

A Governance Perspective of Long-term Growth in the Philippines

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Abstract: Philippine colonial history has been documented as our people's struggle for shaping our national identity, a process that involved our cultural assimilation of foreign influences and long-term changes in our economy, polity, and society. This paper takes an alternative approach to looking at Philippine colonial history using the governance prism in viewing those long-term changes, emphasizing the transformative changes that the colonial experiences under both Spain and America may have wrought on our country. It draws from earlier works presented by historians on possible governance agenda that the Spanish and American colonial administrators pursued and examines the national income indicators (for the Spanish colonial period) and the formal GDP estimates (for the US colonial period) which were made consistent with each other so as to present a very long-term perspective of economic growth.

With such a perspective, the paper subscribes to Kuznets's hypothesis that economic growth leads to structural changes. It then adds that those structural changes, in particular, the transformative changes brought out by the use of the governance prism, do not go only one way. The paper presents a more open alternative, i.e., that many of those transformative changes have either facilitated or hindered the wider and much longer-term development. This may well be of special relevance as the Philippines draws governance lessons from its historical past and may apply to building our long-term future, which helps secure a more progressive, inclusive, and sustainable development for our people.

Keywords: governance, governance prism, governance facets, transformative changes, structural change, economic growth, colonial history, broad consistency between national income indicators (Spanish colonial period) with real GDP estimates (US colonial period)

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Prof. Richard Hooley (2005) has presented his estimates of real gross domestic product (GDP) of the Philippines for the US colonial period, 1903-1946. This provides us with a quantitative record of long-term growth of the Philippine economy during the first half of the 20th century.

Governance in the Philippines: Spanish Colonial Rule, 1565-1898, published in 2018 by Dr. Jesus P. Estanislao, contained a technical appendix that put forward an indicator series for National Income (NI). It claims that no formal estimate of NI or of the more widely and popularly used measure of NI, i.e., GDP in the Philippines, is possible at this time given the data sets available for a period when even the concept of NI or GDP was not known. However, on the basis of data of which the Spanish colonial administrators considered important enough to keep some sort of quantitative record, it has been possible to put together a few quantitative data that could be used as *guess-estimates*—simply indicators—of national income. A number of heroic assumptions had to be made in doing so. These were made explicit in the Technical Appendix of the above-named book, in the hope that future research would make it possible for us to graduate from mere indicators to actual formal estimates of NI or GDP during that earlier colonial period of our history (Estanislao, 2018).

Despite the minor differences in NI and GDP, both refer to the same macroeconomic item of general interest to anyone who looks at any economy, the domestic product, and the income generated from having to produce it. The NI indicator series for the Spanish colonial period can be spliced and connected with the GDP calculated for the American colonial period. The spliced series could then provide us with a very broad view of the growth (or lack thereof) of our economy during the very long period when we were a colony (first, under Spain, and then under the United States). In this paper, we present a very broad overview of long-term growth using a governance prism that may highlight a few perspectives that we can put to use as we think long term toward building a stronger and more prosperous Dream Philippines, moving forward.

Specifically, this paper draws from earlier works presented by historians on possible governance agendas that the Spanish and American colonial administrators pursued. It points to the transformative changes that the pursuit of strategic priorities included in such an agenda brought about. We can learn from and take into account those changes, for the future development of the Philippines, as drawn from its lessons and guidelines. For the Spanish colonial period, the available indicators of NI were reviewed and refined (Estanislao,

2018), as these were linked and connected with the formal GDP estimates already done for the US colonial period by Prof. Richard Hooley (2005).

The approach taken is that of looking at Philippine colonial history using the governance prism in viewing those long-term changes. The use of such a prism underscores the usual facets considered important in governance, i.e., people, process, constituency, finance, and socio-economic impact. It does not attempt to represent the historical record already provided by historians. Rather, it emphasizes the transformative changes that the colonial experiences under both Spain and America may have wrought on our country.

Governance Perspectives from Long-Term Growth

Since the indicator and data series we are looking at is for our entire colonial history, it is best that we allow the data to speak for themselves. In our view, there is not much value in simply criticizing the Spaniards and Americans for colonizing us. For any Filipino nationalist, that (colonial rule over a subjugated people) has always been reprehensible, but it is a battle that is already won. We gain little from fighting a war that—through the sacrifices of many of our heroes, both known and unknown—we had already won.

Nor is there much value, in our view, in directly comparing rates of economic growth between the two colonial periods. Those periods, the Spanish and the US colonial, were very different from each other and under very different global contexts and mindsets. Directly comparing the economic growth records for both periods is akin to comparing bananas and pineapples. The governance orientations of Spanish and US colonial rule were very different. Even within the Spanish colonial period alone, there was already much difference in governance orientation between the earlier sub-period (1565 to 1765) and the later sub-period (1765-1898). If context and mindset do matter in bringing about outcomes, then they have to be considered and given their due importance (Estanislao, 2018). We have, therefore, chosen to treat the Spanish and American colonial periods separately in this paper.

The authors subscribe to Kuznets's hypothesis that structural transformation is an integral part of economic growth. When an economy grows, the market forces are expected to increase then decrease the general state of economic inequality. This further implies that as the economy undergoes the process of industrialization, the productivity shifts from the agricultural to the industrial sector—as this sector provides higher-paying jobs than the former, and what goes with productivity shifts are population

migration and widening rural-urban income gap. However, following Kuznets's hypothesis, the level of economic and social inequality would decrease over time when the economy reaches the average income level. In the economic development aspect, this is the point wherein the society benefits from the structural transformation that effectively lowers the level of economic inequality in the longer term.

In considering the broader context within which economic growth over the long-term occurred, we subscribe to the general idea that *economic growth does matter*. No matter how slow the growth may be, it is a very important factor in the emergence and eventual development of a nation—in our case, of the Filipino people. It is naturally a *conditio sine qua non* of long-term, sustained development, but for that to be met, there are other governance-related factors that absolutely need to be taken care of and attended to, which may be as critical and essential as economic growth itself. In this regard, the governance framework which gives due emphasis to people, process, constituency, finance, and socio-economic impact may provide a useful guide as to what these other critical factors may be. Over the long-term, they may help facilitate (or possibly hinder) the economic growth process, eventually bring it to a higher level, and hopefully sustain it to deliver the needed structural changes associated with long-term development. We have used that governance framework to highlight at least some of the critical factors that may facilitate or hinder our sustained long-term development as a people and as a nation.

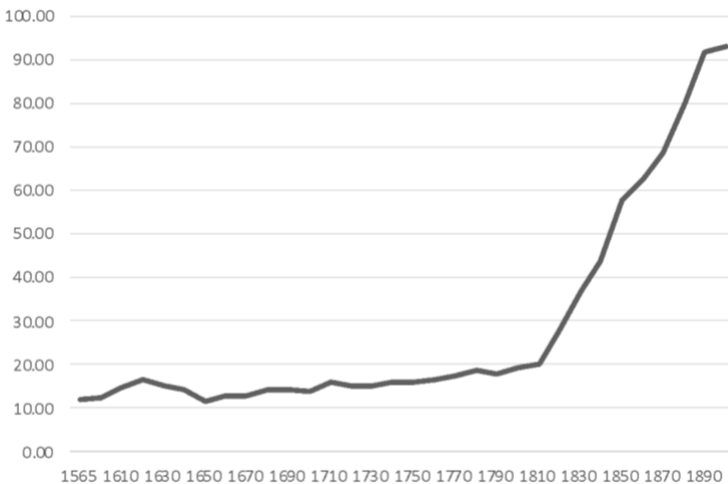
In this paper, we shall present the dimensions of economic growth of our colonial history, first under Spain and then under the United States. We shall argue that behind these numbers of economic growth were a number of structural changes—or using governance terminology, *transformative changes*—that would prove critical to the continued emergence and progress of our nation and of the Filipino people. In fact, our colonial history may highlight the governance infrastructure that we need to continue to strengthen and develop as we build our Dream Philippines, where every government institution effectively delivers, and every citizen holistically prospers moving forward into our long-term future.

Economic Growth and Structural Change: Spanish Colonial Period

Based on the NI indicators—acknowledging how heroic some of the assumptions were in arriving at them—we are in some position to provide a

very broad dimension of the growth of the economy in the Philippines, from 1565 to 1898 (the entire length of Spanish colonial rule). By 1898, the indicator for NI places it at PHP93.090MM, a figure which connects with Hooley's 1903 figure of GDP at the start of the US colonial period, estimated at PHP121.704MM. By zeroing in on the 1898 NI estimate of PHP93.090MM, we arrive at these suggestive measures of growth: the economy in the Philippines by 1898 was 9.3 times bigger than the crudest estimate NI for 1565 (placed at PHP10.000MM). This was close to 7.5 times a similarly crude NI estimate for 1600 (roughly estimated at PHP12.466MM). The movement of the NI during the Spanish period is presented in Figure 1 below:

Figure 1
The National Income Indicator during the Spanish Colonial Period



Source: Estanislao, J. (2018). *Governance in the Philippines: Spanish Colonial Rule, 1565-1898*. Manila: Institute for Solidarity in Asia.

The economy in the Philippines, at the start of the Spanish colonial period in 1565, was made up of largely subsistent economies in small human settlements—the *barangays*. They had little economic interaction with each other. Thus, the growth of the economy, when measured, would depend predominantly upon the growth of the population. Moreover, whatever small trade the *barangays* had with any outsiders was through barter. Thus, whatever the *barangay* economies produced was virtually for subsistence consumption. Indeed, the number of people in our islands, estimated at about one million in 1565, would determine the level of economic output they produced. This may

have been the general rule that allowed for some exceptions. After all, there was some trade that a number of *barangays* around Manila, Cebu, and Jolo would carry on with traders plying the Moluccas-China spice trade route who would occasionally stop in our islands for some provisions. These *barangays* must have produced some output *beyond* their subsistence requirements. For now, however, there is no way of estimating how much that trade amounted to for any given year. We have, therefore, opted for the general rule, to the effect that the level of economic output in our islands at the start of the Spanish colonial period was determined principally by the number of people living in largely subsistent economies. Under this light, the governance facet of *people* and more specifically the number of people would need underscoring (Cushner, 1971).

People Facet of Governance

With Spanish colonial rule, the *people* facet became even more important. To maintain and pay for the local administrative infrastructure of the small Spanish colony in the Philippines, the Spaniards introduced three fiscal measures, which had enormous economic consequences:

- a) A poll tax or a head tax levied on adult males;
- b) A *polo* or labor service tax, which was on top of the poll tax; and
- c) Forced sale of specific goods at fixed prices to Spanish authorities.

