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VIEWS OF THE EFTA COUNTRIES

***FINTECH, OPPORTUNITIES AND CHALLENGES FOR THE
FINANCIAL SECTOR AND ECONOMIC GROWTH***

EFTA ECOFIN MEETING

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Views and priorities of the EFTA States

Growth in the European Economic Area (EEA) strengthened further in 2017, with employment picking up and unemployment continuing to fall gradually. The labour market and consumer spending have remained strong at beginning of 2018. The EFTA States expect stable to strong economic growth looking forward, although the outlook remains heavily dependent on the international environment.

Iceland enjoys economic growth of around 4% and capital controls have largely been abolished. Overheating pressures have abated and the outlook suggest slower growth in the second half of 2018, despite a still tight labour market. The other EFTA States are experiencing moderate growth rates with a positive outlook for the years to come. In Liechtenstein, the latest data confirm a return to a gradual recovery path after a slowdown following the strong appreciation of the Swiss franc in 2015. Employment growth has increased substantially since the beginning of 2016, and business surveys point to stable economic growth. In Switzerland, the driving factors of economic growth were investment growth and trade, which benefited from the partial exchange rate normalization as well as from the strengthening foreign demand. The financial sector expanded substantially after several years of little or negative growth. The Norwegian economy is performing well. Employment is increasing rapidly, and unemployment has declined. Businesses across the country are reporting an increase in productions. Low interest rates, a marked improvement in competitiveness and expansionary fiscal policy in the years after the oil price drop have been important drivers. Now, fiscal policy is neutral and private sector is leading the expansion.

EU and EFTA countries share several important economic challenges. Globalisation and new technologies are changing the nature of work. Digitalisation and automation are seen as key influences on future labour markets. FinTech (Financial Technology) is expected to create a major impact in financial sectors from leveraging some of the latest innovations such as Artificial Intelligence, Robotics, Biometric applications, Blockchain or platforms for Peer-to-Peer lending. FinTech describes technologically enabled financial innovation that results in new business models, applications, processes, products, or services with an associated material effect on financial markets and institutions and the provision of financial services.

FinTech is not primarily about using information-technology in the financial sector, it is more about creating new, focussed and scalable business models by using the tools of digitalization. Such tools include, among others: direct access to clients, biometric technologies, modern and user centric interfaces, artificial intelligence, cheap access to scalable computing power and cryptography (e.g. blockchain), cloud computing and storage. The framework presented in the report of the OECD (2018) classifies the applications covered into eight distinct categories : payments, planning, lending and funding, trading and investment, insurance, cybersecurity, operations, and communications. These innovations aim at contributing to better service quality, reduced costs from the users view and– furthermore – to the prosperity of our countries. Overall, FinTech is expected to lead to greater efficiency, transparency, competition and more user-friendly financial services; and greater financial inclusion and finally economic growth. The emergence of FinTech could lead to, individuals and businesses globally having greater access to useful and affordable financial products and services.

FinTech could reduce the transaction costs for third party financing, through Peer-to-Peer Investment and –lending. FinTech could therefore make it easier and less costly for small businesses to get credit. This could have a positive effect on innovation and economic growth. However, in some countries there are concerns regarding high and still rising household indebtedness. In this context, the growing digitalisation of consumer finance could pose new risks to consumers by facilitating quick and easy access to credit for vulnerable consumers, thus jeopardizing the resilience of the household sector.

At the same time, in some countries individuals lack access to financial services or are confronted with high transaction costs. FinTech could provide cheaper and widely spread access to financial services, which will increase social inclusiveness globally. Digitalization upends business models, enabling greater competition and putting pressure on incumbents, which should have a positive impact for consumers in terms of fees, the quality and the services of traditional financial services.

FinTech developments have the potential to materially enhance or transform business models, applications, regulatory oversight, processes or products in many areas of the industry (strengthening critical infrastructure components, increasing access to the financial system, realizing efficiencies and reducing costs for market participants). There are many benefits to

this shift, but it also leads to new challenges, such as cyber risks, data theft and the inappropriate use of customer information.

Joint, concerted action might be needed for cross-border, regulatory and supervisory issues, to enable the system to reap the benefits of innovation. Managing operational risk from third-party service providers; obscuring the delineation of liability between distributors and manufacturers of financial services with respect to operational issues, product suitability, liability for damages and other responsibilities; mitigating cyber risks; interconnected infrastructure and monitoring macrofinancial risks that could emerge as FinTech activities increase. Different measures have been taken or considered in that respect.

The EFTA/EEA States support the European FinTech Action plan: For a more competitive and innovative European financial sector. Furthermore, they would encourage taking a global approach taking into consideration the international developments in order to guarantee a level playing field. The new payment services directive (PSD2) covers only payment solutions providers and there are many elements of FinTech that have not yet been addressed. Smart and proportionate regulations would guarantee legal certainty for FinTech firms. Authorisation requirements allow for effective supervision of service providers to ensure the stability and integrity of markets. They also ensure that consumers are protected. At the same time, uniform operating conditions enable financial services firms that are duly authorised and supervised by their home Member State to benefit from a future European/EEA passport. In order to reap the benefits of maintaining open and globally integrated markets also in relation to FinTech firms, it should also be considered to include an appropriate regime for third countries for such kind of activities in the EU's financial market acquis.

For FinTech firms using innovative technologies it can be a challenge that regulations relevant to their business pre-date the emergence of such technologies, leading to uncertainty considering the legal status of their business model. It is therefore important to clarify the applicable EU legislative framework for services and to provide guidance to national supervisors to ensure more convergence between national regulatory regimes. The regulatory challenge is to establish a healthy balance between maintaining stability in the market and protecting consumers, while at the same time providing a framework allowing FinTech companies to develop and implement the latest innovations. The aim should be a regulatory regime that is technology neutral, and that the provision of a service or product is subject to

the same rules regardless of the technology used to provide that service. The principle of “same business, same risks, same rules” should thus be retained. Besides regulatory issues, member states may have to adjust their supervisory system.

Innovation hubs can be a key component in supporting the development of FinTech and helping new businesses to understand how existing regulation applies to their business ideas. Several EU regulators and supervisors have launched initiatives to promote the growth of the FinTech sector while ensuring the safety and soundness of the financial system. As relaxing licensing and compliance requirements can potentially expose consumers to additional risks, other measures can be taken or controls can be put in place to ensure that adequate consumer protections are in place. Requirements are related to customer information confidentiality, fit and proper criteria, particularly regarding honesty and integrity, handling of customer’s funds and assets by intermediaries, prevention of money laundering, and countering terrorism financing. Adjusting the general rules in order to suit FinTech-characteristics could offer greater legal certainty, and reduce market distortion regarding the established service providers.

Within the EFTA States, a variety of measures are carried to promote FinTech:

- Iceland has formed a working group on the topic of the future banking system structure. The white paper this working group will submit to the parliament is widely expected to include a discussion on the development of FinTech and the appropriate policy responses. The Icelandic government prioritises following closely the work and discussion on FinTech within the EU.
- Liechtenstein has not established a regulatory sandbox that provides separate rules for FinTech-Companies. Liechtenstein chose to implement a different approach, the so called “Regulatory Lab”, which provides a contact person for all FinTech-Companies. The main objective is support entrepreneurs concerning questions of regulation and give them legal certainty whether the activity may be subject to licensing requirements under financial market laws or falls within the scope of the Liechtenstein anti-money-laundering law. Further the government of Liechtenstein decided to start a legislative project in order to create a stable legal framework for

upcoming Blockchain-based innovations. The “blockchain bill of law“ is at the moment under public consultation.

