THE INFLUENCE OF GLOBAL CRISIS ON TRAD IN FINANCIAL SERVICES

Marija Lindemane
BA School of Business and Finance, Latvia

Abstract

The given article deals with the analysis of the impact of global economic crisis on financial services trade. The aim of the research described in the article is to forecast the development of financial services export during the period of global economic crisis. To achieve this aim, two main tasks have been set. Firstly, analyze the influence of global economic crisis on trade in financial services. Secondly, define tendencies in the development of financial services export during short- or medium-term prospects. As the basis for the achievement of the given tasks one used such research methods as: mathematic correlation, scenario analysis and the analysis of advanced researches in the sphere of financial services trade. Data base of the following international organizations: World Trade Organization, Organization for Economic Co-operation and Development and the United Nations served as the sources of statistical information. The results of the research proved to be: the revealed correlation between financial services export and economic cycles, as well as scenarios of the development of trade in financial services during the period of an economic crisis.

***Key words**: financial services, economic crisis, global business cycles.*

Introduction

The trade in financial services, as a component part of international trade, appeared not long ago, in mid-90s, and developed at a rapid pace. The main reason for that proved to be progress in the development of information technologies and communication, the appearance of new kinds of financial instruments (derivatives), processes of globalization and regulation of the sphere of financial services on international level (in the frames of such organizations as WTO, EU, NAFTA and at the present moment - also BRIC (IA Rosbalt, 2010).

During the 27-year period (from 1980 to 2007) **the upward trend in financial services export volumes had been preserved**. For all this, average growth rates amounted to 20% (!) per annum and they outstripped the increase in the world export of all services and the growth of the world export of commodities (WTO, 2009). According to WTO data, in 2007 the world financial services export reached its high of 290 billion USD (WTO, 2007) that exceeds the 27-year index approximately 107 times and the 7-year figure - 2.6 times. That very year the proportion of financial services export made up almost 10% of the overall export of services and it accounted for 17% in the section "other commercial services" [1].

However, in 2009 the upward trend in financial services export was broken under the influence of global economic crisis. According to provisional OECD data, the growth rate **slumped -14%** during the year 2009 (OECD, 2010).

It is rather complicated to forecast what the further development of financial services trade would be like, taking into account the fact that the present crisis demands restructuring of the world economic system as a whole. However, the importance of the forecast is evident both on the world level and on the level of individual states and different financial institutions. Financial services trade directly provides all international financial flows, proves to be a substantial source of income for a number of states, as well as reflects the degree of financial confidence.

The aim of the research described in the article is to forecast the development of financial services export during the period of global economic crisis. To achieve this aim, **two main tasks** have been set. Firstly, analyze the influence of global economic crisis on financial services trade. Secondly, define the development of financial services export in short- or medium-term prospects.

[1] In WTO services are subdivided into: 1) transportation services 2) tourism 3) other commercial services including financial services. According to WTO methodology, financial and insurance services are recorded separately.

The following **research** methods as: mathematic correlation, scenario analysis, the analysis of international statistics and advanced researches in the sphere of financial services trade served as the basis for achieving the given tasks.

1. THE INFLUENCE OF GLOBAL ECONOMIC CRISIS ON TRADE IN FINANCIAL SERVICES

The current world economic crisis that started in mid-2007 has realized itself on global capital markets in the form of re-pricing of credit risk and a liquidity squeezing. Despite the fact that the financial crisis originated in the US, financial institutions all over the world suffered losses due to direct or indirect connection with the US economy. It should be noted that different reasons were at the bottom of the banking crisis. They included global economic imbalances connected with excess liquidity, low real interest rates, a search for yield, as well as a rise in the number and quantity of complex financial instruments. If traditionally banks financed mortgage lending through customer deposits, then during the last decades they sold on mortgages to bond markets in order to raise additional capital. These mortgage loans were bought without evaluation of their real quality. However, as it turned out later, numerous mortgage borrowers were not in a position to fulfill their obligations. Through securitization these loans were transferred into high rating securities, in view of this they were in great demand of different kinds of investors throughout the world – funds, investment banks, insurance companies, etc, especially in the USA and Europe. When the borrowers started to delay credit payments as a result of the decline in prices for real estate and the increase in credit rates, the prices for mortgage securities began to fall. Liquidity on mortgage bond market was considerably reduced, and that caused problems in attracting financing for banks. By chain reaction short-term financing became inaccessible on interbank market. Hence, financial injections of central banks turned to be the last hope.

