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Russian Journal of Economics 2 (2016) 302–326

Russian Journal of Economics

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Currency crises in post-Soviet economies — a never ending story?

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Abstract

Since the collapse of the Soviet Union, its successor states have suffered from cyclical currency crises. The most recent episode of 2014–2016 was caused by a combination of external and domestic factors. The former include tighter US monetary policy, slower global growth, and declining commodity prices, whereas the latter include the former Soviet Union (FSU) economies' extreme macroeconomic fragility (a legacy of past crises), numerous microeconomic rigidities and structural distortions in addition to governmental deficits. In addition, the Russian–Ukraine conflict dealt a heavy blow to both economies and their neighbors. Effective anti-crisis policies must aim at eliminating all deep-rooted causes of repeated financial and macroeconomic turbulence and must involve deep structural and institutional reforms in the entire region.

JEL classification: E42, E58, E65, F51, G01.
Keywords: currency crisis, former Soviet Union, Russia, Ukraine, global financial crisis, commodity prices, monetary regimes.

1. Introduction

The rapid depreciation of the Russian ruble (RUR) and of the currencies of other countries of the former Soviet Union (FSU) in 2014–2016 revived the question of macroeconomic stability in this region, a question that has arisen several times since the Soviet Union's collapse in 1991. As with previous currency crises, particularly the 1998–1999 and 2008–2009 crises, the most recent episode

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Peer review under responsibility of Voprosy Ekonomiki.

http://dx.doi.org/10.1016/j.ruje.2016.08.002

was caused by a combination of global, regional and country-specific factors. While identifying global shocks and related transmission channels seems to be relatively easy in each case, specification of regional and country-specific factors requires greater in-depth diagnoses, which is precisely the purpose of this paper.

Our analysis concentrates on the most recent episode, which cannot be considered as definitely finished as of the date of this paper, i.e., August 2016. We begin by defining various forms of financial crises — including currency crises — and a brief review of three generations of theoretical models that attempt to explain the causes of currency crises (Section 2). In Section 3, to facilitate a better understanding of the deep roots of the latest turmoil, we provide a historical overview of previous currency crises and their causes, beginning with the last years of the Soviet Union. Then, we analyze the dynamics of the 2014–2016 crisis in Russia, Ukraine and in other FSU countries (Section 4), including mechanisms meant to combat regional spillovers and to engage in crisis management. Section 5 discusses the global and regional causes of the recent crisis, including declining oil prices in 2014–2016. In Section 6, we discuss the deeper systemic causes of the fragility of FSU currencies. Finally, Section 7 presents conclusions and policy lessons.

While the paper draws from three previous publications (Dabrowski 2015a, 2015b, 2015c), it offers an updated and more comprehensive analysis of the currency crises in Russia and the FSU and uses a fresh set of statistical data available as of August 2016 that come from the IMF, the World Bank, various national central banks and statistical agencies, and other institutions in charge of cross-country comparative analyses related to the FSU region.

2. Definitions and theoretical models

The meaning of currency crisis is not particularly precise and often requires clarification. For purposes of this paper, currency crisis is defined as a sudden decline in confidence in a given currency, usually leading to a speculative attack against it. Analytically, currency crises can be detected by either substantial depreciation in a given currency, a decline in a country's international reserves, or both (Dabrowski, 2003a, p. 5).

We also must distinguish currency crisis from the broader notion of financial crisis (Table 1), which involves all types of instability related to monetary and financial systems (see IMF, 1998, pp. 74–76). We define *financial crisis* as a sudden decline in confidence in relation to the ability of a country's government/central bank and banking sector with respect to their liabilities (on committed terms).

Other forms of financial crisis are defined as follows. *Banking crisis* refers to actual or potential bank runs or failures that induce commercial banks to suspend the internal convertibility of their liabilities. A *public debt crisis* occurs when

Table 1
Typology of financial crises.

Financial crisis	Banking crisis
	Public debt crisis
	Balance of payments crisis ⇒ Currency crisis

Sources: Antczak (2000); Dabrowski (2003a).

a government cannot service its foreign and/or domestic debt. A *balance of payment* crisis involves a structural imbalance between a deficit in the current account (absorption) and capital and financial accounts (sources of financing) that leads to a *currency crisis* (as defined above) after international reserves are exhausted.

Historically, three major generations of theoretical models followed the respective rounds of currency crises. The *first-generation* models were developed by Krugman (1979) and Flood and Garber (1984), among others, in response to a series of currency crises in Latin America in the 1970s and early 1980s and focused on the inconsistency between the exchange-rate peg and expansionary macroeconomic policies. In these models, the central bank accommodates any changes in domestic money demand through purchases or sales of international reserves. Therefore, if domestic credit expansion (typically caused by monetization of a fiscal deficit) exceeds the money demand, international reserves will decline at the rate of credit expansion, ultimately leading to their depletion. Furthermore, once they understand that the collapse of an exchange-rate peg is unavoidable, economic agents will trigger speculative attacks to avoid losses or to earn speculative gains. Thus, the moment of a currency crash can be hastened relative to the pace of reserves depletion under "normal" circumstances.

In the *second-generation* models (see, among others, Obstfeld, 1994, 1997; Drazen, 1999) developed after speculative attacks against the Exchange Rate Mechanism in Europe in 1992 and the Mexican peso in 1994, the government can choose between defending an exchange-rate peg and abandoning it. The latter choice could be justified, for example, by the expected output/employment losses caused by the high interest rates required to stop speculative attacks on the currency. Economic agents are not certain which option will be chosen, which creates room for uncertainty and various market-game strategies. Therefore, the behavior of economic agents is determined not only by their perception of macroeconomic fundamentals (as in the first-generation models) but also by the expected reaction by the government.

The experience of the Asian crises in 1997–1998 led to a *third generation* of models that focus on the moral-hazard driven over-borrowing by large but poorly regulated banks, other financial institutions and non-financial corporations (McKinnon and Phil, 1996; Krugman, 1998, 1999; Corsetti et al., 1998a, 1998b, 1998c). According to these models, an economic agent may expect a government rescue operation for a large bank or corporation with good political connections in the event that it faces solvency problems. Therefore, part of private sector "over-borrowing" can be understood as implicit government debt (a contingent fiscal liability), which may eventually have to be monetized.

3. Historical overview

The most recent series of currency crises in the FSU region is neither a new nor a completely unexpected phenomenon. Since the end of the 1980s, when the Soviet economic system of central planning and command economy entered the phase of its gradual final agony as a result of its deep monetary, fiscal and balance-of-payments disequilibria (for a detailed analysis of this period, see Gaidar, 2007), at least five rounds of region-wide macroeconomic turbulences leading to currency crashes can be distinguished. These include the collapse of

the Soviet monetary system (1989–1993), monetary instability and high inflation/hyperinflation in the newly established successor states to the FSU (1992–1995), the Russian and CIS financial crisis of 1998–1999, fallout from the global financial crisis of 2007–2009, and the most recent episode of 2014–2016. Furthermore, some countries have experienced their own individual currency crises, in addition to the above-mentioned regional episodes, including, for example, Belarus in 2000 and 2011 (Dabrowski, 2016) and Tajikistan (1997 and a prolonged period of currency depreciation between 1998 and 2003).

3.1. Collapse of the Soviet ruble (1989–1993)

The FSU never enjoyed macroeconomic stability even by standards of centrally planned economies (e.g., the former Czechoslovakia and German Democratic Republic performed better in this respect). However, due to extensive price and foreign exchange controls, the steadily increasing disequilibria did not lead to an openly high inflation rate or to an official exchange rate depreciation. Instead, these disequilibria were manifested in physical shortages of goods and services, and black market exchange rate premia. In monetary terms, it led to the phenomenon of "forced" saving (money holders could not spend their cash balances to purchase desired goods and services because they were not available on the market) and an accumulation of money "overhang".

The situation worsened in the second half of the 1980s (see Gaidar, 2007) thanks to the triple shock of (i) declining oil prices (which led to deteriorating balance of payments and declines in budget revenues), (ii) the anti-alcohol campaign (which caused further damage to budget revenue) and (iii) the gradual loss of control of the Soviet Union's authorities over state-owned enterprises and over the Soviet republics.

The third shock resulted from a reluctance to abandon a command system of central planning while the political system was entering onto the path of gradual liberalization and democratization (Mau, 1996). The administrative discipline and associated coercion tools no longer worked, but they were not replaced by market discipline. The partial economic reforms introduced in 1987–1988 (laws on state-owned enterprises, cooperatives and leasing) did not offer a comprehensive market-based system. Instead, they only worsened macroeconomic discipline and the previously existing disequilibria, which led to various types of distortions, including the beginning of oligarchic fortunes based on price and exchange rate arbitrage and the stripping of profits and assets from state-owned companies.

