

DIW Roundup

Politik im Fokus

Deutsches Institut für Wirtschaftsforschung

2018

Regulatory Differences and International Financial Integration

Tatsiana Kliatskova

Regulatory differences and international financial integration

Tatsiana Kliatskova | tkliatskova@diw.de | Department of Macroeconomics at DIW Berlin

May 18, 2018

The Capital Markets Union (CMU) – an initiative of the European Commission – aims to unify and deepen capital markets across EU Member States by removing existing barriers to cross-border investment and, in particular, harmonizing financial and business regulations. However, harmonizing institutional frameworks across the EU Member States that historically have different legal traditions is difficult and requires time. This article summarizes important steps to harmonizing business and financial laws in the EU and discusses empirical and theoretical literature on the role of legal harmonization in deepening and better integrating financial markets.

Harmonization of laws in the EU

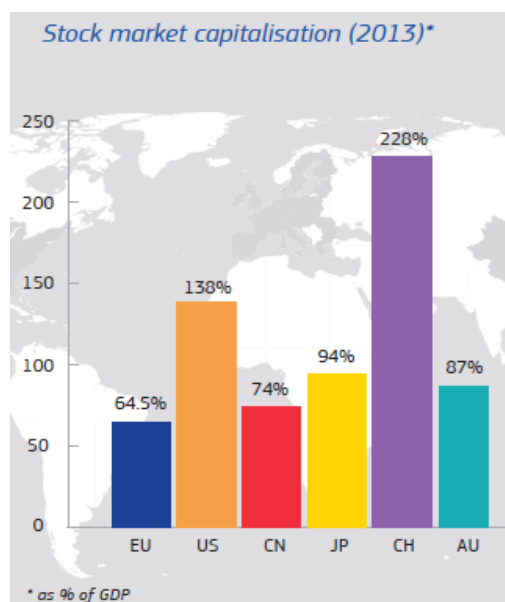
In 1996, long before the action plan for the European [Capital Markets Union](#), a group of financial market experts, the Giovannini Group, was formed to identify potential obstacles for financial market integration in Europe. Its two reports, from [2001](#) and [2003](#), present fifteen specific barriers covering technical, legal and fiscal differences between the EU countries that impose additional risks and costs on investors operating in international markets. The reports conclude that national differences in tax regimes as well as in legal certainty related to insolvency, securities law, market rules, investor protection, contract law, and some other domains should be lifted by the national governments in order to promote a single European capital market.

The introduction of the euro was accompanied by technical and infrastructure reforms (e.g. TARGET, SEPA) as well as legislative harmonization represented by the [Financial Service Action Plan](#) (FSAP) of 1999, which sought to create a single market for financial services within the EU. It contained a set of measures related to harmonization of banking, securities, and insurance markets laws. Apart from recommendations on technical issues, 27 Directives and two Regulations partially addressing different barriers identified by the Giovanni Group were passed and later transposed into the national laws at differing paces ([Kalemli-Ozcan et al., 2010](#)).

Since the global financial crisis, the European Commission created the [Banking Union](#), adopted an action plan to build the EU [Capital Markets Union](#), and implemented some other measures aiming for a further integration of the financial sector in Europe. As illustrated by Figure 1, European capital markets still remain small as compared to other major economies. The key idea behind the CMU is, however, that deeper and more integrated capital markets will provide firms with sources of financing that are complementary to bank credit as well as make financial

systems more resilient to country-specific shocks through better cross-border risk sharing.

Figure 1: Size of capital markets, by region



Source: *European Commission (2015): Capital Markets in the EU, factsheet.*

A number of Directives and Regulations were recently proposed, addressing the modernization of the Prospectus, standardization of securitization, as well as the harmonization of tax rules and insolvency law. A number of Directives directly target banking and financial markets in the areas of reporting, information disclosure, recovery, and resolution, among others. But which role does legal harmonization play for financial markets? Do we indeed have evidence for a positive effect of legal harmonization on international financial integration and, ultimately, on financial stability?