A wave of losses of financial institutions (Figure 3) and a shortage of liquidity exerted a negative influence upon global economic growth. According to International Monetary Fund's estimations during the period between 2007 and the first half of 2009, the quantity of the written off assets which did not yield any profit amounted to more than 1.3 trillion USD: in the USA -8,2%, in the UK -7,2% and in the eurozone- 3,6% of the total mortgage portfolio and securities portfolio. Besides, within the next few years one expects the additional writing off in the amount of 1.5 trillion USD.

Global economic crisis led to a sharp decrease in volumes of financial services trade (Figure 1).

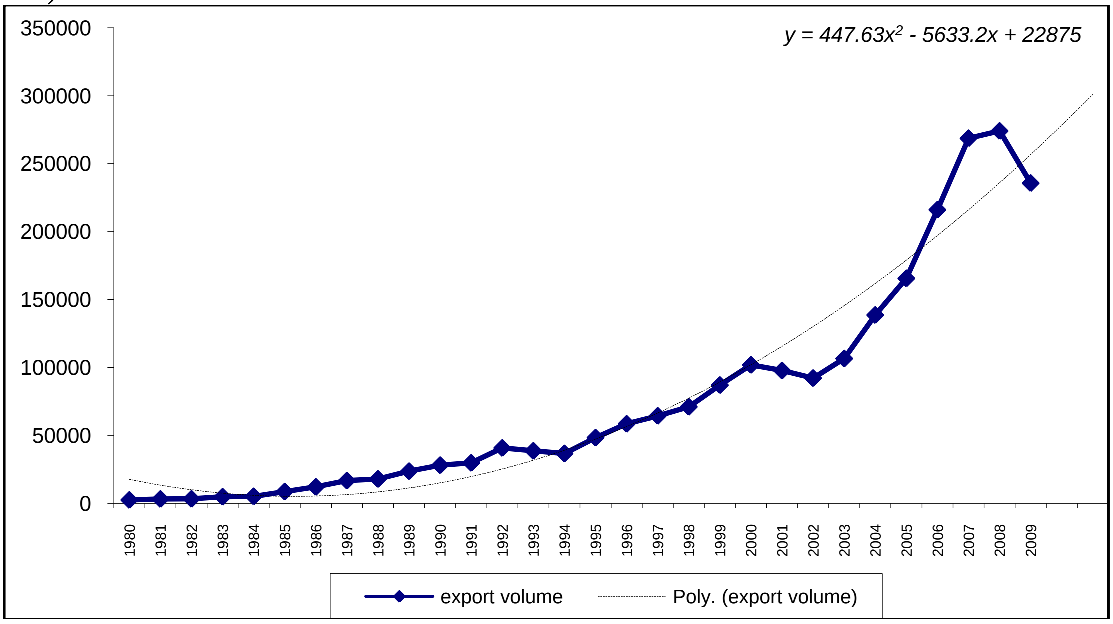

Figure 1: World export of financial services, in billions USD (1980 – 2009)
Source: UNCTAD Handbook of Statistics, WTO (authorial computation)

Thus, under an unprecedented rapid growth of financial services export in 2007 (+32%), already in 2008 financial services export reached the increment of only 2%, and that was provoked by a recession in the fourth quarter of 2008 (-19%). According to preliminary data of WTO, in the first quarter of 2009 the world recession of financial services export in absolute expression was unprecedented throughout the whole history of trade in them, it constituted -26% (!) (Figure 2). In the first place the given decline adversely affected the world leaders – financial services exporters. During the first quarter of 2009 financial services export decreased -30% in the EU (27 countries) and Switzerland, in the USA (the source of the crisis) it fell only -13%. Asian economies underwent the most substantial declines (not in an absolute expression but in percentage terms): Hong-Kong –32%, Taipei –53%, Korea -56% (WTO, 2009).