The long and inconclusive debate on the potential direction that reforms might take in 1990–1991, particularly on price liberalization, led to increased inflationary expectations, flight from the ruble and further worsening of macroeconomic disequilibria.

The same story applied to the political emancipation process of the former Soviet republics, which sped up after the first — partly democratic — elections to republican parliaments on March 4, 1990. Their struggle for sovereignty included taking political control over republican central banks (these banks had been mere branches of the State Bank of the USSR), credit extension, state-owned enterprises, revenue transfers to the Soviet Union budget (which were halted), etc. (Dabrowski, 1997). As result, the Soviet Union's budget was financed largely from money emission,

which led to very high inflation in both open and hidden forms in 1991. The former resulted from administrative price increases finally introduced in April 1991 that were not sufficient to eliminate physical shortages of goods.

Despite the political collapse of the Soviet Union at the end of 1991, the Soviet ruble survived until the second half of 1993, which complicated the process of macroeconomic stabilization in the successor states of the former USSR (see Section 3.2).

3.2. Monetary instability in the FSU (1992–1995)

At the beginning of 1992, all FSU countries had liberalized, fully or partly, consumer and producer prices, which led to very high corrective inflation rates ranging from a few hundred to a few thousand percent (Table 2). Market exchange rates depreciated rapidly. Given the huge initial disequilibria and accumulated monetary overhang (see Section 3.1) this period was, to some degree, unavoidable. However, the situation worsened because of weak monetary and fiscal policies underpinned by macroeconomic and social populism, the continued existence of the Soviet ruble (managed by fifteen central banks subordinated to national parliaments and governments) and, in some instances (such as in the southern Caucasus, Moldova and Tajikistan) by violent conflict and political instability.

The Baltic countries were the first to manage to escape this currency mess. In 1992, they introduced their own national currencies, fixed them to the Deutsche Mark (Estonia), IMF Special Drawing Rights (SDRs) (Latvia) or the US dollar (USD) (Lithuania) based on a currency board (Estonia and Lithuania) or quasi-currency board mechanism (Latvia). In the subsequent years, they continued radical market reforms and stable macroeconomic policies, which eventually led them to assume the position of reform leaders in the post-communist world and to their membership in the European Union (EU) in 2004 and the Euro area (between 2010 and 2015).

The remaining twelve post-Soviet states, including Russia, faced serious obstacles to achieving basic macroeconomic stability. Russia began radical but incomplete and inconsequential market reforms at the end of 1991 (the so-called Gaidar program). Everywhere in the FSU, the 1992–1994 period was marked by

Table 2
FSU: end-of-year CPI inflation, 1993–2000 (%).

Country	1993	1994	1995	1996	1997	1998	1999	2000
Armenia	10 896.2	1884.5	31.9	5.8	21.9	–1.3	2.0	0.4
Azerbaijan	1350.0	1792.1	84.6	6.7	0.4	–7.6	–0.5	2.2
Belarus	1996.6	1959.7	244.0	39.3	63.1	181.7	251.2	107.5
Georgia	n/a	n/a	57.4	13.7	7.2	10.7	10.9	4.6
Kazakhstan	2165.0	854.6	60.4	28.6	11.3	1.9	18.1	9.8
Kyrgyzstan	929.9	62.1	32.1	34.8	13.0	16.8	39.9	9.6
Moldova	837.0	116.1	23.8	15.1	11.1	18.2	43.8	18.5
Russia	839.9	215.1	131.3	21.8	11.0	84.4	36.5	20.2
Tajikistan	7344.0	1.1	2144.2	40.5	163.6	2.7	30.1	60.6
Turkmenistan	n/a	1327.9	1261.5	445.8	21.5	19.8	20.1	7.4
Ukraine	10 155.0	401.1	181.7	39.7	10.1	20.0	19.2	25.8
Uzbekistan	884.8	1281.4	116.9	64.4	50.2	26.1	26.0	28.2

Source: IMF World Economic Outlook Database, October 2012.

high fiscal and quasi-fiscal deficits financed by money emission, which resulted in very high inflation, abrupt devaluations of newly established national currencies (such as occurred in Russia on "Black Tuesday", October 11, 1994) and deep output declines. In three extreme cases, the lack of fiscal and monetary discipline led to hyperinflation not only in war-torn Georgia (an inflation rate of 50,654% for the 12-month period ending in September 1994) and Armenia (29,600.9% in May 1994) but also in Ukraine (10,155% in December 1993) (Dabrowski, 2003b). Referring to the theoretical model analyzed in Section 2, both periods (1989–1991 and 1992–1995) were marked by first-generation crises.

In most FSU countries, stability of sorts was finally achieved in 1994–1995, after completely abandoning the Soviet ruble in the second half of 1993, introducing national currencies (the same year) and launching IMF-sponsored reform programs.

3.3. Russian and CIS financial crisis of 1998–1999

The relative stability accomplished in 1994–1995 proved unsustainable. The money supply had been taken under control but the underlying fiscal disequilibria continued. These equilibria were partly reduced and financed by issuing Treasury securities to private investors rather than by central bank lending.

However, domestic financial markets remained shallow and foreign purchasers required high risk premia. Soon, the slow pace of fiscal adjustment and structural reforms, and continued output decline undermined the sustainability of such financing. The contagion effect from the Asian crises of 1997–1998, a strengthening USD and the collapse of oil prices added to the market pressures.

As a result, on August 17, 1998, Russia defaulted on its public debt obligations and abandoned the USD currency band, which led to ruble devaluation by three-quarters of its initial value. Soon market panics spread to other FSU countries, which were suffering from the same macroeconomic vulnerabilities as Russia. All but Azerbaijan and Armenia recorded substantial currency depreciation between mid-1998 and mid-1999 (Fig. 1). Russia and Ukraine were forced to renegotiate their government debt obligations with creditors. Banking crises occurred

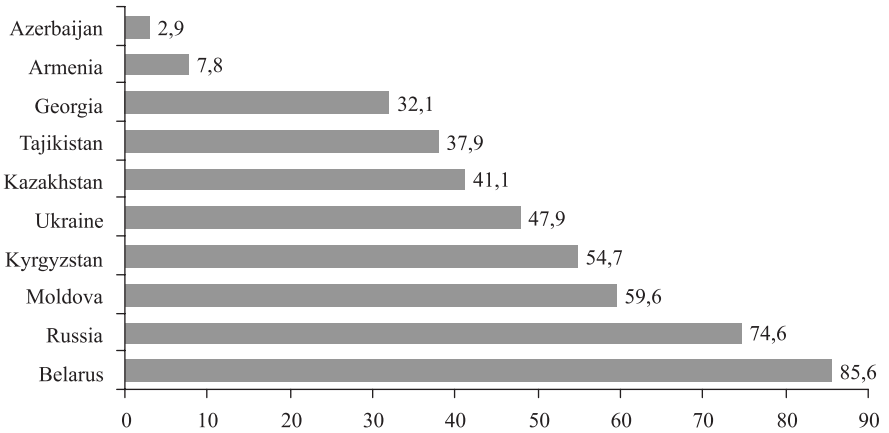

Fig. 1. Nominal depreciation per unit of national currency against the USD between June 1998 and June 1999 (%).

Source: IMF International Financial Statistics.

in Russia, Ukraine, Kazakhstan, and Kyrgyzstan; these were additional examples of the first-generation model of currency crisis.

Abrupt devaluation led to a new wave of high inflation; fortunately, in most cases, these inflationary bouts were rather short-lived (Table 2). Moreover, these inflationary spells helped close balance-of-payments gaps and increased nominal budget revenue while expenditures were not fully indexed.

3.4. Fallout from the global financial crisis (2008–2009)

The 1998–1999 crisis was followed by almost a decade of high growth, much lower inflation (but nonetheless higher than inflation in other transition and emerging-market economies at that time), better fiscal performance (particularly in the oil and gas producing and exporting countries), growing international reserves, higher demand for domestic money balances and relative exchange rate stability (Dabrowski, 2013). This period resulted from favorable global conditions, i.e., abundant liquidity, high oil and other commodity prices (Fig. 2), large-scale capital inflows, and reaping the initial rewards attributable to the decade-long structural and institutional transformation.

However, the global macroeconomic shock triggered by the financial crisis in the US and part of Europe spanning the 2007–2009 period set back most of those accomplishments. The global liquidity squeeze, particularly following the bankruptcy of the Lehmann Brothers in September 2008, led to massive capital outflows from emerging markets. A bit earlier, in the summer of 2008, the previous commodity bubble burst, with oil prices plummeting to one-third of their pre-crisis peak (Fig. 2). As result, Russia and other FSU economies experienced capital outflows, declines in foreign exchange reserves, depreciation of their currencies (Fig. 3), deterioration in fiscal accounts, GDP declines or stagnation, and tensions in their banking systems. However, the scale of currency depreciation was smaller than a decade earlier and one country (Azerbaijan) even recorded currency appreciation during this period.