Impact of legal harmonization on international portfolio and banking flows

The literature shows that countries with similar regulations, both business and financial, face lower information barriers and decreasing costs of compliance that lead to more cross-border investment (*Okawa and Wincoop, 2012*). At the same time, regulatory differences impose additional costs on economic agents by making them learn, interpret, and understand new laws. For example, different accounting standards make it more difficult for investors to evaluate financial soundness and learn about the creditworthiness of firms they invest in. Empirically, *Vlachos (2004)* measures regulatory similarity as an absolute difference between regulatory variables in source and recipient countries. For that goal, the author uses data on securities laws by *La Porta et al. (2000)* and bank regulations by *Barth et al. (2008)*. His analysis suggests that similar financial regulations between two countries lead to higher bilateral portfolio holdings. He identifies the reduction in informational costs rather than lower compliance costs as the key driving force of increased financial integration.

Further, *Kalemli-Ozcan et al. (2010)* construct a detailed index of legislative harmonization utilizing difference in transposition of the Directives of the Financial

Services Action Plan launched by the European Commission into national laws by the EU-15. The paper presents evidence that legislative convergence led to growth in cross-border banking activities among the European countries. [Ozkok \(2013\)](#) constructed a similar index for the 25 EU countries and confirmed a positive link between financial harmonization and the development of banking and stock markets in the EU. Further, [Christensen et al. \(2016\)](#) find a positive effect of harmonizing EU regulations, namely the Market Abuse Directive and Transparency Directive, on market liquidity. However, the effects are stronger in countries with stricter implementation and traditionally more stringent securities regulations.

Overall, the literature points to the fact that reducing regulatory and institutional differences across countries fosters cross-border integration of credit and capital markets.

Regulatory arbitrage and cross-border capital and banking flows

Taking a somewhat different perspective by focusing on regulatory arbitrage, a number of empirical studies explore the effects of *differences* in financial regulations on cross-border portfolio investment and credit stocks and flows – with different results being obtained depending on whether banks or portfolio investors are subject to regulations.

Empirical literature shows that differences in the stringency and quality of regulations may distort the allocation of capital between countries and, in turn, potentially endanger financial stability. On the one hand, cross-country differences in regulations may encourage capital to flow from more restrictive to less restrictive jurisdictions (“race to the bottom”). This way, economic agents aim at improving their efficiency by reducing costs of compliance with regulations. At the same time, regulatory arbitrage may encourage excessive leveraging and risk taking ([Barth et al., 2008](#)). [Houston et al. \(2012\)](#) show that banks transfer funds to markets with more lenient regulations. However, countries with lax regulations but weak institutions in the area of creditor and property rights are not able to attract massive bank capital inflows. [Bremus and Fratzscher \(2015\)](#) find that after the Global Financial Crisis source countries of credit that experienced increases in capital stringency, banking supervisory power, or overall independence of the supervisor saw larger outflows of bank credit. In the euro area, arbitrage in capital stringency was yet linked to lower cross-border lending. Further, [Karolyi and Taboada \(2015\)](#) present evidence of regulatory arbitrage in cross-border bank acquisitions, where acquirer countries have stronger regulations than acquisition targets. On a micro level, [Ongena et al. \(2013\)](#) investigate how home-country regulations affect the lending behavior of global banks abroad. They show, for a sample of European banks, that tighter restrictions on bank activities and higher minimum capital requirements in domestic markets are associated with lower bank lending standards abroad, while stronger supervision at home reduces cross-border risk-taking. The observed effects, however, exist independently from the impact of host-country regulations. Similarly, [Temesvary et al. \(2018\)](#) show that US banks are significantly more likely to enter foreign markets with relatively laxer bank capital and disclosure requirements, but exit markets with relatively stricter deposit insurance schemes and more restrictions on banking activities.

