An overview of GDP and internet banking relations in the European Union versus China

Erhan Atay\textsuperscript{a}, Sudi Apak\textsuperscript{b}, \textsuperscript{b}\textsuperscript{*}

\textsuperscript{a} Trakya University, Edirne, 22800, Turkey
\textsuperscript{b} Beykent University, Istanbul, 34396, Turkey

Abstract

After 1995 the Internet diffused rapidly throughout the world economy. A strong banking sector is important to every country to stimulate economic growth and maintain financial stability for the whole financial system. Hence, information and technological revolution motivated banks to spend more on technology to maximize return and attract more customers who will not accept less than above-average services. The European Union has long sought to create a single financial area across Europe where consumers in one country benefit from banking sector in other countries. With the emergence of the Internet as a platform for the provision of e-banking services, the creation of a pan-European market for banking services appeared a realistic proposition. Moreover, in spite of the long-term profitability challenges, most major banks in EU have invested and are still investing in providing Internet banking services as a new cost-effective delivery channel, driven by cost reduction, market share increase and customer retention targets. Therefore, the Chinese banking industry is not generally well understood since it had enjoyed a strong government protection from foreign competitors over a long period of time. Although internet banking in China has experienced a significant growth in the past for several years, it is still regarded in its early stage of development compared to the internet banking adoption and utilization rate in the developed nations. Finally, good economic conditions affect banking sector performance positively. The bank should benefit from conditions associated with economic boom as possible to mitigate the negative effects that may be faced by the bank during the economic recession. In the light of these facts, this paper discusses how the Internet is creating new applications for banking services.

Keywords: The EU; Global internet banking; GDP; China; Internet economy

\textsuperscript{*} Corresponding author. Tel. + 90-533-436-7258 fax. +90-212-289-6490.

Email address: sudiapak@beykent.edu.tr
1. Introduction

Basically, GDP is the monetary value of all the finished goods and services produced within a country’s borders in a specific time period, though it is usually calculated on an annual basis. It includes all of private and public consumption, government outlays, investments and exports less imports that occur within a defined territory.

Internet banking is convenient and flexible way of banking and it also has various transaction related benefits. Before the Internet Banking era, traditional bank services constituted labor intensive activities, such as deposit, withdrawal and transferring as well as foreign exchange and trading at the stock exchange. With Internet banking, the fixed costs in IT investments have become relatively higher and the variable costs relatively lower.

One of the papers that examine the economic outcome of e-banking is that of Parker and Parker (2008) who investigate the money velocity in Finland following the widespread of e-banking in Finland. Their results interestingly show that money velocity has decreased despite the expectations. As the banking industry is changing and Internet banking is evolving, a new kind of banking industry may be starting to blossom - the Global Internet Banking. This newborn is the result of some factors, and can be defined as trying to add the missing link to Internet banking. According to the study by Proença JF (2007), the impact of Internet Banking in the predisposition of individual clients to develop a personalized and long term relationship. In the end, it is expected to obtain an answer to the following question: “In what way is the impact of the use of Internet Banking shown in the relationship between the bank and its customer?”

It has been more than four years since the crisis of 2008 and about two years since the problems spawned by 2008 generated a sovereign debt crisis and a banking crisis in the EU. Moreover, in spite of the long-term profitability challenges, most major banks in the EU have invested and are still investing in providing Internet banking services as a new cost-effective delivery channel, driven by cost reduction, market share increase and customer retention targets.

The Chinese banking industry is not generally well understood since it had enjoyed a strong government protection from foreign competitors over a long period of time. Although internet banking in China has experienced a significant growth in the past several years, it is still regarded in its early stage of development compared to the internet banking adoption and utilization rate in the developed nations.

The remainder of the paper is structured as follows: Section 2 discusses the issue of contemporary internet banking applications and their potential advantages in forecasting GDP. Section 3 discusses the current situation and future of internet banking in the EU. Section 4 draws attention to the importance of GDP speed and internet banking in China. Section 5 examines how the Internet is creating new applications for banking services and presents a comparison between EU and China’s GDP and internet banking facilities. Final section is devoted to the conclusions concerning the main development directions in GDP and internet banking.