As discussed above, the FSU economies (with the exception of Belarus and (partly) Ukraine) entered the period of the 2008–2009 global turmoil with more

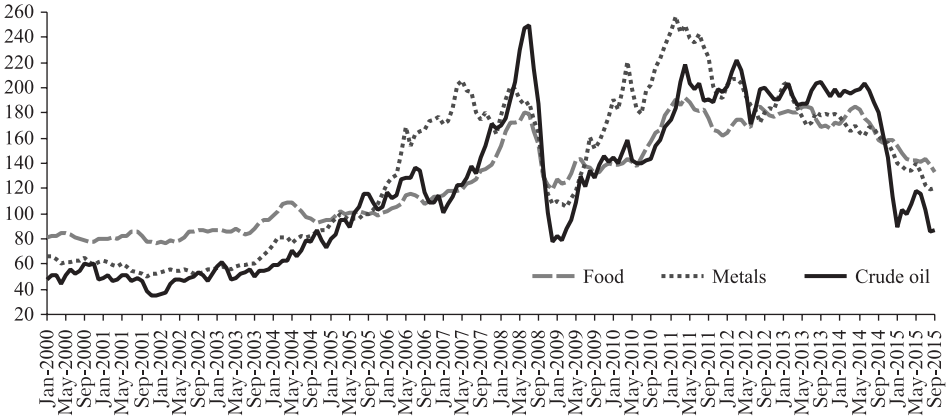

Fig. 2. Commodity price indices, 2000–2015 (2005 = 100).

Source: IMF Primary Commodity Price System, http://www.imf.org/external/np/res/commod/External_Data.xls.

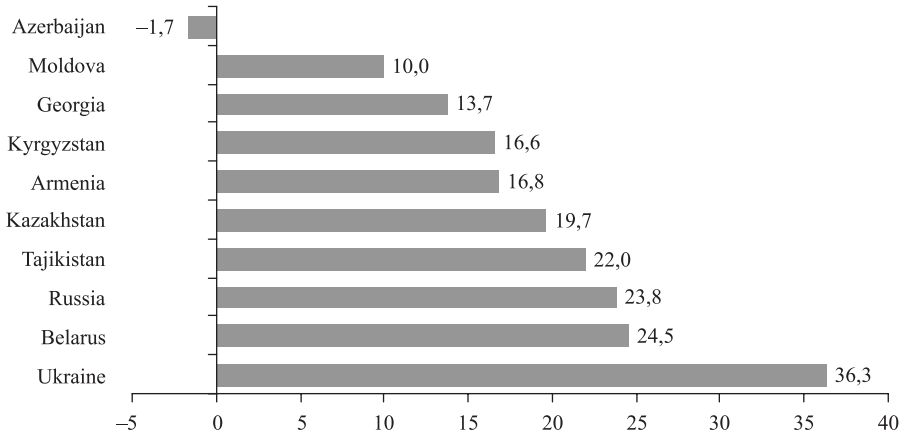

Fig. 3. Nominal depreciation of one unit of national currency against USD between June 2008 and June 2009 (%).

Source: IMF International Financial Statistics.

solid macroeconomic fundamentals than they brought to the 1998–1999 crisis. Therefore, a third-generation model of currency crises (microeconomic overborrowing plus negative external spillovers and contagion) can be conceived of in place of the first-generation model that effectively explained the causes of previous crises (in late 1980s and 1990s).

Although the global liquidity squeeze was overcome in the spring of 2009 by aggressive monetary policy easing of the major central banks, and global trade, GDP and commodity prices began to recover in the second half of 2009, Russia and other FSU countries did not return to their previously high growth rates. Other macroeconomic indicators also deteriorated compared to the pre–2008 period.

4. Dynamics of the 2014–2016 crisis

The most recent episode of currency crisis began in Russia and Ukraine in early 2014 as result of a combination of global, regional and country-specific factors (see Sections 5 and 6). In terms of theory, it involved elements of second- and third-generation models of currency crises. At the end of 2014 and early 2015 the crisis had spread to neighboring countries. The scale of the currency depreciation has been so far comparable with 1998–1999 shock rather than with that of 2008–2009 (see Fig. 4).

4.1. Russia

The gradual depreciation of the ruble against both the Euro and the USD began in November 2013, before the onset of the Russian-Ukraine conflict and when oil prices were still high. The pace of depreciation accelerated in March and April 2014, after Russia's annexation of Crimea and the first round of US and EU sanctions against Russia. Between May and July 2014, the ruble partly regained its previous value.

However, the depreciation trend returned in the second half of July 2014. Its pace quickened in October 2014 and peaked between December 2014 and

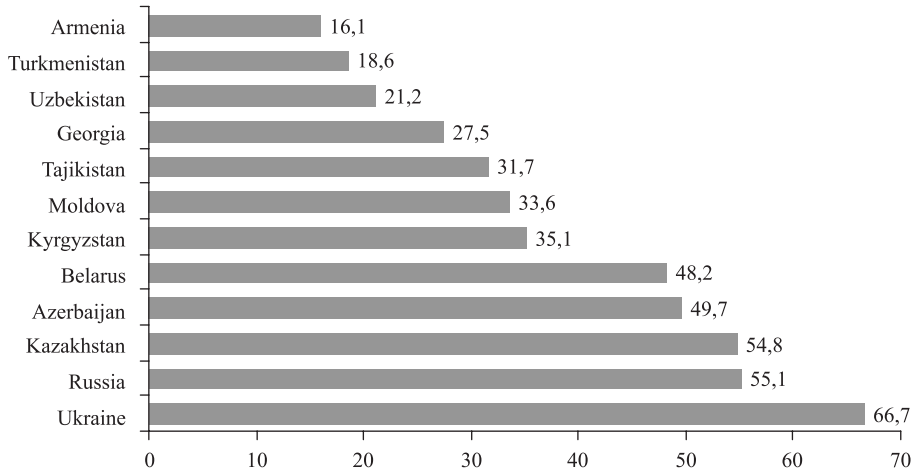

Fig. 4. Nominal depreciation of one unit of national currency against USD between December 2013 and December 2015 (%).

Source: Statistical data of FSU central banks (as of April 15, 2016).

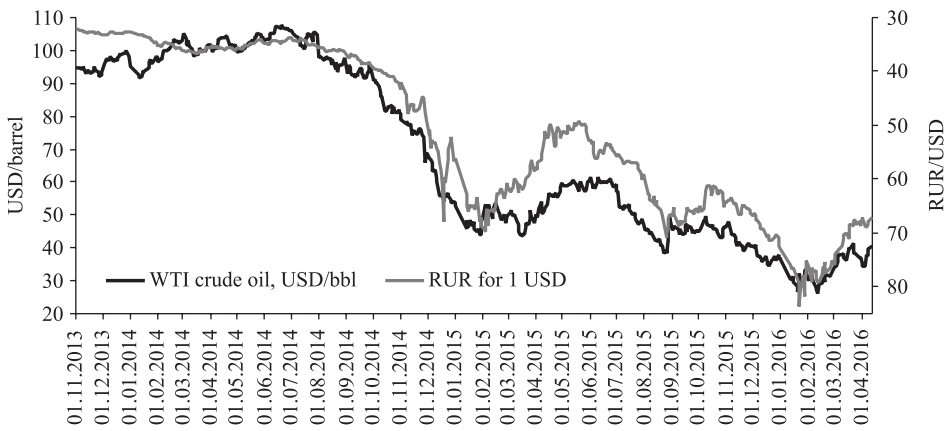

Fig. 5. Crude oil prices, in USD per 1 barrel (left axis) and RUR/USD exchange rate (right axis, reverse scale), 2013–2016.

Sources: Central Bank of Russia (CBR), http://www.cbr.ru/eng/currency_base/dynamics.aspx and US Energy Information Administration, http://www.eia.doe.gov/dnav/pet/TblDefs/pet_pri_spt_tbldef2.asp.

February 2015, with a short episode of market panics on December 16–17, 2014 (Fig. 5). Since the end of February 2015, the ruble has partly recovered, reaching its early November 2014 value in mid-May 2015. Next, the depreciation trend returned with the first bottom point in the second half of August 2015 when the ruble again reached its January 2015 nadir. After a modest recovery in September and October 2015, it continued to plummet reaching its lowest ever level of 81.84 RUR per one USD on January 27, 2016. Between February and April 2016, another appreciation period could be observed. However, by mid-April 2015, the ruble had managed to return only to its January 2015 exchange rate.

Fig. 5 suggests that changes in the exchange rate follow changes in oil prices. However, this is not the only factor that determines changes on the forex market.

