

# **Public Comment: Draft Financial Assumptions and Projections for the Development of FY2021 – FY2025 Operating & Financial Plan**

14 June 2019



## Introduction

This document has been prepared as part of the development of the Internet Corporation for Assigned Names and Numbers (ICANN) Five-Year Operating and Financial Plan for the Fiscal Years 2021 to 2025 (“FY21-FY25”).

The Operating and Financial Plan is designed to enable ICANN org to define and demonstrate how it carries out ICANN’s mission in the public interest over the next 5 years. The sole objective of this paper is to define and document funding projections to be included in the 5-year Financial Plan that ICANN org produces to support its 5-year Operating Plan.

This paper illustrates ICANN org’s efforts in achieving the Objective 5 of the FY21-FY25 Strategic Plan “Ensure long term financial sustainability”, and directly the Goal 5.2 “Develop reliable and predictable funding projections”.

This paper contains forward-looking information that represents ICANN’s attempt at conservatively estimating its future funding and expenses, with an intent to maximize the chances that such future funding is higher than these projections would suggest. This is allowing ICANN to plan for a level of activity and expenses that minimize the risk that funding would be lower than expenses in the future. The forward-looking information contained in this paper is based upon what management believes are reasonable assumptions based on current information, understanding, market trends and circumstances at the time of publication.

However, this information involves risks, variables and uncertainties. As a result, it is expected that actual funding could differ materially from the one projected in this document, in any given year.

It is important to note that the information produced in this document is designed exclusively to inform the development of ICANN’s funding projections and expense assumptions. ICANN will use external information to then determine its own values of evolution (growth or decrease), with the specific purpose of creating reasonably conservative funding assumptions. In doing so, ICANN will evaluate certain events and parameters to develop assumptions that serve as the basis of a generally conservative set of funding projections. The assumptions made for the purpose of funding projections have not been produced in a fashion nor with the intent to state ICANN org’s view or position on any specific aspect of the DNS marketplace, or as a whole, and should not be considered as ICANN’s general position on such topics. This is particularly true for domain name registration growth assumptions, as an illustration. Different parties may use the same information as ICANN for different purposes and objectives, and that could lead them to draw different conclusions as a result.

This document describes ICANN’s ‘base-case’ funding assumptions for the period, along with ‘high’ and ‘low’ funding estimates, in order to lay out the potential impacts on ICANN’s funding. The document is divided into three sections:

Section 1 provides an overview of key factors that have significantly affected the Domain Name System (DNS) industry over the past five years, along with corresponding assumptions for future marketplace evolution. Both elements inform the development of ICANN’s funding forecasts through 2025.

Section 2 summarizes the ‘low’, ‘base-case’, and ‘high’ scenario assumptions used for ICANN’s funding projections for the period of FY2021-2025 and for each of ICANN’s funding

categories. ICANN's primary sources of funding are generated from domain name registration activities and DNS service through various fixed, transaction, and variable fees paid by registries and registrars, along with application fees and other sources of funding, e.g. sponsorships and contributions.

Section 3 provides detailed data tables of forecast outcomes at the 'low, 'base-case' and 'high' scenarios across each of ICANN's funding categories.

Section 4 provides expense assumptions for the period FY2021-2025.

## 1. Industry Context

Prior to outlining ICANN's funding assumptions and projected funding levels over the next five years, it was important to consider the key factors that have had significant bearing on the Domain Name System (DNS) industry over the past five years. It is important to note that the complexity of the industry means that some factors produce mixed effects.

Many of these factors are likely to continue playing a role in the industry going forward. This section thus also outlines assumptions regarding the evolution of these key industry enablers over the forecast period. This discussion derives from a report produced by an independent market analyst for ICANN to develop its funding projections for the period between FY2021-2025.<sup>1</sup>

### A. Roll-out of New gTLDs

A key enabler of domain name market growth over the past five years was the rollout of new generic Top-Level Domains (New gTLDs), corresponding to those gTLDs launched since October 2013. With over 1,200 New gTLDs in operation since its roll-out, this segment of the market has injected new competitive opportunities and increased options for registrants of domain names.

More specifically, New gTLDs allow registries to create new gTLD-based business models by providing greater identity specialization for registrants. This holds true for users and companies establishing an Internet presence (i.e., providing access to desirable strings long ago registered in other gTLD types) as well as a wide spectrum of affinity groups (e.g., avocations, occupations, brands, geographic locations, business sectors, etc.) seeking to strengthen awareness. The diversity of business models in this market segment represents a particularly important and growth-enabling aspect of New gTLDs.

Figure 1 illustrates the trendline for domain name registrations after the introduction of New gTLDs into the marketplace. This market segment expanded quickly after its initial rollout, and subsequently underwent some volatility in 2017 before stabilizing in 2018. During 2018, all three sectors of the domain name industry, i.e., Legacy generic Top-Level Domains (Legacy gTLDs)<sup>2</sup>,

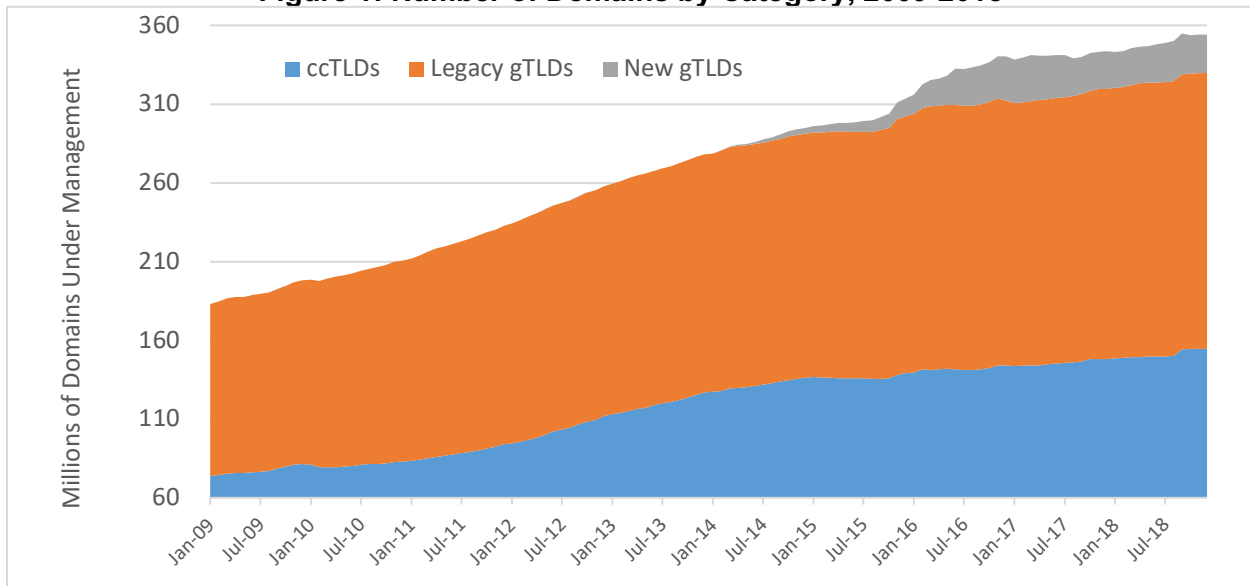
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<sup>1</sup>ICANN evaluates a range of factors when developing its funding projections, including recent and expected marketplace developments likely to have an impact on supply-side and demand-side conditions. To this end, ICANN engaged with the DNS industry analyst and consulting firm ZookNIC Inc. to develop a summary of historical and forecast marketplace trends to support the development of its funding projections for FY2021-2025. The key trends summarized herein represent those identified by the consultant through interviews conducted with various industry representatives and a review of historical domain name transaction data, as well as publicly available industry information (e.g. investor statements, regulatory filings, news profiles, etc.).