2. Global Internet Banking and GDP Relationship

Early advancement in technology has played an important role in the distribution strategy of commercial banks. Banks distribute their products and services not only through a sole channel but instead through a variety of innovative channels such as internet banking, automated teller machines, mobile banking, phone banking, TV banking etc.

2.1. Towards Global Internet Banking

Banking historically has been a sector based on individual or institutional client service. In the last two decades, the delivery of banking services has undergone enormous changes. In today’s browser-based competitive finance world, banks need to flourish this client service viewpoint with web-empowered features for keeping clients and attracting prospective ones. Thus, e-banking applications, which include automated teller machine (ATM), telephone banking, mobile banking, digital television, debit and credit cards, internet banking etc., became one of the main battlefields of the banking industry. In short, internet has emerged as a key competitive field for the future of financial services (Aktan, 2009).
In addition, banks have changed to keep up with the information technology and communication developments. This change includes using the technology of computer and communications to replace manual and paper operations to electronic operations; electronic banking (e-banking) or internet banking is the common method adopted by banks (Salhi and Alipour, 2010).

When we look at the Internet banking opportunities we see that sector lowers the barriers between the large banks and the smaller newcomers. Customers have more choice, which decreases their dependence on one financial institution to handle all their banking needs. Finally, on-line banking is a tremendous time-saver and delivers more accurate and timely financial data (Papandreou, 2006).

Indeed, while Internet banking provides the possibility for its customers to have access to their account in every Internet connected corner of the world, diverse and conflicting national regulations are creating difficulties for Internet banks in terms of reaching every customer in every corner of the world. Global Internet banking, as it is being pioneered today, is attempting to circumvent those regulatory obstacles, in order to reach customers across different borders. With regard to this fact, two important initiatives have caught our attention:

1. the failed merger between First-e.com and Uno-e, to create FirstUno, the first global Internet bank, and
2. the joint venture between HSBC and Merrill Lynch, which offers Global Online Investment and Banking services (Applegate et al., 2001).

Therefore, the main problems banks have faced in encouraging the use of new technology is the ignorance of clients and their unwillingness to shift to the new system. Education plays a major role in influencing the adoption of internet banking. More educated people are more likely to use internet banking facilities as they are more acquainted with a computer and the internet (Tandrayen, 2011). The usage rate of the internet banking is significantly related with the education level. Education and also income level makes an important difference in the usage of internet banking facilities (Mermod, 2011).

According to the OECD Declaration for the Future of the Internet Economy, ministers agreed in their Declaration for the Future of the Internet Economy of June 2008 that their challenges and associated goals with regards to the Internet economy are, through an appropriate balance of laws, policies, self-regulation, and consumer empowerment, to:

1. Expand Internet access and use worldwide.
2. Promote Internet-based innovation, competition, and user choice.
3. Secure critical information infrastructures, and respond to new threats.
4. Ensure the protection of personal information in the online environment.
5. Ensure respect for intellectual property rights.
6. Ensure a trusted Internet-based environment which offers protection to individuals, especially minors and other vulnerable groups.
7. Promote the secure and responsible use of the Internet that respects international social and ethical norms and that increases transparency and accountability.
8. Create a market-friendly environment for convergence that encourages infrastructure investment, higher levels of connectivity and innovative services and applications (OECD, 2010).

In the end, research in future which may be focus on comparison of more and more online portals can come out with the best features enabled model online banking portal which will be helpful to the bankers and customers using internet banking. (Singh: 2012: 2).

2.2. Regional GDP Shares and the EU versus China

At the macro-level, there is a substantial body of evidence that innovation is the dominant factor in national economic growth and international patterns of banking sector. We analyze the determinants of production of the innovations in macroeconomic level by considering the macroeconomic, institutional variables, such as GDP, the
expenditure on research and development, patent laws, human capital, education, information and communication technologies, liberalization, market structure and competition level, government policies (Atay, 2008).

