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Doomsday for the Euro Area: Causes, Variants and Consequences of Breakup

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Abstract: In this paper we describe the genesis of a doomsday scenario and discuss potential causes and motivations for a breakup of the euro area. For this purpose, we differentiate between the departure of weak and strong countries, and examine the impact of the reintroduction of a national currency on domestic debt, the domestic banking sector, EU membership and the freedom of trade. We also briefly analyze the social and political costs of the accompanying social disorder.

Keywords: banking crisis; debt crisis; exchange rates; euro; optimum currency area; secession

JEL codes: E58, F33, F41

1. Euro Area Breakup—Some Basic Foundations

1.1. Preliminaries

It is time to admit that under the prevailing structure and membership, the euro area simply does not work successfully. Either the current institutional setting or the composition of its membership will have to undergo changes. This has led many observers to describe potential doomsday scenarios, including the conclusion by [1] that “the euro should not exist (like this).”

Some analysts still contend that the euro zone will evolve—even if rather slowly, and with much pain—into a state resembling fiscal integration, attaching a relatively high probability to this outcome [1]. But this may be wishful thinking. Other observers offer an alternative prescription for restoring competitiveness and growth on the periphery: “Leave the euro, go back to national currencies and achieve a massive nominal and real depreciation” [2]. But the idea of seceding from the euro today remains largely viewed as unimaginable, even in Greece and Portugal [2]. Countries belonging to the Economic and Monetary Union (EMU) cannot be expelled from the common currency, but sovereign nations could evidently secede. This breakup option is associated with substantial risk, is extraordinarily costly and is hence assessed as being a very improbable event. The economic and political impacts of such secession are often heavily underestimated in the current popular discussion of potential euro area breakup [1]. For instance, the exit of a weak country from the euro zone would lead to significant trade losses in the remainder of the euro area. Among the main likely outcomes would be a large-scale depreciation of the home currency and the imposition of large capital losses on private creditors [2].¹

Nevertheless, scenarios considered to be inconceivable just months ago may not appear so far-fetched in the near- to medium-term future, particularly if peripheral countries’ economies continue to stagnate.

Debt restructuring of the type pursued in Greece may ultimately take place in other euro area countries. However, neither the exact time nor the specific mode, orderly or disorderly, can today be predicted. Moreover, debt reduction and/or restructuring might not prove sufficient to restore competitiveness and growth. If the lack of growth continues, the option of seceding from the monetary union could become a dominant end-game strategy for some current euro area members. As Feldstein [4] notes: “Uniform monetary policy and inflexible exchange rates will create conflicts whenever cyclical conditions differ among the member countries.”

Rather than systematically assessing the most widely discussed options for keeping the euro together, this paper investigates likely channels for the transmission of economic impacts, as well as the overall consequences of breaking up the euro—thus, the variants of doomsday for the euro area [1].

1.2. The Problem with the Euro and the Anti-Euro Bet

A breakup of the euro area is a realistic issue because the EMU project was in the 1990s sold to the population of Europe in a rather misguided manner, primarily as an exchange rate integration project [1]. On many occasions, the benefits of eliminating intra-European foreign exchange rate uncertainty or the absence of other costs associated with trade, foreign direct investment and tourism were underlined [5,6]. But with the benefit of hindsight, the most important implication was the supranational integration of monetary policy, significantly shifting responsibility for policy oversight from a Bundesbank-rooted institution to a European Central Bank (ECB) permanently involved in quasi-fiscal operations [7]. A euro promoted on the basis of monetary union with a central bank conducting quasi-fiscal monetary policy in the Japanese style, rather than on the idea of exchange rate integration, would have been far more difficult to make palatable to the electorate [1].

However, the problems of this type of monetary union remained largely out of the public eye, as politicians too long adhered to a “this time it’s different” view [8]. Ironically, the current situation,

¹ A quite similar mixture of channels was observed when Argentina “pesified” its dollar debt in the course of its recent crisis. See [3].

with interest rates too low for the core and too high for the periphery, is the mirror image of the initial EMU period [1,9].

Increasing divergence within the euro area was able to stay below the surface for so long in part because governments regularly tend to overlook threatening negative economic developments that appear disguised as bubbles, or, as under Jean-Claude Trichet's ECB presidency, leveraged balance sheets maintained by financial institutions, private actors and the government [1,7]. As a result, the euro area was even expanded beyond its initial phase, exacerbating its vulnerabilities in economic terms and intensifying the debt crisis once it finally came to the surface [1,10].