- In Norway the Financial Supervisory Authority of Norway has established a contact point for FinTech firms in 2017. The Norwegian Ministry of Finance is currently working on establishing a regulatory sandbox for FinTech companies to be operative by year-end 2019.
- Switzerland introduced in 2017 a globally unique regulatory innovation space for FinTech: In order to reduce barriers to market entry, companies can receive customer funds of up to 1 million Swiss francs in line with simplified regulatory requirements. Switzerland is also in the process of creating FinTech license, which would substantially ease regulation for institutions with deposits below 100 million Swiss francs. For both these innovations, anti-money laundering and terrorist finance regulations fully apply. Furthermore, the Ministry of Finance has set up a working group to evaluate closely the legal framework for Blockchain applications.

Regarding Cybersecurity, the EFTA states stress the importance of assessing the security level of FinTech companies and data aggregators. Because of the vast amount of money and valuable data processed by the financial market participants, the financial services sector is among the most vulnerable with regard to cybercrime. The different initiatives at the European and international level should be coordinated. Data labelling, selective data sharing and identity-aware data sharing are possible solutions to this problem.

On the one hand, the aim should be to ensure a level playing field for FinTech providers and make sure that EFTA firms, investors and consumers can take advantage of technical innovations within a transparent framework, also to make Europe a leading player in developing new funding possibilities for rapidly growing businesses. On the other hand, potential risks regarding financial stability, market integrity, investor and consumer protection, personal data protection and money laundering and terrorist financing should be appropriately addressed.

Annex 1: Iceland

Economic environment, outlook and risks

Economic environment and outlook

The Icelandic economy has grown by 28% in real terms during the current growth phase, which spans 7 years, after contracting by 10% in the aftermath of the global financial crisis. It grew by 4.0% last year after a staggering 7.4% growth in 2016. The economic outlook suggests a gradual adjustment to equilibrium growth, with growth slowing to around 3% this year. However, recently published national accounts data for the first half of 2018 were particularly strong, with a larger contribution of investment and external trade than had been anticipated. Thus, the figures suggest a healthier composition of growth than expected, as even though consumption has been rising rather rapidly, its growth rate through the current upswing is more moderate than most projections have indicated. Several leading indicators, most notably debit card turnover, tourist arrivals and consumer confidence, suggest the economy will cool down in the latter half of 2018. Even though the recently released figures for the first half of the year indicate that analysts will likely revise projections upwards, major revisions are not to be expected.

Exports have risen in accordance with projections despite slower growth in tourism, as exports of fisheries have surprised on the upside. The stock of main fish species is either historically very large or improving substantially and as a result the fishing quotas have recently been increased.

The real exchange rate (RER) is high by historical standards and Iceland has still become one of the most expensive countries in the world. Despite the strong RER as the external balance of the economy still looks good after a long economic upswing. The current account is in surplus, as a large surplus on the balance of trade in services outweighs the deficit on the balance of trade in goods, and the net international investment position has changed radically and currently stands at 9% of GDP.

Alongside improved macroeconomic conditions, the Icelandic economy has been in a deleveraging phase since the global financial crisis. Household credit growth has been moderate for several years despite a significant purchasing power growth and rapidly rising

house prices. The house price increases have largely subsided and households seem to have financed a substantial part of the increase by equity rather than debt. As a result, and given the low levels of debt, households have scope for further debt financed consumption. Credit growth might, therefore, pick up despite binding loan-to-value ratios and rules on mortgage lending.

Labour market conditions remain tight with growing wages, low unemployment and over 80% labour force participation. The rate of underemployment, which seems to have been a drag on wage growth in many countries, is also very low. With an already high resource utilisation, demand for workers has largely been met by foreign labour. As a result, the population growth in 2017 was the fastest on record, by some distance. Although importation of foreign labour remains strong in 2018, it appears to have already peaked as e.g. the number of posted workers is down by 20% since last year, suggesting reduced labour market tightness.

Risks

Wages have risen rapidly over the last several years and the wage share of gross factor income is around 63%, which is high in a historical context. Analysts widely assumed that inflation would spike after substantial wage increases following collective bargaining agreements in 2015. However, inflation has remained close to the Central Bank's 2.5% target. An exchange rate appreciation, a favourable terms of trade shock and low imported inflation are among factors that have contributed to lower-than-expected inflation. The next round of collective bargaining will take place in coming months and in the absence of further favourable external shocks a rapid increase in wages will most likely lead to a further build-up of inflationary pressures. Even though the headline rate is still close to target, underlying inflation and inflation expectations seem to be on the rise.

According to a recently released IMF report, Iceland, along with other Nordic countries, is among the countries that have the closest economic ties with the UK. The UK is one of Iceland's main trading partner and is a key market for the fishing sector. Furthermore, 14% of foreign tourists in Iceland come from the UK. The UK tourists' share in Iceland, which is second to only the US, has fallen sharply from 20% since before the Brexit referendum. Iceland thus has clear interests in avoiding a hard or disorderly UK withdrawal from the European Union.

After seven years of double-digit growth in which the compound annual growth rate of tourist arrivals amounted to 25%, the rapid growth phase of tourism appears over. With the number of foreign tourists in Iceland at 6.5-fold the population in 2017, a slowdown in growth is welcome even though it might result in a concentration of firms in the sector. On the demand side, there are no apparent risks suggesting a sudden reversal in tourism, as e.g. search results indicate that demand for Icelandic tourism remains high. Furthermore, research seem to indicate that destinations that suddenly become very popular usually remain popular. However, risks are appearing on the supply side of the sector as fierce competition among airlines amidst rising oil prices can adversely affect the frequency of flights to and from Iceland. In fact, several airlines have already discontinued flights from certain destinations and the bankruptcy of AirBerlin appears to have had an impact on the number of tourists from Germany.

Conclusion

Overall, while the economic outlook remains very favourable, there are multiple signs that the economy is cooling down and signs of overheating pressures have declined. However, downside risks to the baseline scenario have increased. The economy appears set for a soft landing after a relatively long period of growth. However, were downside risks to materialise, the economic upswing has been used to build buffers and resilience which can be used to alleviate the impact of a potential downturn, whenever it might materialise.

Economic policy

Fiscal policy

A government of three parties, spanning the political spectrum from left to right, took office in late November 2017. In accordance with the Act on Public Finances, a fiscal policy statement for 2018-2022 was submitted in December. The statement targets a 1.2% overall balance of the general government in 2019 and a minimum of 1% balance in 2020-2022. Due to a substantial interest burden, Iceland has been running a relatively large primary balance surplus, above 4% in 2016 and 2017. Furthermore, general government Maastricht debt has been lowered substantially and currently stands close to 40% of GDP.¹ A milestone was reached in October when the last part of debt directly related to the financial crisis matured.