Accordingly, spending on R&D employment in the economy as a whole or in the financial services sector has positive effects on the return to assets or equity of mixed banks, and reduces their cost income ratios. Internet banks do not seem to reap any particular competitive advantages from R&D spending. Expenditure on information technology as a share of GDP does not lead to higher performance in the banking sector. On the contrary, it reduces returns as it boosts costs. However, outlay on communication technologies pays off for both internet and mixed banks. Higher long-term interest rates decrease the return to assets of internet banks without increasing their cost to income ratio (Arnaboldi, 2008).

GDP is a well-accepted and comprehensive measure of economic development that covers the economy as a whole, rather than a single sector or market. If one turns to the mixed frequency approach for the disaggregates, we find many similarities to the direct GDP forecasts although it is also evident that the information employed by coincident and leading indicators help to forecast some components better than others (Drechsel and Scheufele, 2012).

Although eastern Europe has been fully covered as in Broadberry and O’Rourke (2010), there can be no doubt that the quality of the GDP data for this part of the continent is more variable than for western Europe, particularly when it comes to historical national accounts. The later industrialisers (Austria-Hungary, Germany and the Netherlands) experienced substantially faster growth of GDP and per capita income than the early industrialisers (Belgium, France, Switzerland and the UK), while the Nordic countries, exhibited the fastest growth of all the groupings. Nevertheless, the tendency to β-convergence within the more industrialized parts of Europe was offset by the effects of slower growth in other poor parts of Europe, with the Mediterranean economies exhibiting below average per capita income growth (Broadberry, 2011).

Nowadays, in Europe, the ICT sector is directly responsible for 5% of European GDP, but it contributes far more to overall productivity growth (20% directly from the ICT sector and 30% from ICT investments). The social impact of ICT has already become significant - for example, the fact that there are more than 250 million daily internet users in Europe and virtually all Europeans own mobile phones has changed lifestyle. It will be challenging for business and other organizations to find new ways of work-life integration (EC, 2012).

Despite the financial crisis and the stagnating assets in nominal terms, bank intermediation in relation to GDP continued to increase on average in the EU, mainly reflecting the decline experienced in GDP. In addition, banks have changed to keep up with the information technology and communication developments. This change includes using the technology of computer and communications to replace manual and paper operations to electronic operations; electronic banking (e-banking) or internet banking is the commonly method adopted by banks (Salhi and Alipour, 2010).

Today, most of the decline in GDP can be blamed on weakness in the rest of EU. The surplus is larger than expected, so the actual decline in Eurozone GDP may be less than the “expected decline in GDP” due to austerity. We have to be cautious about whether the Eurozone’s actual loss of GDP will be less than projected. For example Germany’s preliminary estimate is that its GDP fall in the last quarter of 2012 was far greater than expected, and the German economy is the largest Eurozone economy.

As of the 2010 figures as in Figure 1 below, the EU still has 29% share in world GDP and than respectively, we see the US with % 26 share, Japan with %9 share and China %8 share. However, if we take into world’s 2050 GDP panorama account as summarized in Figure 5 (see Section 5), then it cannot be sustainable over the long term. In this regard, by 2020, US’s GDP might be only slightly larger than China’s GDP.
In sum, in the EU the pick-up in growth will initially be driven by increasing external demand. Domestic investment and consumption are projected to recover later in the year, and by 2014, domestic demand is expected to take over as the main driver of strengthening GDP growth.

3. Adoption of Internet Banking Services in the Enlarged European Union

The global financial crisis just seems to continue in the European Union. The weakness of economic activity towards the end of 2012 implies a low starting point for the current year. Combined with a more gradual return of growth than earlier expected, this leads to a projection of low annual GDP growth in 2013 of 0.1% in the EU and a contraction of -0.3% in the euro area.

Furthermore, a number of experts have indicated that the development of Internet banking in the EU is having a positive impact on other sectors besides the banking industry, i.e.

- on the ICT supply side, the development of Internet banking has stimulated a competence building process in the ICT industry in innovation areas such as Internet application software and Internet security solutions,
- on the supply side of other sectors, authentication solutions deployed by the banks are used by other service providers such as public administrations to provide Internet services, so that consumers can use their Internet bank ID as an identification or signature tool for other services,
- on the demand side, Internet banking has started transforming the way people live and interact, and the PC and Internet skills developed, investments made and behavior learnt could be transferred to other private and public Internet services (e-commerce, e-administration, e-health), stimulating their use (Centeno, 2003).