As if this were not bad enough, anti-euro bets are today an everyday phenomenon, steadily increasing the probability of breakup. The systemic problems now revealed basically leave two options for euro area countries: Either they can tackle the euro's internal institutional weaknesses, or "descend into a culture of blame which could ultimately rip the whole system apart" [11]. It seems as if governments have chosen the second option, driven perhaps by electoral concerns.² As things stand, voters see their own private interests threatened in the "haircuts" associated with debt restructuring, and evince little support for a broader fiscal redistribution mechanism combined with strict control of fiscal soundness, *à la* Schuknecht *et al.* [11–13].

The euro area debt crisis has let old intra-European rivalries reappear on the surface. However, the stocks of cross-border holdings of assets and liabilities have grown rapidly, and the implications of failure are much graver than in earlier times. At the same time, the euro area contains neither a burden-sharing mechanism between nations nor any mechanism enabling a country to fall into insolvency without hurting the others [3,11]. In such a world, investors might easily become convinced of the inevitability of a euro breakup, and seek ways to disentangle themselves from the consequences.

1.3. The Disaster Scenario—Characterizing Breakup and Its Consequences

It is often argued that it would be preferable to let the existing euro area break up either by allowing it to fragment entirely, or by letting one or more countries secede [1]. This paper demonstrates that merely abolishing the euro is not sufficient for a weak country.

Some observers believe that some kind of fiscal union is in principle a necessary condition for "saving" the EMU (see, for instance, [14]).³ However, commercial banks (among them HSBC and UBS) and insurance companies such as Allianz are increasingly publishing studies outlining the "doomsday" scenario of euro-zone breakup,⁴ fanning a public debate of increasing intensity. This paper thus investigates the doomsday scenarios in greater detail and summarizes the main results.

² This view is supported by the situation in Greece where the formation of a government after the election in May 2012 failed with the consequence of a re-election in June.

³ As their base case, analysts such as UBS [1] assume that the EMU will ultimately survive, but with institutional changes that draw on the recovery of the U.S. monetary union in the 1930s, as well as to the United Kingdom and Germany, with a fiscal confederation made up of automatic stabilizers rather than direct transfers.

⁴ Early in September, *Der Spiegel* reported that a group of government lawmakers sought the power to expel member countries from the euro zone. Hans-Olaf Henkel, challenging the constitutionality of the Greek rescue package in the German courts, has proposed that Austria, Finland, Germany, and the Netherlands should secede, arguing that this alternative would have net benefits both for exiting countries and the remaining euro area.

Monetary unions can break up by secession (a decision to leave, undertaken freely by the departing member) or the expulsion of a member state (or group of states). Moreover, this can take place suddenly in the form of a unilateral decision, or more slowly as the outcome of preceding negotiations [1].

We proceed now by examining some of the economic consequences in more detail, as well as briefly touching on the likely political impacts of secession.

2. Breakup and Doomsday—the Scenarios

In our following efforts to derive and describe contingent doomsday scenarios, we differentiate between the weak- and strong-country cases. Under our working definition, “weak” countries are those experiencing financial distress, while “strong” countries are those EMU members that have retained their AAA credit ratings.

2.1. The Probable Case: A Weak Country Leaves the Euro Area

2.1.1. The Basic Mechanics of Doomsday with a Weak Country Leaving

According to Roubini [2], “Euro zone politicians may muddle through for another five years, but ultimately they will face very tough decisions. I see the chances that Greece or Portugal will leave the euro zone at 30 percent.” The primary reason a country might decide to leave the euro is to regain the monetary independence which it gave up when joining the EMU, enabling it to conduct monetary policy in a way that better fits its own economic conditions.

While nominal exchange rates have been frozen, significant divergences in real exchange rates still exist in the euro area. Consumer prices and wages in peripheral countries have increased more substantially than have those in Germany since the start of the EMU. This makes their firms less competitive *vis-à-vis* German or Asian rivals on international markets. Some observers contend that seceding from the euro area and devaluing their currencies would give these countries the ability to align their unit labor costs with Germany and Asian competitors [15].