Among other determinants, changes in exchange rate regimes and the scale of foreign exchange intervention of the Central Bank of Russia (CBR), crisis-management policies (Section 4.4), changes in the intensity of the conflict with Ukraine, Western sanctions against Russia and Russian counter-sanctions, and the fluctuation in capital flows have played prominent roles. We will return to this analysis in Section 5.

As with the previous two crises (1998–1999 and 2008–2009), the recent crisis in Russia has been driven by developments in the capital account rather than in the current account. As shown in Fig. 6, Russia's current account balance remains in surplus.

On the other hand, net private capital flows have generally been negative except for a short period of 2006–2007 (Fig. 7). In the crisis years of 2008 and 2014, they reached record-high negative levels of USD 133.6 and 152.9 billion, respectively. Furthermore, the entire post-2008 period has been marked by intensified net capital outflows.

This was exactly the main shock channel that hit Russia in 2014. It led not only to the deep depreciation in the ruble but also to the substantial depletion of

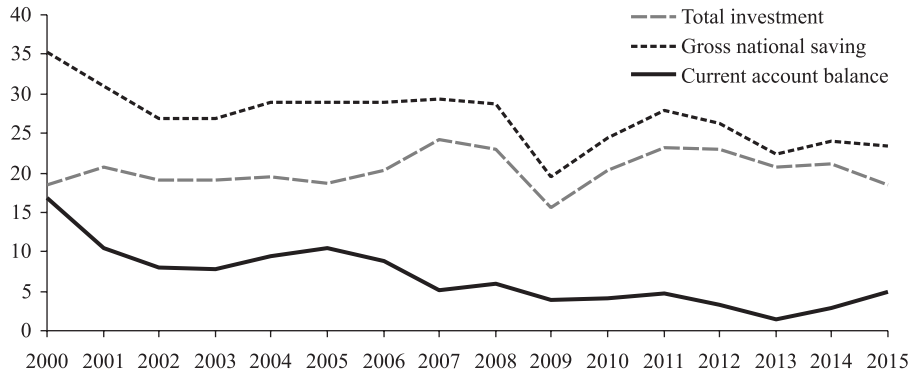

Fig. 6. Russia: current account balance, 2000–2015 (% of GDP).

Note: IMF staff estimates for 2015.
Source: IMF World Economic Outlook database, April 2016.

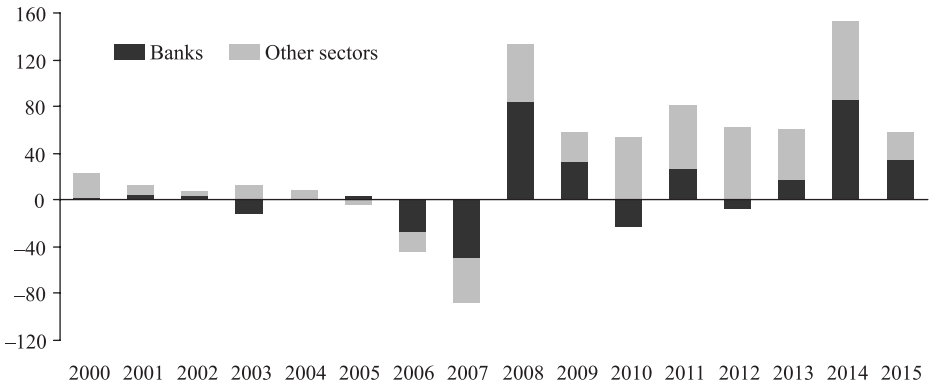

Fig. 7. Russia, net private capital flows, 2000–2015 (USD billion).

Note: Sign (–) means net capital inflows, sign (+) means net capital outflow.
Source: http://www.cbr.ru/statistics/credit_statistics/bop/outflow.xlsx.

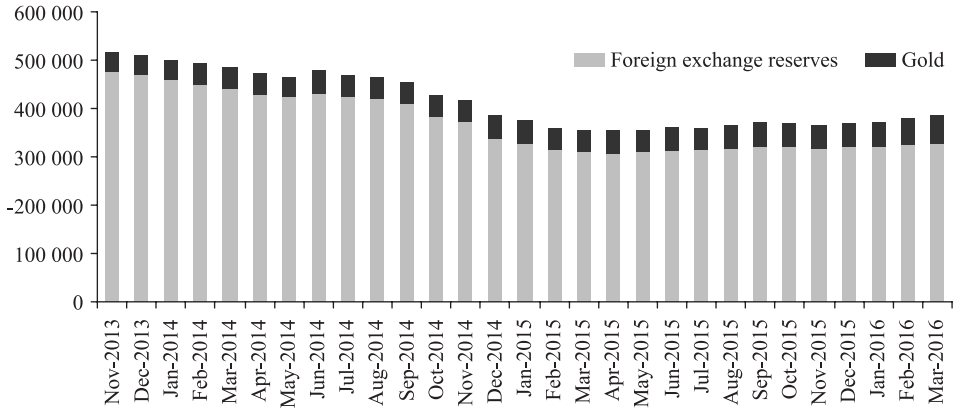

Fig. 8. Russia's international reserves, 2013–2016 (USD billion).

Source: Bank of Russia, http://www.cbr.ru/eng/hd_base/default.aspx?Prtid=mrrf_m.

the CBR's international reserves (Fig. 8). Between November 2013 and March 2015, Russia lost approximately USD 160 billion of its international reserves. This was the period in which the CBR tried to defend the ruble by massive interventions on the forex market (particularly in mid-December 2014). During the next 12 months (until March 2016), it recovered approximately 20% of its previous reserve losses.

4.2. Ukraine

In parallel with the decline of the Russian ruble, a similar process was observed in neighboring Ukraine. The hryvna (UAH), which was previously fixed quite tightly at the level of approximately eight UAH to one USD, began to depreciate rapidly in February 2014 as the result of Ukraine's domestic political crisis (Euromaidan and the collapse of the Yanukovych regime) and the subsequent Russian annexation of Crimea and conflict in Donbass (Fig. 9).

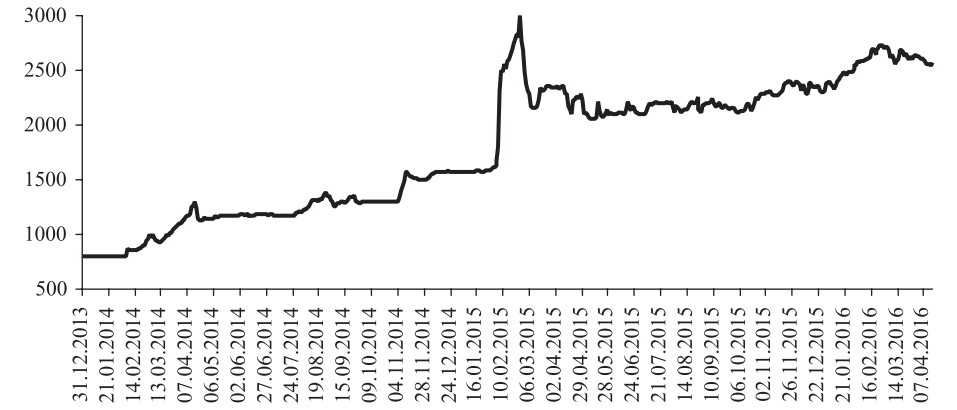

Fig. 9. Exchange rate of the Ukrainian hryvna, 2014–2016 (UAH/100 USD).

Source: National Bank of Ukraine, http://www.bank.gov.ua/control/en/curmetal/currency/search?formType=searchPeriodForm&time_step=daily&currency=169&periodStartTime=31.12.2013&periodEndTime=16.04.2016&outer=table&execute=Search.

In 2014, the depreciation trend stopped and even partly reversed on two occasions: between the end of April and July with the first tranche of the IMF's stand-by loan, and in October following the ceasefire in Donbass. However, in November 2014, the rapid depreciation trend resumed, partly as result of a contagion effect from Russia, partly because of the slow pace of fiscal adjustment (the consolidated fiscal and quasi-fiscal deficit exceeded 10% of GDP in 2014), and partly resulting from a new escalation of the war in Donbass. The hryvna reached its lowest point of 30 UAH per one USD on February 26, 2015. Since that time, thanks to the new IMF program, a three-year extended fund facility (EFF) and the Minsk-2 ceasefire agreement, the hryvna recovered to approximately 21 UAH per one USD in the third week of May 2015 and remained at this level until October 2015. Then, the depreciation trend resumed. After February 2016, the hryvna reached a new level of 25–26 UAH per one USD.

Throughout 2014 and into early 2015, there were several waves of market panics, taking the form of a massive withdrawal of hryvna deposits from Ukrainian banks and their conversion into foreign currency. In 2015, Ukraine was forced to restructure part of its public debt owed to Eurobond holders.

As Fig. 10 shows, the National Bank of Ukraine (NBU) lost approximately three-quarters of its gross international reserves between December 2013 and February 2015. These losses have been partly recovered, thanks to the IMF EFF loan.