<sup>2</sup> This report includes .aero, .asia, .biz, .cat, .com, .coop, .info, .jobs, .mobi, .museum, .name, .net, .org, .post, .pro, .tel, .travel, and .xxx in its definition of Legacy gTLDs.

country code Top-Level Domains (ccTLDs)<sup>3</sup>, and New gTLDs, experienced growth. Of course, it is important to recognize that the overall growth in the number of domains across all three industry sectors is influenced by the broad categorizations used, the global scale of observation, as well as the likelihood of other unknown variables influencing marketplace growth. Significant differences are also likely to exist in market behavior at the TLD, registrar, and regional/country level.

**Figure 1: Number of Domains by Category, 2009-2018**



Source: ZookNIC Domain Counts for Legacy gTLDs, ccTLDs and New gTLDs

The launch of New gTLDs has been an important proof of concept, although some industry insiders would assert that the current numbers of domains under management are lower than what they had expected. Notwithstanding, the assumptions recognize New gTLDs as an important parameter of marketplace development over the upcoming years.

### **B. New Business Models – Geographic gTLDs and Brand gTLDs**

To further contextualize the new business models that have emerged from the New gTLD rollout, two types – geographic and brand gTLDs – represent particularly new approaches to domain names.

There were approximately 50 new geographic gTLDs in operation and 1.3 million domains under management at the end of 2018. While geographic markers have long existed in the form of ccTLDs, the new geographic gTLDs represent a shift in scale from the country level to local levels, primarily urban centers such as .london and .tokyo. This approach builds upon the ability for registrants to establish identities associated with their home cities and expand specialization into geographic categories. It also highlights the flexibility of New gTLDs in providing important outlets for entrepreneurial creativity in shaping online identities.

The emergence of brand gTLDs is significant as well. Approximately 500 brand gTLDs were in operation at the end of 2018. While the concept represents a decidedly novel approach to digital

<sup>3</sup> ccTLDs largely match ISO two-letter designations for countries and other territories. ccTLDs are derived largely from ISO 3166-1 alpha-2 country codes.

identity, market results have been relatively modest with approximately 20,000 domains under management at the end of 2018. While a large portion of New gTLDs fit within this segment, the initial motivation for adopting them has been for brand protection rather than fully developed marketing initiatives.

This situation is expected to change as businesses become better aware of the security, unlimited domain space, future-proofing, and brand reinforcement that these gTLDs offer. The ability to better control the customer experience and corporate image represents are key drivers in the expansion of the domain name market.

### **C. Establishing Digital Presence via Domain Names**

Growth in the demand for all types of domain names will continue to be spurred by the importance of establishing and maintaining online identity. Domain names continue to be seen as a must when creating a digital presence. This was their original purpose and – despite decades of changes in technologies and practices – it still remains a key enabler of the industry and fundamental driver of demand.

While alternative platforms, such as social media, may offer utility, the license rules of these systems impose significant constraints on adopters. Actionable intelligence on one's online presence is limited (i.e., no access to detailed user traffic information) and results in self-defeating outcomes (e.g., competitors advertising on one's pages). Such platforms undoubtedly work for individuals or small enterprises; nevertheless, most businesses cannot afford to be without digital real estate over which it exerts control. Thus, despite concerns that platform presences might substitute for online presence via domains and thereby retard demand within the industry, the central importance of digital presence raises the switching costs. There have been many pronouncements that domain names will become obsolete, yet demand and momentum remain. Thus, the continued importance of controlling a domain name to craft and maintain a digital presence on the Internet remains a key market enabler.

### **D. User Interfaces on Platforms and Apps**

The domain name industry has had a longstanding concern that the emergence of new systems for online identity and presence would diminish demand for domain names. In this sense, widespread use of social media and mobile applications use has increased the perception that these platforms offer robust user experiences exclusively within their own ecosystems. Users can conduct searches, access resources, interact with their social networks and go shopping through interfaces that completely mask the underlying domains. (This contrasts with other types of use where end users directly interact with domains via search engines or entering URLs into browsers.)

It is important to acknowledge that an expansion of this type of user behavior can cause a drag on demand for domains. The extent of this challenge is uncertain as it depends on evolving user behavior and cultural norms, although, it has yet to overcome the advantages of domain names for establishing a digital presence.

### **E. Dynamism of Market Actors with Respect to Sales Channels**

The ongoing dynamism of market actors in building new sales channels to registrants of domain names has been a key market enabler during the past five years. Top-Level Domain registry operators (or registries) are responsible for maintaining the database of domain names in their TLD (known as the Zone File) but do not sell directly to registrants. Instead, registries rely on registrars (businesses with contracts with ICANN and registries) and resellers (businesses with

contracts with registrars) to retail domain names to end users. This activity includes increases in the number of sales channels and in the diversity of models, languages, and targeted segments of these channels.

Resellers play an increasingly important role in targeting specific regional or linguistically defined markets, thus increasing the overall number of different channels. Registrar marketing sophistication also is evolving, both in support of direct sales and those of associated reseller network; this in turn results in better insights into the complexity of these markets, leading to further growth and new openings.

Also contributing to the dynamism of the market is the ability of more established actors to acquire new entrants with compelling and profitable businesses. Such consolidation, which establishes cross-ownership across large parts of the supply chain, enables market growth by increasing the availability of robust, easy, and inexpensive platforms for domain registration.

### **F. Regional Disparity in Domain Adoption Rates**

Relatively higher levels of domain name penetration exist in many countries, particularly in North America, Europe, and those classified by the World Bank as ‘high income’ countries (see Figures 2 and 3). These regions have long represented the core markets for domain name. As these markets have matured, the ‘easy’ opportunities for growth has declined and businesses are typically more familiar with the importance of establishing an online presence via domain name.

