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On the Unilateral Introduction of Gold-backed Currencies

Against the backdrop of an unstable international monetary system centred around the US dollar and very dim prospects of reforming this system, this article analyses the rationale for the unilateral introduction of gold-backed currencies and the challenges and problems associated with such a move. What would be the merits of unilaterally linking a currency to gold? How could this be managed, and what would be the risks? We argue that such a system would not bring price stability, as the country would not be able to control the international gold price, and that it would likely be exposed to volatile exchange rates.

When US President Nixon unilaterally announced the end of the gold convertibility of the US dollar in 1971, he not only ushered in the end of the Bretton Woods system of fixed but adjustable exchange rates that had governed the global monetary system in the post-war era. He also brought an end to the global "quasi gold standard",[1] under which foreign central banks could exchange their dollar reserves into gold at an exchange rate of USD 35 per ounce of gold, the official gold price set by the US Treasury in 1934. By that time, most currencies other than the dollar were already fiat currencies, i.e. they were not redeemable in gold or any other physical commodity. The end of the dollar's gold convertibility and the global fixed exchange rate system around the dollar essentially severed the link between legal tender and gold.[2] It thus rendered the size of the monetary base entirely at the discretion of national central banks, in "absence of rigorous control over the quantity of money".[3] Over time, this has led to "a gigantic increase in credit, relative to gross domestic product".[4]

* This paper is based on a study commissioned by the World Gold Council.

1 R. Duncan: The Dollar Crisis – Causes, Consequences, Cures, Singapore 2003, John Wiley & Sons (Asia), p. 252.

2 As international relations scholar Susan Strange puts it, "To decide one August morning that dollars can no longer be converted into gold was a progression from exorbitant privilege to super-exorbitant privilege; the US government was exercising the unconstrained right to print money that others could not (save at unacceptable cost) refuse to accept in payment." Quoted in D.M. Andrews: Monetary Power and Monetary Statecraft, in: D.M. Andrews (ed.): International Monetary Power, Ithaca 2013, Cornell University Press, p. 25.

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While the dollar has remained the global key currency, dominating international trade and financial transactions and continuing to be the by far most important reserve currency, there has been growing concern with the destabilising role it has played in international financial markets. "The question", as Ferguson puts it,

> is whether such a system is simply too inflationary and generates too much credit around the world to be sustainable, particularly given the possibility that the [global key] currency – the dollar – could be unilaterally depreciated by the US government as a way of diminishing its external liabilities.[5]

The broadening of the US subprime crisis into a virulent global financial crisis in 2008 forcefully illustrated the problems associated with the current dollar-centred system, leading to calls for a reform of the global monetary system,[6] but without avail.

Unease with the current global monetary system (or non-system) has further grown over the past years, as the cen-

3 A. Fazio: The Relationships between Currencies and Gold, speech at the World Gold Council International Conference "The Euro, the Dollar and Gold", Rome, 17 November 2000, BIS Review 110/2000, p. 3.

4 M. Wolf: Could the World Go Back to the Gold Standard?, in: Financial Times, 1 November, 2010.

5 N. Ferguson: Going Back to Gold? Historical Perspectives, in: Alchemist, No. 44, 2006, pp. 3-4.

6 See Z. Xiaochuan: Reform the International Monetary System, 23 March 2009, BIS Review 41/2009; and J.E. Stiglitz and Members of a UN Commission of Financial Experts: Global Crisis – The Way Forward: The Stiglitz Commission Report, Hyderabad 2011, Orient Black Swan.

tral banks of virtually all major advanced economies have pursued extremely expansionary monetary policies, with adverse international spillover effects. The Federal Reserve's quantitative easing policies caused Brazil's President Dilma Rousseff in March 2012 to famously voice her concerns about the resulting "monetary tsunami" that was making its way to emerging economies.[7] Concerns have also been raised about the effects of the steady increase of global liquidity on the prices of financial assets and commodities.[8]