4.3. Other FSU countries

In 2014–2015, the currency crisis spread to other FSU countries. The spillover and contagion mechanisms involved decreasing trade volumes and deteriorating terms of trade with Russia, lower remittances from labor migrants working in Russia (particularly from Tajikistan, Kyrgyzstan, Uzbekistan, Moldova, and Armenia) and, most importantly, the devaluation expectations of households and financial market players. Those countries, which depend on Russia as an important trading partner — and particularly those that belong to the Russia-led Eurasian Economic Union (EaEU) — could not sustain the sharp nominal appreciation of their currencies against the RUR. However, most importantly, all FSU

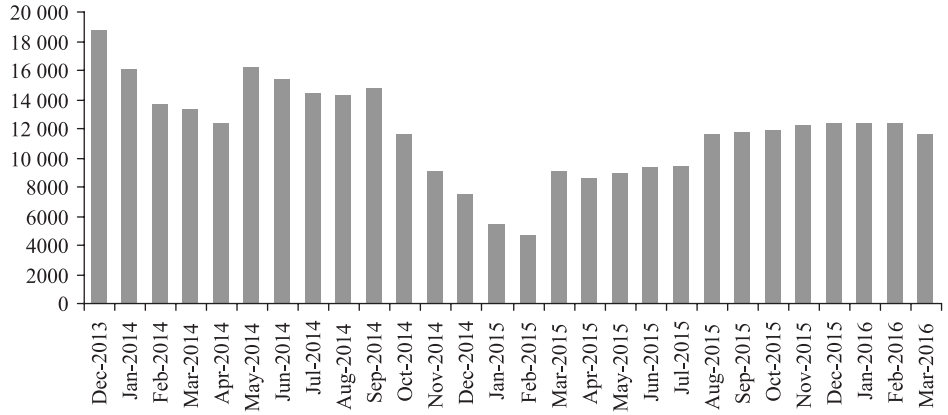

Fig. 10. Ukraine's international reserves in billions of USD, end-of-month, 2014–2016.

Source: National Bank of Ukraine, http://www.bank.gov.ua/doccatalog/document?id=46950.

countries share the same fundamental macro- and microeconomic vulnerabilities (see Section 6).

As shown in Fig. 4, the currencies of Kazakhstan, Azerbaijan and Belarus have been most heavily hit. Between the end of 2013 and 2015, these currencies lost approximately half of their value against the USD. The currencies of Kyrgyzstan, Moldova and Tajikistan lost between 30 and 35% of their value. Other currencies suffered less, but it must be remembered that the convertibility of the Uzbekistani som (UZS) and the Turkmenistan manat (TKM) remain heavily restricted.

The case of Azerbaijan, whose currency, the manat (AZN), survived two previous crises intact (1998–1999 and 2008–2009) (Figs. 1 and 3) but suffered heavily in the 2014–2016 crisis, deserves particular attention. Notably, Azerbaijan is not as dependent on trade with and remittance inflows from Russia as other FSU countries. Azerbaijan suffered largely from declining oil prices, lowered oil output, regional contagion effects and poor crisis management (see below). The AZN held up against market pressure until the end of 2014, but beginning in January 2015, it experienced a few waves of depreciation with a cumulative loss against the USD of 49.7% by the end of 2015. In turn, depreciation of AZN led to systemic banking crisis in 2016.

The culmination of the market contagion shock came in December 2014 and January 2015, following the peak of the developing crisis in Russia (Section 4.1). In particular, it was visible in Belarus, Armenia (which successfully resisted pressure and recorded the smallest depreciation of its dram, by only 16.1% only — see Fig. 4), Azerbaijan, Kyrgyzstan and Moldova (Dabrowski, 2015a).

4.4. Shortcomings in crisis management

There is no doubt that shortcomings in crisis management added to market panics and, as a result, to the extent of currency depreciation. Most countries, including Russia, seemed to be surprised by both the crisis itself and its magnitude. In addition, it did not help that comprehensive anti-crisis policies had not been adopted, which led to several miscalculations and clear mistakes. In particular, the response of these countries did not include sufficient fiscal adjustment as well as structural and institutional reforms to address the deep roots of the crisis (see Section 6). Weaknesses in public communication and insufficient transparency also did not help with crisis management.

Over the short term, anti-crisis measures included foreign exchange interventions, increases in interest rates, changes in monetary/exchange-rate regimes, foreign exchange restrictions, and other policy steps.

4.4.1. Foreign exchange interventions

In the beginning, most central banks responded to market pressures against their currencies by combining foreign exchange interventions and gradual devaluations. However, only a few of these banks, i.e., in principle only those in oil-producing countries, had enough international reserves to continue such strategies over the longer term. Because they were aware of these constraints, market players became quickly skeptical about the chances of successful defending strategies (and the political will to implement any such defenses), which led to increasing specula-

tive pressures (i.e., the typical situation described by the second-generation model). This skepticism involved not only professional participants in the forex markets but also all resident and non-resident holders of financial assets (the reason for massive capital flight), including households. The latter withdrew bank deposits in the applicable domestic currency and converted their money into USD or Euros, often also attempting to speculatively purchase durable goods and real estate.

In all FSU countries, reserve losses proved substantial by the end of 2014 (Dabrowski, 2015a) and ultimately forced authorities to change their initial strategies.

4.4.2. Interest rate increases

Increasing the central bank's interest rate is a correct reaction to speculative pressure against a currency but in most of the cases discussed herein, the increases came too late (November-December 2014) and were frequently insufficient to stop market panics. For example, the CBR increased its rate for repo operations (with maturities of between one-day and one-week) from 10.5% to 17.0% on December 16, 2014. It did not have an immediate effect in terms of arresting market pressures, which continued for a few more weeks but this action helped with market stabilization over the longer term

The National Bank of the Republic of Belarus (NBRB) increased its interest rate for overnight credit to 50% on December 19, 2014.[1]

The Central Bank of Armenia (CBA) increased its refinancing rate from 6.75% to 8.5% on December 23, 2014 and again to 9.5% on January 22, 2015. The lombard repo rate increased from 8.25% to 10.25% on November 24, 2014 to 21% on December 3, 2014, and then decreased to 20% on December 23, 2014 and 17% on January 22, 2015. The CBA deposit rate increased from 5.25% to 7.0% on December 23, 2014 and then to 8.0% on January 22, 2015.[2]

On December 12, 2014, the National Bank of Moldova increased its overnight credit rate from 6.5% to 7.5%, its basic rate from 3.5% to 4.5%, and the overnight deposit rate from 0.5% to 1.5%. On December 29, 2014, all rates were hiked again, to 9.5%, 6.5% and 3.5%, respectively.[3]

The discount rate of the National Bank of the Kyrgyz Republic was systematically increased from 6% in June 2014 to 11% on January 26, 2015.[4]

Once the most severe phase of currency crisis had ended (in the first quarter of 2015) most central banks cut their interest rates but by the end of 2015 they had not returned to pre-crisis levels.

4.4.3. Changes in monetary regimes and transparency problems

When international reserves ran down (Section 4.4.1), some central banks were forced to change their previously implemented monetary regimes. A broader international comparison of the impact of an oil price decline on the macroeco-

[1] See http://www.nbrb.by/Press/?nId=89&l=en.
[2] See https://www.cba.am/en/SitePages/fmompiinterestrates.aspx.
[3] See https://www.bnm.md/files/index_30237.pdf.
[4] See http://www.nbkr.kg/DOC/27012015/000000000032420.xls.

nomic performance of net oil exporters (Dabrowski, 2015c) suggests that both floating exchange rates with inflation targeting and credible long-term pegs can help minimize the risk of serious currency and financial turmoil. The most vulnerable are the so-called hybrid or intermediate regimes (Dabrowski, 2013) in which authorities try to control both the exchange rate and the money supply.

Even worse is the situation in which regime change occurs in the midst of a crisis associated with market pressure, which occurred in at least five FSU countries over the 2014–2015 period — Russia, Ukraine, Belarus, Azerbaijan and Kazakhstan.

In Russia and Ukraine, the move to a floating exchange rate and inflation targeting was advised by the IMF long ago (after the 1998–1999 crisis). However, the "fear of floating" (see Calvo and Reinhart, 2000) was too strong to actually make this idea a reality. Finally, it began to be implemented in both countries in 2014, albeit in the worst possible market environment.

The CBR changed its *de facto* exchange rate regime several times over the 2014–2015 period, creating the impression that it makes decisions based on market and political pressures and not necessarily in accordance with broader macroeconomic priorities. First, it defended the RUR exchange rate (until October 2014). Then, it attempted to minimize losses in international reserves by declaring a transition to a floating exchange rate and inflation targeting. However, immediately following the December 16, 2014 market panics, it returned to foreign exchange interventions. Then, in 2015–2016, it continued its active interventions on the forex market by purchasing foreign exchange to rebuild its international reserves. Thus, CBR communication policy remained unclear and contributed to market uncertainty. Worse, at the peak of market speculation against the RUR, the CBR was suspected of participating in non-transparent schemes to provide financial support to large state-controlled corporations (see Guriev, 2014).