Given the subsistent economies that had no money in circulation, these taxes were paid in kind. This led to the usual difficulties associated with having economies without the benefit of coinage. It must be noted, however, that having to pay this poll tax and the forced sale of specific goods meant that the people, in general, had to produce a bit more than their usual subsistence consumption requirements, thereby giving at least a small nudge toward economic growth. For instance, when inevitable inflation would occur from the imbalance between the demand and supply of commodities—without any price mechanism—the inflationary adjustment would have to be made by getting the natives¹ to pay their taxes in greater quantity of commodities that would be accepted as tax payments (generally rice and other essential food provisions). They would have to produce slightly more of such products. The

¹ This word is used without the derogatory connotation that future generations of Filipinos would attach to this term.

sheer complexity of administering such a lack of system, without currency in circulation, led to such serious abuses that the Spanish King, mainly upon instance of the Spanish friars, pushed for the taxes to be paid in specie, i.e., using money that was gradually made to circulate throughout the islands (thanks to the Mexican silver that came in through the Manila-Acapulco trade) (Alvarez, 2009 and Corpuz, 1997).

The eventual transformation from a purely barter economy to a more market-based economy with payments done through a generally accepted currency throughout the islands may have been slow and gradual. Nonetheless, it was done and could only have a positive consequence on what used to be purely subsistence economies; the *barangays* could more easily trade with one another. While such non-subsistence output must have started at a low level, its share in total economic output—in NI—must have slowly gone up (Cabrerero, 2000). An initial guess-estimate of the positive impact of the shift from barter to gradual monetization of trade transactions is provided by the growth in population (from 1.0 million in 1565 to 1.2 million in 1600): the NI indicator rose from PHP10.000MM in 1565 to PHP12.466MM in 1600 instead of only PHP12.000MM which would have been the level attained in 1600 without the gradual monetization of the economy and a few other factors that came into play soon after the start of Spanish colonial rule.

Table 1
Population and NI Indicator in 1565-1600

	Population (in millions)	National Income Indicator (in million pesos)
1565	1.0	10.000
1600	1.2	12.466

There may also have been an initial peace dividend brought to our islands by Spanish colonial rule, with a consequent positive impact on both population and economic growth. Indeed, one of the arguments offered by the Spanish colonizers to the natives was that they would be under the protection of the Spanish King (which was why they had to pay the poll tax). Our forefathers were offered some protection specifically against the Moro raids if they swore allegiance to the Spanish king. Furthermore, the level of internecine battles that would occasionally erupt between warring *barangays* was brought down to some extent by the imposition of law and order under the Spanish king (Phelan, 1959). Their impact on population growth in the islands must have been

positive, and this is somehow reflected in the population level, estimated at only 1.0 million in 1565 and 1.2 million in 1600. However, this positive impact would not last long and the population level of the Philippines from 1610 to 1710 remained stagnant. It was listed at 1.250 million in 1610 and only at 1.290 a century later in 1710, i.e., there was hardly any population growth. While the population numbers are rough estimates, they are supported by the almost stagnant, if not declining, level of head taxes collected and by the more frequent airing of complaints against the hated *polo* or labor service tax. The colonial administrators also complained about their inability to collect higher head tax revenues (Alvarez, 2009, and Fradera, 1999, and Corpuz, 1997). Two factors may be cited in this regard:

- a) The imperial imperative of keeping the Philippines as a colony. At the start, the Spaniards were not very clear about staying on in our islands. After they found out that we had no spices, such as those in the Moluccas, or gold, such as the deposits they found in their American colonies, they lost much of their appetite to stay on in our islands. The missionary factor of staying to convert the natives to Catholicism was important but it may not have been strong enough on its own to get the Spaniards to stay and put up a colony in such a faraway place. There was an initial proposal which was seriously considered, i.e., to use the Philippines as a staging point for a Spanish invasion of China. When this proposal was dropped, a more defensive alternative proposal rather than the more offensive-aggressive posture toward China was taken for staying on. That was to make our islands as the outer periphery of a Spanish defense system for the Spanish colonies in the Americas where the Spaniards were mining vast quantities of gold and silver. A Spanish fleet was kept in the Philippines mainly to have the capability to engage the Portuguese, then the Dutch, and eventually the British in East Asia. In that way, they would not send their own naval fleets to America to threaten the significantly more valued Spanish colonies there (Elizalde, 2003, and Alvarez, 2009). This meant that the *polo* (or labor service) tax took on importance: forests had to be felled, wood had to be prepared, and Spanish galleons had to be built or at least subjected to repairs and maintenance work in Cavite. During the long period of engagement against the European rivals who were also operating in the Far East, this

meant Filipino labor had to be conscripted and forced. The ugly face of Spanish colonization showed itself: many of our forefathers, already in the lowlands, fled back to the mountains; many had to do back-breaking work away from their homes and traditional means of subsistence livelihood; and almost naturally, the population base in our islands declined from 1620 to 1650, only to rise very slowly until 1720, when it got back to the population level of 1620. Due to this abysmal state of the seventeenth century, it was referred to by Spanish writers as the lost century, at least for the Philippines, which they regarded as the forgotten colony in the official Spanish circles (Inmaculada, 2000, and Elizalde, 2003). The obvious consequence of this on the rise of NI in our islands was the relative absence of growth from 1620 to the mid-eighteenth century. It was only after the brief British occupation of Manila in 1762-1764 that growth resumed: the NI index estimated at 102.1 in 1620 had gone back up to 116.4 only in 1770.

- b) However, this long period of relative absence of growth in both the population base and in NI saw a number of structural developments that were playing themselves out. Only these two may be cited:
- (i) The administration of tax collection (both head and labor tax) under the traditional local elite, the *datus* of the *barangays*, and the *gobernadorcillos*². They played such an indispensable role in the Spanish colonial fiscal system that their position within the *barangays* or small local communities became formally recognized under Spanish colonial laws (Alvarez, 2009). Although this specific structural development had little to do with economic growth, still it is important in the overall progression of the Philippines as a nation and of Filipinos as a people, but the second one of these structural developments may have given some impetus, at first only minor, for economic growth to eventually resume.

²The *gobernadorcillo* was the native governor from the end of the seventeenth century onward.

- (ii) The slow yet gradual building of connections among clusters of *barangays* leading to the eventual rise of the *bayan* or town, or as the Spaniards termed it, the *pueblo*. This reinforced the tendency of at least a few *barangays* to trade a bit more widely than before, with a common currency in circulation. While the immediate impact on economic growth through the rise of a market-based economy, with an increasingly specie-based payment system other than through pure barter, may have been negligible, still it was bound to grow over time. The seeds for a town-centered economy were being planted (Corpuz, 1997).

Process Facet of Governance

Next to the *people* facet comes the *process* facet of governance. A Spanish colony had to be maintained at least in Manila and a few Spaniards, other than the few necessary public officials and the inevitable military personnel, had to be enticed to live there. Given the weather and specifically the heat and humidity, tilling the land and developing the natural resources of our islands were deemed unappealing. Thus, an easier alternative had to be established: the Manila-Acapulco trade. It offered a privilege to Spanish residents of Manila to have a share in each voyage and to come and settle in Manila, literally under a life of privilege: they did not really have to do anything except to wait for the successful and profitable return of the Galleon plying the Manila-Acapulco route (Cushner, 1971). However, keeping them in Manila meant that their material and other needs had to be provided for: food, a few other material necessities, and at least some services associated with urban life had to be supplied. This was way beyond the capacity of natives who were living in mostly subsistence economies to provide; thus, Chinese merchants and service providers had to be brought in. Food and other vital supplies would have to be brought to Manila from the nearby *barangays*. Trade, a specialty of the Chinese, had to be undertaken and the natives would have to grow some surplus³ which they could sell to the Chinese traders. In addition, vital urban services (tailoring,

³ This is in addition to what they had produced to pay for the head tax and the *bandala* wherein they were required to sell their produce to the government.

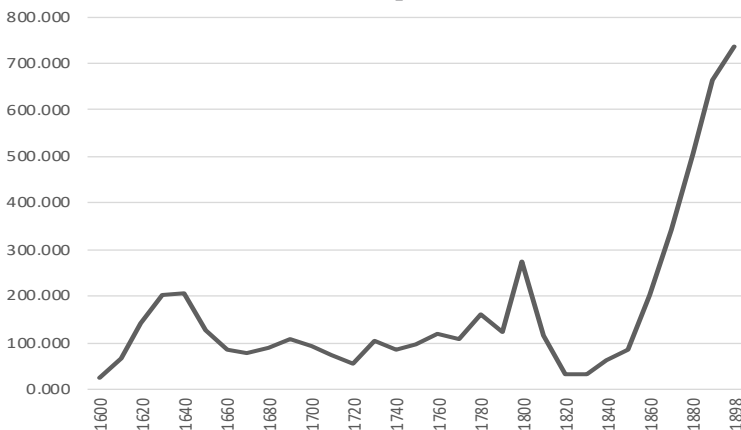
restaurants, printing, etc.) would also have to be provided. Again, the Chinese were imported to be able to do so. Over time, a growing class of Chinese mestizos—with overseas Chinese, generally young males, marrying into the ruling *datu* class—provided the base for a local merchant class. Over time, this gave a boost to trade and commerce as well as a boost to NI. Again, no matter how slow the process may have been, it still got started, connecting many more *barangays* with the urbanized economy of Manila (Corpuz, 1997).

The Manila-Acapulco trade, important as it was for maintaining a Spanish colony in our islands, was mainly a Spanish-Chinese affair. It was not meant to be a growth-push factor. By rules and regulations, the volume to be carried on the Manila galleon bound for Acapulco was subject to fixed quotas and limits. Although market pressure would lead to an occasional lifting and increase of the originally set quotas, at any given time, in theory, the quotas existed. While more honored in their breach than in their strict observance, the quotas set a limit to the growth of trade volume that the galleons could legitimately carry. Moreover, there were hardly any Philippine-sourced trade goods loaded into those galleons. The products out of Manila came from China and the products shipped to Manila from Acapulco involved mainly Mexican silver, and a few luxuries for the Manila Spanish colony, bound for China. Manila served only as an entrepot, i.e., it contributed very little to the value chain of the China-America (Mexico) trade (Fradera, 1999). From the NI growth perspective, the Manila-Acapulco trade was of minimal direct influence, except for the spread effects due to having to maintain a small Spanish population in Manila.