In addition, highly indebted euro countries such as Greece, Italy and Spain currently pay significantly higher interest rates for their loans than Germany. In response, they are seeking to increase national savings, while restoring or enhancing their competitiveness, but without the ability to resort to currency devaluation. Moreover, Mediterranean countries see their membership as a status symbol; hence, it may be at least as likely that northern member states with sound fiscal policies and high levels of competitiveness will exit [16].

Using the breakdowns of Argentina or Uruguay a decade ago as a guide rather than the relatively mild European Exchange Rate Mechanism (ERM) I disruptions [5], it is reasonable to assume that the external value of the currency of a weak country seceding from the euro zone might fall by up to 60 percent *vis-à-vis* the “rump euro” bloc. However, large-scale devaluation and the reintroduction of monetary sovereignty will also have negative economic and political (side) effects.

First, cross-border capital flows will decline significantly, if assets and liabilities have to be instantaneously rebalanced following the reinstatement of national currencies. Second, capital controls would likely be an element of the doomsday mechanics, implemented in order to give the new and at

least initially weak currencies in the periphery some “infant” protection.⁵ Third, huge losses in confidence within the financial system would be likely. Fourth, huge technical and legal hurdles would have to be taken into account by the seceding country when abandoning the euro. Thus, on the whole, the doomsday scenario should not be compared with something like the breakdown of the gold standard.⁶

Indeed, once a country has voluntarily surrendered its national currency and monetary policy independence to a common currency area and its institutions, the costs of leaving that monetary union and introducing a new national currency are more than significant. Moreover, the entry costs can be considered to be sunk ex post, and there will thus be a hysteresis impact on the optimum currency area (OCA) threshold. The optimum degree of economic integration, which once served as a trigger for a country to join the euro area is higher than the trigger that induces a member country to leave the common currency area. In this sense, the current pressing situation in the euro area still calls for a “tolerance band.”⁷

The switch from national currencies to the euro was smooth in large part because it was planned over years in great detail, and even more important, in a cooperative manner among European countries [15,20]. This again indicates that exit from and entry into a common currency area have to be treated in an asymmetric fashion. The mere prospect of euro breakup could cause bank runs in weak economies.

If one country—Greece, for example—exits the euro area, then almost immediately speculation would begin as to the prospect of other weak economies’ withdrawal. Hence, it is unrealistic to assume that only a single country would leave. This in turn would raise the costs of membership for other member countries relative to the benefits of remaining within the common currency area.

Another key point to consider in analyzing the weak-country doomsday scenario is that the exiting country, typically a debtor nation heavily dependent on inflows from other countries in the euro area, would be forced to deflate its economy on a massive scale. Suppressed economic activity would affect tax revenues negatively and thus lead to higher government budget deficits. As its capability to finance those deficits on international capital markets would also be substantially weaker, the seceding weak country would have two basic choices: Either it would have to accept a domestic program of austerity on a massive scale, or its newly empowered national central bank would have to activate its printing press with the aim of creating higher inflation (and inflationary expectations), thus wrecking the value of domestic savings.⁸

⁵ HSBC [11] correspondingly asks: “...Why else would people “choose” to accept a currency likely to be devalued?”

⁶ Exiting the gold standard had little effect on cross-border capital flows for the simple reason that, during the interwar years, cross-border capital holdings were so low. The benefits of monetary independence were therefore large relative to the costs of disentanglement. See [17]. Today, the reverse is likely to be true [11]; HSBC argues that the doomsday scenario should ideally be treated as similar to the breakdown of the U.S. banking system in the wake of the Great Depression.

⁷ This is an analogy to the exchange rate “band of inaction” as derived by Belke and Goecke [18,19] in a Krugman-type framework.

⁸ See, for instance, [11]. This would of course be futile in the long run, since the long-term interest rate would increase to the same extent as inflation expectations. This is exactly the problem confronted by the U.S. Federal Reserve while conducting its quantitative easing policies. However, the United States has the exorbitant privilege of being able to shift the damaging effect of its inflationary policies to the rest of the world. This is certainly not the case for a “small” weak

Any exiting country, no matter whether weak or strong, would also have to take severe legal challenges into account. The resultant legal uncertainty would create additional incentives for commercial banks to husband capital rather than extending credit, since banks might fear being forced to make depositors whole [15,18]. Moreover, foreign banks and pension funds with weak economies' euro-denominated government bonds on their balance sheets would suffer an effective default, and might also be persuaded to sue [15].