With reference to the problems of current fiat monetary systems in general, and the dominance of the US dollar in particular, some have even called for a return to some variation of the international gold standard.[9] Yet the chances for any meaningful global monetary reform, let alone a new global gold standard, are virtually zero. Several emerging economies have therefore already taken steps to reduce their dependence on the US dollar by negotiating bilateral or multilateral payments systems and currency swaps and by diversifying their foreign exchange reserves out of the dollar.[10]

Against this backdrop, this article analyses the rationale for a *unilateral* introduction of gold-backed currencies and the challenges and problems associated with such a move. As defined by White,

> [i]n the most general terms, a gold standard means a monetary system in which a standard mass (so many grams or ounces) of pure gold defines the unit of account, and standardized pieces of gold serve as the ultimate media of redemption. Currency notes, checks, and electronic funds transfers are all denominated in gold and are redeemable claims to gold.[11]

The emphasis in this article will be on one individual country introducing a gold-backed currency in isolation, and not on reviving the global gold standard. What would be the merits of unilaterally linking a currency to gold? How could this be managed and what would be the risks? One example dealt with here is Russia, where the government is sometimes rumoured to be considering such a step in order to free itself from the dollar's dominance.

The next section briefly discusses the attraction of a (unilateral) return to some kind of gold standard. The subsequent section elaborates on the issues related to the unilateral introduction of variants of a gold standard. Finally, we analyse various problems associated with a unilateral adoption of a gold peg.

The attraction of returning to a (unilateral) gold standard

What is the attraction of returning to the gold standard? As Wolf writes, the attraction of

> a link to gold (or some other commodity) is that the value of money would apparently be free from manipulation by the government. The aim, then, would be to "de-politicise" money. The argument in favour of doing so is that in the long-run governments will always abuse the right to create money at will. Historical experience suggests that this is indeed the case.[12]

Hayek therefore called for "[p]rotecting money from politics".[13]

Several economic historians have highlighted the merits of the classical gold standard, which have been attributed as facilitating the first period of globalisation. In their seminal work *A Monetary History of the United States, 1867-1960*, Friedman and Schwartz write that

> [t]he blind, undesigned, and quasi-automatic working of the [classical] gold standard turned out to produce a greater measure of predictability and regularity – perhaps because its discipline was impersonal and inescapable – than did deliberate and conscious control exercised within

7 See U. Volz (ed.): Financial Stability in Emerging Markets – Dealing with Global Liquidity, German Development Institute, Bonn 2012.

8 See A. Belke, I. Bordon, U. Volz: Effects of Global Liquidity on Commodity and Food Prices, in: World Development, Vol. 44, 2013, pp. 31-43; A. Belke, I. Bordon, T. Hendricks: Monetary Policy, Global Liquidity and Commodity Price Dynamics, in: North American Journal of Economics and Finance, Vol. 28, 2014, pp. 1-16; and A. Belke, W. Orth, R. Setzer: Liquidity and the Dynamic Pattern of Asset Price Adjustment: A Global View, in: Journal of Banking & Finance, Vol. 34, No. 8, 2010, pp. 1933-1945.

9 See e.g. A. Beattie: Zoellick Seeks Gold Standard Debate, Financial Times, 7 November 2010.

10 See A. Belke, K. Bernoth, F. Fichtner: The Future of the International Monetary System, in: DIW Economics Bulletin, No. 4/2011, pp. 11-17; and I.H. Lee, Y. Park: Use of National Currencies for Trade Settlement in East Asia: A Proposal, ADBI Working Paper No. 474, Asian Development Bank Institute, 2014.

11 L.H. White: Making the Transition to a New Gold Standard, in: Cato Journal, Vol. 32, No. 2, 2012, pp. 411-421.

12 M. Wolf, op. cit. Criticism of fiat currency goes long back in history. Ricardo famously wrote: "Experience, however, shews that neither a State nor a Bank ever have had the unrestricted power of issuing paper money, without abusing that power: in all States, therefore, the issue of paper money ought to be under some check and control; and none seems so proper for that purpose, as that of subjecting the issuers of paper money to the obligation of paying their notes, either in gold coin or bullion." See D. Ricardo: Principles of Political Economy and Taxation, Third Edition, Kitchener 1821, Batoche Books, reprinted in 2001, p. 259.