In author's opinion a sharp decline in financial services export can be explained by different kinds of factors, such as:

- drop in asset value (see part 2);
- reduction in the number of financial institutions during a sharp period of the crisis. For instance, during 2009 more than 140 banks in the USA (approximately 2% of their total number) went bankrupt. In 2008 they were 25, and in 2007 – only 3 correspondingly;
- financial difficulties of the survived banks which limit their potential in realization of the programs on financial services export. The banks burdened by reservations for "bad" assets are less free in handling new risk deals. They redistribute their priorities and side with their 'salvation' more often than with their 'development'; they allocate less resources for winning new markets and groups of new customers;
- slump in demand for financial products caused by financial difficulties of customers themselves under the influence of the crisis;
- general increase in the extent of investment risks resulting in customers' restraint upon the use of financial services connected with the investment of resources in financial instruments;
- reduction of general financial activity of customers during the crisis period including loss of confidence in banks on the part of its customers;
- the appearance of new regulation standards which make financial activities more conservative (it mainly concerns Europe).

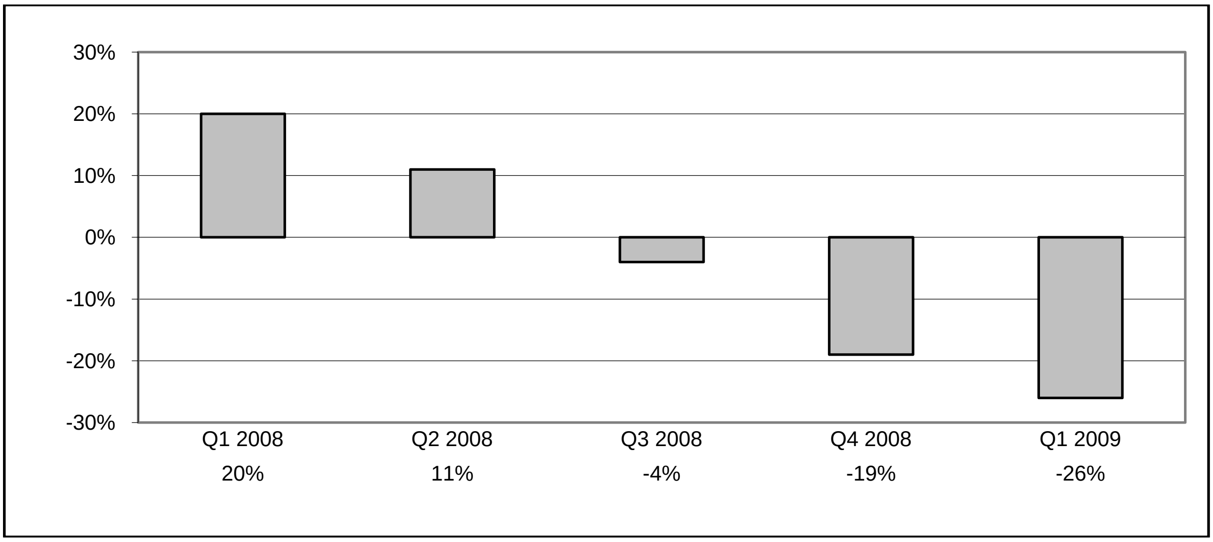

Figure 2: World export of financial services, Q1 2008 – Q1 2009 (% change)
Source: WTO

Beginning with mid-2009 the world crisis passed from its sharp phase to a correction phase and lately it is changed by minor fluctuations due to an unsteady equilibrium in economy. According to operational data of OECD, by the end of 2009 the volume of financial services trade had also started to revive – in the first quarter of 2010 года up to 5% in comparison with the total result in 2009.

At present central banks of leading countries are in the highlight of experts all over the world as they had saved the world financial system from collapse that was imminent in the second half of 2008. All over the world central banks made injections to increase liquidity (Figure 3) in their banking systems and utilized various methods for that purpose: carried out an active monetary policy, secured bank liabilities, carried out re-capitalization, etc. Only in the fourth quarter of 2008 world central banks bought out government debts and low quality private assets for more than 2.5 trillion USD (IFSL, 2010). Through the purchase of newly-issued preference shares to the amount of 1.5 trillion USD the governments managed to increase the capital of their biggest banks. However, the immense injection of funds that provided banks with sufficient reserves cannot remain in a frozen form for ever; sooner or later the excess liquidity starts to penetrate into financial markets giving rise to new bubbles. In that way the unsteady position of the world economic system can shift into a new turn of the crisis quickly enough.