2.1.2. Default on Domestic Debt and Breakdown of the Domestic Banking Sector

Any country deciding to exit the euro area essentially has two choices in handling the denomination of its domestic sovereign debt.

The first approach would be to retain a euro denomination for the entire debt stock. However, this would mean that the debt would remain denominated in a foreign currency, over which the seceding country with its new national currency would lack any power of taxation [1].

The second, and from an historical perspective more probable option would entail the forced conversion of euro-denominated debt into new debt denominated in the restored national currency. In this case, however, most investors and even rating agencies would likely classify this as a default [1]. The seceding weak country might well become euroized. Indeed, the technical barriers alone to introducing a new currency would be huge.

Regardless of the specific mode of conversion, sovereign debt default tends to raise the government's long-term cost of capital in industrialized countries, thus threatening to impose lasting economic costs on a seceding country.⁹ This said, a few countries even within the euro area appear increasingly likely to default—as, for instance, Greece and Portugal, neither of which is today able to maintain a constant level of national capital stock by means of domestic savings [23].

It is important to note that default would not eliminate the need for fiscal adjustment, as the primary budget balance of the seceding weak country would still be in deficit. Hence, in the short term, even more austerity measures would have to be conducted than would be required under the Troika plan [24].

In order to give reality to the new national currency, which would otherwise degenerate into a non-functioning and entirely abstract concept, the government of the seceding weak country would have to instantly redenominate domestic bank deposits into the new currency.

Capital controls would probably have to be implemented for two reasons. First, this would provide one means of fighting a still-large current account deficit. Second, a ceiling on daily cash withdrawals might become necessary simply in order to prevent a collapse of the banking system, which would no longer have access to liquidity provided by the ECB [11].¹⁰

country exiting from the euro area. Hence, it should be compared with the many former Soviet republics that created domestic inflation in new currencies following the break-up of the ruble area in 1992 and 1993 [11,20].

⁹ Cruces and Trebesch [21] show empirically that in cases in which no structural change process is credibly implemented, bond investors actually punish sovereign defaulters for a significant duration. For emerging countries and transition economies, the general picture is different, as in these cases, financial markets tend to forget about sovereign default events after a couple of years. See [22].

¹⁰ On such an occasion “the wise depositor anticipating the creation of a NNC would withdraw their money in physical euro form, pack it into a suitcase and head over the nearest international border—unless the government seals their

However, deposit holders would likely begin sending their money to perceived safe havens—German bank accounts, for example—as soon as they began to suspect their country might be about to leave the euro. In other words, the anticipation of weak-country exit alone might serve as an accelerant of bank runs. In fact, there is evidence that this anticipation has already set in: Greek bank deposits have shrunk significantly, by nearly 15 percent in the past year [1,11,25].¹¹

Theoretically, the only guaranteed way to prevent a bank run would be to shut the banking system entirely, or at least put a cap on the volume of withdrawals that could be conducted over a transition period. The blueprint for this would be the institutional configuration implemented in the wake of the effective collapse of U.S. monetary union in the years 1932 to 1933 [1,20]. Alternatives would be other forms of capital controls, and perhaps even restrictions on foreign travel [15].

A “shock” style implementation of the new national currency would in theory represent the only available means of preventing a run on the domestic banking system. For this purpose, the conversion cannot be anticipated by the world at large [1]. However, this approach is not applicable in practice, as the introduction of a new national currency is rather complex. Indeed, the extreme difficulty of preparing an unanticipated currency conversion is attested to by the fact that sudden deposit withdrawals have already regularly been observed in parts of the euro area when even vague suggestions of secession are made [1].

2.1.3. EU Membership at Stake

The seceding weak country would have to leave the European Union, and as a consequence could face the imposition of tariffs or other trade barriers from the remaining members [20,11]. The country leaving the euro area should expect to be confronted with trade barriers, from which its full EU member status previously sheltered it. In the absence of revisions to the EU treaty, seceding from the euro area—like the imposition of capital-flow barriers—would imply a unilateral breach of several treaties, among them the Treaty of Maastricht, the Treaty of Lisbon and the Treaty of Rome [1,26]. Moreover, the act of adopting a new national currency would obviously contradict the guiding lines of the EU project.