13 F.A. v. Hayek: Choice in Currency – A Way to Stop Inflation, The Institute of Economic Affairs, London 1976, p. 16. 155 years after Ricardo, Hayek also lambasted fiat currency: "With the exception only of the 200-year period of the gold standard, practically all governments of history have used their exclusive power to issue money in order to defraud and plunder the people. ... money is certainly too dangerous an instrument to leave to the fortuitous expediency of politicians – or, it seems, economists."

institutional arrangements intended to promote monetary stability.[14]

Bordo argues that "in several respects, economic performance in the United States and the United Kingdom was superior under the classical gold standard to that of the subsequent period of managed fiduciary money."[15]

Bordo and Rockoff referred to the gold standard as a "good housekeeping seal of approval", suggesting that governments will be bound to pursue prudent policies. Proponents of the gold standard expect more fiscal discipline, as governments will no longer be able to monetise debt.[16] Proponents of a return to a gold standard therefore argue that it will help to instill greater investor confidence in the currency, restore macroeconomic stability and stop capital outflows.[17]

It should be noted that one advantage of a global gold standard would *not* be achieved through the unilateral adoption of a gold-backed currency, that is, exchange rate stability among the countries linked to gold. Accordingly, the disciplining pressure on current account imbalances, which under the full-fledged gold standard is linked to David Hume's specie flow mechanism, will remain limited.[18]

Unilateral arrangements of the kind described above could help to increase the credibility of a country's monetary policy, as they diminish room for discretionary policy in nearly the same way as currency boards do. Moreover, if the central bank's credibility is low, steadily building up (gold) reserves may help to restore confidence in the currency and improve the central bank's credibility over time.[19] But as long as the arrangements stay unilateral, they do not have any effect on the international monetary system.[20]

Preventing excessive money growth and inflation represents the central argument in favour of fixing one's currency to the price of gold or some other nominal anchor. What are the disadvantages? The main argument against such a rigid anchor is that a strict rule prevents monetary policy from responding to the needs of the domestic economy. The mismatch problem between the constraints of the anchor and the needs of the economy can take three forms: (i) loss of monetary independence, (ii) loss of automatic adjustment to export shocks and (iii) extraneous volatility.[21] These problems will be discussed in greater depth below. First, however, we discuss how a return to a gold standard could be managed.

What kind of gold standard?

The first and most important question for a country that seeks to introduce a gold standard is: what kind of gold standard? Wolf lists four different variants for adopting a gold standard.[22] The first and "most limited reform", according to Wolf, "would be for the central bank to adjust interest rates in light of the gold price". However, as Wolf points out, "that would just be a form of price-level targeting" and there is "no reason why one would want to target the gold price, rather than the price of goods and services, in aggregate".

The second and most extreme option, according to Wolf, "would be a move back into a world of metallic currency", an option that is entirely unrealistic given that in a modern economy "money in circulation will continue to be predominantly electronic, with a small quantity of paper, as today".

Wolf also dismisses the third option, "a return to the Bretton Woods system, in which the US promised to convert dollars into gold, at a fixed price, but only for other governments", for "lack[ing] any credibility, since there would then be no direct link between gold stocks and the domestic money supply". It should be added that a revived Bretton Woods-type system would also be entirely unrealistic politically.

The fourth variant, according to Wolf's classification, "would be a direct link between base money and gold", which Wolf regards as the "obvious form of a contemporary gold standard".

A further option, discussed by White, is allowing a private, parallel gold standard alongside fiat currency issued by the

14 M. Friedman, A.J. Schwartz: A Monetary History of the United States, 1867-1960, Princeton 1963, Princeton University Press.

15 M.D. Bordo: The Classical Gold Standard – Some Lessons for Today, Federal Reserve Bank of St. Louis Review, May 1981, pp. 2-17.