Things did change radically after the brief British occupation of Manila and Cavite, and as a belated consequence of the dynastic change that had taken place on the Spanish throne. A more liberal-oriented, mercantilism-minded imperial dynasty had taken over the Spanish crown at the turn of the eighteenth century. This refers to the shift from the Hapsburgs to the Bourbons. Moreover, toward the end of the eighteenth century, Mexico was slipping out of Spanish hands. When Mexico finally got out of Spanish colonial control in the early part of the 19th century, commercial export agriculture had fortuitously started to grow in our islands. This had been actively pushed by Spanish colonial authorities, and in a few decades after Spain lost Mexico, it more than made up for the loss of the Manila-Acapulco trade. A tobacco monopoly was set up and virgin lands were opened for tobacco cultivation which provided income to farmers and some factory workers from tobacco processing and cigar-making. What proved more significant during the time was the opening of the port of Manila to other foreign traders. The setting up of

foreign, mainly British and American, trading houses in Manila for the exports of new products other than tobacco: abaca, sugar, and increasingly coconut became important. The base of the local merchant class had been growing and was ready for the challenge to work with the trading houses, which facilitated various aspects associated with the export of a few agricultural commercially grown products. The index, with a common base period, being 1740-1760, for external trade grew from 108.7 in 1770 to 275.4 in 1800. Then again, from 32.8 in 1820 to 86.6 in 1850; and finally, 201.7 in 1860 to 734.2 in 1898 (see Figure 2 below for external trade index from 1600-1898). While the Manila-Acapulco trade gave an insignificant push to the growth of NI in the Philippines, the rise in external trade involving commercial agricultural exports in the later Spanish colonial period became an important growth factor, particularly in the second half of the 19th century.

Figure 2
External Trade in the Spanish Period, 1600-1898



Source: Estanislao, J. (2018). *Governance in the Philippines: Spanish Colonial Rule, 1565-1898*. Manila: Institute for Solidarity in Asia.

Constituency Facet of Governance

From the next perspective of governance, the *constituency* perspective, two interests need to be taken into consideration: first, the interest of the colonial power, and second, the cultural upbringing of the colonized people.

- a) The imperial strategic imperative that led Spain to decide to stay in our islands arose out of Spain's imperial security. As already

noted, our archipelago was to serve the defense needs of Spain's all-important American colonies. We were to serve as a far-flung bulwark to keep Spain's imperial enemies in the Far East busily engaged in the area so they would be discouraged from posing a challenge to Spanish possessions in the Americas. It follows that a scrutiny of Spanish imperial finances relative to its Philippine colony would show that they were heavily weighted in favor of defense. More than 50% of its expense was defense-related while missionary activities would not even come close to 15% of the expenditure budget. It follows that when the challenge to the defense position of Spain in the Far East became heavy, as political circumstances would on occasion bring about, then Spain's government spending in our islands would have to rise dramatically and only to fall as dramatically after the challenge had become much less serious. Thus, before 1770, government spending in our islands was determined by the defense requirements imposed by threats from Spanish imperial enemies, with higher levels from 1610 to 1640, and then again from 1680 to 1700. Otherwise, the level of spending was kept low since local tax revenues were far from buoyant. Government spending was never seen in the Keynesian sense of being a possible booster for NI growth. In the earlier Spanish colonial period, mainly under the Hapsburg dynasty, the occasional rise in government spending due to defense needs of Spain had to be paid for by the Royal Treasury in Mexico. Otherwise, fiscal spending had to be covered exclusively by local tax revenues collected. The subsidy from the Royal Treasury in Mexico for the Philippines was not for any local needs of our islands; it was part of the overall defense spending requirement of the Spanish Crown (Alvarez, 2009).

- b) However, after the brief British occupation of Manila, the index for government spending (common base period, the average for 1740-1760) grew from 117.8 in 1770 to 157.9 in 1800; and then from 221.6 in 1810 to 1303.6 in 1850; and finally, from 2794.9 in 1860 to 4373.4 in 1898. In order to finance the increasing government spending, to become much more proactive in the exploitation and development of some of the natural resources of our islands in order for the Philippines to at last contribute

positively to the Spanish imperial finance, the imperial decision came into play. Various government-sponsored attempts were made to exploit some of our natural resources for the benefit of the Spanish Crown (Cushner, 1971; Elizalde, 2003; and De Jesus, 1980). However, it was the shift from over-reliance on the head tax and the *polo* or labor service tax to greater reliance on excise taxes, particularly on liquor and tobacco, that made a difference. Spanish colonial finances in our islands improved considerably: instead of relying on income-inelastic tax revenues from head and *polo* taxes, the Spanish colonial tax revenues in our islands shifted to the more income-elastic excise taxes imposed on native consumption of tobacco and hard drinks. This made insular tax revenues improve and grow considerably. This enabled government spending in our islands to grow much more consistently to become, at long last, a growth booster. The more income-elastic excise taxes could produce the tax revenues if NI was boosted by other growth factors, such as the opening of virgin lands for the benefit of the tobacco monopoly, as already noted above. This gave additional disposable income beyond their subsistence income to native farmers and industrial workers in a few tobacco-processing and cigar-making enterprises. Above all, the growth of the commercial agricultural export sector also gave the natives extra disposable income with which to buy tobacco and liquor products, the subject of the Spanish excise taxes (Fradera, 1999).

- c) Finally, for the natives who bore the brunt of colonization, Spanish colonial rule meant living and working under the broad oversight of a Spanish friar. The friar was the only Spaniard authorized by law to live among them until the late eighteenth century. He was the lone Spanish authority figure, most especially during the earlier Spanish colonial period, whom they had to deal with and was the backbone of the Spanish colonial administrative infrastructure. His authority, moral and otherwise, was enormous (Inmaculada, 2000, and Cushner, 1971, and Fradera, 1999). In general, he was a much more congenial figure than any other colonial administrator, e.g., the Spanish soldiers, whose presence was more felt after the British occupation of Manila for the enforcement of rules for the functioning of the tobacco

monopoly as well as for carrying out the new Spanish policy of *pacification* to bring more areas under Spanish control. However, the friars with their religious upbringing and consistent with the religious culture of the time, tended to stress more other-worldly concerns rather than the more secular bread-and-butter issues. Thus, the religious aspects of life tended to be separated from the more secular concerns of working, earning a living, and bringing the practice of the faith to the world of work. Furthermore, the friars were the beneficiaries of the *polo* or labor service tax. They had access to free services rendered to them by the natives. These services included building churches, operating them (e.g., sacristy duties), maintaining a parish staff and choir, porter services, etc. They were privileged in this regard, and the natives tended to deal with them with slavish deference. This led many of them to have a low opinion of most natives and to some racial prejudice, particularly against the ordination of natives for clerical duties. Moreover, the *datus* of the constituent *barangays* of the *pueblos* over which the friars presided had to elect a *gobernadorcillo* under the friar's auspices: the principle of separation of Church and State did not exist during the Spanish colonial period (Inmaculada, 2000, and Cushner, 1971, and Fradera, 1999). Thus, it has been common and almost natural for many Filipinos, until very recently, to go to their Bishops and priests for moral leadership whenever a political problem or crisis would arise. The native Catholicism that Filipinos ended up practicing was heavy with folk-cultural practices, light on doctrine, with due importance to the *fiesta* and to fun, and with a sharp divide between pious devotional practices and the ethical demands of work associated with earning a living and discharging political official duties. To be sure, the great majority of Filipinos became Catholics, but it is a Catholic faith with distinctive native characteristics, some very charming and disarming, shaped by the Spanish friars who formed them. Under such a worldview, the promotion of savings, cultivation of the spirit of enterprise, and above all some zeal for economic growth as a base for material progress were given lesser importance than the devotional practices of folk Catholicism. Economic growth as such was far from being boosted.

Transformative Changes during the Spanish Colonial Period

The governance framework does bring up two other perspectives: *finance* and *socio-economic impact*. The *finance* perspective has already been covered under the *process* perspective, which also focused on government spending. And it can be argued that the major elements under the *socio-economic impact* perspective are those that have been covered under the *people* and *process* perspectives. Therefore, by way of summary, they may be put together and viewed for the deep socio-economic impact they made on the Philippines as it evolved into one nation and of Filipinos as we embarked on the long process of becoming one people, a process that Dumol would argue is still ongoing (Dumol, 2018). These transformative changes and developments during the Spanish colonial period are the following:

- a) The basic demands of colonial administration, with a tax system, gave rise to increasing use of specie, the process of monetization, and away from the barter system (Alvarez, 2009). This basic transformation led to the evolution of a market economy with a price mechanism. It may be listed as having only a little immediate impact on economic growth, but an enormous impact on facilitating future long-term development.
- b) On the other hand, the Spanish tax system featuring the much-hated labor service tax had an enormous influence in restraining population growth. Our population base was stagnant in the seventeenth century, and this was decidedly unhelpful to economic growth in our islands during this lost century (Fradera, 1999).
- c) But even during the stagnant seventeenth century, a great transformation occurred as *barangays* slowly but surely interconnected with each other to form the *pueblos*. Over time, this must have slowly and almost naturally facilitated and boosted immediate economic growth though only a little. Although, for very long-term development, this was a critical factor (Fradera, 1999).
- d) Even as the *pueblos* were gradually being formed, the *datus* of the traditional *barangays* became even more entrenched in their privileged position within the Spanish colonial administrative structure. They were able to keep and raise their privileged status,

arguably even up to the present. On the whole, this may have hindered social equity that normally comes with long-term development.

- e) The rise of a local merchant class made up mostly of Chinese mestizos. Domestic trade was given an initial boost by the Manila-Acapulco trade, which enabled Spain to maintain a small Spanish colony in Manila. That trade between Manila and Acapulco may not have been a direct growth-booster by itself but it turned out to be critical for the rise of our local merchant class, a critical longer-term development factor (Fradera, 2005).
- f) The shift from over-reliance on the income-inelastic head tax to the more income-elastic excise taxes came with the more liberal economic reforms in the decades after the short British occupation of Manila provided significant impetus to faster economic growth. This then allowed government spending to be a more positive factor for economic growth (Fradera, 1999).
- g) The active promotion of an export commercial agricultural sector with heavy reliance on port opening and the entry of foreign trading houses was of great transformative value for our economy (Fradera, 1999). This significantly boosted economic growth, and this was maintained and reinforced as a growth determinant during the later colonial period under the US.
- h) An important transformation of Spanish colonial rule, i.e., the introduction of the Catholic faith to the majority of Filipinos living in the lowlands, had deep socio-cultural impact, which today helps shape the character and perhaps even the identity of the Filipino. However, given the religious mind of the Spanish friars, who in general tended to put religion to one side and the discharge of economic, business, and political duties to the other side, this would not have made Catholicism a continuous sustaining force for long-term economic growth and development.