However, the continuing economic crisis has put Europe’s industry under pressure: production is 10% lower than it was before the crisis and over 3 million industrial jobs have been lost. Consumer and business confidence are low. Problems in the banking sector make it difficult to access finance. Investments are held back and factories are under pressure to close (EC, 2012).

Therefore, e-Europe is part of the strategy set out by the Lisbon European Council (March 2000) to make the European Union the most competitive and dynamic knowledge-based economy with improved employment and social cohesion by 2010.

According to a 2006 study for the European Commission, open source will have a significant impact on the EU economy. Defined broadly, open source-based services could reach a 32% share of all IT services by 2010, and the
open source share of the economy could rise to 4% of the EU GDP by 2010. The strong open-source community of active developers, small firms and the secondary software industry in the EU are strength for the European ICT sector. However, this contrasts with Europe’s generally low level of ICT investment (Uni Merit, 2006).

We therefore conclude that in the US, the banking market has been more flexible in reallocating assets than in the EU. Additional regulatory reforms in the EU, for example in response to the current crisis, should therefore foster a truly integrated European market in which banks compete for market share and excessive rents are dissipated through reallocation (Bos, 2009). On the other hand, in the EU reallocation of assets between banks has little effect on industry profitability.

4. The Potential of Internet Banking in China

The population of emergent Internet bankers is also growing rapidly, and if the Internet banking systems of China are implemented adequately, they should be very successful, considering the vast Chinese population. China, in fact, has huge potential for the growth of a world-scale Internet economy (Laforet Li, 2005). Specifically, as China is becoming increasingly open to the outside world, its culture is dynamically changing.

China’s personal computer sales are currently growing at a rate of 60% yearly, and developments in information technology, including Internet access, are continuous. 25% of households are expected to own a computer by 2010, and this growth will continue if Chinese Internet infrastructure continues to follow the global trend (Trappey and Trappey, 2001).

As an Internet based technology, online banking is not new but still quite unfamiliar for some people in China due to the digital divide and the different level of internet experience and environments. Understanding how people perceive online banking may help policy makers and managers to facilitate the prosperity of the e-commerce (Hua, 2009).

In addition to the competitive pressure, the government support is also a strong driver for e-banking adoption in China. The government support is manifested in two ways. Firstly, the Chinese Government is establishing an EC-friendly environment in China. Heavy investments have been committed by the Chinese government in recent years to revamp the national ICT and logistic infrastructures. New EC laws and regulations have also been passed and adjusted to provide legal protections for EC activities in general. Secondly, the government also directly offers financial incentives to promote e-banking adoption (Kurnia, 2010).

Currently, the four major state-owned banks (Bank of China, China Construction Bank, Industrial and Commercial Bank of China and Agricultural Bank of China) have started an Internet banking service, and then the majority of other domestic commercial banks launched online banking services as service-added to existing branch activities. They established a home page to actively enhance the customers’ Internet banking experience. The banking network system, when established, was already relatively complete (Yuan, 2010). As shown in Figure 2 below, beginning in 2009 the rate of increase in transaction volume should remain stable.
Chinese Internet banking transactions tend to be comparatively business-related and that current Internet banking users skew young, highly-educated, and wealthy. By the end of 2002, 3.5 million customers had opened Internet banking accounts with the major commercial banks in China, with a transaction amount exceeding 5 trillion RMB. Internet banking developed rapidly in 2007, with a transaction volume of 245.8 trillion RMB, corresponding to 163.1% growth relative to 2006. The online business of major commercial banks exceeded 20% of total business, and the number of personal clients reached 148 million (iResearch, 2006).

China can also learn from the successes of other countries, such as Korea. 95% of Koreans use Internet banking services; because it costs only 10-15% of traditional counter service (Zhang, Piao and Zhao, 2008). Korean banks encourage customers to use “cyber account” as opposed to traditional paper account. As a reward, banks provide 5-10% discount on transaction fee to customer with cyber account, which benefits customers, reduces costs, and improves efficiency (Yuan, 2010).