As a result, the general growth rates in these markets have remained relatively lower than elsewhere (see Figure 4). This is particularly the case for Legacy gTLDs (i.e., the 18 gTLDs in operation prior to January 2014) and ccTLDs, in which growth rates often track fairly closely to overall economic growth. Given the maturity of these markets, it is not surprising that existing businesses already have a domain presence and only new businesses seek to acquire domains. The fact that domain name growth rates is parallel to the overall growth rates of the economy may also lead some to suggest that businesses (rather than individuals) are the principal growth drivers in these markets.

Lower growth rates in mature markets are balanced by the experience of a number of other countries where demand for domain names is less developed— particularly those with emerging economies and increasing per-capita incomes. Other exceptions show up in selected ccTLDs, particularly those that underwent a liberalization in registration policies in the past five years. Additionally, and most notable, is the expansion of New gTLDs that introduce new kinds of business models and uses for domains. Nevertheless, fulfillment of natural demand within key markets remains an important challenge to high growth rates previously enjoyed by the industry.

**Figure 2: Domain Registrations per 1,000 People, by ICANN Region**

<b>Region</b>	<b>2013</b>	<b>2018</b>
North America	248.9	265.8
Europe	129.6	140.6
Latin America/Caribbean islands	20.4	21.1
Asia/Australia/Pacific	15.7	19.4
Africa	2.8	3.5

Source: ZookNIC Domain Counts for Legacy gTLDs, ccTLDs<sup>4</sup> and New gTLDs

**Figure 3: Domain Registrations per 1,000 people, by World Bank Defined Country Income Group**

<b>Country Income Group</b>	<b>2013</b>	<b>2018</b>
High income	163.5	188.5
Upper middle income	15.9	25.3
Lower middle income	2.8	3.4
Low income	1.4	1.7

Source: ZookNIC Domain Counts for Legacy gTLDs, ccTLDs<sup>4</sup>, and New gTLDs, World Bank country classifications by income level (2018-2019)

**Figure 4: Growth Rates of Domain Names under Management, by ICANN Region**

<b>Region</b>	<b>Growth Rate, 2013-2018</b>
Europe	20.4%
North America	20.5%
Latin America/Caribbean islands	24.0%
Africa	76.8%
Asia/Australia/Pacific	79.0%

Source: ZookNIC Domain Counts for Legacy gTLDs, ccTLDs<sup>4</sup> and New gTLDs

This forecast assumes that regions with lower per-capita domain adoption rates will experience relatively higher growth rates through the upcoming forecast period, as individuals and businesses work to establish a digital presence. While specific experience will vary by country, these higher growth rates are assumed to occur in the regions with relatively lower penetration rates, as outlined in Figure 2. In contrast, regions with relatively higher per-capita domain name rates will experience growth closer to overall macroeconomic trends. In a similar manner, countries within the upper middle income group, as defined by the World Bank, will have higher growth than the more mature markets in high-income countries.

## **G. Difficulty Ensuring Universal Acceptance**

The central idea behind universal acceptance is that all domains from all TLDs should be useable in all Internet applications and functions. However, challenges remain for internationalized domain name (IDN) TLDs, longer TLDs (some applications assume TLDs longer than three characters to be errors), and New gTLDs that have just started operating.

This lack of universal acceptance challenges the rollout and adoption of new types of domains, particularly those in non-traditional domain markets. Many of these new markets are made up of populations that use IDN character scripts and the ICANN community has had a long-term goal to facilitate their inclusion in the online world. However, despite the success thus far in ensuring

<sup>4</sup>In order to keep open ccTLDs that have been repurposed for general use from biasing these figures (because they have much higher DUMs relative to their populations or GDPs than the norm) a small number of ccTLDs have been removed from this analysis. These include .ai, Anguilla; .cc, Cocos Islands; .io, British Indian Ocean Territory; .nu, Niue; and .tk, Tokelau.

the operational success of IDN domains, they have not yet achieved universal acceptance across the Internet.

Unfortunately, many of the problems are widely distributed through the technical infrastructure of the Internet – routers, servers and portals – making it difficult to ensure that data packets using IDN domains are treated the same as traditional domains. While progress has been made from the end user perspective, even one bad experience with a rejected email suggests IDN domains (as well as longer or newly operating TLDs) are less viable. As a result, uneven acceptance continues to have an effect on demand rates for IDN domains.

IDN domains represent key opportunities for new markets in countries that have had low domain name adoption rates relative to other countries, particularly those with mature markets. Because many of these potential growth markets' populations use IDN character sets, the availability, and more important, the acceptance of IDN domains represent a key element of the demand for domains in these locations. A key assumption in this forecast is that progress will be made over the next five years to resolve many of the current challenges hindering demand for IDN domains, namely the lack of universal acceptance. Moreover, this will result in demand and expansion in new markets which have historical low rates of domain name adoption.

## **H. Security Concerns and Trust in the Industry**

An ongoing challenge to the domain industry stems from a growing number of security concerns ranging from the smooth operation of the DNS to consumer protection issues. Distributed denial-of-service attacks (DDoS attacks), for instance, can result in massive traffic shutdown and render parts of the Internet inaccessible. Equally important to the technical challenges of secure traffic are the social elements of how the domain name system operates.

The expansion of New gTLDs has given rise to concerns about new opportunities for domain spoofing and phishing attacks. While this did not originate with the introduction of New gTLDs, any increase in the vectors or means by which these attacks can occur (such as the use of IDN characters to imitate ASCII characters) the credibility of domain names and the entire industry is at risk, which can result in real and lasting damage.

In fact, such concerns regarding waning consumer trust extend beyond the DNS industry and onto the wider technology sector. And yet, a highly reputed annual study of global consumers<sup>5</sup> found that despite serious misgivings regarding the technology industry's perceived inordinate levels of power over information and lack of data protection, among other concerns, the technology industry remains a widely trusted institution. Perhaps more important, over the past eight years, consumer trust in the technology industry barely fluctuated, remaining within a narrow range among both the informed public and mass consumers. Such trust is closely linked to individuals' perceptions that technology personally benefits them.

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<sup>5</sup> The Edelman Trust Barometer is an annual survey, now on its 19<sup>th</sup> edition, on industry trust and credibility. This year's study is based on an online survey of over 33,000 respondents in over 27 markets. Among the key insights from this year's report: While certainly vocal on a range of concerns needing to be addressed such as the perceived inordinate levels of power held by technology industries over information and lack of data protection, global consumers continued to express high levels of trust in the industry, particularly where respondents saw the link to personal benefits derived from technology.