16 M.D. Bordo, H. Rockoff: The Gold Standard as a "Good Housekeeping Seal of Approval", in: Journal of Economic History, Vol. 56, No. 2, 1996, pp. 389-428. As L.H. White, op. cit., p. 420, puts it: "A gold standard does help to ensure budget balance in the desirable present-value or long-run sense, by requiring a government that wants to sell its bonds in the international market to stay on a fiscal path consistent with full repayment in gold."

17 For a survey of the pros and cons of a gold standard, see A. Belke, T. Polleit: Monetary Economics in Globalised Financial Markets, Berlin 2010, Springer, pp. 16ff.

18 See ibid., pp. 14ff.

19 See A. Reynolds: Monetary Reform in Russia – The Case for Gold, in: Cato Journal, Vol. 12, No. 3, 1993, p. 662.

20 See V. Hofmann, F.L. Sell: Credibility, Currency Convertibility and the Stabilisation of the Rouble, in: Intereconomics, Vol. 28, No. 1, 1993, pp. 11-16.

21 See J.A. Frankel: Should Gold-Exporters Peg Their Currencies to Gold?, Research Study No. 29, World Gold Council, London 2002; J.A. Frankel: A Proposed Monetary Regime for Small Commodity-Exporters: Peg the Export Price ("PEP"), in: International Finance, Vol. 6, No. 1, 2003, pp. 61-88; and A.J. Schwartz: A Commodity Standard for Russia?, in: Cato Journal, Vol. 12, No. 3, 1993, pp. 683-686.

22 M. Wolf, op. cit.

state.[23] While this option would be relatively unproblematic, similar to the emergence of various virtual crypto currencies, it would not help to achieve the original goal of creating a stable currency issued by a credible central bank. In the following, the discussion will therefore focus on variant four, the backing of base money – notes and coin issue plus commercial bank deposits with the central bank – by gold.

The adequate amount of gold reserves

There is no common agreement about the adequate amount of gold reserves needed to back a credible gold standard arrangement. A very rigid option would be to require the monetary authority to back base money 100 per cent by gold, "with the unit of account ... defined in terms of a given weight of gold".[24] Such a system would be like a currency board regime operating on gold, where the monetary authority promises to back the domestic currency by 100 per cent with gold instead of foreign exchange reserves.

However, as Wolf correctly points out, "It is wasteful to hold a 100 percent reserve in a bank, if depositors do not need their money almost all of the time."[25] White therefore argues that "[t]he most efficient form of a contemporary gold standard makes gold the base money – that is, the medium of redemption and unit of account – while currency and other common media of exchange are the fractionally backed gold-redeemable liabilities of commercial banks."[26]

Taking history as a guide, the credibility of a gold standard system does not necessarily correspond with the amount of reserves. As Lewis points out,

> If a government aims to break its promise with the people, it does not matter if gold has been piled to the rafters in Midas's treasury. With a stroke of the pen, as Roosevelt did in 1933 and Nixon did in 1971, the government can confiscate the gold and tear the gold standard to tatters.[27]

Indeed, historically, a 100 per cent gold backing has been the exception rather than the norm. The Federal Reserve Act of 1913, which "legally preserved gold as the ultimate monetary standard in the United States ... required that Federal Reserve Banks maintain ... a minimum ratio of gold reserves to currency and deposits"[28] of 40 per cent and 35 per cent, respectively.[29] According to Lewis, the bullion reserve held by the US Treasury fluctuated "[f]rom 1880 to 1920 ... between about 10% and 40% of banknotes outstanding. It was never 100%. … The 100% reserve gold standard that people sometimes talk about today is a fantasy."[30]

Apparently, the amount of gold reserves held by central banks depended on the credibility of the central bank's promise to convert notes into gold, and not vice versa:

> As England's pound sterling grew to become the center of the entire world monetary and financial system in the latter nineteenth century and early twentieth, the reserves did not increase. Trust in the Bank of England's sound monetary policies was so great that not only did people happily accept the bank's consols (short for "consolidated," government bonds that never matured), but from the 1880s to 1914 the bank's gold reserves could be kept between £20 million and £40 million, while France and Russia kept over £100 million each. … An increase or decrease in reserves does not in itself imply a deviation of the currency from its gold peg, although it could be evidence of such.[31]