The governance framework we have adopted highlights the above eight developments from the Spanish colonial era that may have left a deep socio-economic impact on the Philippines and the Filipino people. They are highlighted for their transformative value in our process of nation-building. A

closer look at them would show that some had enormous direct bearing on more immediate economic growth, and a few others may also have considerably more weight in facilitating future even longer-term development. This brings up two points:

- a) economic growth, important and essential as it is for longer-term development, is not all there is in the transformation of society and the sustainable growth of the economy; and
- b) there are other factors favoring social and economic transformation, which may or may not boost economic growth, but nonetheless are more critical for much longer-term development.

Putting these two points together would lead to a more open view than the traditional one generally held in Economics: that sustained economic growth brings about social, cultural, and political transformation. What these eight developments highlight in viewing long-term growth in the Philippines during the Spanish colonial era is this more open and much more interactive process. Indeed, economic growth can lead to and facilitate broader transformation in the economy, society, and polity. Nonetheless, it is equally true that transformation in other spheres in the common, increasingly national, life of a people may significantly facilitate (or on occasion hinder) economic growth or longer-term development. The process flow does go two ways.

Economic Growth and Structural Change: US Colonial Period

The US came into our shores with at least some of their top officials not knowing exactly where we were⁴, how many we were⁵, and above all, what religion we had⁶. Furthermore, to their pleasant surprise, we were not a people most of whom were still living in tree houses. The majority of us, more specifically the lowland Filipinos, were already living in Spanish-style *pueblos*, and among the local elite, they could find more than a few individuals who were sophisticated, refined, highly educated, and already committed to the ideals of the French Revolution having gone through a university in Europe.⁷ Moreover,

⁴ Pres. McKinley could not easily locate the Philippines in the world map.

⁵ One can just imagine their surprise upon finding out that we were that many, with the best initial guess being between 6 to 8 million natives.

⁶ McKinley soon found out that he did not have to Christianize us since we were already Catholics for some 300 years.

⁷ These were the *ilustrados*, i.e., the Filipino educated class during the Spanish period.

at least in the island of Luzon, our revolutionary troops who had been fighting a war of independence against Spain were at the cusp of victory to drive the Spaniards out. Our troops under Gen. Aguinaldo may have lacked the firepower and the ammunition to close out the war, but they were already laying a siege on Manila (Karnow, 1989).

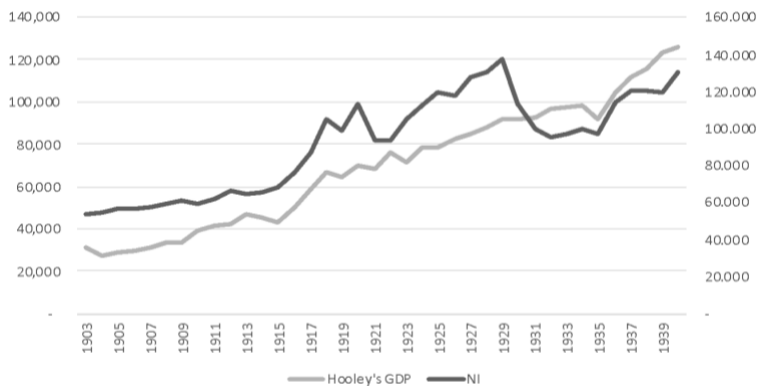
After these basic facts were sorted out and considered, the Americans decided that their rise to becoming a global power and more specifically as a major power in the Pacific, would be given a substantive boost if they stayed in our islands as their colonial administrators. But from the start, they were clear about two things: first, the Philippines was not going to be part of the Union that is the USA; and second, after some indefinite period, they were going to recognize our independence. In other words, they had no intention of making Americans out of us. We were too different and too many. The US already had enough of a racial problem within the continental United States and we would have made that problem much worse. Happily, we were to remain Filipinos, who after some tutelage on self-government under a democracy, would be recognized as a separate and independent nation-state (Brands, 1992).

With these basic decisions made, and after spending enormous sums, shedding blood and losing lives in the war against Philippine revolutionaries, the Americans set out to colonize us. In the book recently published by Dr. Jesus P. Estanislao, *Governance of the Philippines: The US Colonial Period, 1898-1946*, drawn out from American sources, the following were laid out: Strategic Shift Agenda, Governance Charter, Strategic Themes and the inevitable Transformation Road Map (outlining the strategic priorities) of the US colonial adventure in our islands. These are the basic components of a Governance and Transformation strategy that the Americans pursued as the colonial masters and administrators of our islands. In the process of pursuing it, did the Americans enable our economy to grow? Did they contribute to structural changes in our economy, polity, and society that may have helped to shape our nation as it eventually emerged into the world as a duly recognized independent nation state? Lastly and above all, did these structural changes leave an imprint on the character of our people as we continue progressing toward becoming one people? These are the main questions we address here. Prof. Hooley, through the real GDP series he calculated for the entire US colonial period, has answered the question about growth. In *Governance of the Philippines: The US Colonial Period, 1898-1946*, some tentative answers have also been put forward to the question on structural changes (Estanislao, 2020).

Prof. Hooley's GDP series has given us a quantitative peg for long-term growth of the Philippine economy from 1903 to 1946 (Hooley, 2005). In the technical appendix appended to *Governance of the Philippines: The US Colonial Period, 1898-1946*, the following very broad-brush measures of economic growth, based on Hooley's GDP data, were cited:

- a) The average annual growth rate of real GDP for the entire US colonial period is pegged at 4.2% per year (see Figure 3 below for the movement of the GDP and NI) at a time when population was rising at 2.1%, in part due to the public health programs that resulted in the reduction of mortality rates and, in particular, of infant mortality rates. Such a rate of real economic growth would enable the Philippines to claim an average per capita real growth of 2.1% per year. There are interesting variations between decades within the US colonial period, but this overall average annual growth of real GDP (4.2%) and real GDP per capita (2.1%) provide a very broad quantitative measure of performance of the economy as the Americans pursued a governance and transformation strategy in the Philippines under their watch (Estanislaio, 2020).

Figure 3
The Movement of GDP and NI during the American Colonial Period



Source of Raw Data: (for GDP) Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488. NI Values were calculated by the authors.

b) Within such a broad quantitative measure of economic performance, following standard economic practice, are a few structural changes normally associated with economic development that can be cited. The first would be the relative absence of a dramatic fall in the share of agriculture. This stayed just under 40% of GDP from the beginning to the end of the US colonial period, i.e., an annual average of 38.5% share at the beginning of the period, and still a high percentage share of 37.7% at the end of the period. The second is the increase of industry from 13.2% in the 1902-1904 period to 20.2% in the 1938-1940 period. This deserves a good second look since the increase in the share of industry is generally taken as an indicator of broader economic development. The third and final observation relates to the share of services, which fell from 48.4% in 1902-1904 to 42.1% in 1938-1940. The somewhat discernible shifts in the relative shares of component sectors within industry and services in GDP invite closer scrutiny.

Table 2
Share of Agriculture, Industry, and Services to GDP

Year	Agriculture	Industry	Service
1902-1904	38.45%	13.15%	48.41%
1905-1907	40.40%	13.94%	45.66%
1908-1910	39.81%	13.73%	46.46%
1911-1913	36.30%	16.19%	47.51%
1914-1916	39.70%	14.79%	45.51%
1917-1919	36.43%	16.36%	47.21%
1920-1922	37.39%	20.50%	42.11%
1923-1925	38.56%	18.92%	42.51%
1926-1928	39.16%	18.24%	42.60%
1929-1931	39.30%	20.03%	40.67%
1932-1934	41.22%	23.60%	35.18%
1935-1937	40.19%	20.51%	39.31%
1938-1940	37.72%	20.17%	42.11%

Source of Raw Data: Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488.

Indeed, within the field of Economics, such further scrutiny is undertaken by looking more closely at the components of agriculture, industry,

and services. Are there dramatic shifts reported in the relative importance of component sectors that make up these three broad economic categories that contribute to NI and, therefore, to the country's GDP?

Unfortunately, agriculture in the GDP series is presented as having only two sectors: crops (CR) and fisheries & forestry (F&F). At this level of disaggregation, we find a surprising stability in relative shares. In the beginning period of 1902-1904, the average share of CR is calculated at 82.6% and at the end, the average for 1938-1940, that share is reported at 82.9%. The corresponding share of F&F remained at 17.4% in 1902 in 1902-1904 and at 17.1% in 1938-1940 (Hooley, 2005). From the more micro-economic evidence, however, the surprising relative stability in the share of CR hides a significant shift within agriculture, i.e., the dramatic rise of agricultural export crops such as sugar and coconut against the fall in the share of traditional crops such as rice and corn. One would have to go into the more disaggregated series, focusing on rice and corn as well as sugar and coconut to bring out the changes in relative shares within the crop sub-sector. It is at this disaggregated level that a definitive structural change becomes clear.

The same is true when we disaggregate the share of industry in GDP. The biggest component sector is manufacturing. It starts with a high relative share within industry—at 89.1% at the start of the US colonial regime. Contrary to expectations, the share of manufacturing went down and by the end of the US colonial period, the relevant figure is 76.7% (down by close to 13 points). In a granular level, the shares of the component sectors in the manufacturing sector are, first, the unexpected rise of construction from 9.9% within industry to only 10.4% and from the beginning up to the end of US colonial rule. Second, it was the smaller component sectors of industry that picked up shares: gas and water (or utilities) went up from 1.7% to 6.9% and mining finally took off but from a small base of 0.2% at the start to 5.5% at the end of the regime. One may read into these figures on relative shares of the component sectors of industry that even as Philippine GDP was rising over the long term, the process of industrialization, generally associated with long-term sustained development, remained at the very low, initial stages.

One may get a somewhat similar impression from a slightly more disaggregated look at the service component of GDP:

- a) First, the surprising fall in the share of trade from 61.7% in 1902-1904 to 55.3% in 1938-1940. One would have expected that with rising GDP, the share of trade would rise instead of fall, but this

is not what the figures reveal. The same holds for the share of finance. Expectedly very low in 1902-1904 (1.5%), but at the end of the US colonial regime, the 1938-1940 figure was only 3.1%, an increase no doubt, but a surprisingly small increase.