Historical trust levels in the technology industry has also barely fluctuated over the past eight years. Trust scores for the industry have remained within a narrow range among both the informed public (79% and 84% of whom expressed trust in the industry), and mass consumers (73% and 76% of whom expressed trust in the industry). Further details on the research is available via: [https://www.edelman.com/sites/g/files/aatuss191/files/2019-04/2019\\_Edelman\\_Trust\\_Barometer\\_Technology\\_Report.pdf](https://www.edelman.com/sites/g/files/aatuss191/files/2019-04/2019_Edelman_Trust_Barometer_Technology_Report.pdf)



It is reasonable then to expect that governments will look to develop mechanisms to address citizens' expressed concerns. Accordingly, some consumer-oriented policy changes, most notably efforts to increase individual privacy through legislation such as the European Union's General Data Protection Regulation (GDPR), have altered dynamics within the industry. Irrespective, this report sees no unitary effect of increased privacy regimes – a largely neutral effect just as likely.

Although security and trust will remain significant ongoing concerns within the DNS industry, the assumption is that confidence and trust in the industry and its overall impact on demand for domains will also remain largely constant. To date, these concerns have not fundamentally altered the underlying demand for domains, but remain potential concerns going forward.

### **I. Potential for Fractures within the DNS**

While the regional differences in privacy regimes have had an uncertain effect on demand for domain name growth, disparities in regulatory stances are another challenge for the industry. Though differences in privacy regimes are perhaps the most visible now, differences in regulation of speech (hate, political and other), intellectual property regimes and copyright, and oversight of the sale and operation of domains also are notable. Countries and peoples have legitimate interests in protecting their identities from commercial impingement, which pure market mechanisms are unable to ensure. To date, these differences have not fundamentally altered the underlying demand for domains but remain potential concerns going forward.

## 2. Funding Forecast Assumptions

This section includes qualitative (see Figure 5) and quantitative (see Figure 6) assessments of the potential impacts of the various industry trends, presented in Section 1, to ICANN’s funding categories between FY2021-2025. Considering the extended timeline being projected, three discrete funding scenarios were created to accommodate for a range of alternate eventualities.

**Figure 5: Market Trends and Qualitative Assessment of Expected Impacts on ICANN Funding Scenarios**

Industry Trend	Qualitative Forecast Statements (as per Section 1)		Potential Impact on ICANN Funding Scenarios
Digital Identity through New gTLDs	A. Roll-out of New gTLDs	The launch of New gTLDs has been an important proof of concept, although some industry insiders would assert that the current numbers of domains under management are lower than what they had expected. Notwithstanding, the assumptions recognize New gTLDs as an important parameter of marketplace development over the upcoming years.	<p><b>High impact:</b> New gTLDs will continue to allow for the creation of new, gTLD-based business models and provide greater identity specialization for registrants.</p> <p>The positive growth momentum of New gTLD domain name transaction volumes will continue over the forecast period, albeit at varying levels, at the 'base-case' and 'high' funding scenarios. To account for rapid maturation in the marketplace, the 'low' scenario factors an overall decline in transaction volumes.</p> <p>While the 'low' funding scenario features fewer total accredited registrars and registry operators, the 'base-case' and 'high' funding scenarios depict an increase in the base of ICANN registrars and relatively lower rates of attrition among registry operators.</p>
	B. New business models - geographic gTLDs and brand gTLDs	Brand gTLDs represent a new kind of business model with great potential – admittedly yet to be fully actualized as proactive development to date has been limited. While a large portion of New gTLDs fit within this brand segment, the initial motivation for adopting them has been more to protect the brand than for fully-developed marketing initiatives. This report expects this situation to gradually change as businesses become better aware of the security, unlimited domain space, future-proofing, and brand reinforcement that these gTLDs offer.	
Digital presence through domain names	C. Importance of establishing digital presence via domain names	Growth in the demand for all types of domain names will continue to be spurred by the importance of establishing and maintaining online identity.	<p><b>High impact:</b> Digital presence will still largely rely on the use of domain names. While alternatives exist via social media and other platforms, limits on functionality means that</p>

	D. User interfaces on platforms and apps that bypass domains	The ultimate impact of the availability of new systems for online identity and presence on domains remains uncertain as it depends on evolving user behavior and cultural norms. Although this potential challenge has yet to overcome the advantages of domain names for establishing a digital presence, it is important to acknowledge that the concern remains.	<p>businesses and other entities needing more control will continue to use domains.</p> <p>The positive growth momentum of domain name transaction volumes will continue over the forecast period, albeit at varying levels, at the 'base-case' and 'high' funding scenarios. To account for rapid maturation in the marketplace, the 'low' scenario factors an overall decline in transaction volumes.</p> <p>In addition, the roughly 2% subset of ICANN's annual funding currently derived from the voluntary contributions of various ccTLDs and Regional Internet Registries (RIR) is expected to remain constant relative to these organizations' prior contributions.</p>
Domain name marketplace service provider dynamism	E. Dynamism of market actors with respect to sales channels	Registrar marketing sophistication is evolving, both in support of direct sales and those of associated reseller networks. This results in better insights into the complexity of these markets, which leads to further growth and new openings. More established actors' ability to acquire new entrants with compelling and profitable businesses also contributes to the dynamism of the market.	<p><b>Moderate impact:</b> Market consolidation in the industry will continue and will create efficiencies that support the domain industry. While the 'low' funding scenario features fewer total accredited registrars and registry operators, the 'base-case' and 'high' funding scenarios depict an increase in the ICANN registrar base and relatively lower rates of attrition among registry operators.</p> <p>The positive growth momentum of domain name transaction volumes will continue over the forecast period, albeit at varying levels, at the 'base-case' and 'high' funding scenarios. To account for rapid maturation in the marketplace, the 'low' scenario factors an overall decline in transaction volumes.</p>

Increasing domain name penetration among underserved populations	F. Regional disparity in domain adoption rates	This forecast assumes that regions with lower per-capita domain adoption rates will experience relatively higher growth rates through the forecast period, as individuals and businesses that currently do not have a digital presence work to establish one. While specific experience will vary by country, these higher growth rates are assumed to occur in the regions with relatively lower penetration rates, while regions with relatively higher per-capita domain name rates will experience growth that is closer to overall macroeconomic trends.	<p><b>Moderate Impact:</b> As connectivity expands in developing countries, newly online and previously underserved populations will constitute a new source of demand for domain names. This opportunity will foster an environment conducive to the accreditation of new registrars.</p> <p>The positive growth momentum of domain name transaction volumes will continue over the forecast period, albeit at varying levels, at the 'base-case' and 'high' funding scenarios. To account for rapid maturation in the marketplace, the 'low' scenario factors an overall decline in transaction volumes.</p>
	G. Difficulty in ensuring universal acceptance	Progress will be made over the next five years to resolve many of the current challenges hindering demand for IDN domains, namely the lack of universal acceptance. Moreover, this will result in demand and expansion in new markets which have historical low rates of domain name adoption.	
Security and consumer privacy	H. Security concerns and trust within the industry	Although security remains a key ongoing concern within the industry, this forecast assumes that confidence and trust in the industry will remain at historic levels moving forward and its overall impact on demand for domains will remain constant. To date, these have not fundamentally altered the underlying demand for domains, but they remain potential concerns going forward.	<p><b>Low Impact:</b> While increased consumer privacy and security may offer some consumers and business increased incentives for domain name adoption, the additional layer of regulatory mandates may also act as a counterbalance on the market.</p> <p>Accordingly, this market force is projected to have a largely neutral impact on demand for domain names over the forecast period, with the potential for more pronounced impact on an annual basis during the period.</p>
	I. Potential for fractures within the DNS	Countries and peoples have legitimate interests in protecting their identities from commercial impingement that pure market mechanisms are unable to ensure. To date, these differences have not fundamentally altered the underlying demand for domains but remain potential concerns going forward.	