On the other hand, if the benefits of stricter regulation outweigh the costs, for example, for the case of stricter rules on information sharing and disclosure or investor protection, economic agents tend to send capital to jurisdictions with more stringent rules, encouraging a “race to the top” ([Carruthers and Lamoreaux, 2016](#)). In this case, investors do not have to comply with the stricter requirements themselves, but they profit from more stringent regulations. On the empirical side,

La Porta et al. (2000) claim that countries with poorer investor protection have smaller and narrower debt and equity capital markets. La Porta et al. (2005) find that mandatory disclosure and facilitation of private enforcement are positively associated with the ratio of equity market capitalization to GDP, the number of listed firms per capita, and trading volume relative to GDP. Further, Gelos and Wei (2005) show that investment funds systematically invest less in less transparent countries and have a greater propensity to exit non-transparent countries during crises.

In addition, recent research highlights the presence of regulatory arbitrage for the case of macroprudential policies and capital requirements, in particular, by examining the implications of heterogeneity in the application of such regulations *within* countries. Reinhardt and Sowerbutts (2016) show that after domestic authorities tighten capital requirements, the domestic non-bank sector starts borrowing more from foreign banks that are not subject to these regulations. For the case of the UK, Aiyar et al. (2014) find that when capital requirements are tightened, unregulated foreign branches increase lending, thus partially substituting for a decrease in lending by regulated domestic banks. For the United States, Berrospide et al. (2016) claim that U.S. banks reduce foreign lending when prudential regulations are tightened in the United States, whereas the tightening of prudential regulations abroad shifts lending away from host countries to the United States.

Conclusion

The empirical literature shows that regulatory arbitrage is distortive for both portfolio investment and banking flows. At the same time, legal harmonization increases financial integration and potentially fosters financial system stability. Yet, evidence of an effect of the legal convergence on portfolio investment, especially at a disaggregated level, is mostly lacking and needs further research. With the recent reforms that aim to better integrate European financial markets, launched by the European Commission, it will be interesting to investigate whether and how the removal of legal barriers fosters financial market development. It should be noted, however, that the harmonization of business and financial laws is a long-term project that will be hard to achieve due to cumbersome political processes. Therefore, the effects of the recent harmonization efforts, if any, might be underestimated in the short-run.

References

Progress of financial reforms.

https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-reforms-and-their-progress/progress-financial-reforms_en

(1999) Financial Services Action Plan (FSAP) by the European Commission.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:l24210>

(2001) Cross-Border Clearing and Settlement Arrangements in the European Union by the Giovannini Group.

(2003) Second Report on EU Clearing and Settlement Arrangements by the Giovannini Group.

https://ec.europa.eu/info/publications/giovannini-reports_en

(2012) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A Roadmap towards a Banking Union.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52012DC0510>

(2015) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Action Plan on building a Capital Markets Union.

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52015DC0468>https://ec.europa.eu/info/publications/giovannini-reports_en

Aiyar, S., Calomiris, S.W., and Wieladek, T. (2014). Does macro-prudential regulation leak? Evidence from a UK policy experiment. *Journal of Money, Credit and Banking*, 46(s1):181–214.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/jmcb.12086>

Barth, J. R., Caprio, G. J., and Levine, R. (2008). Bank regulations are changing: For better or worse? *World Bank Policy Research Paper* 4646.
<https://openknowledge.worldbank.org/handle/10986/6664>

Berrosipide, J.M., Correa, R., Goldberg, L.S., and Niepmann, F. (2017). International banking and cross-border effects of regulation: Lessons from the United States. *International Journal of Central Banking*: 435–476.
<http://www.ijcb.org/journal/ijcb17q1a16.htm>

Bremus, F. and Fratzscher, M. (2015). Drivers of structural change in cross-border banking since the global financial crisis. *Journal of International Money and Finance*, 52:32–59.
<https://www.sciencedirect.com/science/article/pii/S0261560614002058>