- b) Second, it was the communication sector that picked up relative shares, from 1.3% at the start to 8.5% at the end of the regime. This increase is more in line with development expectations. Also, as expected, the share of owner-occupied buildings rose from just under 6% in 1902-1904 to 8.2% in 1938-1940. Again, the rise here has not been dramatic.
- c) Third, the share of private and of government services both remained the same for the duration of the US colonial period: for private services (18.9% in 1902-1904; down to 17.9% in 1938-1940), and for government services (7.5% at the start and 7.4% at the end of the US colonial regime).

From all of the above, it is difficult to read from the component data of GDP that the long-term increase in real GDP and per capita real GDP during the US colonial period led to the type of structural changes that are indicators of long-term sustainable development. Other scholars may have to look more closely at the emerging proposition, which the GDP data reveal. Our reading is that it was a case of long-term economic growth without the accompanying structural changes that make for broader economic development.

Alternatively, by using a governance prism with which to look at and assess the performance of the economy, society, and polity, we can also look at various *transformative changes*, if any, from the perspective of *people, process, constituency, finance* and *socio-economic impact*. This indeed would yield an alternative view on transformation, or a complementary view on *structural change*, that a *governance and transformation strategy* may have delivered over a long period, such as the entire length of the US colonial administration of our islands. This view on structural change may then provide clues on what a continuing governance program, moving forward, should focus on, so as to build momentum from past progress or to push a reset button to steer our economy, polity, and society toward a more progressive direction. In this regard, the Strategic Shift Agenda described in the work cited on *Governance of the Philippines: The US Colonial Period, 1898-1946* provides the framework for this complementary view on structural change.

People Facet of Governance

Using the *people* facet, we may highlight two structural changes that the legacy from the US colonial period has given us. These are as follows:

- a) The opening and further broadening of horizons for the Filipino masses. Mass education was a key strategic priority. The Americans decided to build a public-school system on a small base of schools that the Spaniards left behind. There were some 200,000 pupils in various parish-based schools put up during the last few decades of Spanish colonial rule (Estanislaw, 2020). The Americans expanded such a base considerably. The US public school system focused on the 3Rs which would qualify the masses to become eligible voters in democratic elections; and the industrial arts with which to supplement the subsistence income of the masses who were still living in *pueblos* and *barangays*, which were already above subsistence-levels but not yet very far above them. This system may have initially weighed heavily in favor of the primary grades, precisely to enable as many Filipinos as possible to read and write and thus also vote in elections (Karnow, 1989). Nonetheless, it was an open system. It led to intermediate grade school, high school, and college/university education (e.g., the University of the Philippines) provided by the public sector. It also soon gave rise to complementary initiatives from the non-government (i.e., private) sector, where in time, most high school and college education was made available to many more Filipinos. Such an educational infrastructure allowed for a gradual but eventually accelerated rise in the number of Filipinos, who would uproot themselves from their places of birth and origin, away from just-above subsistence economies and into the broader wider world, including eventual entry into the professions and other fields of economic endeavor. A genuine transformation was allowed to play itself out. From being deeply rooted in the *barrios* (the old *barangays*) and the *pueblos*, many more Filipinos over time were migrating into bigger more urbanized centers, where they could get a higher-level education, qualify for non-agricultural jobs, fight for entry into at least the low end of the middle class, or even migrate abroad. The wider transformative impact of mass education and the open educational superstructure may have to be assessed and

more properly evaluated by other scholars (Karnow, 1989). In our view, it has led the Filipino to being characterized generally as a wide-open person, readily adapting to a new environment, urban and even foreign, with proper personal hygiene and some skills, including the ability to understand and speak in English acquired from the more open educational system no matter how flawed, how weak, and how dismal it is often portrayed to be. In addition to this general image of the Filipino at this point is a mixture of a smiling person who is willing to sacrifice generously for the family and who genuinely tries to be easy and fun to deal with—traits that may have come from the earlier Spanish colonial period, with its Catholic culture. This has led to the frequent claim of Filipino politicians and some economists that the Filipino masses, with these general characteristics, are the great asset base of the Philippine economy. Indeed, the direct and immediate impact on economic growth as measured by GDP from mass education may have been limited over the short term, but over the much longer time horizon, the impact on broader development may have been enormous.

- b) Moreover, the US focus on involving the masses in the process of democratic elections led to increased participation in the electoral process. From less than 3% of the population voting on issues limited to local governance, to a much higher figure, which since 1907 included issues on national leadership and, therefore, on national governance (Estanislao, 2020). Having such a voice, the masses of Filipinos came to value. Due to extreme poverty and other pressures, many of them may sell their vote; nonetheless, they know they have such a voice. In every election under the US regime before World War II, they voted for candidates who at the national level stood for immediate and complete independence. The Filipino electorate consistently made their voice very clear on this fundamental issue. Moreover, the percentage of qualified voters actually casting their ballots on election-day remains impressively high to this day. Subsequently, despite the rise in the number of killings reported during each election campaign season, which would be more reflective of the higher level of tension between competing local candidates, Filipinos gradually came around to the understanding that

change through the ballot was a more effective and peaceful way than one through the barrel of a gun. Indeed, mass education has shaped the Filipino as a politically aware person who depending on their educational level would focus much of their conversation on politics, sometimes to an almost obsessive degree, especially at the level of national politics. Again, the impact of such political awareness on immediate economic growth may have to be more carefully assessed by other scholars. Our initial proposition is that it may have been limited. However, the much longer-term impact on development from the transformation of people who used to be focused only on local issues to one who is taken up by a discussion on national issues, no matter how seemingly superficial and pedestrian the level of such discussion may be⁸. This may well be a more open question.

Process Facet of Governance

Under the *process* facet, with the US focus on tutelage for Filipino self-government under a democracy, the following transformative changes may be highlighted:

- a) The relative lack of interest, on the part of the Filipino leadership class, to address social equity issues, which were becoming more serious especially with the further rapid growth of the commercial export sector. Such a growth was facilitated by the duty-free access of a few Philippine agricultural export products to the US market. On the outset, it must be noted that leadership at the local level on the part of the traditional local ruling elite was put to practical use by the US colonial administrators as much as by the previous Spanish colonizers. The concept of the ruling class had already been established since pre-Spanish times. They were then used by the Spaniards to continue to carry out the bulk of local administrative tasks in collecting the Spanish head tax and in organizing local labor under the Spanish labor service tax. They were somewhat similarly empowered early on during the US colonial regime. Since many of them quickly switched allegiance to the US flag, they were given the first

⁸ E.g. the People Power revolution many decades after the Americans had left may provide an important case study.

appointive positions available for Filipinos. And when local elections were subsequently held, even at the dawn of the US colonial era, they continued to be in a strong position to take advantage of the new elective offices that were open to electoral contest. While Taft may have decried their obvious lack of commitment to the common good, the local elite were smart enough to use the language and trappings of democracy to continue to entrench themselves in power. Under the US colonial regime, they saw no special reason to change from the traditional feudal culture that continued to prevail in local communities over which they continued to preside and govern. In that culture, what was fundamental was to deliver some public goods wangled from the national treasury; and for as long as they were seen to be doing that for their local constituencies, their hold on local political power remained close to unassailable. And for the majority of the ordinary citizens at the local level, the natural cultural tendency has been to depend on the good graces and occasional largesse granted them by their ruling elite. A culture of dependence upon those in positions of power for anything to happen in the local community continued to prevail. Very little of a more entrepreneurial culture, which was dominant in the local merchant class made up mainly of Chinese mestizos, was fostered among the ordinary masses. For their part, as the process of Filipinization of the colonial government in the Philippines accelerated, the ruling elite simply fought for as much of the economic pie they could get from the National Treasury, mainly to maintain their privileged lifestyle and accumulate as many economic resources as possible, with which to fight and win the next elections (Karnow, 1989). In general, they were focused on maximizing their economic and political status and showed little practical and operational interest in addressing social equity issues. However, these issues were coming to a boil although staying mostly under the surface of calm and traditional deference to the usual people who count in the local community. With economic growth, boosted by the exports of a few agricultural products, and more specifically sugar with duty-free access to the US market, came enormous wealth that befell upon a few exporters and the gap between the haves and have-nots particularly in a few regions of the country widened considerably.

Temporary workers hired for the harvest season continued to be paid low daily wages even as export earnings soared and the effective subsidy given to exporters benefiting from the high tariffs in the protected US market, from which Philippine exporters were exempt, became a windfall. Such rising social and economic disparity would on various occasions bring social equity issues above the surface. When they did, they would be brought to the policy agenda of the ruling elite. Unfortunately, their focus would soon pivot back to issues related to accelerating the further Filipinization of the colonial government and the fight for maintaining duty-free access of Philippine exports to the US. Under this light, the lack of operationally effective and sustained interest to face up to the issue of social equity has given our nation and our people a continuing challenge. A relevant question for longer-term development is: did the relative failure on the part of the local ruling elite to address this issue squarely even at a time of high economic growth weigh down our capacity to sustain growth and development over the longer term?

- b) Increased centralization of government decision-making in Manila. Early in the US colonial period, there was a clear determination to share 25% of national revenues collected by the national government for use of the local government, at both the municipal (10%) and provincial levels (15%). This would ensure that basic public education could be provided for at the *barangay* or *barrio* level, intermediate-level education at the municipal level, and secondary education at high schools set up in the provincial capital. That was the theory. It allowed a reasonable degree of autonomy for local government units (a principle already observed during the Spanish colonial period). In practice, however, the sharing of local government units was much higher at about 60%, mainly due to the expenses associated with having to provide for mass education. However, as the central colonial administration (eventually our national government) became increasingly Filipinized, strong pressure built up for the national government to effectively get an increasing share of the national budget. When a fiscal crisis developed, the share of the local government units was pegged at the absolute amount they were already receiving. This meant, moving forward, that the national

government would obtain an ever-increasing share of national public expenditure. This led to increasing centralization and also over-bureaucratization of the central government in Manila. And this led to a much higher importance the representatives of local Congressional districts in the National Assembly (and later on, also in the Philippine Senate) gave to their ability to come home with the bacon, i.e., enter into horse-trading with the national (Filipino) leadership to obtain projects and other programs funded by the national government. The increasing over-centralization of the Philippine government from 1908 onwards and the absolute need on the part of the local ruling elite through their representation in the National Assembly (later named the House of Representatives or Lower House), and also in the Senate (or the Upper House of what would eventually be the Philippine Congress) to horse trade with the national leadership that had emerged, became a definitive feature of the Philippine political scene. For pragmatic reasons, this feature, not unique to the Philippines, started to take shape under American Governor-Generals who wanted to have the flexibility to pursue public works and absolute control of the budget release process. It was pushed to a much higher level by Filipino national leaders with the increased Filipinization of the colonial administration (Golay, 1997). The transformation from a much higher level of local autonomy during the Spanish colonial era and the early American colonial regime to one of increased centralization of power and control of budget resources in Manila—did this have a negative impact on economic growth, both in the short run and more decidedly over our longer-term development?