5. A Comparison between the EU and China towards 2050s

Among the 27 Member States in the EU, Germany is by far the biggest contributor to bilateral trade between the EU and China. Is this the China miracle or threat? China is at the core of every economic conversation and more than ever before perceived as the strategically important market. Well aware of the increasing competitiveness of the Chinese market, the EU’s firms are very sensitive to the complexity and opacity of China’s regulatory landscape.

There has been a rapid growth of Chinese online banking with e-commerce. The online banking users including organizational and individual users have been growing rapidly. Even though there are about 40 million online banking users so far in China according to the latest report, most of them are organizational users. The number of individual online banking users is still very low compared to the vast amount of Internet users. Online banking in China is still in its early stage even though the development of e-commerce in China is expanding. Security is still the biggest obstacle of the acceptance of online banking (Laforet and Li, 2005). It is clear that the early stage of e-banking development shows that the legislation is an initial barrier that influences e-banking adoption in China.
While wholly foreign funded banks and joint ventures between foreign and Chinese banks may now engage in the same business operations as Chinese banks, both in local and foreign currency, foreign funded banks that want to do business in local currency (RMB) must have been operational in China for at least 3 years and have been profitable for at least 2 years prior to their application. The EU Chamber of Commerce in China views this 3 year waiting period for an RMB license as a considerable barrier to market access and discrimination against foreign banks (EU, 2010).

Fig 3 Regional Shares of the World GDP in 2050: “Nobody cares” (constant 2005 USD) Source: CEPII

China is now the world’s second-biggest economy and according to Figure 3 above, China’s GDP will overtake that of the US and the EU respectively towards 2050s: “nobody cares!”

The question is whether the EU will stabilize itself, stop its fragmentation and begin preparing for more integration and expansion. Alternatively, the tensions could intensify within the EU, the institutions could further lose legitimacy and its component states could increase the pace with which they pursue their own policies, both domestic and foreign.

If the Europeans do not generate that sort of solution in 2013, it is time to seriously doubt whether a solution is possible and therefore to think about the future of Europe without the European Union or with a much weakened one. If, however, Europe does emerge with a plan that has general support and momentum behind it, then we might say that Europe is beginning to emerge from its crisis, and that, in turn, would be the single most important thing that happens in 2013.

Additional regulatory reforms in the EU, for example in response to the current crisis, should therefore foster a truly integrated European market in which banks compete for market share and excessive rents are dissipated through reallocation.

As a result, industry classification and market positioning operations were more streamlined and more mature. Commercial banks in China are now paying attention and expanding efforts on the internet banking network, funds, technology, and human resources in order to improve their services (Yuan: 2010).

6. Conclusion

If we take as a single geographic entity, Europe has the largest economy in the world. Europe is one of the pillars of the global system, and what happens to Europe is going to define how the world works. We would argue that in 2013 we will begin to get clarity on the future of Europe.
Current year is a critical year for the EU. EU banks want to expand their existing distribution channels using the Internet as another alternative channel. Internet banking in EU is on its way to become the centerpiece. While financial market conditions in the EU have improved substantially since last summer, economic activity was disappointing in the second half of 2012. However, leading indicators suggest that GDP in the EU is now bottoming out and we expect economic activity to gradually accelerate.

Additionally, the EU trade strategy as compared with China is based on a number of priorities: dismantling the trade barriers preventing EU investment, building a sustainable industrial environment for the expansion of European enterprises in China and positive engagement in the bilateral internet banking framework.

In this context, between 2010 and 2020, China’s average annual real GDP growth rate is expected to be 9.5%. According to economic experts, China could overtake the USA to lead the list of the world’s top ten largest economies by GDP measured in PPP terms as the world’s biggest economy by 2030.

Finally, the effect of the subprime mortgage crisis seems to be of a temporary nature, and banks do not seem to consider the crisis a reason to change the fundamentals of their global Internet Banking strategies. It is thus likely that cross-border Internet Banking activity will pick up quickly once economic conditions improve, both within the EU and in emerging markets in particular China.

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