A weak country that elects to secede from the euro area would thus also effectively secede from the union, and would have little scope to negotiate to remain in the EU. Indeed, it would likely require considerable negotiation to be granted reentry into the EU, if this proved possible at all. Moreover, according to current versions of the various relevant treaties, the departing country would technically have to agree *ex ante* to reenter the euro as soon as it met Maastricht criteria.

2.1.4. Protectionism Back again

The claim that a weak secessionist state would immediately regain a beneficial competitive advantage through a devaluation of its new national currency *vis-à-vis* the euro is not overly realistic,

borders to the movement of people. In that event, the sensible depositor would withdraw their money in physical euro form, pack it into a suitcase and bury it in their garden” [1].

¹¹ Indeed, Greek citizens have already begun to withdrawn considerable amounts of money from Greek banks since the unsuccessful formation of a new government in mid May 2012.

for several reasons. Standard caveats like the J-curve effect¹²—that a country long over-engaged in domestic consumption sometimes has little to export in the short run, or that the country might not be able to shift its labor force to the export sector quickly enough—are well-known and do not have to be repeated here in detail [11,27]. Moreover, much as there is some scope for variation in the optimal degree of integration within OCA theory, we can also establish a “band of inaction” for the exchange rate within which export volumes react only minimally to currency fluctuations [18,19].

From a noneconomic perspective, the remaining euro area and EU countries would be unlikely to watch the secession of the weak country passively and with tranquility. UBS [1], for instance, argues convincingly that if a new national currency were to depreciate by 60 percent against the euro, it seems highly plausible that the euro area in turn would impose a 60 percent tariff (or even higher) against the exports of the departing country.¹³ The argument is bolstered by the fact that the country departing would be left without a trade agreement with Europe, since leaving the EMU implies exiting the European Union as well.

2.1.5. Quantifying Economic Costs—Referencing the UBS and HSBC Studies

Our above assumption was that the external value of the currency of a seceding weak country will fall by up to 60 percent *vis-à-vis* the “rump euro” bloc. The threat or reality of mass sovereign and corporate default would subsequently generate an increase in the cost of capital, or risk premium, of 700 basis points [1]. Secession-induced turmoil and tariffs imposed by the “rump EU” to compensate for the weak country’s new currency depreciation could lead to a decline in the volume of trade by as much as 50 percent [1]. Finally, costs stemming from banking system failure have to be factored in. With a 60 percent depreciation, UBS [1] assumes a cost equivalent to 60 percent of bank deposits in the system. The same institution calculates the costs for an alternative scenario under which a bank run has resulted in 50 percent of current deposits being withdrawn before exit takes place. In this scenario, the costs would amount to 60 percent of 50 percent of current deposits [1].

Taking the summed costs projected for Southern European countries, the initial economic cost of a weak country leaving would amount to an estimated €9,500 to €11,500 per person, or 40 percent to 50 percent of GDP. Although bank recapitalization costs would be a one-time event, the continuing costs of secession would be a projected €3,000 to €4,000 per person in subsequent years [1].¹⁴

Note that these are still conservative estimates which are of course somewhat arbitrary as they rest on specific assumptions. For instance, they do not include any economic impacts of civil disorder or of any internal breakup of the seceding country. McWilliams [28] quantifies the costs of an organized

¹² The J-curve effect describes the immediate decline in a country’s current account immediately after a real currency depreciation, followed by improved only some months later, as most import and export orders are placed several months in advance. These initial-period decisions are made based on the “old” exchange rate. The primary effect of the home currency depreciation is to raise the value of the pre-contracted level of imports in terms of domestic products (*i.e.*, the so-called price effect). Prices in the euro area are automatically affected by a euro depreciation as soon as import prices increase. In the short term, there is nothing monetary policy can contribute to offset this effect. See [27].

¹³ Ironically, the absence of intra-European exchange rate volatility, to which countries tended to react with tariffs in pre-EMU times, has been seen as one of the main advantages of EMU. See [5].

¹⁴ For further tentative figures see <http://blogs.telegraph.co.uk/finance/ambroseevans-pritchard/100017148/appetiser-cost-of-greek-exit-is-e155bn-for-germany-france-trillions-for-meat-course/>.

breakup of the euro area to be around 2% of euro area GDP. However, if this breakup would be unplanned the costs could increase up to 5% of euro area GDP.