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Source: ICANN forecast and analysis, April 2019

Any forecasting exercise requires reliance upon assumptions generated using factors that may affect the development of a marketplace. Because such assumptions are by definition hypothetical and the number of potential scenarios infinite, a well-accepted practice is to select a number of projection variants depicting a range of results viewed as being plausible. Creating several forecast scenarios, each with varying assumptions and thresholds that represent viewpoints of the future, offer a measure of the sensitivity of resulting outcomes based on such assumptions. They also provide context on the prospective impacts of various marketplace events that may be deemed to be plausible but improbable.

Considering a range of assumptions on DNS industry evolution, ICANN arrives upon a scenario that reflects the eventuality it deems most likely to take place. This highest-confidence estimate, or 'base-case' scenario, has been historically used as basis for the organization's annual budget. As a principle, ICANN takes a conservative approach in developing its funding forecasts, which is considered when developing its 'base-case' projections. In addition, ICANN also develops 'high' and 'low' scenario estimates to consider alternate values for assumptions that have a financial impact on the organization's funding, thereby providing upper- and lower-bound values in its projections. While the organization does not rely on these values to plan its operations, such 'high' and 'low' scenarios are helpful to develop contingency plans that address the possibility that such scenarios become reality.

In general terms, each of the three funding scenarios further detailed in Figure 6 can be described as follows:

- Base-case scenario: Representing the funding outcome deemed most likely to occur, this scenario conservatively appraises the growth of ICANN's contracted party base and domain name transaction volumes, along with retention of the current fee values. This scenario leverages historical growth values, thereby implying a steady state of growth and excludes any significant marketplace disruptions. In all, the resulting funding described by this scenario increase by less than average inflation levels.
- Low scenario: Beyond the retention of the current fee values, this scenario factors in a decrease in all drivers of ICANN funding – from the total number of contracted parties, to the volume of domain name transactions owing to rapid marketplace maturation. The decrease for each driver individually is plausible though considered unlikely. The decrease of all the drivers combined reflected in this scenario, while not being a worse case, reflects a contraction of the entire DNS marketplace.

- High scenario: Reflecting resurgent growth within the marketplace from the assumed improvement in category management strategies of New gTLDs, resolution of Universal Acceptance issues, greater uptake in emerging economies, successful launch of pending New gTLDs and continued increase in marketplace awareness and uptake, this scenario combines increases across all the drivers to ICANN’s funding, except for a marginal decline in the number of registries and the retention of the current fee values. The growth rates in this scenario therefore depict an optimistic view of the DNS marketplace and of domain name registration growth rates.

**Figure 6: Market Trends and Quantitative Assessment of Expected Impacts on ICANN Funding Scenarios**

Category	Funding Type	‘Low’ Scenario	‘Base-case’ Scenario	‘High’ Scenario
Legacy gTLDs	Transaction-based Fees	-2.9% 5-year Compound annual growth rate (CAGR), reflecting decline due to rapid marketplace maturation. Projected decrease in transaction fees equivalent to four percentage points <sup>6</sup> below forecast global Gross Domestic Product (GDP) growth rate trend for FY2021-25 <sup>7</sup> .	2.3% 5-year CAGR, which is equal to the average transaction-based fee growth rates for Legacy gTLDs since the launch of the New gTLD program <sup>5</sup> . As historical growth in this category has tended to closely mirror global GDP growth rates, the overall trendline remains in-line with the forecast global GDP growth rate trendline for FY2021-25 <sup>7</sup> .	4.9% 5-year CAGR, reflecting transaction-based fee growth due to resurgent growth in the marketplace. Projected increase in transaction volume equivalent to two percentage points <sup>6</sup> above forecast global GDP growth rate trend for FY2021-25 <sup>7</sup> .

<sup>6</sup>In formulating quantitative scenarios to project alternate future trajectories of the industry, ICANN is mindful not to create contradictory expectations and unduly influence the viewpoints of shareholders of publicly-traded entities operating within the space. Accordingly, whenever available and relevant, the assumptions presented are derived from historical trends or otherwise based on conservative estimations. For instance, the growth rate described in the ‘base-case’ scenario represents the average Legacy gTLD transaction fee growth rate since the launch of the New gTLD program. For its lower and upper bound scenarios, ICANN has conservatively selected a threshold of four percentage points below and two percentage points above projected global GDP rates for FY2021-25, respectively.

<sup>7</sup> For an assessment of forecast global GDP growth rates over the 5-year forecast period, ICANN consulted The Conference Board’s Global Economic Outlook 2019 (interim February 2019 update). Data tables are provided as an appendix to this document. A detailed description of the methodology utilized by The Conference Board is available at: <https://www.conference-board.org/publications/publicationdetail.cfm?publicationid=8329>.

New gTLDs	Fixed Fees	1,074 TLDs assumed delegated by end of FY2025, a gradual linear decline of 96 (or -10%) from the start of FY2021. <sup>8</sup>	1,146 TLDs assumed delegated by end of FY2025, a gradual linear decline of 38 (or -4%) from the start of FY2021. <sup>9</sup>	1,170 TLDs assumed delegated by end of FY2025, a gradual linear decline of 19 (or -2%) from the start of FY2021. <sup>9</sup>
	Transaction-based Fees	-4.1% 5-year CAGR, reflecting declining transaction volumes and accounting for occurrences such as relatively lower renewal rates from a subset of New gTLDs that heavily discount domain names for greenfield purchases, the repositioning of TLDs resulting in a drop in transaction volumes, and rapid maturation of the marketplace. <sup>9</sup>	3.0% 5-year CAGR reflecting assumed annual growth rates in low single digits. Overall values and trendline in-line with forecast for global GDP growth rate trend for FY2021-25 <sup>8</sup> .	10.4% 5-year CAGR reflecting resurgent annual growth in high single digits to low teens, based on the assumed improvement in category management strategies of New gTLDs, resolution of UA issues, greater uptake in emerging economies, successful launch of pending New gTLDs and continued increase in marketplace awareness and uptake. <sup>10</sup>
Registrar Accreditation	Application Fees	Reflects no new registrar accreditation applications.	Reflects 30 new registrar accreditation applications annually from FY2021-FY2025.	Reflects 60 new registrar accreditation applications annually from FY2021-FY2025.