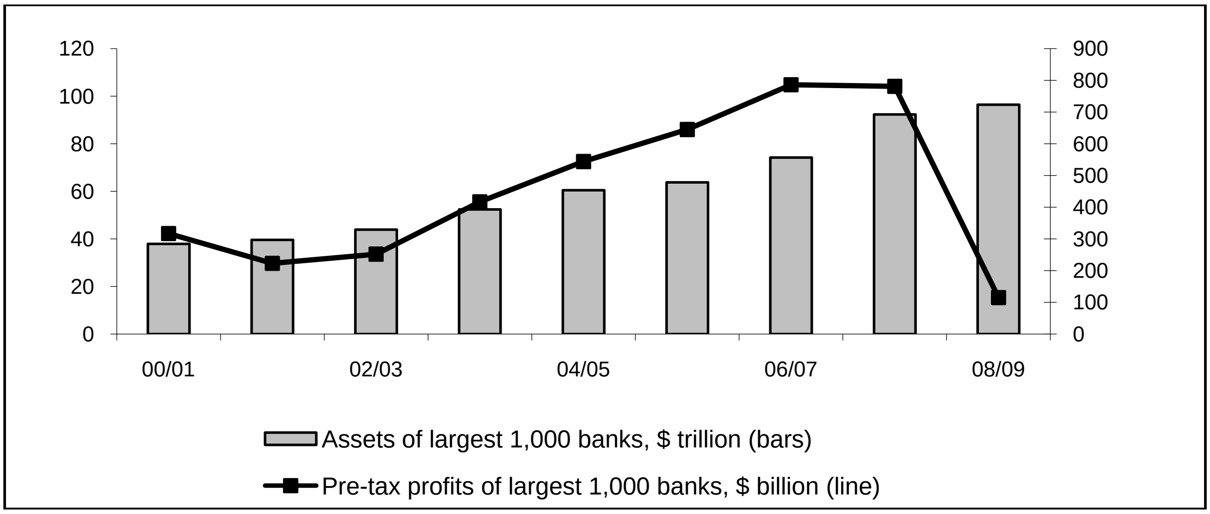

Figure 3: Worldwide banking industry assets and profits

Source: the Banker

In order to save the world economy international regulators made attempts to set new rules making the following financial crisis less probable and less painful for the financial system. However, it is important to note that for the present moment such a mechanism has not been produced yet, it means that fundamental reasons of the crisis are far from being surmounted. A positive factor is that the sharp phase of the crisis is passed. That provided the possibility of taking no hasty measures in respect of 'bad' credits. Thereby one prolonged the life of many companies and financial institutions, and so it means that one has preserved the network and infrastructure for financial services trade which secure all intergovernmental flows of capital.

2. THE DEPENDENCE OF FINANCIAL SERVICES EXPORT ON GLOBAL ECONOMIC CYCLES

When analysing the volumes of financial services trade over a 30-year period, especially the influence of global crisis on financial services, the author advanced a hypothesis regarding the existence of an essential interdependence between financial services export and global economic crisis both on a world level and on the level of individual states. The author assumes that bringing to light the given interdependence can afford us an opportunity for a more exact definition of the development of financial services export, especially in the period of a global crisis.

At the beginning of the research aimed at exposure of the nature of economic crisis the following fundamental theories have been reviewed: Marxist theory – «a crisis in economy is considered as a divergence» (K.Marx, 1885, N.Kondratyev, 2002, J.Hicks, 1946, K.Arrow), monetary theory – «crises are impelled by expansion and squeezing of a bank credit with the change of the money supply in circulation» (M.Friedman, 1968, Schwarz, F.Hayek, 1941), as well as the theory of under consumption and the psychological theory (J.Keynes, 1936). In order to verify the hypothesis the author was mainly guided by the monetary theory of economic cycles as the most suitable for the description of the present-day economy due to the fact that the present recession was caused exactly by the excess money supply distributed through credit products.