The NBU has also changed its *de facto* exchange rate regime several times, first accepting the principle of a floating exchange rate and then intervening heavily on a few occasions with the aim of stabilizing the exchange rate.

After a preemptive devaluation in February 2014, the National Bank of the Republic of Kazakhstan (NBRK) assured both financial markets and the public many times that it would not devalue again. However, the next devaluation occurred in 2015, whereupon the KZT exchange rate became floating, leading to even further depreciation.

A similar scenario (the assurance of currency stability followed by chaotic devaluation) occurred in Azerbaijan with its 2015 devaluation, and the psychological shock was even more severe after twenty years of AZN stability.

4.4.4. Foreign exchange controls

At least two countries (Belarus and Ukraine) resorted to foreign exchange controls, including restrictions on current account transactions, but these moves only served to fuel the nervous reactions of market agents to various shocks and uncertainties.

In December 2014, the NBRB introduced a 30% commission on any form of purchase of foreign currency by physical persons[5] and other restrictions on

[5] http://www.nbrb.by/Press/?nId=84&l=en.

foreign currency trading. These restrictions were gradually removed by the end of February 2015.

In Ukraine, various forms of restrictions on current account transactions were introduced at the end of 2013 and remained in force in April 2016.

5. Role of global and regional factors

5.1. US monetary policy

Among the global factors that contributed to the 2014–2016 crisis, US monetary policy played an important role. Since mid-2013, the expectation of the phasing down of Quantitative Easing 3, which eventually occurred in October 2014, and then the expectations of an increase in the US Federal Fund Rate with the first step taken in December 2015, led to tighter global liquidity conditions, which could not be fully compensated for by simultaneous monetary easing by the ECB and the Bank of Japan because of the much smaller size of the financial markets in the Euro and yen. Thus, net capital inflows into emerging-market economies decreased, growth in these economies decelerated and commodity prices began to fall (see Feldstein, 2014, and Frankel, 2014, on the effects of US monetary tightening on oil and commodity prices). Since the end of 2013, the dollar has appreciated against most currencies with flexible exchange rates (Fig. 11).

Some of these currencies, in particular, the Brazil real (BRL) and the South African rand (ZAR), recorded cumulative nominal depreciations comparable in size with such FSU countries as Kyrgyzstan, Moldova and Tajikistan and higher than Georgia (Section 4.3 and Fig. 4). However, in countries with floating exchange rate regimes, currency depreciation had a smoother character that was extended over time and free from speculative pressures.

5.2. Decline in oil and commodity prices

The sharp decline in oil prices since mid-2014 (Fig. 2) was caused by a combination of several factors. Slowing growth in emerging-market economies, energy-saving policies in developed and developing countries, and the development of renewable energy sources decreased demand for oil. In addition,

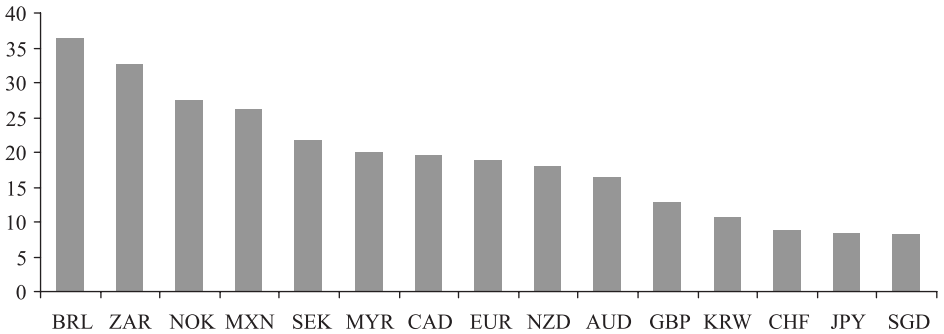

Fig. 11. Nominal depreciation between December 2013 and March 2016 of one unit of selected currency against the USD (%).

Source: US Federal Reserve Board, http://www.federalreserve.gov/releases/g5/current/default.htm.

the gradual tightening of US monetary policy (Section 5.1) reduced the appetite for speculative purchases of oil and other commodities. Finally, massive investment in oil-production capacities, including shale oil, in the most recent two decades (Dale, 2015) and the declining market power of the OPEC cartel led to oversupply.

Five FSU countries — Azerbaijan, Kazakhstan, Russia, Turkmenistan and Uzbekistan — are net exporters of oil and natural gas. A sixth country, Belarus, benefits from transiting, processing and reselling Russian oil purchased on concessionary terms (Dabrowski, 2016). Furthermore, FSU countries also export ferrous and non-ferrous metals (Russia, Armenia, Kazakhstan, Ukraine, and Tajikistan) and agricultural commodities (Kazakhstan, Russia, Tajikistan, Ukraine, and Uzbekistan). The smaller economies often benefit from trading with energy and commodity producers and exporting surplus labor force.

On the other hand, Figs. 12 and 13 show that only Azerbaijan represents the oil and gas export monoculture and very high dependence on oil rents, resembling Kuwait, Libya, Iraq, Oman, Saudi Arabia, and Venezuela. The same probably applies to Turkmenistan but a lack of comparable data does not allow verification

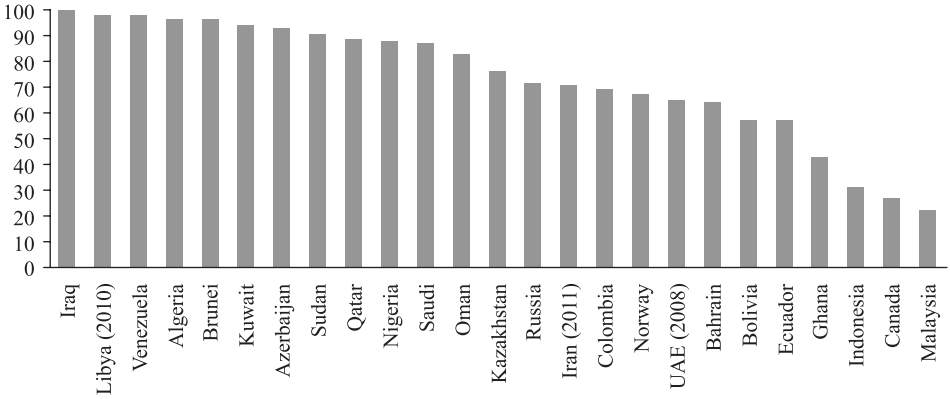

Fig. 12. Fuel exports as % of merchandise exports, 2013, unless otherwise indicated.

Source: World Bank World Development Indicators, http://data.worldbank.org/indicator/tx.val.fuel.zs.un.

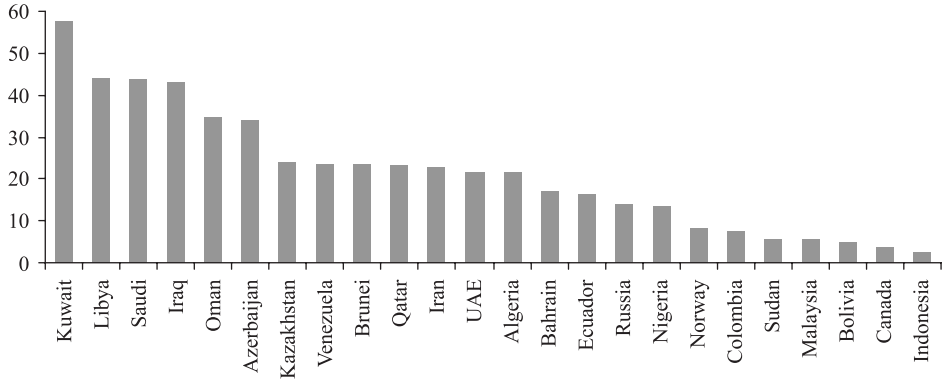

Fig. 13. Oil rent as % of GDP, June 2013.

Source: World Bank World Development Indicators, http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#.

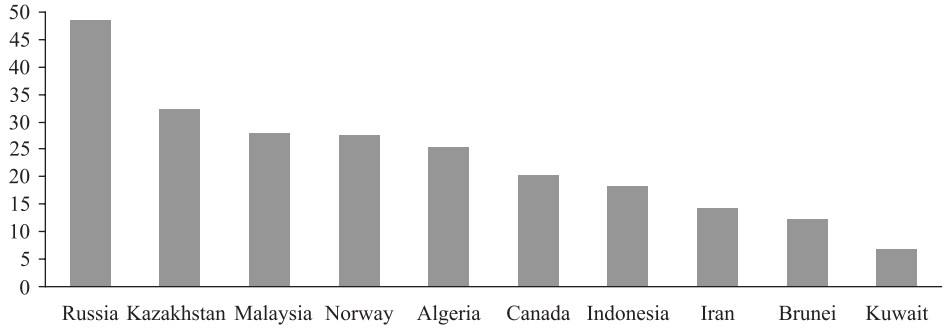

Fig. 14. Nominal depreciation of one unit of national currency against USD between June 30, 2014 and September 30, 2015 (%).