<sup>8</sup>These scenarios do not assume any further TLD delegations arising from the potential resumption of the New gTLD program. While there is ongoing work and an intent to launch a subsequent round, the timing of its release remains unclear and potential impact(s) on funding indeterminate. Given this, ICANN has deemed it prudent not to assume any prospective impacts from a subsequent round across the described scenarios.

<sup>9</sup> Given their relatively lower domain transaction volumes and more fragmented market composition, New gTLDs have thus far demonstrated higher levels of transaction volume volatility in comparison to Legacy gTLDs. Accordingly, to account for this likelihood of fluctuations, the 5-year CAGR being projected for New gTLD transaction volume across 'low' and 'high' scenarios demonstrate a broader range of variance in comparison to Legacy gTLD transaction volumes.

	Accreditation Fees	Registrar base further consolidates, declining by 300 accreditations in FY2021, and a further decrease of -10% over the remainder of the forecast period. Overall base ranges from 2,542 at the start of FY2021 to 2,017 at the end of FY2025.	Registrar base further consolidates, declining by 100 accreditations in FY2021, and then increasing by +5% over the remainder of the forecast period. Overall base ranges from 2,542 at the start of FY2021 to 2,592 at the end of FY2025.	Registrar base increases by 60 accreditations over the course of the forecast period, equating to +12% growth in the accredited registrars over the forecast period. Overall base ranges from 2,542 at the start of FY2021 to 2,842 at the end of FY2025.
	Per-registrar Variable Fees	\$3.4 million, consistent with prior years.	\$3.4 million, consistent with prior years.	\$3.4 million, consistent with prior years.

Source: ICANN forecast and analysis, April 2019



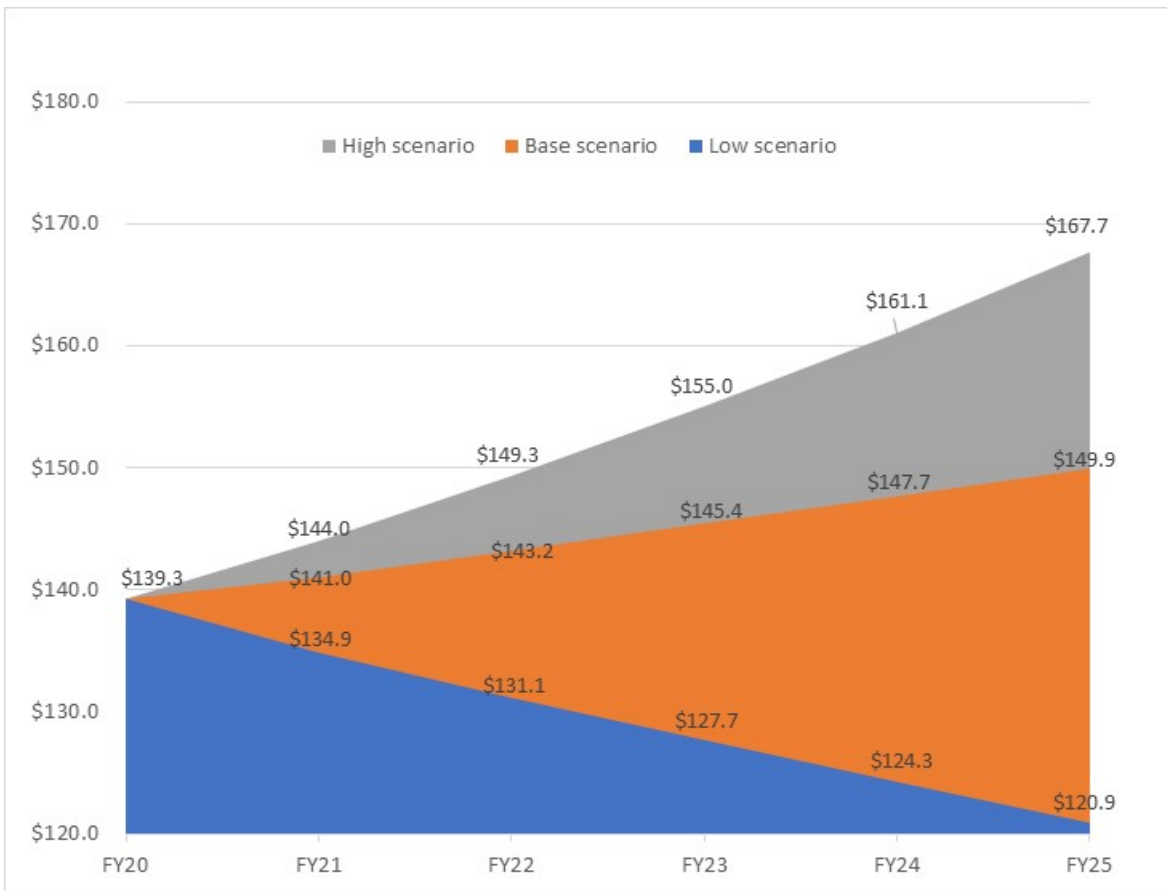
### 3. Funding Forecast Summary

This section provides a summary of forecast outcomes at the ‘low’, ‘base-case’ and ‘high’ scenarios across each of ICANN’s funding categories.

As outlined in Figure 7 below and further detailed in Figures 8, 9, and 10, from an updated ‘base-case’ forecast of \$139.3 million in FY20<sup>10</sup>, ICANN’s total funding in FY2021 is projected to range between \$134.9 million (at the ‘low’ funding scenario) and \$144.0 million (at the ‘high’ funding scenario), with a ‘base-case’ funding forecast of \$141.0 million. By the end of FY2025, total funding is projected to range from \$120.9 million (at the ‘low’ funding scenario) and \$167.7 million (at the ‘high’ funding scenario) with a ‘base-case’ funding projection of \$149.9 million.

Considering all three forecast scenarios, funding is projected range between an average annual decline of -2.7% (at the ‘low’ funding scenario) and 3.9% average annual growth (at the ‘high’ funding scenario), with a ‘base-case’ average growth rate of 1.5% over the FY2021-2025 forecast period.

**Figure 7: ICANN FY21-FY25 Forecast Funding Sensitivity Analysis**



Source: ICANN forecast and analysis, April 2019

<sup>10</sup> The FY20 total funding value of \$139.3 million presented herein represents ICANN’s updated ‘base-case’ funding projections utilizing FY19Q2 actual values, which varies slightly from the adopted FY20 budget of \$140.1 million. A detailed comparison between the updated FY20 ‘base-case’ forecast and the adopted FY20 budget is outlined in Appendix B.