The author verified the hypothesis of interdependence of financial services export and economic cycles through correlation coefficient. In statistics the correlation coefficient is an index of stochastic interdependence of the change of two random variables. For metrical variables one uses Pearson's correlation coefficient the exact formula of which was derived by Francis Galton:

$$R_{X,Y} = \frac{M[XY] - MX \cdot MY}{\sqrt{(M[X^2] - (MX)^2)} \cdot \sqrt{(M[Y^2] - (MY)^2)}},$$

M – mathematical expectation;

X – financial services export (volume in currency or change of volume, %);

У – world economic cycles index, two indices were taken in its capacity: gross domestic product (GDP) and foreign direct investment (FDI) (they characterize flows of money in accordance with the monetary theory of economic cycles) calculated in currency volume or change of volume in percentage terms).

Results. On a worldwide level, when one used world GDP as 'У', the rate of correlation coefficient calculated over the 28-year period (from 1980 to 2008) constituted 0.97. In its turn, the correlation coefficient calculated over the same period, where global FDI flows were taken as 'У', made up 0.99. On the face of it, such high correlation coefficients corroborate substantial interdependence between financial services export and world economic cycles. However, in theory correlation coefficient can be false. That is why the author in addition substantiates logically the given interdependence.

The thing is that financial services export in the country's Balance of payments mainly consists of incomes in the form of fees and commissions to financial institutions (banks, brokerage companies, fund managers, etc.) received from non-resident customers for managing their financial assets or for transactions with financial instruments performed by their instructions. When making investments the amount of commissions usually directly depends on the value of customers' assets. As a result, under the growing world economy investors intensify their activities in search of investments not only in their own country but also abroad. Under a growing demand the cost of investment objects increases and, at the same time, commissions get higher, and that increases the world export of financial services. So let's examine export of financial services in greater detail by using an individual country as an example.

Upswing. Let's assume that a certain country stirs its economical activity and becomes attractive for a foreign investor who, for that reason, allocates his funds in the amount of 1 million EUR to a financial institution of the given region for their placing. Let us suppose further that the commission fee for management makes up 1% of the cost of the assets and 10% of its increment calculated over a certain period. In the given example the commission earnings of the financial institution will initially amount to 10,000 EUR. In case the cost of the assets over the mentioned period increases twice as much, then the cost of the assets under management will reach 2 million EUR, and the commission earnings will make up 100,000 EUR for the increment of the assets' cost, plus 20,000 EUR correspondingly for the further management in the next period.

Peak. As a result, financial services income increases the country's GDP, and in case of rendering services to a non-resident investor it is also reflected in the growth of the country's export. From economic standpoint, a favorable environment attracts new investors from every corner of the globe, and the commission earnings of the financial institution grow in a geometrical progression. Thus export of financial services reaches its peak in a certain moment. And what happens further?

Recession. Under the inflow of investors to a growing market the cost of assets grows at a rapid pace. In due course the increment rate of prices gradually slows down, and investors start searching new advancing markets. Some of the investors start withdrawing their funds from the financial institution. The commission rate of the financial institution falls a little, and so do export and GDP of the country correspondingly. Mass media supply information concerning slowdown in the growth rate of the country's economy. More and more investors redistribute their assets to other regions, and economical indicators of the country deteriorate even more. The «escape» of investors results in the sale of assets and the decline in market prices. The financial institution loses not only its additional commission for successful results but also a part of the commission earnings for asset management. Due to the fact that at best asset management in recessionary economics does not bring any profit to the investor, and at worst the investments bear losses, the financial institution loses most of its non-resident customers during a relatively short period of time and experiences a hard financial standing. This situation frightens off any new customers. Financial services export slumps. Indicators of the sectors from which the investments had been withdrawn fall down. The compression of economy takes place and, accordingly, it is reflected in the drop of GDP.

Bottom. The financial institution is not in a position to export financial services to foreign investors any more until the country's economy starts restoring and new investment objects appear.