¹ General government debt as defined by the Act on Public Finance, i.e. gross debt excluding pension liabilities and accounts payable/receivable and deducting currency and bank deposits, is expected to be lower than the 30% of GDP limit specified in the Act in 2020.

As debt has been reduced significantly, interest expenditure is falling and the primary balance surplus is moderately allowed to decline. It is expected to amount to 3.3% of GDP in 2018 and 2.7% of GDP in 2019.

The Budget Proposal for 2019 has recently been submitted to Parliament. It is in line with the previously approved 5-year fiscal policy statement and the rolling 5-year fiscal plan, which is submitted in March every year. Among the most prominent tax changes in the Budget Proposal are a lowering of the social security contribution by 0.25 percentage point and an increase in the personal tax credit by 1 percentage point. Furthermore, child benefits are increased substantially in 2019, by 17.5%, with the increase steered towards lower-income families.

Prudential policy and capital controls

Capital controls on individuals, businesses and pension funds have largely been abolished. A capital flow management measure (CFM) was introduced in June 2016 to reduce the risk that could accompany excessive capital inflows by directly affecting the incentives for carry trade. Under the CFM, 40% of new capital into bonds and high-yielding deposits are deposited at the Central Bank for a year at zero interest rates. The CFM has allowed the Central Bank of Iceland to pursue an independent monetary policy with substantially higher interest rates than most countries reflecting differences in the business cycle position, without fears of excessive carry trade inflows affecting the yield curve and disrupting the transmission of monetary policy. A holistic revision of the Act on Foreign Exchange is taking place. One vital part of that revision is the plan to integrate the CFM into the prudential policy kit to supplement other macroprudential and macroeconomic policies.

As a very small open economy with limited economic diversification, the importance of using economic upswings to build buffers is undisputed. The objective of fiscal policy over the past years has been to build such buffers and in the same way ample emphasis has been put on building financial resilience. In addition to base capital requirements of 8%, Iceland has adopted multiple capital buffers, some of which apply to all banks, some only to systemically important financial institutions (SIFIs) and some based on the state of the economic cycle. The additional capital buffers currently in effect are the countercyclical capital buffer, capital conservation buffer, capital buffer for SIFIs and systemic risk buffer. Combined, these capital buffers currently amount to 8.75%.

In addition to capital buffers, Iceland has adopted a wide range of prudential policy tools. Liquidity regulations have been adjusted, not only as required to meet Basle standards, as additional regulations to limit liquidity risk, particularly related to foreign currency exposure, has been implemented. Examples include a liquidity coverage ratio (LCR) that ensures high quality liquid assets to meet banks' 30-day liquidity needs and a net stable funding ratio (NSFR) of one year for funding in foreign currency with the aim of ensuring a minimum level of stable one-year funding in foreign currencies and limiting maturity mismatches in foreign currency. Furthermore, the financial supervisor has been granted powers to set loan-to-value (LTV), debt-to-income (DTI) and debt service-to-income (DSTI) ratios. Maximum DTI and DSTI ratios have not yet been specified but the Icelandic Financial Supervisory Authority (FME) has set the LTV ratio at 85% for mortgage loans overall, albeit at 90% for first time homebuyers.

Banking system

The banking system is dominated by three commercial banks. Together their assets amount to 130% of GDP and their equity CET1 capital ratio is approximately 24%. In February 2018, the government sold its 13% stake in Arion Bank and in June Arion Bank was sold in an IPO by foreign investors and Kaupthing, the failed bank's estate. Consequently, Arion Bank went public, being the first major Icelandic bank to do so since the financial crisis. Despite the sale, the government still owns a large share of the banking system with its 98% share in Landsbankinn and 100% share in Islandsbanki. However, according to its ownership strategy for financial services, the government aims at selling its share in Islandsbanki along with a 58-64% share in Landsbankinn in due course.

FinTech

In the collaboration agreement between the three parties that form a majority in parliament, there was a clear emphasis on the importance on achieving consensus on the future structure of the financial system. The agreement states that a white paper on a future vision regarding the financial system in Iceland will be submitted to parliament for discussion before decisions are taken on policy regarding the financial system. In line with this, a working group was formed in February, which will submit the white paper in November. Among the aspects the working group has under consideration is the state's holding in the banking system, regulation and supervision of the system and main determinants of the future banking system structure.

The white paper is widely expected to include a discussion on the development of FinTech and the appropriate policy responses.

FME operates a service desk for individuals and firms who have questions on financial markets supervision for FinTech. The service desk aims to communicate with parties for the purpose of identifying whether a license is required for a given operation. Through the service desk, the FME has registered one firm as a service provider for transactions between cryptoassets, electronic money and currencies.

One of the characteristics of the development of FinTech in Iceland is that banks have largely opted to work with FinTech firms instead of developing their own solutions. As a result, the banks have benefited from the technical know-how and driving force of the specialized FinTech firms which, in turn, have gained access to e.g. banking experience, legal knowledge, banking infrastructure and even the bank's customers. In line with this development, a FinTech cluster has recently been established whose objective is mainly to facilitate cooperation and knowledge-sharing between firms in the sector. Furthermore, the Icelandic Blockchain Foundation regularly communicates knowledge on cryptocurrencies and blockchain technology

The Icelandic government prioritises following closely the work and discussion on FinTech within the EU. Fintech has the potential to increase growth and efficiency, for example by facilitating SME's access to financing and through peer-to-peer transactions. However, for all its benefits and opportunities, FinTech also brings various challenges, i.a. for financial stability. Along with promoting an innovation friendly environment, it is thus also of imperative importance that the regulatory framework is harmonized across countries so as to guarantee a level playing field.

Key figures for the Icelandic economy (%)

	2016	2017	2018	2019
Private consumption growth	7.2	7.9	5.3	3.9
Public consumption growth	1.9	3.1	2.5	2.1
Gross fix capital formation	21.7	9.5	3.2	4.9

Exports growth	10.9	5.5	3.4	2.7
Imports growth	14.5	12.4	6.4	5.1
GDP growth	7.3	4.0	2.9	2.7
Consumer price inflation (annual rate)	1.7	1.8	2.7	2.9
Unemployment rate (annual average)	3.0	2.8	2.9	3.3
Current account balance (% of GDP)	7.7	3.3	1.8	1.5
General government net lending balance (% of GDP)	1.2	1.4	1.4	1.2
General government primary balance (% of GDP)	4.2	4.4	3.9	3.4
General government gross Maastricht debt (% of GDP)	51.6	41.9	38.7	35.7

Source: Statistics Iceland, October 2018, Ministry of Finance and Economic Affairs

Annex 2: Liechtenstein

General economic situation

The Liechtenstein economy continued its economic upswing in 2017. Recent data signal that the economy of Liechtenstein has finally recovered from the exchange rate shock and the following economic slowdown in 2015. Employment growth accelerated to 3.6% in 2017, and early indicators point to a further improving outlook in 2018. For the next few years, Liechtenstein expects stable economic growth, although the outlook remains heavily dependent on the external environment and thus the global recovery.

Liechtenstein is an important industry hub, with around 40% of the workforce employed in manufacturing. The most important economic activities in manufacturing are: mechanical engineering, electrical machinery, dental technology, vehicle components, food products and construction equipment. The country is also well known as a stable, highly specialised financial centre with strong international links.