**Figure 8: ICANN FY21-FY25 Forecast Funding at the ‘Low’ Scenario**

<i>(Values in US\$ millions unless otherwise denoted)</i>	<b>FY2020<sup>10</sup></b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>FY2024</b>	<b>FY2025</b>
<b>Transactions</b>						
Registry Transaction Fees - Legacy	\$51.0	\$49.5	\$48.1	\$46.6	\$45.2	\$43.8
Registry Transaction Fees – New gTLD	\$5.1	\$4.9	\$4.7	\$4.5	\$4.3	\$4.2
Registrar Transaction Fees - Legacy	\$31.4	\$30.6	\$29.8	\$28.9	\$28.1	\$27.3
Registrar Transaction Fees – New gTLD	\$4.3	\$4.1	\$3.9	\$3.8	\$3.6	\$3.5
<b>Subtotal</b>	\$91.8	\$89.1	\$86.5	\$83.9	\$81.2	\$78.7
Volume: Legacy Transactions (in millions)	174.7	170.0	165.4	160.8	156.1	151.6
Volume: New gTLD Transactions (in millions)	23.8	22.8	21.8	20.9	20.1	19.3
New gTLD Average Billable Rate (%)	86.3%	86.3%	86.3%	86.3%	86.3%	86.3%
<b>Registry Fixed Fees</b>	\$29.9	\$29.6	\$29.0	\$28.4	\$27.8	\$27.2
<b>Registrars Accreditation</b>						
Application Fees	\$0.2	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Accreditation Fees – Annual	\$10.1	\$9.3	\$8.8	\$8.6	\$8.3	\$8.1
Per Registrar Variable Fees	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4
<b>Subtotal</b>	\$43.7	\$42.2	\$41.2	\$40.3	\$39.5	\$38.7
Count of Total Registrars at end of Year	2,542	2,242	2,185	2,129	2,073	2,017
<b>Other Funding</b>						

<i>(Values in US\$ millions unless otherwise denoted)</i>	<b>FY2020<sup>10</sup></b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>FY2024</b>	<b>FY2025</b>
Meeting sponsorships, Contributions and Other	\$3.8	\$3.5	\$3.5	\$3.5	\$3.5	\$3.5
<b><u>ICANN Total Funding</u></b>	\$139.3	\$134.9	\$131.1	\$127.7	\$124.3	\$120.9

Source: ICANN forecast and analysis, April 2019; Totals may not add up due to decimal rounding.

**Figure 9: ICANN FY21-FY25 Forecast Funding at the 'Base-case' Scenario**

<i>(Values in US\$ millions unless otherwise denoted)</i>	<b>FY2020<sup>10</sup></b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>FY2024</b>	<b>FY2025</b>
<b>Transactions</b>						
Registry Transaction Fees - Legacy	\$51.0	\$52.2	\$53.5	\$54.7	\$55.9	\$57.1
Registry Transaction Fees – New gTLD	\$5.1	\$5.3	\$5.5	\$5.6	\$5.8	\$6.0
Registrar Transaction Fees - Legacy	\$31.4	\$32.3	\$33.1	\$33.9	\$34.7	\$35.6
Registrar Transaction Fees – New gTLD	\$4.3	\$4.4	\$4.5	\$4.7	\$4.8	\$4.9
<b>Subtotal</b>	\$91.8	\$94.2	\$96.6	\$98.9	\$101.2	\$103.6
Volume: Legacy Transactions (in millions)	174.7	179.2	183.9	188.5	193.0	197.6
Volume: New gTLD Transactions (in millions)	23.8	24.5	25.2	25.9	26.7	27.4
New gTLD Average Billable Rate (%)	86.3%	86.5%	86.6%	86.8%	87.0%	87.1%
<b>Registry Fixed Fees</b>	\$29.9	\$29.7	\$29.5	\$29.2	\$29.0	\$28.8
<b>Registrars Accreditation</b>						

<i>(Values in US\$ millions unless otherwise denoted)</i>	<b>FY2020<sup>10</sup></b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>FY2024</b>	<b>FY2025</b>
Application Fees	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
Accreditation Fees – Annual	\$10.1	\$10.0	\$10.0	\$10.1	\$10.2	\$10.3
Per Registrar Variable Fees	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4
<b>Subtotal</b>	\$43.7	\$43.2	\$43.0	\$42.9	\$42.7	\$42.6
Count of Total Registrars at end of Year	2,542	2,472	2,502	2,532	2,562	2,592
<b>Other Funding</b>						
Meeting sponsorships, Contributions and Other	\$3.8	\$3.6	\$3.7	\$3.7	\$3.7	\$3.7
<b>ICANN Total Funding</b>	\$139.3	\$141.0	\$143.2	\$145.4	\$147.7	\$149.9

Source: ICANN forecast and analysis, April 2019; Totals may not add up due to decimal rounding.

**Figure 10: ICANN FY21-FY25 Forecast Funding at the ‘High’ Scenario**

<i>(Values in US\$ millions unless otherwise denoted)</i>	<b>FY2020<sup>10</sup></b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>FY2024</b>	<b>FY2025</b>
<b>Transactions</b>						
Registry Transaction Fees - Legacy	\$51.0	\$53.5	\$56.1	\$58.9	\$61.7	\$64.6
Registry Transaction Fees – New gTLD	\$5.1	\$5.5	\$6.0	\$6.6	\$7.3	\$8.2
Registrar Transaction Fees - Legacy	\$31.4	\$33.1	\$34.8	\$36.5	\$38.3	\$40.2
Registrar Transaction Fees – New gTLD	\$4.3	\$4.6	\$4.9	\$5.4	\$6.0	\$6.7

<i>(Values in US\$ millions unless otherwise denoted)</i>	<b>FY2020<sup>10</sup></b>	<b>FY2021</b>	<b>FY2022</b>	<b>FY2023</b>	<b>FY2024</b>	<b>FY2025</b>
<b>Subtotal</b>	\$91.8	\$96.6	\$101.8	\$107.4	\$113.3	\$119.7
Volume: Legacy Transactions (in millions)	174.7	183.7	193.1	202.9	212.9	223.5
Volume: New gTLD Transactions (in millions)	23.8	25.3	27.4	30.1	33.3	37.3
New gTLD Average Billable Rate (%)	86.3%	86.6%	87.0%	87.3%	87.7%	88.0%
<b>Registry Fixed Fees</b>	\$29.9	\$29.8	\$29.7	\$29.5	\$29.4	\$29.3
<b>Registrars Accreditation</b>						
Application Fees	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2
Accreditation Fees – Annual	\$10.1	\$10.3	\$10.6	\$10.8	\$11.1	\$11.3
Per Registrar Variable Fees	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4	\$3.4
<b>Subtotal</b>	\$43.7	\$43.8	\$43.9	\$44.0	\$44.1	\$44.2
Count of Total Registrars at end of Year	2,542	2,602	2,662	2,722	2,782	2,842
<b>Other Funding</b>						
Meeting sponsorships, Contributions and Other	\$3.8	\$3.6	\$3.7	\$3.7	\$3.7	\$3.7
<b>ICANN Total Funding</b>	\$139.3	\$144.0	\$149.3	\$155.0	\$161.1	\$167.7

Source: ICANN forecast and analysis, April 2019; Totals may not add up due to decimal rounding.