Constituency Facet of Governance

Under the *constituency* facet, we have chosen to highlight these two changes in the manner in which the common good of all the people was to be promoted and achieved.

- a) Under a democracy, people get elected into public office and the discharge of their public duties would generally be limited through a system of checks and balances and eventually assessed by the electorate at the next election. There was nothing under the democratic rules of the game which the Americans taught

that would prevent individuals from being re-elected through an established party system for various terms, until term limits were imposed, which came much later after the Americans had left. First, Osmeña and then Quezon mastered the political craft with proper and due observance of democratic rules. Thus, under the trappings of democracy, they won every election under the US colonial period until World War II through the Nacionalista Party. They were in power since 1908 when the first National Assembly was formed, and the first Assemblymen were elected into it. However, it was Quezon who mastered the craft better than anyone else. To the surprise of his American tutors, he managed to establish a virtual one-man rule over time, with practically all the levers of political control and power concentrated in his hands. Through a personality-centered political gamesmanship, Quezon with his charisma and an almost infinite capacity to engage in political power-play, managed to keep in rapt attention and win the admiration of the public gallery. He managed to become the dominant Filipino national leader, after he dislodged Osmeña from the highest Filipino position under the US colonial regime (Karnow, 1989). Indeed, he had no equal, and would not entertain the possibility of having one. As a naturally gifted grand master of the political lobby game he had witnessed first-hand in the US Congress as a Philippine Resident Commissioner, he used his multifaceted talents to entrench himself as the unquestioned national leader and accumulate ever-more power in his hands. He was a true nationalist: deep at heart, he was for the Filipino. But he had his own flaws which left an imprint on the political culture of the Philippines. He could shift public positions easily. He could fight against political allies so they would not get the benefit of success in dealing with the US Congress and the President of the US. He wanted that honor and along with it the public attention and adulation for himself. He was not above persuading the Philippine Congress to disapprove a law passed by the US Congress for the establishment of the Philippine Commonwealth with a fixed timetable for the recognition of our independence, successfully negotiated by Osmeña and Roxas, only to have a substitute bill and law passed by the same Congress. The bill may have been an almost exact carbon copy of what Osmeña and Roxas had labored to obtain from the US,

but this time the new law was associated with his formidable negotiating prowess. He adroitly and successfully bulldozed his version through. He was also not above suggesting a dominion status under the British flag within the British Commonwealth, while at the same time insisting on immediate and complete independence for the Philippines from the US (Glecek, 1984). Neither was he above campaigning for an extension of his term as President of the Philippine Commonwealth which was expiring, admittedly at the height of World War II, because he did not want his Vice-President, Osmeña, to take on the title which he wanted to cling to up to his death (Golay, 1997). Without any doubt, Quezon was a formidable politician and an invincible political operative whom no opponent could ever put down. He provided a role model for many aspiring political leaders of the Philippines in succeeding decades. It is often argued that putting to good use for the common good and the general welfare of Filipinos, such a tendency toward one-person dictatorial rule would have been a boon for the Philippine economic growth. In future decades, the Quezon model of national leadership, with no effective checks and balances and with a penchant for holding on to power indefinitely, would continue to be idealized as most effective for its potential in promoting the common good and accelerating the general welfare of the people. Nevertheless, such concentration of powers may also be deployed more for personal aggrandizement and, in this regard, it can be argued that it cuts both ways: it may either be a temporary boon for the short-term but a longer-term bane for economic growth and social development. Filipinos may still be debating this issue from time to time, but the democracy learned under US tutelage, put into practice under local Philippine conditions by Quezon, the master politician, has left a deep socio-political and cultural imprint on our nation and on our people.

- b) There was a tendency to present a statist (and strictly political) answer to almost any problem of consequence in the country. Nothing illustrates the Quezon legacy more clearly than the use of the excise taxes that the US government had been collecting on Philippine exports of copra for processing in the US into

coconut oil. The US courts had ruled that those excise taxes properly belonged to the Commonwealth government of the Philippines and not to the US government. Over the years, the amount collected would come as a windfall for the fiscal position of the Philippine Commonwealth except that the US Congress had passed a law that the amount should be spent for social equity and the preparation of the Philippine economy for the eventual independence of the country (Golay, 1997). Quezon chose to read this law as a license for Philippine industrialization. This was his preferred reading of what it meant to prepare the Philippines economically as an independent State. But the actual fine print of such an interpretation soon became clear: Quezon chose to invest huge amounts on putting up or bailing out government-owned and controlled corporations (GOCCs), over which he and Osmeña would have total control and oversight. For the most part, these GOCCs were mainly white elephants, used mainly for political patronage (Golay, 1997). This started a trend in Philippine political thinking that a statist solution was the natural answer to any developmental problem, and throwing more money after bad debts (i.e., propping up and recapitalizing GOCCs that had been failing economically) was the most appropriate instrument of long-term industrial policy. This seed was planted during the time of Quezon and Osmeña and it has yet to be more fully uprooted from Philippine political preferences. Absent the lack of impetus for private investment⁹ and absent any deep commitment for public investments with long-term and sustainable economic impact—such as roads, bridges, dams, and irrigation projects, actively promoted by the early American Governors-General—the Philippines, with increased Filipinization, was seriously under-investing for its future growth. Moreover, whatever extra resources it had for investing in projects with significant long-term growth potential, Filipino national leaders under Quezon were not above squandering public resources in GOCCs and other political patronage projects (Golay, 1997). Such a legacy, which continues to have some influence even up to today, needs to be thoroughly

⁹ This is due to fears that US business would become a lobby group against eventual Philippine independence.

assessed and marked down: how much of a drag has this been on Philippine economic growth and on much longer-term development?

Finance Facet of Governance

Under the *finance* facet, with broad ramifications on the *socio-economic facet*, we put forward the following: the failure to connect political independence with economic independence. From the start of the US colonial period, it was clear to all – Americans and Filipinos alike – that there was to be an end-date for the US flag to fly over Philippine skies. For Americans, this meant, among other things, that private US investments were not to be encouraged. Thus, the size limits on lands that Americans, both as individuals and as corporations, could purchase and own in the Philippines. For Filipinos, this meant the relative absence of any future US business lobby that would work against eventual Philippine independence in order to protect the investments they had made in the Philippines. There was thus a coincidence of thinking on private US investments in the country which were not favored and officially not encouraged. In the meanwhile, something had to be done to provide an alternative plank for growth of the Philippine economy and the most convenient answer, pushed by Taft, was duty-free access of a number of Philippine agricultural products into the US market with parity rights for Americans, i.e., also duty-free access of US manufactured exports into the Philippines. Considerable time and energy were spent negotiating the terms of tariff-free access to the US market. For all practical purposes, free trade became the trading regime although, in theory, quotas and limits were set on the amount of such products that could enter duty-free to the US (Dolan, 1993). In fact, such quotas and limits were set so high in relation to whatever volume the Philippines could export to the US that they were inoperative. The immediate impact on growth was phenomenal. But it had three negative longer-run consequences, which few Filipino politicians were willing to confront directly and admit openly:

- a) the social equity issue: the privilege given to Philippine exports amounted to a huge subsidy favoring Philippine exporters, thereby giving enormous profits and wealth to them, and widening the gap between rich (relatively few) and poor (the vast majority of Filipinos) in the Philippines;
- b) the growth of a domestic manufacturing sector, which could compete against the tariff-free imports of US consumer goods into the

Philippine market and suffered a delay for decades, stunting the process of industrialization of the economy; and

- c) the almost total dependence of the Philippines exports and of the Philippines economy on such privileged access to the US market.

Thus, even as Filipino politicians became ever more adept at playing the game of getting Philippine political independence to be recognized by the US and the global community, they turned an almost blind eye on the almost total dependence of the Philippine economy on the US. Focused on accelerating the grant of political independence, they hardly did anything substantive to have both political and economic independence more aligned with each other (Golay, 1997). The growth of the commercial agricultural export sector had started during the last few decades of the Spanish colonial regime, but the import and export patterns during the last half of the 19th century were much more diversified than under the US colonial period. The transformation was on this key point: the almost total dependence of the Philippine economy on the United States, even as it gradually weaned itself out of direct US political control. The impact on economic growth in the short-term was far from inconsequential, but an assessment from other scholars on the much longer-term impact on our development may have to be more carefully undertaken (Estanislao, 2020).

Socio-Political Impact Facet of Governance

Finally, under the much broader *socio-political impact*, we have one critical legacy that until now continues to pose a significant challenge: national security, which at the end of the US colonial regime became totally dependent on the US. Unlike Spain, whose colonial strategy in the Philippines was anchored on its own defense strategy in the Far East in order to secure its American colonies, the US only a few years after taking colonial possession of the Philippines decided that the Philippines was indefensible and that the security perimeter for the US mainland should be brought closer to home, i.e., Hawaii, Panama, and Alaska. A US garrison had to be maintained and provisioned in Manila, but security planners of the US had decided on withdrawal from the Philippines as a better alternative to putting a massive, and very expensive, defense shield in order to keep the islands (Golay, 1997). In other words, the Philippines was expendable. Even Roosevelt, who as the Undersecretary of the Navy was instrumental in getting Dewey out to Manila Bay to destroy the Spanish fleet, when he became President, judged that we would be an Achilles' heel for the

US military position in the Far East (Golay, 1997; and Brands, 1992; and Karnow, 1989). This meant that Manila, or more specifically Corregidor, was never meant to be effectively defended: it would have cost the US such an enormous amount of their defense budget that overall security of the Philippines never was in the cards. When finally, Quezon as Commonwealth President hired Gen. Douglas MacArthur as Commonwealth Defense Adviser, whatever MacArthur could come up with was more cosmetic rather than substantive—long on promise and short on performance (Golay, 1997). The sneak Japanese attack on Pearl Harbor and the inexplicable delay in the redeployment of US air and naval assets in the Philippines on December 8, 1941 revealed with great clarity the lack of national security and defense capability of the Philippines as a US colonial possession. National security would eventually be a pawn in the post-World War II era, but while the Philippines remained as a US colony, external national security was far from being a major strategic priority of US colonial rule. Neither was domestic internal security of major concern to the US colonial leadership and to the Filipino national leaders, who were increasingly taking on the reins of authority and administrative power. After the war of pacification was won, Mindanao and in particular the Muslim Filipinos' vaunted ability to keep American forces engaged remained as a major asterisk in US colonial administration of our islands (Dolan, 1993). Alas, other strategic issues took much of their attention. After a Filipino local leadership took shape and gradually assumed a stronger influence over our national affairs, as noted, social equity issues – generally regarded as influential factors affecting internal national security – were not given the critical importance they deserved. Like the American colonial administrators, they too focused on other concerns, such as the battle for increased Filipinization. Thus, on both the external and internal security front, the US colony that gained independence in 1946 was handed a critical national security challenge, which remains up to the present. Up to what extent has the relative absence of focus on national security hindered long-term economic growth and the even longer-term development of the Philippines?