Over the course of the year, the buoyant external environment had an increasingly positive impact on economic developments in the Swiss franc zone. Liechtenstein is thus likely to have finally overcome the exchange rate shock of 2015. The sales revenues of the 25 major companies in Liechtenstein rose quite significantly in the first months of the year, and employment also increased substantially on an annual basis.

Due to its small domestic market, Liechtenstein's economy is heavily reliant on exports. Around 60% of all direct exports of goods are exported to EEA countries. The still highly valued Swiss Franc put downward pressure on import pricing, leading to increased pricing pressure for domestic products. The economic outlook thus also crucially depends on whether the currency stays on a fair level of valuation in the near future. A noticeable international tendency towards increasing protectionism implies not only high risks for a small and open economy such as Liechtenstein but also for the global economy. In 2017, direct exports of goods increased by 0.5%, with direct imports of goods also rising by 1.1%. After the slowdown in 2015, export growth returned to positive growth in 2016 and 2017, and latest data for the first half of 2018 point to a further improving outlook for Liechtenstein's external demand.

The financial sector has traditionally played an important role for the Liechtenstein economy, contributing about 25% to the country's gross value added. In a very demanding economic environment characterised by low interest rates and high regulatory pressure, the banking sector managed to generate higher earnings and net new money inflows in 2017. The assets under the management of Liechtenstein banks, on a consolidated basis, including subsidiaries and branches in foreign countries, reached another record high in 2017 (CHF 294.3 billion). The assets under management of Liechtenstein banks in Liechtenstein rose by 25% on an annual basis, and asset management companies also slightly increased their assets under management. In a similar vein, the net assets under management in investment undertakings (funds) also grew remarkably. In contrast to 2016, even the premium income in the insurance sector rose in 2017. Nevertheless, financial market players continue to operate under high regulatory pressure and in an environment characterised by challenging market conditions. The balance sheet total of the banks in Liechtenstein, including foreign group companies, rose by 11% (2017: CHF 82.4 billion, 2016: CHF 74.3 billion) compared to the previous year. Consolidated across all banks, liabilities to clients amounted to 78.5% of the balance sheet total. On a consolidated basis, the core capital ratio (Tier 1 ratio) of Liechtenstein banks decreased to 20.7% at the end of 2017 (previous year: 21.6%), with all banks reporting a Tier 1 ratio exceeding 18%, thus significantly exceeding the international average. The high equity backing ensures a stable financial centre and security for banking clients. The number of jobs at banks, including group companies, rose significantly by 5.3 % in 2017 over the previous year.

For 2017, the average unemployment rate settled at 2.3%, with the unemployment rate of persons under the age of 25 standing slightly higher at 2.6%. In April 2018, the unemployment rate decreased to 1.6%. A specificity of the Liechtenstein labour market is the large share of commuters, with slightly more than 50% of the Liechtenstein workforce living abroad (mainly in Switzerland and Austria). Remarkably, the number of jobs exceeded the number of inhabitants in Liechtenstein for the first time in 2017.

Following a budget deficit in 2013, the public budget has achieved continuous surpluses since 2014 and the forecast for 2018 is also positive. Various important structural reforms have been implemented for the purpose of cost-cutting and revenue-increasing. The results of the reforms are positive: revenues and expenditures have been balanced since 2014, the public pension fund could be stabilised, and the reforms of the Health Insurance Act and the Pension

Fund Act could be concluded. Net assets of social insurance are growing and pension funds are on solid ground. Current government consolidation efforts are related to implement digital services with the intent to make administration processes more citizen friendly and accessible around the clock, simultaneously increasing the efficiency and cutting process costs.

FinTech, opportunities and challenges for the financial sector and economic growth

FinTech describes technologically enabled financial innovation that results in new business models, applications, processes, products, or services with an associated material effect on financial markets and institutions and the provision of financial services. Typical benefits associated with FinTech are: decentralisation, increased intermediation by non-financial entities, greater efficiency, transparency, competition and resilience of the financial system, greater financial inclusion and economic growth.

FinTech includes any technological innovation in the financial sector, which will change the way financial services are delivered and designed, as well as the underlying processes of payments, clearing and settlement. At present, one of the most common technologies in this area is Blockchain, a decentralised peer to peer network, which aims at reducing/ eliminating operational inefficiencies and hence leads to higher cost efficiency. Customers can achieve payment and settlement in a single step, without being forced to use the service of an intermediary. In the last decades it became difficult for SME to get bank credits or access to financial markets. It is therefore important to propose to small and medium-sized enterprises alternative sources of financing.

Digital interfaces promote access for customers and lower barriers for new providers to enter the market of financial services. Against this backdrop, new credit forms arise, capital gets mobilised more efficiently, and additional funding sources open up. The new emerging diversity of providers should generate more specified and adapted products. These developments will lead to restructuring, globalisation and personalisation of financial services.

The wave of innovation in connection with FinTech tends to improve the national and the cross-border flow of goods, services, payments and information. In general, the quantity and the volume of transactions should continue to rise. Simultaneously, the quality of the

transaction process improves: traceability, security, speed, cost reduction. The unbundling of financial services, that is associated with the rise of Fintech, benefits clients through increased competition and lower fees. Digitalization upends business models, enabling greater competition and putting pressure on incumbents, which should have a positive impact for consumers in terms of fees, the quality and the services of traditional financial services.

On one hand, Fintech companies that provide core banking functions (i.e., credit, liquidity and maturity transformation) could enhance financial stability to the extent that these activities might diversify credit and liquidity risks within the financial system. On the other hand, however, given their short track record and relative lack of banking experience, one cannot exclude that these new entrants could also create system vulnerabilities, especially in an economic downturn or during periods of market stress.

FinTech presents both opportunities and challenges for regulatory compliance and supervision. It presents challenges such as cyber-related risks, data, consumer and investor protection issues and market integrity issues.

One main difficulty is to identify the physical location where transactions take place, which challenges traditional national regulation and taxation systems. For VAT purposes it is sometimes challenging to determine the recipient of the service or the concrete content of the service provided. Taxation of the digital economy should respect the basic principles of the today's corporate tax-system and be based on international standards such as the OECD standard. The difficulty is to apply traditional legislation to the new business models ("same risks, same regulation").

The fragmentation of data entails that the complexity in interconnectedness is growing. Each new junction point is at the same time a potential point of failure or entry point for cyber criminals, hacking and data theft are likely to rise. Joint, concerned action at the EEA level but also at the international level might be needed to enable the system to reap the benefits of innovation. Therefore it is very important to acquire tools to properly identify and assess the risks and adjust the national and international materiality frameworks. Basis for the stability and functionality of this new FinTech-system are also the enforceability of property rights, contract and data disclosure agreements in digital space.

The importance of the regulatory context in which FinTech companies operate cannot be overstated. Policy decisions and regulatory actions will directly determine to what extent FinTech will impact financial stability. In order to help ensure a level playing field, it is crucial that regulatory initiatives are harmonized across jurisdictions. Regulatory changes can cause an uneven playing field.. Therefore it would be desirable to have an EU/EEA passport (Single Market), with clear and consistent licensing requirements, thus ensuring stability, integrity and fairness of the market. Furthermore, Liechtenstein would encourage taking a global approach taking into consideration the international developments in order to guarantee a level playing field.