Economic history shows that the standing of banks like the Bank of England and the Banque de France was such that they could get away with a lower ratio of gold to M2, whereas the central banks of peripheral countries needed to hold higher reserves. Moreover, it should be highlighted that not all countries participating in the gold standard were fully credible. Analysing currency risk premia, Mitchener and Weidenmier find that "[i]n contrast to core gold standard countries, such as France and Germany, the persistence of large premia, long after gold standard adoption, suggest that financial markets did not view the pegs in emerging markets as credible and expected devaluation".[32]

In this context, Frankel raises an important point, namely that in principle it should not matter whether currency reserve holdings are in dollars or gold, but "there may be something

23 L.H. White, op. cit., pp. 412-414. On parallel commodity currencies see, for instance, also W.D. Angell: A Gold-based Monetary Policy for Russia, in: Cato Journal, Vol. 12, No. 3, 1993, pp. 677-682; O. Ledoit, S. Lotz: The Coexistence of Commodity Money and Fiat Money, Department of Economics Working Paper No. 24, University of Zurich; A. Reynolds, op. cit., pp. 657-676; and A.J. Schwartz, op. cit.

24 M. Wolf, op. cit.

25 Ibid.

26 L.H. White, op. cit., p. 419.

27 N. Lewis: Gold – The Once and Future Money, London 2007, pp. 110-111, John Wiley & Sons.

28 L. Crabbe: The International Gold Standard and U.S. Monetary Policy from World War I to the New Deal, Federal Reserve Bulletin, 1 June 1989, p. 427.

29 "Every Federal reserve bank shall maintain reserves in gold or lawful money of not less than thirty-five per centum against its deposits and reserves in gold of not less than forty per centum against its Federal reserve notes in actual circulation." (Federal Reserve Act, P.L. 63-43 (December 23, 1913), sec. 16)

30 N. Lewis: The Gold Standard and the 100% Gold Reserve Myth, Forbes, 5 June 2011.

31 N. Lewis, op. cit., pp. 103-104.

32 K. Mitchener, M. Weidenmier: Was the Classical Gold Standard Credible on the Periphery? Evidence from Currency Risk, CEPR Discussion Paper No. 10388, London 2015, p. 2.

'empowering' in the public mind of a gold-producing country to back its currency by gold".[33]

Overall, the implication from this discussion for a country that seeks to adopt a gold standard today is that it should not strive for an illusionary 100 per cent backing of base money with gold reserves. Yet for the system to develop credibility, the monetary authority would probably need to build up gold reserves relative to base money in the area of 30 to 50 per cent. However, there is no scientifically founded approach which would enable us to exactly determine the adequate gold coverage.[34]

Managing the transition to a gold-backed currency

A stern transition challenge "is the mismatch between the value of official gold holdings and the size of the monetary system".[35] A crucial question is: how should the conversion rate between gold and domestic currency be fixed? This is no trivial question, given that the international gold price has been fluctuating widely in recent decades and there is no reason to expect this to change.

Given that around 90 per cent of gold is privately held today and that no single central bank will be able to control the international gold price, the question of the apposite parity needs to be linked with the question of who will be allowed to convert domestic currency into gold.[36] As Wolf points out, "if policymakers set [the] initial price wrong, as they certainly would, they could unleash either deflation or inflation: the latter is far more likely, in fact, because private holders would start selling their gold to the central banks at such a high price" – given the central bank would allow individuals to do so.[37] This could lead to a large expansion in the monetary base. Moreover, if the international gold price rises above the domestic parity rate and the system is not fully credible, this would create incentives to convert domestic currency into gold and sell the latter internationally, creating a drain of gold out of the domestic economy that would result in deflationary pressure.

To prevent in- and outflows of gold from the economy, the authorities could install capital controls. But it is doubtful that these could be effective, given that gold can be melted and cast into any shape. (One is tempted to think of the James Bond film where the film's villain, Auric Goldfinger, uses the bodywork of his Rolls-Royce to smuggle gold across Europe.)