Carruthers, B. G. and Lamoreaux, N. R. (2016). Regulatory races: The effects of jurisdictional competition on regulatory standards. *Journal of Economic Literature*, 54(1):25–97.
<https://www.aeaweb.org/articles?id=10.1257/jel.54.1.52>

Gelos, R. G. and Wei, S.-J. (2005). Transparency and international portfolio holdings. *The Journal of Finance*, 60(6):2987–3020.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1540-6261.2005.00823.x>

Christensen, H. B., Hail, L., and Leuz, C. (2016). Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement. *Review of Financial Studies*, 29(11):2885–2924.
<https://academic.oup.com/rfs/article/29/11/2885/2583718>

Houston, J. F., Lin, C., and Ma, Y. (2012). Regulatory arbitrage and international bank flows. *The Journal of Finance*, 67(5):1845–1895.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1540-6261.2012.01774.x>

Kalemli-Ozcan, S., Papaioannou, E., and Peydroc, J.-L. (2010). What lies beneath the euro's effect on financial integration? Currency risk, legal harmonization, or trade? *Journal of International Economics*, 81(1):75–88.
<https://www.sciencedirect.com/science/article/pii/S002219961000019X>

Karoly, A. and Taboado, A.G. (2015). Regulatory arbitrage and cross-border bank acquisitions. *The Journal of Finance*, 70(6):2395–2450.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/jofi.12262>

LaPorta, R., de Silanes, F. L., and Shleifer, A. (2006). What works in securities laws? *The Journal of Finance*, 61(1):1–32.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1540-6261.2006.00828.x>

LaPorta, R., de Silanes, F. L., Shleifer, A., and Vishny, R. (2000). Investor protection and corporate governance. *Journal of Financial Economics*, 58(1-2):3–27.
<https://www.sciencedirect.com/science/article/pii/S0304405X00000659>

Reinhardt, D. and Sowerbutts, R. (2015). Regulatory arbitrage in action: evidence from banking flows and macroprudential policy. *Bank of England Working Paper* 546.
<https://www.bankofengland.co.uk/working-paper/2015/regulatory-arbitrage-in-action-evidence-from-banking-flows-and-macroprudential-policy>

Okawa, Y. and van Wincoop, E. (2012). Gravity in international finance. *Journal of International Economics*, 87(2):205–215.
<https://www.sciencedirect.com/science/article/pii/S0022199612000074>

Ongena, S., Popov A., and Udell, G.F. (2015). “When the cat’s away the mice will play”: Does regulation at home affect bank risk-taking abroad? *Journal of Financial Economics*, 108(3):727–750.
<https://www.sciencedirect.com/science/article/pii/S0304405X1300007X>

Ozkok, Z. (2016). Financial harmonization and financial development: An application of Europe's financial services action plan. *Applied Economics Quarterly*, 62(1):1–35.
<https://ejournals.duncker-humboldt.de/doi/abs/10.3790/aeq.62.1.1>

Temesvary, J., Ongena, S., and Owen, A.L. (2018). A global lending channel unplugged? Does U.S. monetary policy affect cross-border and affiliate lending by global U.S. banks? FEDS Working Paper 2018-008.
<https://www.federalreserve.gov/econres/feds/files/2018008pap.pdf>

Vlachos, J. (2004). Do regulatory similarities increase international portfolio holdings? IUI Working Paper 612.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=515969

Impressum

DIW Berlin – Deutsches Institut
für Wirtschaftsforschung
Mohrenstraße 58, 10117 Berlin

Tel. +49 (30) 897 89-0
Fax +49 (30) 897 89-200
<http://www.diw.de>

ISSN 2198-3925

Alle Rechte vorbehalten
© 2018 DIW Berlin

Abdruck oder vergleichbare
Verwendung von Arbeiten
des DIW Berlin ist auch in
Auszügen nur mit vorheriger
schriftlicher Genehmigung
gestattet.