Besides regulatory issues the states have to adjust their supervisory system. Based on systemic implications, developing early warning systems and monitoring macrofinancial risks that could emerge as FinTech activities increase, are crucial.

Liechtenstein is an innovation-friendly country and is also in demand as a FinTech location. In 2017, the FMA processed about 100 enquiries regarding FinTech. In August 2018 the mark of 150 inquires was already exceeded. Business models included virtual currencies in general, initial coin offerings, crypto funds, InsureTech, digital e-money, payment services solutions, and trading platforms for security tokens.

Liechtenstein did not set a regulatory sandbox which provides separate rules for Fintech-companies, but assess the applications of Fintech-companies according to the principle “same business, same rules”. From the perspective of Liechtenstein, adjusting the general rules in order to suit “Fintech”-characteristics offers a greater legal certainty as well as the avoidance of market distortion regarding the established service providers. Liechtenstein therefore chose to implement a different approach, the so called “Regulatory Lab”, which provides a contact person for all Fintech companies as well as a dedicated expert team with both know-how in all sectors of financial market regulation and technology. By offering direct contact to answer practical questions in fast and efficient manner, the regulatory lab can give direct input on legislative issues, for example if new business models are established that are relevant to the overall goals of the government but not yet covered by the current legislation.

To facilitate upcoming innovative business models, the government and the Financial Market Authority (FMA) of Liechtenstein started in 2015 the “regulatory laboratory” within the

FMA. The main objective is to take a bottom up approach, support entrepreneurs concerning questions of licensing and regulation and slim administration procedures. For every FinTech company, it must be clarified whether the intended activity falls within the scope of the Liechtenstein anti-money-laundering law (Due Diligence Act; SPG) and whether the activity may be subject to licensing requirements under financial market laws.

The practice revealed that especially the Blockchain-technology poses fundamental new questions which have to be clarified on behalf of legal certainty. Therefore the government of Liechtenstein decided to start a legislative project in order to create a stable legal framework for upcoming Blockchain-based innovations.

Key figures for the Liechtenstein economy

	2015	2016	2017	2018 (1st Quarter)
Direct exports of goods (without Switzerland)	-6,9 %	4.3 %	1, 0 %	11.6%
Direct imports of goods (without Switzerland)	- 6,1 %	3.4 %	0.5 %	6.7%
Gross domestic product (GDP), m CHF	6 054	6 139	-	-
GDP change from previous year	-0.7%	1.4%	-	-
Consumer price inflation ²	- 1,1 %	-0,4 %	0.5%	0.7 %
Employment growth	0,2 %	1.9 %	3.6 %	
Persons employed by economic sectors:				
- Agriculture and forestry	0,8 %	0.7 %	0.6%	-
- Manufacturing	38,4 %	37.9 %	37.5%	-
- Services	60,9 %	61.4 %	61.9%	-
Unemployment rate (annual average)	2,4 %	2,3 %	1.9 %	1.7 % (July)
Unemployed persons under 25 (rate)	3,0 %	3,1 %	2.6 %	1.8 % (July)
Public Surplus/ Deficit (+/-), m CHF	227	196	-	-
Public Surplus/ Deficit (+/-), in % of GDP	3,8 %	3.6 %	-	-
Public expenditure quota, in % of GDP	20,9 %	20.8%	-	-

Sources: Office of Statistics, Liechtenstein

² For 2014, 2015, 2016 and 2017: Annual average. For 2018 (July) compared to end July of 2017.

Annex 3: Norway

General economic situation

The Norwegian economy is performing well. Business confidence is higher than it has been for a long time, employment is increasing rapidly, and unemployment has declined. The downturn in the wake of the oil price decline in 2014 is over, and the mainland economy is in a cyclical upturn. Economic growth is currently above its long-term trend, and is expected to increase further next year. Growth is reinforced by a rebound in the petroleum industry and strong performance in the international economy. Increased household purchasing power is lifting household consumption, while improved competitiveness and strong growth abroad are facilitating export and investment growth.

In the National Budget for 2019 Mainland GDP (non-oil GDP) growth was forecast to 2.3% in 2018 and 2.7% next year, well above trend growth in the economy.

The labour market is improving. Registered unemployment stood at 2.4% of the labour force (seasonally adjusted) in September. The unemployment figure, based on Statistics Norway's labour force survey, was 4% in July, down from more than 5% in early 2016. Employment developments were weak for a long time but have improved over the past year. Labour market improvements are expected to continue on the back of robust economic growth.

The employment rate in Norway (15-64 years) was 74% in 2017, over six percentage points higher than the EU average. The employment rate for young people is also higher in Norway than the EU average. The general employment rate declined markedly in the wake of both the financial crisis and the oil price decline in 2014. An ageing population has also contributed to this development. However, employment rates are now increasing and were higher in the first half of this year compared to the same period last year for most age groups. The positive development is expected to continue going forward.

A dry and warm summer resulted in lower electricity production and subnormal water levels in Norwegian reservoirs. This was accompanied by record-high electricity prices, and consumer prices were 3.4 percent higher in September this year than in the same month last year. Consumer prices adjusted for tax changes and excluding energy products (CPI-ATE) were 1.9 percent higher in September than in the same month last year. Higher electricity

prices mean that consumer price inflation looks set to be higher this year than previously anticipated. A lot of rain recently has given more water in Norwegian reservoirs and electricity prices have come down again. Electricity prices are expected to decline towards more normal levels next year, thereby markedly reducing consumer price inflation.

In the first half of 2018, house prices have risen again after declining through 2017. Countrywide, prices are now at the same level as the peak from last year. Oslo has experienced the steepest price growth, while house prices in other cities have developed more moderately.

Macroeconomic policies

The Norwegian fiscal policy framework is designed to underpin stability in an economy with large and fluctuating oil revenues. By transferring all government revenues from petroleum activities to the Government Pension Fund Global (GPF) and over time aligning withdrawals with the expected real return on the Fund (estimated at 3%), the fiscal budget is better protected from fluctuations in petroleum revenues. It also ensures that current spending of petroleum income over the budget can be sustained.

The fiscal guidelines place much emphasis on stabilizing economic fluctuations. Importantly, the automatic stabilizers are allowed to function, since petroleum revenue spending is measured by means of the structural, rather than actual, non-oil deficit. The guidelines also allow the fiscal budget to be used actively to stabilize the economy. In any given year, fiscal policy shall be tailored to the cyclical situation, and spending of petroleum revenue can thereby deviate from 3% of the Fund's value. Further, the guidelines specify that the petroleum revenue spending impact of major changes to the Fund capital or the structural deficit shall be evened out over several years.

In response to the oil price decline in 2014, the Government implemented targeted measures to stimulate activity and employment, and to counter unemployment. Together with low interest rates, depreciation of the Norwegian krone and improved competitiveness, the large fiscal stimulus helped counteract the cyclical downturn in the Norwegian economy. As economic growth has rebounded, the Government has in its latest budgets focused on normalising fiscal policy. Petroleum revenue spending growth has been scaled back to facilitate the creation of new private sector jobs and avoid excessive Norwegian krone

appreciation and pressure on businesses exposed to international competition. Measured as the change in the structural, non-oil budget deficit as a share of trend GDP for mainland Norway, the fiscal impulse in the proposed budget for 2019 is estimated at 0.0%. This follows the budgets for 2017 and 2018, which also had a near neutral fiscal policy stance, compared to an average fiscal impulse of 0.7% for the first years after the oil price decline.