On the other hand, a basic pattern of the present situation is that Germany as the country which has the largest absolute exposure and that formulates much of the policy imposed on Greece could also be the one that in the end is likely to lose the least due to its low refinancing costs and to seniority of public claims on Greece [29]. The real fiscal burden of a Greek exit would be disproportionately imposed on the weaker euro area members which would be hit both by the contagion effects and the direct fiscal costs, which for them would be much higher as a share of GDP. This is especially valid if, the official euro area creditors would take the long-run view and agree to a standstill. For instance, the official creditors could be well-advised to grant a grace period of 10 years followed by a full repayment over the next 20 years (the terms of the latest EFSF deal) and an interest rate of 1.5% (the rate on Bunds prevailing today)—contingent on the Greek exit from the euro area [29–31].

2.2. The “Populist” Case: A Strong Country Leaves the Euro Area

2.2.1. The Basic Mechanics of Doomsday Given a Strong Country Departure

The ECB has reacted to overconsumption and high levels of indebtedness in much of the euro zone in ways that do not obviously fit with basic German preferences.¹⁵ However, Germany’s political commitment to these preferences remains significant [11]. Moreover, there is a perception among potential guarantor countries that they lack the fiscal capacity to support over-indebted euro zone member countries (which represent the majority in the euro area and on the ECB Governing Council); this has in turn been associated with steadily growing national anti-euro sentiments. Thus, the idea of abandoning the euro has plausibly become attractive to Germany, as well as to some of the former hard-currency countries such as the Netherlands, Austria and Finland, which appear to be fiscally comparatively solid and have strong economic ties with Germany. This group might seek a collective exit from the euro area in favor of joining a new Deutschmarkbloc, if Germany really were to leave [15].

If a strong country left the euro area, the usual assumption is that there would be an appreciation of its currency—not least because the strong new national currency would presumably be sought as a reserve currency by other euro area residents. At the very least, appreciation of the new national currency relative to the “rump euro” could be envisaged [1]. Since intra-European trade dominates for euro area countries, a real effective appreciation is thus highly likely. But whether and to what extent the external value of the new national currency of a strong seceding country also increases *vis-à-vis* non-euro countries would be a function of the magnitude of capital flight from the “rump euro” into the new national currency, and the intensity of newly introduced capital controls [1], among other factors.

Exchange-rate appreciation would likely have a dampening impact on Germany’s export performance. Since the euro area was created, Germany has managed to increase its competitiveness relative to previous levels. The recent appreciation of the Swiss franc has demonstrated the economic impact of adherence to a freely floating hard currency policy, particularly in an economy with an export-led growth model [11]. A similar assessment is offered by Michael Burda: “The reintroduced

¹⁵ See, for instance, the intense debate over the motivations of Axel Weber and Juergen Stark in leaving the ESCB.

Deutschmark could well appreciate within a few months by 50 percent,” he said. “That would wipe out the German small and medium-sized enterprises in one fell swoop” [32].¹⁶

According to HSBC currency strategists [33], had the core euro zone currencies been collectively cut adrift from the euro at the end of 2009, moving instead in line with the Swiss franc—a supposition consistent with pre-euro-zone experience—the “core” euro (EUC) would have appreciated against the “rump euro” by 83%, *i.e.*, EUR1 = EUC1.83, a value considerably higher than the euro today [11]. According to Bundesbank calculations in 1998—when the German currency still existed—this degree of increase, if maintained, might have been sufficient to lower German exports by 16 percent [11].¹⁷

A strong secessionist country such as Germany would of course find itself in a much better position than a weak country. If it opted out of euro membership, it would not necessarily seek to convert its stock of euro-denominated debt to debt denominated in a new and stronger currency. Rather, it would be much more natural to opt for gradual repayment of those depreciating (if measured in the new national currency) debts [15].

A somewhat hidden cost for Germany would be the country’s loss of influence on the monetary policy stance in the euro area, particularly if the ECB elected to allow higher inflation rates after the withdrawal of the German ECB Council members [34,35]. Inflation would erode the real substance of German loans provided to euro area banks, corporations and governments [15].

2.2.2. Default on Domestic Debt and Breakdown of the Domestic Banking System

Unlike in the case of a secession of a weak country, a seceding strong country might see improvements in its fiscal position. A strong country’s government would not have any incentive to default on its domestic debt; because the new national currency would appreciate against the euro, the value of euro-denominated debt would in turn decline relative to tax revenues denominated in the new national currency [1].