Source: IMF Exchange Rates, http://www.imf.org/external/np/fin/ert/GUI/Pages/Report.aspx?CT=%27DZA%27,%27BRN%27,%27CAN%27,%27IDN%27,%27IRN%27,%27KAZ%27,%27KWT%27,%27MYS%27,%27NOR%27,%27RUS%27&EX=REP&P=DateRange&Fr=635396832000000000&To=635791680000000000&CF=UnCompressed&CUF=Period&DS=Ascending&DT=NA.

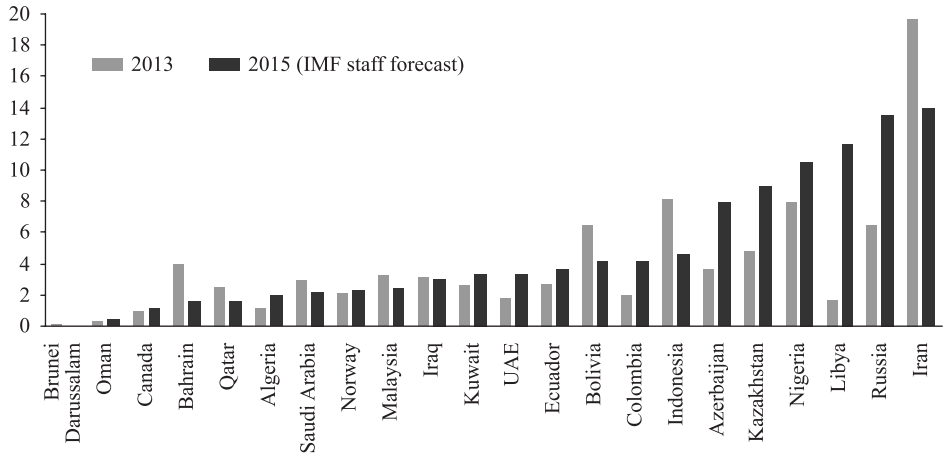

Fig. 15. End-of-year inflation,, 2013 and 2015 (%).

Source: IMF World Economic Outlook database, October 2015.

of this hypothesis. Russia, Kazakhstan and (probably) Uzbekistan (again, there is a lack of comparable data) are more diversified in terms of their export structures (although hydrocarbons play an important role) and are relatively less dependent on oil rent.

Nonetheless, Russia, Kazakhstan and Azerbaijan were the most heavily hit in terms of currency depreciation (Fig. 14) and its inflationary impact (Fig. 15) during the 2014–2016 crisis. Russia was also one of the few oil exporters — apart from war-affected Iraq and Libya and Venezuela (which has suffered from more than decade of economic populism) — that recorded a decline in GDP in 2015 (Dabrowski, 2015c).

Clearly, the impact of global economic developments, including much lower energy and commodity prices do not fully explain the depth of the nominal depreciation of FSU currencies in 2014–2016. Other factors must be considered, including those of a political, security and geopolitical nature.

5.3. Consequences of Ukrainian conflict

The political, military and economic conflict between Russia and Ukraine and the resulting political confrontation between Russia and the EU and US negatively affected the two largest FSU economies and their neighbors.

Since the end of 2013, the Ukrainian economy has been hit by the consequences of domestic political developments (the EuroMaidan, the collapse of Yanukovych's regime and two election campaigns in 2014), followed by Russia's annexation of Crimea (March 2014), conflict in Donbass (since May 2014), and imposition of trade restrictions on Ukrainian exports. On the macroeconomic front, these factors have translated into heavy losses in GDP, export and tax-revenues, additional military expenditures, war damage (including human losses), the costs of taking care of internally displaced persons and humanitarian aid, further deterioration in the business and investment climate, and dwindling confidence in Ukrainian banks and currency. In particular, the conflict in Donbass, which contributed 16% of Ukraine's GDP and 25% of its exports (Havlik, 2014), levied a heavy toll on the country's fiscal accounts and balance of payments.

For Russia, the negative consequences included conflict-related damage and human losses, additional military spending, the costs of infrastructure projects required to integrate the Crimean peninsula into mainland Russia, and support to Donbass separatists and population of this region, assistance to refugees from Donbass, and disruption of trade with Ukraine (which accounted for some 5% of total Russian exports and imports in the early 2010s), among others. Although an estimation of the additional fiscal burden for Russia arising from this conflict is not publicly known, it is likely to be substantial.

The EU, US, Canada, Australia, Japan and a few other countries reacted to this conflict by imposing diplomatic, political, and economic sanctions against Russia. Limiting the access of Russian state-owned banks and large corporations to the financial markets has proven to be the most painful measure thus far (see Åslund, 2014; Rogov, 2014). This is hardly surprising in light of the 2008–2009 global financial crisis, when this segment of the Russian economy demonstrated the greatest vulnerability to external shocks. Its high short-term refinancing needs, in combination with declining oil prices, made investors nervous about the prospects for Russia's external liquidity in the second half of 2014 and most of 2015.

Russian authorities underestimated the scale and impact of these sanctions. This led to a certain nonchalance in its reaction to subsequent rounds of sanctions, including Russia's adoption of retaliatory measures against food imports from the EU and US in August 2014. Counter-sanctions created additional one-off inflation pressure, further exacerbated the deterioration of the quality of the domestic consumer market, caused trade tensions with EaEU partners, and strengthened market fears about policy unpredictability and dominance of geopolitical considerations over economic rationales in the country.

The same type of geopolitical logic led to decisions to impose trade sanctions against Turkey (another important economic partner of Russia) after Turkey shot down a Russian plane in Syria in November 2015 and to suspend a free-trade agreement with Ukraine in January 2016 after activation of the EU-Ukraine Deep and Comprehensive Free Trade Area, again without consultation with other EaEU partners. The latter suffer not only from Russia's numerous trade wars (even if

some Belarus and Kazakh enterprises benefit from circumventing Russian sanctions and counter-sanctions in the short term) but also from general perceptions of higher security risks in the FSU region.

A general lesson from this experience is the high price of any conflict — even of a supposedly local character — in the contemporary highly interlinked global economy.

6. Deep roots of the FSU currency crises

Apart from those global economic and regional geopolitical factors analyzed in Section 5, there have been a number of domestic institutional and policy factors that have amplified the impact of external shocks. These factors relate to both the macroeconomic and microeconomic spheres.

6.1. Ghosts of the past: Limited credibility of FSU currencies

Analysis of the recent crisis cannot overlook the extreme macroeconomic fragility of the FSU region, which is not a new phenomenon, as evidenced by previous crises (Section 3). In fact, memories of past crises have had a powerful impact on the behavior of domestic economic agents. Over the last 30 years, these economic agents have experienced lost savings several times resulting from high inflation/ hyperinflation, numerous banking failures, and non-equivalent exchanges of money in 1991 and 1993. They remember episodes of abrupt devaluation of national currencies. To combat market turmoil, authorities in some countries have often resorted to foreign exchange controls (see Section 4.4.4).

The previous Soviet financial history was also marked by hidden and open inflation, forced savings, confiscations of money balances, and various administrative restrictions on currency use, inconvertibility, etc.

Central banks in the region are *de facto* dependent on the executive and legislative branches of government, even when some enjoy independence *de jure*. This dependence can be observed during all the crisis episodes. The same lack of independence (and often lack of professional competence) concerns financial supervision and has negative consequences for the quality and reliability of financial services.

Hence, neither households nor enterprises in FSU countries trust domestic currencies and domestic financial systems. As long as there is no serious turbulence, the low level of trust might be enough to keep local currencies stable, inflation low and banks afloat. However, the level of spontaneous dollarization has remained high even in good times, which is similar to southeastern European and (some) Latin American countries (see Table 3). In an adverse shock, whether of economic or political origin, related to an external or domestic source, domestic money-holders are the first to run from national currencies and domestic banks.

6.2. Poor business climate and capital flight

Macroeconomic fragility is also deeply rooted in microeconomic, structural and institutional imperfections. For years, Russia, Ukraine and other FSU economies have suffered from numerous structural distortions, poor business and in-

Table 3
Foreign currency-denominated liabilities to total liabilities.