In the proposed budget for 2019, spending of petroleum revenues is estimated at 7.5% of mainland GDP and corresponds to 2.7% of the Fund's capital. Real growth in underlying expenditures from 2018 to 2019 is estimated at 1.3%.

The operational target of monetary policy is annual consumer price inflation of close to 2% over time. Norges Bank operates a forward-looking and flexible inflation-targeting regime, so that it can contribute to high and stable output and employment and to counteracting the build-up of financial imbalances. Norges Bank's key policy rate is currently 0.75%.

In 2018, both the corporate tax rate and the personal income tax rate was reduced from 24 to 23% as part of the tax reform currently being implemented. The tax rate is proposed to be reduced further, to 22%, in the budget proposal for 2019.

Financial stability and financial market policy

Norwegian financial institutions are generally profitable and sound. Several years with good results have enabled Norwegian banks to build up equity capital through profit retention. Norwegian banks are well capitalised compared to banks in other European countries. After the international financial crisis in 2008, Norwegian banks' CET1 capital ratio has more than doubled. At the end of Q2 2018, the banks' CET1 capital ratio was just under 16 per cent. The leverage ratio stood at 7.3 per cent. Norwegian banks have also become less dependent on short-term market funding in recent years, and have built up considerable liquidity buffers in line with the liquidity coverage requirement (LCR) introduced in the wake of the financial crisis. At the end of Q2 2018, the banks held liquidity buffers corresponding to approximately 140 per cent of the requirement.

Norwegian insurers generally maintain a sound margin to the Solvency II requirements. The life insurers' overall solvency coverage ratio, i.e. the ratio of eligible own funds to the solvency capital requirement (SCR), was 221 per cent at the end of Q1 2018. The general low

interest rate environment poses challenges for life insurers' ability to achieve sufficient returns on guaranteed pension products. In addition, increased longevity for individuals covered by defined benefit products has required insurers to increase their provisions. Norwegian life insurers and pension funds have managed to cut costs and adjust their risk-taking, e.g. by refocusing the sale of new insurance policies to contracts where the insured carries more of the risk. Today, premium income related to defined contribution schemes account for well over half of total pension premiums. From January 2019, pension funds will be subject to a simplified version of the Solvency II regime.

The non-life insurance market is characterised by a relatively diverse supply side, including both Norwegian and foreign companies, combined with strong earnings. Norwegian non-life insurers' overall solvency coverage ratio was 214 per cent at the end of Q1 2018.

Norwegian household debt is high, and average debt is now more than two times households' disposable income. The debt burden has been increasing steadily for a long period. However lately the credit growth has dampened somewhat, but is still higher than the growth in disposable income. Many would be vulnerable in the event of an income decline, higher interest rates or a fall in house prices. A sustained increase in the debt burden indicates that financial imbalances have been building up. This is one of the most important vulnerabilities in the Norwegian financial system, as also highlighted by the IMF, the OECD and others.

A number of measures have been introduced in recent years to limit the risk posed by high household indebtedness. In addition to the general strengthening of capital requirements for banks, the capital requirements for residential mortgages have been raised further. Moreover, the countercyclical capital buffer requirement is intended to strengthen banks' solvency and resilience to absorb loan losses, in order to mitigate the risk that banks will amplify a downturn by reducing their lending. The buffer requirement currently stands at 2 per cent. In the summer of 2015, the Government adopted a temporary regulation on new lending secured by residential mortgage, in order to promote a more sustainable residential mortgage market. The regulation was renewed, and somewhat tightened, from 1 January 2017, and then renewed again from 1 July 2018.

The Norwegian financial market regulation has been developed in line with new EU requirements, even though there is a large backlog of legal acts not yet incorporated into the

EEA Agreement. For example, the revised EU frameworks on banking (CRR/CRD IV), insurance (Solvency II) and securities (MiFIR/MiFID II) have been transposed into Norwegian law, although the corresponding legal acts have not yet been made part of the EEA Agreement. After the Joint Committee Decisions of September 2016 established the necessary EEA adaptations to the ESAs regulations, the work to incorporate the outstanding financial services acquis into the EEA Agreement has sped up.

FinTech, opportunities and challenges for the financial sector and economic growth

The Norwegian financial industry has been an early adopter of digital solutions and services. The early digitalisation of the financial sector has served the Norwegian economy well through the wide availability of cheap and reliable digital financial services, and a cost-effective payments system. Digital innovations originating in the Norwegian financial sector, such as identification technologies, are being widely used today outside the sector. The emergence of FinTech is likely to lead to increased efficiency in the Norwegian financial sector and to further competition in the provision of financial services.

While well founded, complex regulatory requirements in the financial sector may be challenging for innovative start-ups and projects. Authorities should regularly assess whether the regulatory framework is compatible with new technologies to ensure that existing rules does not unintentionally impede business models based on new technology. The aim should be a regulatory regime that is technology neutral, and that the provision of a service or product is subject to the same rules regardless of the technology used to provide that service.

A tool to facilitate FinTech innovation is easy access to information and guidance for new businesses in the authorisation process. In September 2017, the Financial Supervisory Authority of Norway established a contact point for FinTech firms. The aim of the contact point is to contribute to better guidance of innovative firms, improve the supervisory authority's understanding of technological developments, and identifying any need for regulatory amendments.

In line with, and inspired by, an increasing number of countries, among them Great Britain and Denmark, the Norwegian Ministry of Finance is currently working on establishing a regulatory sandbox for FinTech companies. The Parliament has requested the sandbox to be operative by year-end 2019. Norway welcomes efforts of the Commission and the European

supervisory authorities to facilitate supervisory cooperation and to identify best practices for regulatory sandboxes.

While increased digitalisation and use of new technology facilitate efficient production of financial services, it may also increase the financial sector's exposure to cyberattacks and technical errors. Internationally, the financial sector is the sector most exposed to cyberattacks, and the scale and frequency of attacks are on the increase. The financial infrastructure in Norway has thus far proved to be robust, and there is a high level of trust between market participants. However, there have been incidents in which key services have been unavailable for up to 24 hours. If cyberattacks or other operational issues interfere with the availability of essential services or result in sensitive information being compromised, it may undermine confidence in individual financial institutions and the financial system as a whole, and may ultimately threaten financial stability.

Cyberattacks or other operational issues may spread quickly through economic links and activities, and communication networks. Cyberattacks could also be directed at many countries simultaneously. Security incidents that compromise core functions of the financial system could, by contagion across sectors and countries, in a worst-case scenario undermine financial stability.

Although action at the national level is necessary to combat cyber risks, the nature of these risks require international cooperation and concerted efforts, especially in regions with close-knit financial markets such as Europe. The need for supervisory convergence and cooperation between national supervisory authorities is highlighted in the EU FinTech Action Plan. In the Nordic region, there are well-established arenas for cooperation between financial institutions and authorities. New arenas are also emerging, such as an annual cyber conference organised by the Nordic central banks, and an industry-owned Nordic Financial CERT. The CERT's mission is to enable Nordic financial institutions to respond to cyber security threats and online crime rapidly and efficiently.