Transformative Changes during the US Colonial Period

In summary, by using a governance prism through which to view US colonial rule, we have chosen to highlight these eight transformative changes, delivered by the pursuit of strategic priorities that the American colonial authorities had chosen to include in their Transformation Roadmap for the Philippine colony under their governance.

- a) The opening and further broadening of the horizons for the Filipino masses through the open educational system made accessible to them.
- b) Shift in focus of popular political discussion, previously limited to local governance issues, now expanded to national leadership personalities, and with occasional reference to national governance issues.
- c) Relative lack of interest on social equity issues on the part of the traditional ruling elite, as they riveted most of their attention and interest on increased Filipinization, assumption of ever-greater authority and discretion, and on the growth of agricultural exports with duty-free access to the US market.
- d) Increased centralization of government decision-making in Manila, which also meant increased bureaucratization.
- e) A model of national leadership, personified by Quezon, with no effective checks and balances, with a penchant for concentrating power in one person, and for holding on to it indefinitely.
- f) A statist and strictly political answer to almost any problem of consequence, as shown in the rise of GOCCs.
- g) Failure to connect and align political independence with economic independence, and more generally political autonomy with economic strength and sustainability.
- h) Relative failure to address internal and external national security issues.

It is possible to expand or shorten the above list of eight *transformative changes*. On the surface, they look distinctly different from the traditional structural changes that economists present, when they view long-term economic growth. The economists' emphasis is on per person real income; the relative distribution of GDP among its three major sectors of agriculture, industry, and services; and shifts in relative importance of the economic components within each major sector. Such an emphasis would point to the structural changes that often are associated with economic development, i.e., the fall of the share of agriculture and the relative rise in the share of industry. The data for the Philippines, as revealed by the GDP series of Prof. Hooley, do indicate a number of structural changes that came along with long-term

economic growth, but one would have to keep disaggregating to bring out and highlight those structural changes.

The eight transformative changes on the other hand, highlighted by viewing the US colonial period in the Philippines through the governance prism, present a slightly different but hopefully complementary picture. Economic growth as such is not emphasized. Rather, what is underscored is the impact on the broader economic, social, political environment, as our people continued to move forward toward becoming one Filipino people, and as our nation continued to develop and progress as one nation-state. Indeed, some of these transformative changes may have favored economic growth directly over the short-run, e.g., duty-free access to the US market, but may have hindered longer-term growth and development.

Concluding Comment

The NI indicators, constructed for the Spanish colonial era, point to a very long sub-period, i.e., before the British occupation of Manila, of relative economic stagnation. Nonetheless, important transformative changes, e.g., increased monetization, growing importance of markets replacing barter, the organization of *pueblos*, the rise of the local merchant class, etc.) were taking place that would have positive and significant long-term economic growth and development consequences.

The real GDP series that Prof. Hooley (2005) constructed for the Philippine economy shows that during the entire US colonial period long-term growth was sustained. However, a closer look at the component sectoral growth rates of GDP may lead to the proposition that it was a case of long-term economic growth without the expected structural changes, big and sustained enough, that are generally associated with long-term economic development.

Indeed, by taking an alternative approach, using a governance prism to look at the two colonial periods in our history would lead to a more open proposition: it may be possible to have very little or virtually no economic growth in the short-run, e.g., the Manila-Acapulco Galleon trade, and yet have transformative changes that over the long-term would still contribute to longer-term national development. On the other hand, it is possible to have transformative changes, e.g., the rise of the agricultural export sector propelled by duty-free access, that would have immediate positive impact on economic growth, but at a much later or subsequent period, the much longer-term impact

on social equity and almost exclusive dependence on a single market (the US economy) would prove to be a deadweight on sustained economic development. This more open proposition may have to be debated and further assessed by other scholars, but it is a perspective gleaned from taking a very long-term view of economic growth through a governance prism.

TECHNICAL NOTES

Technical Note 1 for the Spanish Colonial Period

Prof. Hooley has done us a great favor by going through the statistical data for the US colonial period of our history. He has then come up with estimates of GDP, and he has presented them, in constant prices, from 1903 up to 1946, which then continues under NCSO auspices up to the latest year. We have adopted his 1903 GDP estimate which comes to PHP121.704MM in constant 1974 prices.

We wanted to connect his 1903 GDP estimate with our NI Indicator for the last year of the Spanish colonial period. In order to do so, we used the framework in coming up with our NI indicator series. This relied on three important variables: a) population (as a proxy) for subsistence consumption (SC); b) external trade (X); and c) government spending (G). The last two we used as proxies for what we called add-on (AO) incomes, which are added on to SC to arrive at an NI indicator. Fortunately, for these three variables, the American colonial statistical system had estimates for 1898.

In effect, we projected from our national indicator for 1898, by using the three key variables, up to 1903. We thus were able to come up with an NI indicator for 1903. This, we equated with Prof. Hooley's GDP estimate for 1903, listed at PHP121.704MM. By simply using the bridge that we constructed to be able to connect 1898 and 1903, we could get to an estimate of GDP for 1898, which is fully consistent with Prof. Hooley's PHP121.704MM for 1903. That came to PHP93.090MM in 1898. This means that from the end of the Spanish colonial period up to 1903 there was a 30.7% jump in our GDP. This is suggested by the rise in population, the significant increase in government spending, presumably because of the PH-US war and a significant increase in external trade. This is a significant jump five years after the US imposed its colonial rule in the Philippines. We leave it to future researchers to come up with better and more credible estimates.

With the NI indicator for 1898 connected with Prof. Hooley's GDP series for the US colonial period, we now look back at our own 1898 NI indicator series for the Spanish colonial period from 1600 to 1898. This enabled us to review the component indicators series, which when properly weighted, we used as an estimate of what we refer to as an AO income.

Our basic series for all three components, with an index constructed using a base year, which averages the estimates for the decades 1740-1760, needed no

further treatment. We followed the division of the Spanish colonial period into an earlier sub-period (1565-1760) and a later sub-period (1770-1898) in *Governance in the Philippines: Spanish Colonial Rule, 1565-1898*. For easy reference, the table below shows the three indexes we used:

Year	SC	G	X
1600	84.9	14.7	25.9
1610	88.5	110.6	65.5
1620	92.0	181.2	141.7
1740	98.3	100.74	84.3
1750	99.8	91.86	98.2
1760	100.1	107.40	117.5
1880	386.1	2535.5	504.6
1890	414.3	3200.9	665.2
1898	459.3	4373.4	734.2

Source: Estanislao, J. (2018). *Governance in the Philippines: Spanish Colonial Rule, 1565-1898*. Manila: Institute for Solidarity in Asia.

In order to arrive at an eventual NI indicator, we had to combine the series on G and X to have a combined weighted index for AO income. This AO series would then be combined with SC to arrive at an indicator series (as a proxy) for NI.

- a) The weights we used for combining G and X to arrive at a combined weighted index for AO income were the following, depending on the time period referred to:
 - (i) 88%-12% for G and X respectively, for the long earlier period, 1600 to 1760;
 - (ii) Then, 85%-15%, respectively, from 1770 to 1820, which would better reflect the initial push given to agricultural commercial exports;
 - (iii) 50%-50%, from 1820-1850; and,
 - (iv) 20%-80% during the last almost-half-century in 1850-1898, to reflect the much greater importance of external trade.
- b) On the other hand, the weights we used for combining the SC series and the AO series for the period 1600 to 1760 could stay at 88% and 12% respectively. This reflected the policy-restrained Manila-Acapulco trade, which was never considered as a growth-boosting factor for the economy, and the relative neglect of the

Philippines from Spanish imperial authorities, except when Spain's imperial position in the Far East was subjected to a higher-level threat.

- c) For the subsequent period, 1770 to 1898, we used the weights 80%-20% instead to better reflect the enhanced attention to both government spending and then also to external trade during this later sub-period.

We did one minor adjustment to the resulting combined index, which would be the NI indicator for 1898. It stood out as abnormally high. Thus, we used the average for the last three decades. This average still turns out to be slightly higher than the decade indicator for 1890 (572.5 for 1898 against 565.9 for 1890). We made this judgment call since the small increase for 1898 (relative to the NI indicator for 1890) would be more reflective of the already unsettled conditions within the economy during this last decade: government spending and external trade may have continued to grow at a fast rate until the very end of Spanish colonial rule. But the rather sustained revolts against the Spanish regime during the last decade would have had a slowing down effect on the economy.

We then simply allowed the numbers to churn themselves out, and in the end, we had:

- a) An estimate for GDP for 1898, placed at PHP93.090MM, which is fully consistent with Prof. Hooley's series, which starts with 1903.
- b) We made critical choices with the weights used in combining the various series into the NI indicator series, as presented above. Given the choices we made, our indicator series would give us an NI estimate of PHP16.253MM, as an average for the base period, 1740-1760. This means that from this low base just before the British occupation of Manila, the economy of the Philippines grew by 5.7 times by 1898. The big push came from (i) SC, which grew by 4.4 times from 1740-1760 as base to 1898; (ii) G, 8.8 times; and (iii) X, 7.3 times.
- c) This is in stark contrast with the earlier period, 1600 to 1760: (i) SC grew by 1.2 times; (ii) G showed erratic but no upward movement on the average; (iii) X, as reflected by the Manila-

Acapulco trade went up by only 50% all throughout this long period.