Despite some simplicity that does not take into account a great number of minor factors, the given example indicates not only direct dependence of financial services export and economic cycles but also the fact that financial services export reacts more vividly on economic cycles than any other sectors of national economy.

The explanation of correlation between financial services export and FDI inflows is analogous to the a.m. example regarding correlation of financial services export with GDP. When FDI proceeds arrive in the country, its economy stirs up, becomes attractive for the investments of non-residents who utilize the services of local suppliers of financial services. The increase and decline of financial services export, correspondingly, directly depends on inflow or outflow of FDI.

The research carried out by the author indicates that correlation between financial services export and economic cycles actually exists on both the world level and the level of individual states (Table 1). Rare cases of low correlation between financial services export and economic cycles of the country can also be caused by:

- substantial changes in regulation of financial sphere (for instance, preferential taxation for foreign investors);
- re-export of capital when foreign investors' assets are allocated in foreign countries and not in the domestic market of the country (in Table 1 one can relate Belgium and Japan to the given criterion);
- errors / changes in statistics (in Table 1 one can relate Greece to this criterion).

Table 1: Correlation Coefficients between Financial Services Export and GDP, as well as between Financial Services Export and FDI

Nr.	Country	Correlation GDP	FDI	Nr.	Country	Correlation GDP	FDI
1	**Australia**	**0.93**	**0.90**	**15**	**Japan**	**0.16**	**0.94**
2	Austria	0.66	0.72	16	Korea Republic	0.80	0.88
3	Belgium	-0.14	0.85	17	Luxembourg	0.96	0.83
4	Brazil	0.77	0.64	18	Netherlands	0.93	0.98
5	Bulgaria	0.42	0.41	19	Norway	0.95	0.96
6	**Canada**	0.97	0.92	20	Panama	0.88	0.91
7	Hong Kong	0.92	0.94	21	Poland	0.82	0.77
8	Cyprus	0.84	0.87	22	Portugal	0.83	0.72
9	Check Republic	0.44	0.46	23	Spain	0.94	0.94
10	France	0.02	-0.2	24	Sweden	0.93	0.95
11	Germany	0.88	0.93	25	Switzerland	0.87	0.96
12	Greece	-0.5	-0.48	26	Tunisia	0.98	0.95
13	Ireland	0.99	0.73	27	United Kingdom	0.97	0.99
14	Italy	0.38	0.18	28	USA	0.88	0.92

Source: UNCTAD Handbook of Statistics, UNCTAD FDI flows (authorial computation)

3. Forecast of the development of financial services export

As it was already indicated in Part 2 of the given article, financial services export vividly reacts on economic cycles both on the level of individual states and on global level. However, it is rather complicated to forecast the future of financial services export at the present moment as recession of the world economy challenges the functioning of the world economic system as such. Due to the possibility of decisive changes in global financial system, mathematical methods of forecasting financial services export may turn out to be ineffective for the present moment. For this reason the author thinks it expedient to use a **scenario analysis** in the present conditions.

The key element that describes the development of economic events in the world in the nearest 1 – 2 years is the choice between two scenarios of the development of world economy, namely: **deflation and (hyper)inflation** (Hazin, 2010). It goes without saying that these two scenarios can have a substantial and different effect upon the volumes of financial services trade as implementation of this or that scenario will be defined by interaction of two main parameters: decline of aggregate demand and emission. Fundamental difference between these scenarios consists in the fact that the deflation scenario raises money value, whereas the inflation scenario, on the contrary, decreases it.

The deflation scenario actually means bringing to naught all the efforts of world leaders on keeping up optimism among consumers and companies. And that implies a sharp increase in savings and curtailment of portfolio investments (Hazin, 2010). The present scenario will lead to reduction of the volumes of financial services export.

The inflation scenario means money emission with a view to compensate decrease in demand. Emission can, even if partly, suspend decrease in demand, however it, as such, arouses inflation that also reduces the volume demand in real (comparable) prices. For this reason emission rate for compensation of decline in demand ought to keep growing. Under high emission rate inflation grows into hyperinflation, and that causes a feverish activity on the part of investors in search of a money investment place. Active allocation of funds and increase in asset cost will result in the expansion of financial services export.