FinTech raises tax issues such as classification and taxation of new products and taxation of new business models. New technology, business models etc. can affect transparency and challenge tax administrations access to information, but can on the other hand also open new opportunities related to tax administrations access to information. In addition, we have seen

that digitalisation and new business models have challenged the existing international tax system, in particular aligning taxation and value creation. These issues are addressed by the Task Force in the Digital Economy in the Inclusive Framework to implement the OECD/G20 BEPS Actions.

Key figures for the Norwegian economy

(% volume change from previous year)

	2017 ¹ NOK bn	2017	2018	2019
Private consumption	1 471.8	2.2	2.6	2.9
Public consumption	797.4	2.5	1.6	1.5
Gross fixed investments	824.6	3.6	1.1	3.0
Petroleum sector	150.9	-3.8	4.8	8.3
Non-oil business sector	295.8	9.3	6.0	5.3
Exports	1 196.9	-0.2	1.7	2.2
Crude oil and natural gas	459.5	1.5	-4.9	-1.3
Traditional goods	381.3	1.7	4.6	5.6
Imports	1 092.7	1.6	6.2	3.0
GDP	3 304.4	2.0	1.7	2.3
GDP mainland Norway ²	2 798.1	2.0	2.3	2.7
Consumer price inflation (CPI)		1.8	2.5	1.5
Underlying inflation (CPI-ATE)		1.4	1.3	1.8
Wage growth		2.3	2.8	3 ¼
Employment growth ³		1.1	1.6	1.3
Unemployment rate (LFS) ⁴		4.2	3.8	3.7
Crude oil per barrel, NOK, current prices		445	578	583
General government net lending ⁵	167.1	5.1	7.5	7.6
Structural, non-oil fiscal deficit ⁶	214.6	7.5	7.4	7.5

¹ Current prices

² Excluding petroleum production and shipping

³ % change in the number of employed persons

⁴ % of workforce

⁵ as % of GDP

⁶ as % of mainland trend GDP

Sources: Statistics Norway and Ministry of Finance (National Budget 2019, October 2018)

Annex 4: Switzerland

General Economic Situation

The appreciation of the Swiss franc of about 10% in January 2015 due to the abandonment of the exchange rate floor by the Swiss National Bank has reversed. At the beginning of 2018, the real effective exchange rate reached the level of the period with the exchange rate floor in place. Swiss trade has benefited from the partial exchange rate normalization as well as from the positive development of the global economy. In 2016 and 2017, Swiss GDP grew by 1.6%, continuously recovering from sluggish growth in 2015. While private consumption was the driving factor in 2016, the dynamics in 2017 were dominated by investment growth and strengthening foreign demand.

After the moderate depreciation of the Swiss franc in the second half of 2015, the industrial sector started recovering in 2016, as companies increasingly adapted to the stronger currency. Services also picked up during 2017, with the hotel and catering industry reaching the highest yearly growth rate since 2008. Similarly, the financial sector expanded substantially after several years of little or negative growth. Private consumption lost its pace due to lower immigration, which is related to the recovery of the European economy. This demand-side effect was compensated by capital investment gradually picking up, following the global development, but also catching up after a period of uncertainty given the strong Swiss franc.

On the labour market, mainly the export oriented industrial sectors suffered after the abandonment of the exchange rate floor from the subsequent appreciation, higher costs and lower margins. The overall unemployment rate according to the ILO definition grew rapidly to above 5%, where the turnaround started in the second half of 2016. Subsequently, the unemployment rate decreased, approaching the level of 2014 at the end of 2017. While the metal, electronics and machine industry suffered most with respect to exports and the labour market until 2016, it overperformed subsequently and its unemployment rate is currently below 4.2% (total economy in the second quarter of 2018: 4.6%).

Economic growth has been above average for five consecutive quarters, reaching 0.7% in the second quarter of 2018. Surveys point to high levels of industrial capacity utilization and volumes of order as well as to optimistic investment plans. In its September forecast, the federal group of experts expects GDP growth to accelerate substantially to 2.9% this year, thanks to the dynamic global economy and the recovery following the rather extensive normalization of the Swiss franc. For 2019, the global economy is expected to reduce its pace,

slowing down Swiss GDP growth to 2.0%. However, the negative forecast risks significantly outweigh the positive and threaten the global outlook: They include a further escalation of the trade dispute between the US and China, rising uncertainty in Europe due to the forthcoming Brexit, currency risks and capital flow shocks in emerging markets, which could result in an appreciation of the Swiss franc with corresponding effects on the real economy, and finally persisting imbalances on the Swiss real estate market which could provoke a correction when interest rates rise again.

Supported by oil prices and higher import prices, inflation in Switzerland returned into positive territory in 2017 (+0.5%). In 2018, inflation is expected to reach 1.0%.

The overall budgetary situation is positive. On the federal level, the extrapolation for 2018 shows that additional tax revenues and budgetary discipline are likely to increase the surplus from originally expected 0.3bn CHF to 2.3bn CHF. The budget for 2019 foresees a surplus of 1.3bn CHF due to high withholding tax revenues and due to originally planned but rejected reforms (corporate tax reform and pension reform, both rejected by voters in 2017). The Federal Act on Tax Reform and OASI Financing (TRAF, see below) is expected to tighten the budgetary situation from 2020 onwards. For all levels of government, a surplus is expected in 2018 and 2019 (0.8% and 0.6% of GDP).

Economic Policy – Recent Developments

On July 1, 2018, the law implementing the new constitutional article on immigration entered into force. It is in line with the bilateral Agreement on the Free Movement of Persons (FMPPA) with the EU and the EFTA Convention. The law defines the obligation for firms to announce vacancies in professions with high unemployment rates to the public employment services. These vacancies have to be open for job seekers announced at a Swiss public employment service center – be they of Swiss or foreign nationality – for five days, before the vacancy can be announced publicly.

The TRAF has been adopted by parliament on 28 September 2018. Its aim is to boost Switzerland's appeal as a business location while complying with international taxation standards. After the rejection of the previous reform proposal in a referendum in February 2017, the Federal Council immediately took steps to initiate this new reform and the parliament discussed the proposal in a timely manner. The main provisions of the reform are the elimination of preferential tax regimes that are not internationally accepted anymore. At the same time, it introduces new measures to allow Switzerland to remain an attractive business location, and promotes innovation by a mandatory patent box in accordance with international standards as well as optional R&D deductions at the cantonal level. In order to keep the financial impact at bay, there is a ceiling to a maximum tax relief by these measures and an increase in dividend taxation. The two chambers of the parliament have decided to link the proposal with an additional financing of the old age and survivors' insurance (OASI) in order to meet criticism from the previous reform that estimated the previous tax proposal as socially unbalanced. A potential referendum on the TRAF would be held in May 2019 and it is foreseen that the reform enters into force on 1 January 2020. By the approval of the reform by Parliament, Switzerland ensures compliance with the Joint Statement on company tax issues of 14 October 2014 and respects the screening criteria regarding the EU's list of non-cooperative jurisdictions for tax purposes. With this timeline, Switzerland also respects its OECD commitments.