How would a country seeking to back its currency with gold go about accumulating sufficient gold reserves? The answer seems straightforward: the respective country should try to achieve current account surpluses and, assuming appreciation pressure on the domestic currency, intervene in the foreign exchange market. It could then use the resulting foreign currency reserves to purchase gold from private hands. Moreover, it could sell state assets and use the proceeds to buy gold.[38] Moreover, as pointed out by Frankel, "a gold producer has the alternative of earning some of its gold reserves by domestic mining".[39]

Monetary policy under such a regime

Under the classical gold standard, the Bank of England, the exemplary central bank of the system, would raise the "bank rate" whenever Britain had a balance-of-payments deficit and gold flew out of the country. The higher rates would reduce the domestic spending and the price level and stop capital outflows. White, however, argues that no monetary policy would be necessary, as the money stock would be in any case endogenous under a gold standard.[40]

A question with far-reaching implications for the operation of such a system is whether gold would be exchangeable for currency. We would not see it as a viable option for the central bank of the unilaterally gold-backing country to commit to converting domestic currency into gold. If, for instance, the international gold price began sky-rocketing and the convertibility promise of the central bank grew less than fully credible, private holders of the gold-backed domestic currency would have an incentive to convert their domestic currency holdings into gold and exchange it into international currency (e.g. the US dollar) at international market prices. In an extreme case, this could lead to a "bank run for gold". If gold-backing is not fully credible, one would cash in one's money against gold in cases of doubt.

Moreover, foreign central banks could print their own national currency, use it to buy gold-backed currency, and then ask the issuing central bank to exchange it for dollars. For example, the Fed – endowed with the "exorbitant privilege" to print unlimited supplies of the world's key currency – could easily benefit from a foreign central bank's promise to convert money into gold and simply ramp up its own gold reserves.

33 J.A. Frankel: Should Gold-Exporters Peg . . . , op. cit., p. 14.
34 In the literature on foreign reserve holdings, there is also no generally acknowledged method to quantify the adequate foreign exchange reserves. See O. Jeanne, R. Rancière: The Optimal Level of International Reserves for Emerging Market Countries: Formulas and Applications, IMF Working Paper No. 06/229, Washington, DC 2006; and IMF: Assessing Reserve Adequacy – Further Considerations, IMF Policy Paper, Washington, DC, 2013. In this context, it is important to note that gold and reserve tranches at the IMF have no returns, while special drawing rights (SDRs) earn the SDR interest rate. See IMF, op. cit., p. 48.
35 M. Wolf, op. cit.
36 Ibid.
37 Ibid.
38 A. Reynolds, op. cit., p. 662.
39 J.A. Frankel: Should Gold-Exporters Peg . . . , op. cit.
40 L.H. White, op. cit., pp. 417-418.

It should be noted that foreign central banks, with the exception of the Banque de France, would not have taken advantage of arbitrage opportunities in gold markets under the former Bretton Woods system, not least because this system was also a political system where, say, the Bundesbank would not have dared to ridicule the US government. Hence, in a unilateral gold-backed system, any obligation of the central bank to convert currency into gold would not make much sense, even though this would undermine the credibility of the entire system, which, after all, is built on the promise to back the currency with gold. Hence, we do not see how convertibility of a gold-backed currency can be maintained for foreign central banks.

A further important question is whether gold is permissible as collateral at the central bank. There is no obvious contradiction with the principle that, under the arrangement of a unilateral gold-backing of the domestic currency, money creation takes place (at least partly, if gold-backing is partial) proportionally to gold on the central bank's balance sheet. On the contrary, Reynolds argues with respect to the usage of gold as collateral for open market operations in the early 1990s: "Yet the familiar central bank manipulation of fiat money cannot possibly work in Russia. There is no efficient market in safe securities, therefore no possibility of conducting open market operations in anything but gold or hard currencies."[41] This view is supported also by Angell: "Alternative vehicles for open market operations, such as gold or foreign assets, perhaps could be best viewed as necessary during the transition phase. Their merits after a transition period might then be usefully re-examined."[42] Moreover, there is a clear analogy with the usage of gold-backed sovereign debt as collateral if the credibility of the country taking part in monetary policy operations is low.[43]