## 4. Financial sustainability principles and application

Over the period of the five-year plan, ICANN's Expenses will be funded from the annual Funding available once an allocation to the Reserve Fund has been set aside. This reflects the application of two key principles of ICANN's long-term financial sustainability:

- Expenses do not exceed Funding.
- Sufficient reserves are reached and maintained at all times.

The ICANN Board approved a replenishment strategy aiming to reach the minimum target level of 12 months of Operating Expenses by the end of an eight-year period, starting in FY18.

The Five-year Operating and Financial proposes to achieve replenishment of the Reserve Fund to the minimum target level by the end of the plan period (FY25).

### Financial Projections

ICANN Operations	FY21 Projections	FY22 Projections	FY23 Projections	FY24 Projections	FY25 Projections
<b>Projected Funding (base case)</b>	\$ 141.0	\$ 143.2	\$ 145.4	\$ 147.7	\$ 149.9
Contribution to Reserve Fund	(3.0)	(3.0)	(3.0)	(3.0)	(1.9)
<b>Funding available for Operations</b>	\$ 138.0	\$ 140.2	\$ 142.4	\$ 144.7	\$ 148.0
<b>Reserve Fund - Beginning</b>	\$ 121.0	\$ 126.4	\$ 131.9	\$ 137.6	\$ 143.3
Average annual Contribution	3.0	3.0	3.0	3.0	1.9
Annual interest (theoretical 2%)*	\$ 2.4	\$ 2.5	\$ 2.6	\$ 2.8	\$ 2.9
<b>Reserve Fund - Ending</b>	\$ 126.4	\$ 131.9	\$ 137.6	\$ 143.3	\$ 148.1

\*: Average return between 2011 and 2018 is 6%. Theoretical return intentionally chosen conservatively low.

The above projections define the maximum amount of operational expenses to be incurred on an annual basis, considering the available funding net of an annual allocation to the Reserve Fund.

The Reserve Fund allocation is designed to enable the Reserve Fund balance to reach the minimum target level of 12 months of Operating expenses by the end of the plan period (FY25).

## Appendix A: Global Economic Outlook, 2013-2028

GDP Growth Rates (Percent Change)					
	Actual	Estimate	Forecast	Projected	Trend
	2013-2017	2018	2019	2019-2023	2024-2028
United States	2.4	3.0	2.9	2.2	2.0
Europe	1.7	2.0	1.6	1.6	1.1
<i>Euro Area</i>	1.4	1.8	1.5	1.6	1.1
<i>United Kingdom</i>	2.2	1.4	1.1	1.3	1.2
Japan	1.5	1.0	1.0	1.4	1.3
Other Mature Economies	2.6	2.7	2.3	2.9	2.5
<b>All Mature Economies</b>	<b>2.1</b>	<b>2.4</b>	<b>2.1</b>	<b>2.0</b>	<b>1.7</b>
China	5.1	4.1	3.8	3.8	3.4
India	7.0	7.5	6.9	5.9	5.5
Other Developing Asian Economies	4.9	5.2	4.7	4.9	4.6
Latin America	0.4	0.5	1.7	1.9	1.9
<i>Brazil</i>	-0.5	1.4	2.7	1.7	1.8
<i>Mexico</i>	2.5	2.1	1.7	2.1	1.9
Middle East & North Africa	3.0	2.7	2.9	3.1	3.0
Sub-Saharan Africa	3.3	2.8	3.0	3.8	3.9
Russia, Central Asia, and Southeast Europe	2.3	2.7	1.0	2.3	2.2
<i>Russia</i>	0.3	1.7	1.3	0.6	0.5
<i>Turkey</i>	6.1	3.8	-0.8	4.4	3.9

<b>GDP Growth Rates (Percent Change)</b>					
	<b>Actual</b>	<b>Estimate</b>	<b>Forecast</b>	<b>Projected</b>	<b>Trend</b>
	<b>2013-2017</b>	<b>2018</b>	<b>2019</b>	<b>2019-2023</b>	<b>2024-2028</b>
<b>All Emerging Markets and Developing Economies</b>	<b>4.0</b>	<b>3.9</b>	<b>3.7</b>	<b>3.8</b>	<b>3.6</b>
<b>World</b>	<b>3.1</b>	<b>3.2</b>	<b>3.0</b>	<b>3.0</b>	<b>2.8</b>

Source: The Conference Board Global Economic Outlook 2019, interim February 2019 update.  
Retrieved from <https://www.conference-board.org/data/globaloutlook/index.cfm?id=27451>



## Appendix B: Adopted FY20 Budget and Updated FY20 Forecast as of FY19Q2

<i>(Values in US\$ millions unless otherwise denoted)</i>	<b>Adopted FY20 Budget (as of FY19 Q1)</b>	<b>Updated 'Base-case' FY20 Forecast (as of FY19 Q2)</b>
<b>Transactions</b>		
Registry Transaction Fees – Legacy	\$50.5	\$51.0
Registry Transaction Fees – New gTLD	\$5.5	\$5.1
Registrar Transaction Fees – Legacy	\$31.2	\$31.4
Registrar Transaction Fees – New gTLD	\$4.6	\$4.3
<b>Subtotal</b>	\$91.8	\$91.8
Volume: Legacy Transactions (in millions)	173.1	174.7
Volume: New gTLD Transactions (in millions)	25.5	23.8
New gTLD Average Billable Rate (%)	86.6%	86.3%
<b>Registry Fixed Fees</b>	\$30.3	\$29.9
<b>Registrars Accreditation</b>		
Application Fees	\$0.2	\$0.2
Accreditation Fees – Annual	\$10.7	\$10.1
Per Registrar Variable Fees	\$3.4	\$3.4
<b>Subtotal</b>	\$14.3	\$13.7
Count of Total Registrars at end of Year	2564	2,542
<b>Other Funding</b>		
Sponsorships and Contributions	\$3.4	\$3.4
Privacy Proxy Accreditation Program	\$0.4	\$0.4
<b>Subtotal</b>	\$3.8	\$3.8
<b><u>ICANN Total Funding</u></b>	\$140.1	\$139.3

Source: ICANN forecast and analysis, April 2019; Totals may not add up due to decimal rounding.