Switzerland is one of the world's leading financial centres in the area of international wealth management. For an international financial centre, open capital markets are key. To support its diverse and open financial sector, Switzerland has been continually aligning its financial

market regulation with international financial standards while also keeping in mind developments in the EU's financial market acquis with a view to make use of equivalence regimes embedded in the EU's financial market rulebooks. In its Implementing Decision 2017/2441, the European Commission recognized Switzerland's legal and supervisory framework applicable to Swiss stock exchanges as equivalent in accordance with Article 25(4)(a) MiFID II (Directive 2014/65/EU) at the end of 2017. The recognition is, however, limited until the end of 2018 and a renewal of the decision has been politically linked by the EU Commission to progress in unrelated negotiations regarding institutional aspects of the bilateral relationship between the EU and Switzerland. In this context, it is to be noted that three other jurisdictions besides Switzerland (Australia, Hong Kong, USA) were also assessed to be equivalent in the area of stock exchange regulation and received unconditional equivalence decisions. Switzerland has been supportive of the equivalence regimes in the EU's financial market acquis as they balance the needs of financial stability and investor protection while providing the benefits of maintaining open and globally integrated financial markets. The referenced decision on Swiss stock exchanges, however, fails to uphold these standards as the time-limit and the linking to issues not related to financial regulation is a cause for significant uncertainty in the European capital markets. To address these uncertainties, a swift and unlimited renewal of the equivalence decision is the best possible solution for all stakeholders.

Swiss Financial Market and Digitalization Strategies

Throughout the last decade, financial markets have drastically evolved. Following the financial crisis that started in 2007, a considerable number of new global standards, EU and national laws and regulations were enacted. There is little doubt that as a result, financial markets are now more heavily supervised and regulated than a decade ago and that transparency has significantly increased. The flipside of this development is that compliance costs have also increased, affecting especially smaller service providers. Coupled with low interest rates profit margins in the industry have, on average, shrunk.

On the technological side, developments during the same period may have been even more incisive: ever cheaper, smaller and faster computers and ever-increasing data storage, transmission and processing capacities have significantly transformed consumer demands, value chains and business processes. These developments enable new business models with substantial economic potential. New actors – be it startups or tech giants – are putting up competitive pressure against traditional service providers. New technologies allow for significant savings in production and overhead costs, may render some intermediation tasks obsolete by easing access for and to clients and thus increase efficiency in the industry. These developments are a significant challenge to many incumbents in the market. The Swiss government has responded to these developments with several measures, including two strategic documents, which are briefly summed up below. Both serve, in their way, to provide the optimal environment for a thriving and competitive financial market:

To address the specific challenges and opportunities of the Swiss financial sector (regarding digitalization and more), the Swiss government adopted the report “Financial market policy for a competitive Swiss financial centre” in October 2016. The report identifies five strategic goals:

1. Preserving and improving market access
2. Enabling innovation
3. Optimising regulatory content and processes
4. Limiting systemic risks
5. Ensuring international conformity in the areas of taxation and money laundering

The paragraph on Fintech below illustrates how some of these strategic goals translate into concrete measures in Switzerland.

To address the challenges and opportunities of digitalization as a whole, the Swiss government further adopted the “Strategy for a digital Switzerland” in April 2016. The strategy was renewed in early September 2018 and, for the next two years, focuses on the four following principles:

1. Put the people at the center and integrate them in the transformation process
2. Allow society and the economy to unfold its digital potential
3. Facilitate the structural changes by fostering social cohesion and resilience
4. Design transformation processes jointly, on the national and international level

The strategy further draws a map of priority areas and work streams that are being implemented over the next years, touching upon nearly all areas of economic and social life in Switzerland. The following measures defined in the area of Fintech are part of this “Strategy for a digital Switzerland”.

Fintech

With regard to the financial sector, technology is challenging today’s financial sector. Big data analysis, instant data, mobile applications and blockchain technology are just some of the new features driving Fintech. They enable more and more directly customer-focused solutions and they may change the way we conduct financial business in the future.

Switzerland is an open economy. Its success critically depends on constant innovation. The government’s responsibility consists in providing an innovation-friendly environment to drive and foster innovation, while at the same time ensuring the integrity of financial markets.

Switzerland has always focused on financial regulation to be technology-neutral and principle-based. Switzerland introduced specific measures in 2017 that facilitate market access for Fintech companies while sustainably strengthening the international

competitiveness of the Swiss financial centre. These measures primarily target a first generation of Fintech business models, such as crowdfunding, mobile payments and robo investors. The measures include a globally unique regulatory innovation space: Companies can receive customer funds of up to 1 million Swiss francs without having to comply with complex regulatory requirements (with the exception of anti-money laundering and terrorist finance rules). Another measure is the newly created Fintech license, which substantially eases regulation (e.g. substantially lower capital requirements) for institutions with deposits below 100 million Swiss francs, as long as they do not engage in any maturity transformation based activities.

The regulatory focus is currently on a second generation of Fintech business models: applications of the blockchain technology. Cross-border payments, clearing and settlement of securities and company financing are just a few examples. Such applications may also entail risks. These risks are particularly relevant where they could affect the integrity of the financial system, which is of paramount importance for Switzerland. Prominent concerns include money-laundering and terrorism-financing related to cryptocurrencies (or crypto assets). Switzerland therefore strives for a well-balanced regulatory approach: On the one hand, the potential of the new technology should be allowed to unfold. On the other hand, the framework should also mitigate the risks mentioned above to maintain the integrity of the financial system.

Swiss authorities are actively addressing these challenges. The Swiss Financial Market Supervisor (FINMA) has issued guidance on how it applies financial regulation to Initial Coin Offerings (ICOs). It strictly enforces it on fraudulent projects. The Ministry of Finance has set up a working group to evaluate closely the legal framework for blockchain applications. Furthermore, anti-money-laundering and counter-terrorist-financing requirements are effectively applied. As an example, in Switzerland both fiat-to-crypto- as well as crypto-to-crypto-exchanges are subject to such requirements. However, to avoid loopholes, jurisdictions also needs to work together on an international level to mitigate risks of money laundering and terrorism financing.

Key figures and forecasts for Switzerland

(% volume change from previous year)

	2017 ¹ CHF bn	2016	2017	2018	2019
Private consumption*	359.5	1.5	1.1	1.3	1.5
Public consumption*	80.1	1.2	0.9	1.2	0.6
Construction investments*	61.5	0.5	1.4	1.9	1.4
Capital investments*	103.0	5.4	4.5	4.4	3.5
Exports*	371.1	7.0	3.6	4.2	3.9
Imports*	295.5	4.7	4.1	3.4	3.7
GDP*	668.6	1.6	1.6	2.9	2.0
Inflation (Consumer Price Index)	-	-0.4	0.5	1.0	0.8
Unemployment rate (ILO definition), % of labour force	-	4.9	4.8	n.a.	n.a.
Financial balance of the government sector in % of GDP	-	0.4	1.3	0.8	0.6
Government debt in % of GDP	-	29.0	29.5	28.1	27.2

* National accounting data are expressed as the y-t-y percentage change in prices of the preceding year (real values)

¹ Level at current prices

Sources: State Secretariat for Economic Affairs (SECO), Federal Statistical Office (FSO), Federal Department of Finance (FDF). The grey shaded values are forecasts.