An explicit blueprint for how such a system might work in practice is not available in the academic literature. However, unilateral gold backing may be equated with a modified gold standard à la Fisher, as explained in a slightly different context by Hofmann and Sell.[44] The application of a modified Fisher rule of course presupposes that the institution in charge of monetary policy has some means of coverage, such as gold, at their disposal, whose purchase and sales price it is steering.

41 A. Reynolds, op. cit., p. 659.

42 W.D. Angell, op. cit., p. 679.

43 See A.H. Belke: A More Effective Euro Area Monetary Policy than OMTs – Gold-Backed Sovereign Debt, in: Intereconomics, Vol. 48, No. 4, 2013, pp. 237-242; A.H. Belke: Eurosystem Collateral Policy and Framework – Post-Lehman Time as a New Collateral Space, in: Intereconomics, Vol. 50, No. 2, 2015, pp. 82-90; and explicitly in the Russian context W.D. Angell, op. cit., p. 681.

44 I. Fisher: Stabilising the Dollar, in: L.D. Edie (ed.): Stabilisation of Business, New York 1923, pp. 54-112; V. Hofmann, F.L. Sell, op. cit., p. 13.

In order to reduce price volatility, Fisher suggested in 1923 a modified version of the gold standard. He proposed that when the price level changes, the central bank should consciously deviate from the fixed parity between the national currency and gold.

> The gold dollar is now fixed in weight and therefore variable in purchasing power. What we need is a gold dollar fixed in purchasing power and therefore variable in weight ... As readily as a grocer can vary the amount of sugar he will give for a dollar, the government could vary the amount of gold it would give or take for a dollar.[45]

Applied to any domestic currency like the rouble, this would imply the following: if the purchasing power of gold in the domestic currency area falls and thus leads goods prices to rise (the gold/goods ratio in Equation (1) rises), the central bank has likewise to increase the amount of gold per domestic currency (e.g. the rouble). This, in turn, would lead to a fall in the gold price in domestic currency (e.g. the rouble). In other words, the domestic currency/gold ratio in Equation (1) falls.[46]

$$\text{Domestic currency/Goods} = \text{Domestic currency/Gold} + \text{Gold/Goods} \quad (1)$$

Monissen summarises the above transmission mechanism as follows:

> Even if one ignores the effects of reduced gold production or of an outflow of gold as a result of rising imports (which foster the adjustment process), the non-bank sector will increase its purchases of gold. The effective money supply will diminish and the original inflationary tendency will be eliminated.[47]

According to Fisher, exactly the opposite would be conducted should the general price level fall, with the aim that the overall purchasing power of the domestic currency (domestic currency/goods) will remain constant in the long run.

> Necessary preconditions for the effectiveness of his ingenious and at the same time simple plan are that gold is also sought-after and held for non-pecuniary reasons and that a central policy body buys and sells gold at the stipulated gold price without restrictions.[48]

45 I. Fisher, op. cit., pp. 90, 95.

46 V. Hofmann, F.L. Sell, op. cit., p. 13.

47 H.G. Monissen: Die konjunkturtheoretischen Vermutungen von Irving Fisher, in: B. Schefold (ed.): Studien zur Entwicklung der ökonomischen Theorie VII, Berlin, 1989, p. 12; translation by V. Hofmann, F.L. Sell, op. cit., p. 13.