However it is important to bear in mind that «net» deflation or (hyper)inflation scenarios are realized comparatively rarely, and it means that, most likely, they will replace each other. In case compensation of decline in demand through emission does not work, then all companies, banks and other financial institutions will experience difficulties. Sooner or later they will start reducing prices for the cost of their services and cut down their expenses. A sequence of bankruptcies (including financial institutions) will follow; for all this, the first ones will stimulate a chain of the following ones. On the one hand, the investors who had lost trust in local financial institutions due to their unstable financial position will be ready to turn to banking facilities in foreign financial institutions. It means the increase in financial services export. On the other hand, due to periodical change of deflation and (hyper)inflation, investors will actually come across some difficulties in both the attraction and the placing of their investments. These factors, in their turn, will exert a negative influence on the world trade in financial services on the whole.

Whatever scenario of the development from the suggested above would actually be, according to Part 2 of the given article, the change in volumes of financial services export will directly depend on the changes of GDP and FDI.

Conclusions

Financial services trade as a component part of international trade has appeared comparatively recently and developed at a rapid pace. The average growth rate over the 27-year period (1980 – 2007) amounted to 20% per annum outstripping the increase in the world export of all services and the growth of the world export of commodities.

However, after the year 2008 the growing trend of financial services export was broken under the influence of global economic crisis caused by excessive liquidity, undercut real interest rates, pursuit of quick profit, as well as the increase in the amount and volume of complex financial instruments in the USA. Direct sources of slowing down financial services export proved to be: steep fall in assets cost, bankruptcy and financial difficulties of the spared by crisis financial institutions, slump in financial services demand in connection with the general increase in investment risks and financial difficulties of customers, decline in general financial activity during the crisis period, etc.

After the governments and central banks of many countries had taken urgent measures on the growth of liquidity of the banking sector the world crisis turned from its sharp phase to a correction stage. Thus the ‘life’ of numerous companies and financial institutions was prolonged, it means that the network and infrastructure for financial services trade have been preserved as they secure intergovernmental flows of capital. However, at the present moment fundamental reasons of the crisis are far from being surmounted.

The analysis of financial services trade over a 30-year period indicated that upswings and separate declines of these trade volumes coincide with the upturns and recessions of the world economy. In its turn, through correlation analysis and the analysis of economic processes one has ascertained a direct dependence of financial services export on both the world level and the level of individual states.

Besides, it has been found out that financial services export reacts more vividly on economic cycles than any other sectors of national economy. The reason lies in the structure of profit from this kind of export in the Balance of payment that mainly consists of commission fees to financial institutions from non-resident customers for managing their financial assets or for transactions with financial instruments carried out according to their instructions. Due to the fact that commissions usually directly depend on the cost of customers’ assets and their increments, a considerable fluctuation of the cost of assets is immediately reflected on financial services export in a geometrical progression.

Rare cases of a low correlation of financial services export with economic cycles of the country can be caused by substantial changes in the regulation of financial sphere, re-export of capital (when foreign investors’ assets are invested in foreign countries and not in the domestic market of the country), as well as by changes in methods of statistical accounting or errors in statistics.

A scenario analysis was used for forecasting the volumes of financial services export.

Taking into consideration the connection between financial services export and economic cycles, as well as specifics of the present economic cycle in a short- and medium-term prospect, the trade in financial services will be influenced by the choice between 2 scenarios of the development of the world economy – either a deflation or an inflation one.

In case of the deflation scenario there will be a sharp growth of savings and decrease in portfolio investments that will lead to the reduction in the volumes of financial services export. In its turn, the inflation scenario will give rise to a sharp activity of investors in search of a place of money investment. As a result, the increase in assets' cost will be reflected in the growth of financial services export. On the other hand, if the given two scenarios replace each other, most likely it will exert a negative influence on financial services trade.

It is recommended to take into consideration the above mentioned results of the research when making a forecast of financial services export both on a world scale and on the scale of regions or individual countries.

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About the author

Marija Lindemane
Doctoral student
BA School of Business and Finance
Research area: Financial services export
E-mail: mlindemane@netscape.net