Repaying domestic bondholders in euros even after having exited the euro area would not be problematic for a government in legal terms. However, in political terms, the fact that bondholders would be receiving income in euros but have obligations which include taxes in the new national currency would have to be taken into account. For them, this might not be acceptable [1].

In contrast, corporate euro-denominated liabilities to domestic banks would eventually pose a problem, because they would have to be converted into the new national currency. Otherwise the euro as “bad” money would drive out “good” money—that is, the new national currency would be hoarded and the euro become the preferred currency for liabilities (a manifestation of Gresham’s Law; see [17]). UBS [1] concludes that “...any company that has a significant proportion of its revenues deriving from euro-denominated exports, but which has liabilities to the domestic banking system, [would be] vulnerable to default.” Since assets located elsewhere would also depreciate in terms of the new national currency quite quickly after secession, companies’ balance sheets would be negatively impacted [1].

¹⁶ In the past, Germany profited from moderate appreciation of the Deutschmark, in much the same way as the Czech Republic does today with its crown, as this allows imported inflation to be avoided.

¹⁷ However, these estimates are put into perspective by the Belke and Goecke [19] threshold model, which shows that German trade is impacted heavily only by appreciations that exceed a certain “pain threshold.”

A strong country like Germany would be unlikely to experience a run on its banking system as a result of currency union secession. This is because depositors have no reason to withdraw their money in order to avoid perceived losses of value. On the contrary, there could well be international inflows in the form of bank deposits.

In contrast, the balance sheet would be critical for commercial banks in the seceding strong country. The country's banking system would now be characterized by new national currency liabilities. On the asset side, however, not all assets from the former euro area would be redenominated into the new national currency. Some would likely remain denominated in the "rump euro" currency [1]. If the new national currency appreciates by 40 percent to 50 percent *vis-à-vis* the "rump euro," this constellation could require a recapitalization of the banking system—simply because foreign assets denominated in euro would be worth less from a domestic perspective [11]. More broadly, the secession of Germany (or any other strong country) from the euro area would be associated with the devaluation of external assets held not only by domestic banks, but also of those held by households and companies [11].

At this stage we assess a hypothetical further chain of events, as previously conducted for the weak-country secession scenario.

2.2.3. EU Membership at Stake as Well

The arguments that apply to weak country secession apply to the strong country case as well. From a legal perspective, once a European country has adopted the common currency, it either retains both EU and euro membership, or forswears them both. There is no middle-ground compromise available [1]. For example, Germany would have to leave the European Union in this case. It can be regarded as highly unrealistic that the euro could survive the departure of its biggest economy [11].

2.2.4. Protectionism Mark II

UBS [1] argues that a strong seceding country would effectively have to write off its export industry due to the effects of currency appreciation and the loss of EU-connected free trade. The substantial appreciation of the new Deutschmark (DM) *vis-à-vis* the "rump euro" would destroy the German export industry's bilateral and international competitiveness. However, this statement is only valid if the new DM-euro exchange rate moved within the "band of inaction" beyond the exchange rate "pain threshold." Belke and Goecke [19] show that Germany's export volumes are largely unaffected by dollar-euro exchange rate changes up to 24 euro cents per dollar cent, and offer several explanations as to why German exports are so inelastic *vis-à-vis* exchange rate changes. However, the estimated appreciation of the new DM in such a secession scenario would be of a magnitude that makes passage of the "pain threshold" more than probable. Outside the European Union too, the export sector of a strong exiting economy would be put at a competitive disadvantage, because the "rump euro" would most probably not agree to allow the "apostate state" to continue to benefit from EU free trade regimes [1].

2.2.5. Quantifying Economic Costs-Referencing the UBS and HSBC Studies

As argued above, it seems reasonable to assume an appreciation of the seceding strong country's currency of 40 percent. On the one hand, the appreciation could be even higher due to *ex ante* capital flight into the strong currency. But on the other hand, capital controls or regulation of flows might be imposed during a disorderly secession process, thus limiting appreciation.¹⁸

The need to recapitalize the domestic banking system raises the risk premium and leads to specific costs. UBS [1] argues that the increase in the risk premium should be lower than in the case of weak country secession, but still considers an increase of 200 basis points to be realistic. Costs emerge because the impact of currency appreciation on bank balance sheets has to be offset. Even if some liabilities stay denominated in the "rump euro," which German banks would be able to service more readily, there is the risk of outright default on some of their assets [1].