48 H.G. Monissen, op. cit., p. 12; translation by V. Hofmann, F.L. Sell, op. cit., p. 13.

Exchange rate policy work under such a regime

If the currency is tied to gold, the exchange rate of the home currency would move concurrently with the gold price (of course with a discount if the domestic central bank lacks credibility). This implies that the domestic country would in effect lose control over its exchange rate; as Frankel points out, "For most countries, a peg to gold translates extraneous fluctuations in world gold market conditions into needless fluctuations in local monetary conditions."[49] However, the situation may look different for gold-producing economies where gold production makes up a dominant part of total goods production, seeing that "[t]he gold exporter gets the best of both the fixed and floating worlds: a nominal anchor and automatic adjustment to terms of trade shocks".[50]

This result, however, would apply only to an economy where gold exports make up a significant amount of exports. For other economies pegging to gold, a collapse of the gold price in terms of dollars would be less favourable: it would not only lead to a depreciation of the gold-backed domestic currency against the dollar but could also have strong inflationary effects through imported inflation.

Changes in the dollar price of gold could also have significant fiscal effects if the unilaterally gold-backing country is an exporter of commodities beyond gold, such as oil, because commodities are usually priced in US dollars. Hence, commodity income and thus the fiscal situation of the respective economy may be strongly affected by gold price movements.[51] This nexus could even have a political dimension.

Gros, for instance, argues that for Russia, falling oil prices may be the harbinger of a much less aggressive Russian political and military stance, because oil income makes up a significant part of the Russian public budget.[52] Oil revenues play an important role within Russia's fiscal framework because of the taxes levied on private oil companies and because of the profits the treasury obtains from government-owned producing facilities. Exactly for this reason, the prevailing strategy – until recently – was to let the rouble slide in tandem with falling oil prices to balance its rouble-denominated government budget.[53]

To summarise, the main message here is that gold-backing of the domestic currency leads to a loss of control of the exchange rate and potentially massive consequences for the domestic economy. These consequences can be good or bad. If the gold price falls, the domestic currency depreciates. There will be imported inflation and for a commodity exporter, import earnings in dollar terms remain unchanged but go up in terms of the domestic currency, with a positive fiscal effect.

If, instead, the dollar price of gold rises, the home currency appreciates. This in turn increases the purchasing power of the national currency and (in the extreme case) may lead to imported deflation. For a commodity exporter, this means that import earnings in dollar terms remain unchanged but go down in terms of the domestic currency, with a negative fiscal effect. In both cases, political consequences may arise as described by Gros.[54]

Conclusions

Our main conclusion is that a system of a unilateral gold-backed currency would not necessarily bring price stability, as the country would not be able to control the international gold price. While a gold-backed currency may be attractive in a global high-inflation environment, the attractiveness of gold standard proposals is significantly lower in the current context of low inflation.[55]

Moreover, as discussed above, a gold peg does not make sense for countries preponderantly exporting commodities other than gold.[56]

Finally, in order to be effective, the adoption of a gold-backed currency (if done by a country for which there are some incentives to do so, such as Russia) cannot be fully convertible by construction.[57] This may limit its acceptance in international trade, and the new currency would not differ very much from a normal fiat currency. This can actually be regarded as the central argument against introducing a unilateral gold-backed currency.

49 J.A. Frankel: Should Gold-Exporters Peg ..., op. cit., p. 1.

50 Ibid.

51 J.A. Frankel: Should Gold-Exporters Peg ..., op. cit.; J.A. Frankel: A Proposed Monetary Regime ..., op. cit. However, this is mainly due to a value effect and not to a change in exported quantities if the USD price of oil stays the same.

52 D. Gros: The Price of Oil and Soviet/Russian Aggressiveness, CEPS Commentary, Brussels: Centre for European Policy Studies, 16 January 2015.

53 E. Colombatto: Russia Will Alter Economic Course after Oil Price Falls, GLS Geopolitical Information Service, Intelligence Consultants, 19 December 2014.

54 D. Gros, op. cit.

55 J.A. Frankel: Should Gold-Exporters Peg ..., op. cit., p. 14.

56 J.A. Frankel: Should Gold-Exporters Peg ..., op. cit.; J.A. Frankel: A Proposed Monetary Regime ..., op. cit.

57 Admittedly, our conclusion depends on the degree of credibility of the domestic central bank. This issue can be treated to a certain degree similarly to the previously discussed issue of the optimal degree of gold coverage of a gold-backed currency.