Region	Country	The latest data	% of total
CIS	Armenia	2012 Dec	64.9
	Georgia	2012 Q4	69.3
	Kazakhstan	2012 Q2	38.8
	Moldova	2012 Q3	49.4
	Russia	2012 Q4	25.2
	Ukraine	2012 Q4	49.2
Central and Eastern Europe	Bosnia & Herzegovina	2012 Dec	65.2
	Bulgaria	2011	54.8
	Croatia	2012 Q4	77.8
	Czech Rep.	2012 Q3	14.1
	Macedonia	2012 Q3	45.1
	Poland	2012 Q3	20.6
	Romania	2012 Q3	37.7
	Turkey	2012 Q4	41.2
Latin America	Brazil	2012 Q4	11.1
	Chile	2013 Jan	21.3
	Colombia	2013 Jan	6.8
	Peru	2012 Q4	47.1
Asia & Africa	India	2012 Q3	6.2
	Indonesia	2012 Q4	16.3
	South Africa	2012 Dec	5.7

Source: IMF Financial Soundness Indicators.

vestment climates, widespread corruption, weak rule of law, organized crime and other factors, which is illustrated in Tables 4 and 5 in the results of two global rankings: the Transparency International Corruption Perception Index (TI CPI) and the Heritage Foundation Index of Economic Freedom (HF IEF).

With the exception of Georgia, which conducted far-reaching institutional reforms in 2004–2007 and Armenia (only in the Heritage Foundation ranking), neither ranking rates any CIS country favorably. Russia and Ukraine have particularly low rankings, i.e., 136th and 142nd out of 174 countries ranked by Transparency International, and 140th and 155th out of 185 countries ranked by the Heritage Foundation, respectively.

As long as the external economic environment for CIS countries remained favorable (before 2008), the problems highlighted by these rankings could be neglected without (overly) negative consequences for economic growth and macroeconomic equilibria. However, the shock associated with the global financial crisis of 2008–2009 finished the "golden" era of economic growth, which was based, to a great extent, on high commodity prices and massive capital flows to emerging-market economies. The Ukrainian economy never really recovered after this shock (Dabrowski, 2014), while Russia (and most of the other countries) enjoyed the positive effects of high oil and commodity prices for a period but with a declining rate of economic growth since 2011.

The business environment in Russia and Ukraine has continued to deteriorate following the global crisis. In Russia, the re-nationalization trend (an increasing share of state ownership) began with the crackdown on Yukos in 2003–2005 and intensified in 2008–2009 when several banks and companies required government bailouts. Re-nationalization became particularly visible in the oil, gas and

Table 4
Transparency International Corruption Perception Index 2014, CIS region.

Country Rank	Country	CPI 2014 Score
50	Georgia	52
94	Armenia	37
103	Moldova	35
119	Belarus	31
126	Azerbaijan	29
126	Kazakhstan	29
136	Kyrgyzstan	27
136	Russia	27
142	Ukraine	26
152	Tajikistan	23
166	Uzbekistan	18
169	Turkmenistan	17

Source: http://files.transparency.org/content/download/1857/12438/file/CPI2014_DataBundle.zip.

Table 5
Heritage Foundation Index of Economic Freedom 2014, CIS region.

World Rank	Country	2014 Score
22	Georgia	72.6
41	Armenia	68.9
67	Kazakhstan	63.7
81	Azerbaijan	61.3
85	Kyrgyzstan	61.1
110	Moldova	57.3
139	Tajikistan	52.0
140	Russia	51.9
150	Belarus	50.1
155	Ukraine	49.3
163	Uzbekistan	46.5
171	Turkmenistan	42.2

Source: http://www.heritage.org/index/excel/2014/index2014_data.xls.

financial sectors. Russian domestic business has suffered from unstable property rights (the danger of politically motivated expropriation), increasing red tape and harassment from various law-enforcement agencies. Russia's policy toward foreign investors has become at best ambiguous and at worst openly unfriendly (as demonstrated by various unfavorable legislative and administrative measures directed at foreign investors).

In Ukraine, the Yanukovych presidency (2010–2013) was marked by increasing insecurity of property rights, extreme corruption and nepotism, i.e., favoring of the business interests of the narrow group associated with the government and Yanukovych's family, at the expense of other business interests. Unfortunately, there has been little improvement since 2014. The interests of major oligarchic groups continue to block key reforms, including those that might help eradicate corruption and rent-seeking (Wilson, 2016).

Therefore, it should not be surprising that once their economies were hit by political instability and war (Ukraine) or prospects of Western sanctions and further deterioration of the business climate (Russia), residents — and particularly large businesses — were the first to move their financial assets outside the country on a massive scale. Similar reactions have been observed in Latin American econo-

mies during periods of macroeconomic and political instability, particularly in the 1980s and 1990s.

The rapid capital outflows from Russia (Fig. 7) and Ukraine have been facilitated by the dominant business model in both countries in which most of the large companies remain in close ownership relationships with their foreign subsidiaries or parent companies (owned by expatriates); thus, a substantial part of their assets are kept abroad and their domestic operations financed through foreign borrowing (Rogov, 2014).

7. Conclusions and policy lessons

The period of rapid economic growth and relative macroeconomic stability experienced by the FSU countries between 2000 and 2007 and, to lesser degree, between 2010 and 2012 seems to be definitively over. Even under the highly implausible scenario of the rapid recovery of oil and other commodity prices to their 2013 levels, growth in the FSU region will remain stagnant or slow, and macroeconomic equilibria will have to be restored by respective adjustment measures. More likely, low commodity prices will become the "new normal" for several years ahead, which will mean serious headwind and even more pessimistic macroeconomic prospects for the region.

Although changes in the global economy, such as gradual tightening of US monetary policy, a stronger USD, capital outflows from emerging markets and the collapse of energy and commodity prices play an important role in the recent crisis in the FSU countries, its deep causes derive from numerous homegrown vulnerabilities. These vulnerabilities include limited trust in domestic currencies, domestic financial systems and, more generally, in state institutions; insecure property rights; poor business and investment climates; absence of or weak rule of law; and widespread corruption, among others. In addition, the Russian-Ukrainian conflict has added new elements to this already difficult scenario, including regional trade disruption, war-related damages and costs and serious security risks.

Thus, the policies needed to overcome the current crisis and prevent new crises must address the above-mentioned domestic macroeconomic vulnerabilities and microeconomic distortions, i.e., the FSU nations must embark on deep structural and institutional reforms to improve their business and investment climates and to diversify their economies. More specifically, helpful policy changes include eliminating various forms of administrative red tape that discourage business activity and increase its costs; implementing deep reforms with respect to law enforcement agencies (which currently act as parasites on business instead of protecting it); instituting an independent, impartial more professional judiciary; privatizing state-owned companies; genuine opening to foreign investment; introducing market pricing of the domestic energy supply; thoroughly reviewing social entitlements (particularly the early retirement age) that are unsustainable in the context of a rapidly aging population; rationalizing public investment projects and military expenditures; and legislating measures to fight corruption. On the macroeconomic front, genuine independence of central banks and constitutionally determined balanced-budget rules are sorely needed to boost confidence in domestic currencies and domestic financial systems.

The Russian-Ukrainian conflict, which has played a major role in triggering and deepening the current macroeconomic crisis in Russia, Ukraine, and in the entire region, requires rapid resolution based on respect for international law and the territorial integrity of each country. A peaceful and sustainable solution would yield high economic pay-off to each side.

Extending beyond the debate regarding anti-crisis policies, the history of cyclical currency crashes in the FSU region can offer some input into discussions regarding the choice of monetary regime. Since the 1997–1999 series of emerging-market crises, the IMF has advocated flexible exchange rates and inflation targeting, which has proven successful in several high- and medium-income economies. Nevertheless, in the FSU region, its implementation never moved beyond initial preparatory steps and general declarations of interest. There were several obstacles, such as insufficient central bank independence (see Section 6.1), the "fear of floating" (Calvo and Reinhart, 2000; Dabrowski, 2013), underdeveloped financial markets and deficits in analytical and forecasting capabilities in individual central banks.

In light of the recent experiences described in this paper, the "fear of floating" seems to be deeply rooted in FSU economies and cannot be easily eradicated. Furthermore, a period of major shocks, political instability/uncertainty, war and sanctions is not the best time to implement such policy-regime changes, particularly in countries in which the memories of past macroeconomic instabilities remain fresh and painful.

Looking ahead, large and medium-size economies such as Russia, Ukraine, and perhaps Kazakhstan can think about introducing inflation-targeting and free-floating exchange rate regimes but in a much more stable macroeconomic and political environment; these shifts must be reinforced by the necessary institutional reforms (genuine central bank independence) and greater financial market depth and soundness. For the smaller CIS economies, another "corner" solution, such as a currency board, might be a good option. This mechanism might offer several advantages, such as reducing transaction costs in small open economies and importing credibility, which is difficult to build internally (as demonstrated by the continuous high dollarization in these economies).

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