Finally, the trade impacts of the appreciation itself, as well as of the erection of reciprocal trade barriers, border disruptions and exit-caused reductions in growth in the remaining euro area have to be taken into account. UBS [1] assumes a rather conservative 20 percent reduction in overall trade volumes. In sum, in the case of Germany's secession, costs would total between €6,000 and €8,000 per person [1]. Though the recapitalization of the banking system would be a one-time event, there would still be costs of between €3,500 and €4,500 per person per year after the exit year. This corresponds to 20 percent to 25 percent of GDP in the first year [1]; in comparison, the costs of a joint debt default by Greece, Ireland and Portugal, along with a 50 percent debt-restructuring "haircut," would amount to slightly more than €1,000 per person in Germany [1,22].

In addition to economic costs, the political costs of breakup would also have to be taken into account—no matter whether it was a strong or weak country leaving and thus fragmenting the euro. For instance, the influence of the European Union within international organizations such as the IMF would be diminished. Moreover, it is worth considering that almost no modern monetary unions based on a fiat currency (*i.e.*, without asset backing) have broken up without provoking centrifugal forces such as military or other authoritarian government, or even in the extreme case, civil war. Internal divisions along ethnic or linguistic lines in countries such as Belgium, Italy and Spain could be exacerbated by the exit issue [1,20]. In the wake of the breakup of the Czech-Slovak monetary union in 1993, Slovakia's respect for political rights and civil liberties declined, according to assessments using the Freedom House criteria [20,36]. Finally, the breakup of the Soviet Union too enabled the evolution of authoritarian regimes in the successor states, and some observers even characterize the temporary fragmentation within the U.S. monetary union in 1932–1933 as having led to a more authoritarian leadership style [1]. Violence accompanied the separation of Ireland from the United Kingdom, as well as the difficulties of the Latin Monetary Union during and after the Franco-Prussian war in 1870 [1].

Even in a strong seceding country like Germany, economic dislocation in the form of higher unemployment in the tradable goods sector might become structural (*i.e.*, hysteretic) and thus lead to

¹⁸ See [6] and [1]. For a historical example see the break-up of the Czech Republic-Slovakia monetary union in the early 1990s [20].

social tension, although domestic savings stocks would not be damaged, and the negative impact of secession would be less severe than would be the case for weak currencies [1].

3. Conclusions

It cannot be excluded *a priori* that the economic costs of a doomsday scenario—a breakup of the euro area—would be high and extremely damaging, especially in the case of a weak country's departure. It seems at first glance as if the costs of breakup would be lower if a strong country were to secede.¹⁹ However, in this case, the euro area would lose its pillar of stability, and the probability of a collapse of the whole EMU project would be even greater.

From a hysteresis point of view, euro area member countries appear stuck in their common currency area. However, any determined country could leave the euro and reestablish its own currency if a “pain threshold” is reached after having passed through a long period of imposed austerity and high unemployment inside the common currency area. But in this case, high costs would remain to be borne, and a banking crisis and social unrest would almost certainly follow in the wake of an enforced currency conversion. This is also valid for the departure of stronger countries. Germany might have several well-founded reasons for leaving the euro area, among them some of the most valuable principles of “Ordnungspolitik”. However, the achievement of greater monetary and fiscal stability should not be included in this list, as a German exit would create domestic financial disarray for quite a long time [15].

The political costs of the doomsday scenario—a true breakup of the Euro area—are too great to be quantified in financial terms, no matter whether a weak or a strong country secedes. Nevertheless, the time may come in which only a little additional shock is sufficient to shift the whole EMU project to a new trajectory, forcing its collapse. This could be the case if a “pain threshold” is reached after a considerable period of strain and pain, creating a climate for conducive to breakup (hysteresis).

Finally, it cannot be stressed often enough that any collapse of the euro zone and the resulting EU fragmentation would do significant damage to the European Union's international position and influence.

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¹⁹ This fits with our assessment in section 2 that it may be at least as likely that the Northern member states with sound fiscal policy and high competitiveness will exit [16].

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