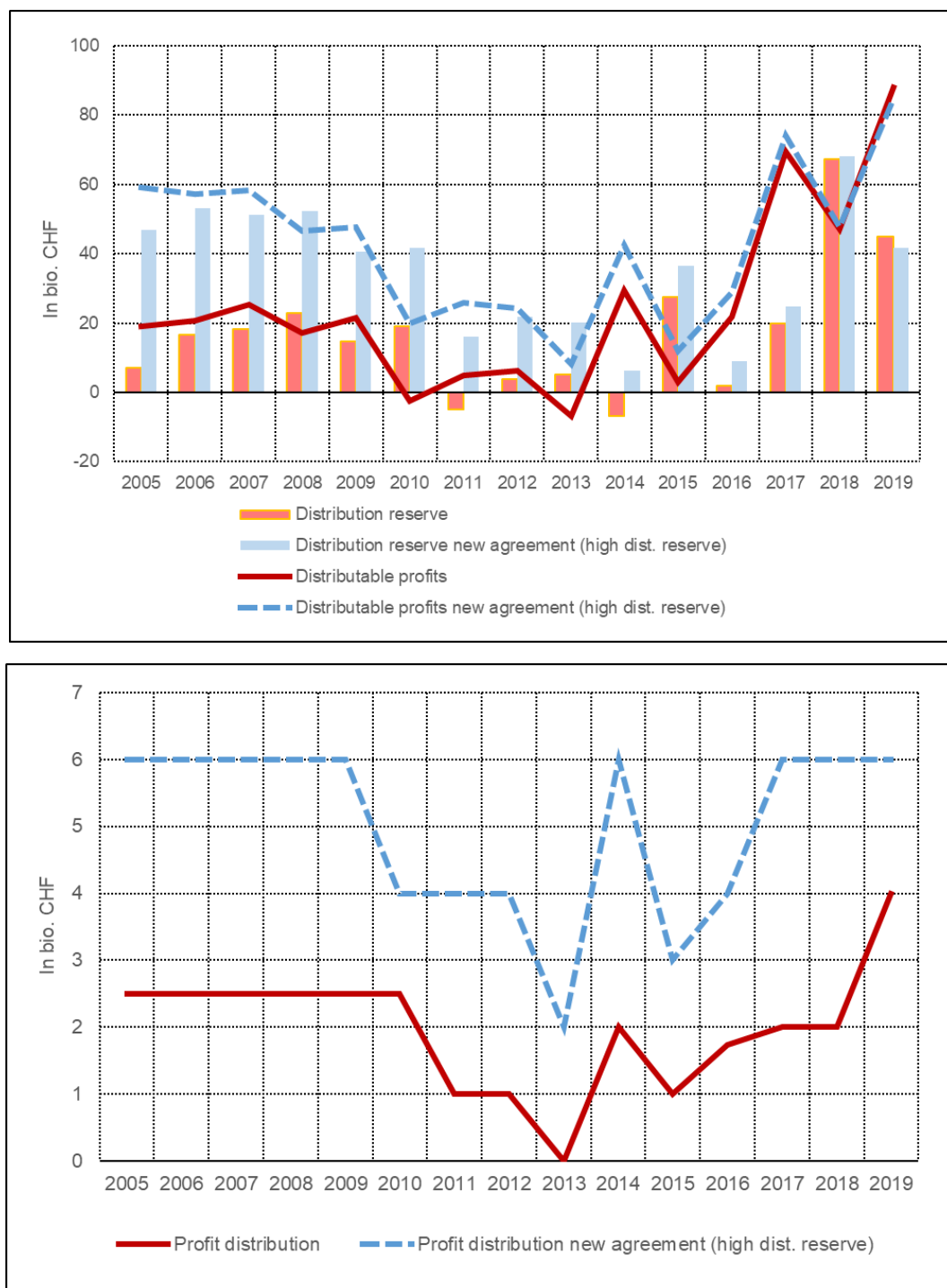


Figure 5 repeats the exercise assuming that the distribution reserve is 40 bio. higher in 2005, which amounts roughly to the same level as in 2019. First, the distribution reserve is much higher from 2005-2010, but then dwindles in the wake of the financial and euro area debt crisis (first panel). This implies that the average distribution becomes even higher (5 bio., second panel). The higher profit distributions are also the reason why the distribution reserve converges to the series under the old agreements.

Meanwhile, the fluctuations of profit distributions are somewhat smaller than with a small distribution reserve because more years yield the maximum distribution of 6 bio (see second panel). However, in the wake of the financial crisis, which was characterized by a strengthening of the Swiss franc and substantial price drops on stock exchanges, the distribution reserve dwindled such that the annual distributions start to fluctuate strongly from year to year.

This simulation therefore suggests that actual profit distributions will be even higher going forward, because the distribution reserve is currently quite large. However, it also illustrates that it can dwindle quickly for two reasons. First, a higher distribution reserve implies higher profit distributions so that it tends to decline more strongly under the new agreement. Second, if the Swiss franc strengthens and/or financial markets tank, which may reduce distributions, and lead to strong annual fluctuations, during difficult economic situations.

Conclusions

Governments should closely monitor the SNB's distribution reserve, for two reasons. First, if they decrease, profit distributions may decline and become more volatile. Second, a decline in distributable profits may coincide with lower tax revenues. Governments can offset these revenue fluctuations by borrowing on capital markets. Indeed, they should avoid reducing expenditures when SNB profit distributions decline because this may lead to a pro-cyclical fiscal policy that makes fulfilling the SNBs main task—ensuring price stability while taking into account the state of the economy—more difficult.

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