A final bonus result is that for 1600, we have a result less subject to guess-estimates. In our original estimate, based on several heroic assumptions, we came up with an initial estimate of the GDP of the Philippines of PHP13.620MM. This has turned out to be an overestimate. The latest results we get, based on what has been described earlier, is PHP12.466MM for 1600. This looks reasonable since the SC estimated for 1600 comes up to PHP12.000MM (SC from an estimated 1.2 million inhabitants of our islands). At the start of the Spanish colonial period, when the galleon trade was just being initiated and with the limited government spending in our islands, this latest estimate of the GDP of the Philippines for 1600, placed at PHP12.466MM looks a bit more solid. It connects well with the subsistence income of PHP12.000MM for 1600, and it shows the minor positive difference that government spending and the initial Manila-Galleon trade added on to the subsistence income in our economy. Most of the income in the subsistence economies in our islands, up to 96%, came from subsistence income, i.e. very high, but not unreasonable.

Finally, this new NI estimate for 1600 would still be fully consistent with the estimate of NI for 1565 of PHP10.000MM, which assumed that virtually all the income in the various *barangays* in the Philippines came from subsistence income. During the first three years, when the Spaniards were settling in, NI is estimated to grow by only 3.9% for the entire period which may be reflective of the low population increase, as both Filipinos and Spaniards had to make some painful adjustments at least in a number places in our island archipelago.

It must be pointed out that the NI indicator series presented is supposed to be in real terms. The justifications for this are the following: a) it is heavily weighted by the population estimate which stands as a proxy for SC; this is not subject to any price movement; b) the two components of AO income must have been subjected to inflationary episodes, especially toward the last decades of Spanish rule. However, we could not find any price series, and, therefore, no way to distinguish between nominal and real NI. For now, we simply note that the weights of AO relative to SC in the NI indicators were relatively small—88% for SC and 12% for AO for the earlier period. The corresponding weights for the latter period are 80% for SC% and 20% for AO. Thus, this is an admitted weakness of these indicators—we hope not too serious and fatal—

given the above weights. Nonetheless, we encourage other scholars to address it in the future.

The final indicator series, as a proxy for NI, is presented below in tabular form. The original calculations were described in the Technical Appendix of the volume, *Governance in the Philippines: Spanish Colonial Rule, 1565-1898*. The Notes above represent the minor adjustments we had to make to connect the NI indicator series for the Spanish colonial period with Prof. Hooley's GDP series for the US colonial period.

Year	National Income (in Million Pesos)
1565	12.000*
1600	12.466
1610	14.708
1620	16.594
1630	14.985
1640	14.237
1650	11.377
1660	12.759
1670	12.921
1680	14,221
1690	14.351
1700	13.847
1710	16.253
1720	14.985
1730	15.115
1740	16.107
1750	15.863
1760	16.318
1770	17.309
1780	18.626
1790	17.927
1800	19.129
1810	20.104
1820	27.971
1830	36.716
1840	43.737
1850	57.763

1860	62.802
1870	68.556
1880	79.802
1890	91.892
1898	93.090**

Source: Estanislao, J. (2018). *Governance in the Philippines: Spanish Colonial Rule, 1565-1898*. Manila: Institute for Solidarity in Asia. Note: Some adjustments are based on the authors's calculations. *As originally calculated, based on subsistence income. **As freely adjusted.

Technical Note 2 for the American Colonial Period

As noted in the main text, for the US colonial period, we used the GDP data series, calculated by Prof. Hooley. This series has an advantage in that it is fully consistent with the GDP data for the Philippines from 1946 onwards, as calculated and presented by the NCSO. Before going any further, we wanted to check if our NI indicators, used for the entire Spanish colonial period, would somehow track the movement of real GDP, as calculated by Prof. Hooley for the US colonial period.

Since the series on population, government spending, and external trade were more easily available for the period 1903-1946, we simply applied the same framework that we had used in coming up with an NI indicator series for the Spanish colonial period, but this time to the US colonial period. In working with the US data, we chose the average for the years 1920-1922 as the common base for the indexes that we worked with.

The weight distribution we used for combining X, and G in order to come up with our AO component of NI is as follows:

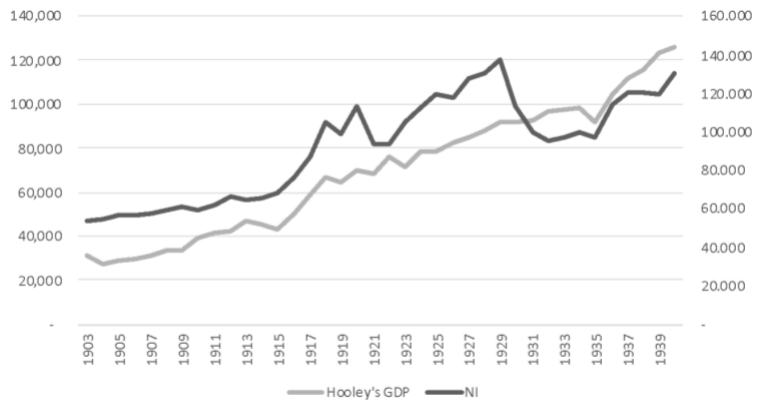
- (i) 1903-1909, 80% for X and 20% for G;
- (ii) 1910-1929, 85% for X and 15% for G;
- (iii) 1930-1935, 60% for X and 40% for G;
- (iv) 1936-1940, 30% for X, and 70% for G.

Once we obtained a combined weighted index of X and G to come up with an AO income series, we then used our indicator for SC and applied the following weights to combine AO and SC to arrive at an NI indicator:

- (i) 1903-1909, 60% for SC and 40% for AO;
- (ii) 1910-1929, 50% for SC and 50% for AO;

- (iii) 1930-1935, 40% for SC and 60% for AO;
- (iv) 1936-1940, 50% for SC and 50% for AO.

We must highlight and underscore the judgment call we had to make in choosing these weights. However, after plotting the results for NI indicators, as hypothetical indicators for the later US period, we found that they track reasonably well the movement of GDP as calculated by Prof. Hooley. This gave us some degree of confidence that they may have tracked the movement of real GDP during the Spanish colonial period as well, had there been the same amount of quantitative information, similar to what Prof. Hooley had access to for the US colonial period. Nonetheless, we leave this undertaking for other scholars who may eventually have the same data for the Spanish colonial period and have similar access to them just as Prof. Hooley had for the US colonial period.



Source of Raw Data: (for GDP) Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488. NI Values were calculated by the authors.

For easy reference, we used Hooley's annual data of GDP, and worked with three-year averages for various years from 1902 to 1938.

Year	Real GDP (in Million 1985 Pesos)
1902-1904	28,047.67
1905-1907	30,057.00
1908-1910	35,423.67
1911-1913	43,509.67
1914-1916	46,359.33
1917-1919	63,242.33
1920-1922	71,302.67
1923-1925	76,137.33
1926-1928	85,099.00
1929-1931	92,051.67
1932-1934	97,592.00
1935-1937	102,731.33
1938-1940	121,754.33

Source of Raw Data: Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488.

We looked more closely at the distribution of NI (GDP) among the three traditional major categories of agriculture, industry and services. For easy reference, we note them down.

Year	Agriculture	Industry	Service
1902-1904	38.45%	13.15%	48.41%
1905-1907	40.40%	13.94%	45.66%
1908-1910	39.81%	13.73%	46.46%
1911-1913	36.30%	16.19%	47.51%
1914-1916	39.70%	14.79%	45.51%
1917-1919	36.43%	16.36%	47.21%
1920-1922	37.39%	20.50%	42.11%
1923-1925	38.56%	18.92%	42.51%
1926-1928	39.16%	18.24%	42.60%
1929-1931	39.30%	20.03%	40.67%
1932-1934	41.22%	23.60%	35.18%
1935-1937	40.19%	20.51%	39.31%
1938-1940	37.72%	20.17%	42.11%

Source of Raw Data: Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488.

The distribution of Agriculture among its major sectoral components is as listed below.

Year	Crops and Livestock	Fishing and Forestry
1902-1904	82.59%	17.41%
1905-1907	83.41%	16.59%
1908-1910	84.69%	15.31%
1911-1913	84.44%	15.56%
1914-1916	85.42%	14.58%
1917-1919	87.39%	12.61%
1920-1922	87.46%	12.54%
1923-1925	87.39%	12.61%
1926-1928	87.33%	12.67%
1929-1931	86.46%	13.54%
1932-1934	84.67%	15.33%
1935-1937	82.41%	17.59%
1938-1940	82.94%	17.06%

Source of Raw Data: Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488.

The distribution of Industry among its major sectoral components is as listed below.

Year	Mines	Manufacturing	Construction	Gas and Water
1902-1904	0.19%	88.04%	9.93%	1.84%
1905-1907	0.17%	82.87%	12.61%	4.36%
1908-1910	1.23%	85.56%	6.70%	6.51%
1911-1913	1.33%	81.89%	10.79%	5.99%
1914-1916	2.03%	77.24%	13.37%	7.36%
1917-1919	1.38%	86.60%	6.53%	5.49%
1920-1922	0.92%	74.91%	19.79%	4.37%
1923-1925	1.30%	82.78%	11.00%	4.92%
1926-1928	2.00%	79.27%	13.22%	5.51%
1929-1931	2.20%	77.82%	14.11%	5.87%
1932-1934	2.92%	77.48%	14.52%	5.08%
1935-1937	4.61%	82.64%	6.92%	5.82%
1938-1940	6.40%	76.79%	10.45%	6.36%

Source of Raw Data: Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488.

Finally, the distribution of Services among its major sectoral components: Communication and Storage (C&S), Trade (X), Finance (F), Owner-occupied Dwellings (OD), Private Service (PS), and Government Service (GS) is as listed below.

Year	C&S	X	F	OD	PS	GS
1902-1904	1.25%	65.02%	1.67%	5.86%	18.68%	7.52%
1905-1907	1.86%	62.11%	1.62%	6.91%	19.80%	7.70%
1908-1910	2.43%	62.13%	1.45%	6.59%	19.30%	8.11%
1911-1913	4.22%	63.36%	1.25%	5.79%	17.53%	7.85%
1914-1916	5.99%	57.50%	1.27%	6.71%	19.56%	8.96%
1917-1919	4.81%	63.36%	1.67%	5.19%	16.63%	8.34%
1920-1922	4.93%	60.80%	1.44%	5.62%	18.20%	9.02%
1923-1925	4.44%	61.00%	1.54%	6.74%	17.97%	8.31%
1926-1928	4.39%	62.09%	1.67%	6.89%	17.25%	7.70%
1929-1931	5.60%	58.43%	1.89%	7.91%	18.30%	7.88%
1932-1934	6.67%	49.19%	3.00%	10.55%	21.68%	8.92%
1935-1937	6.84%	52.18%	2.80%	9.77%	20.21%	8.20%
1938-1940	8.51%	55.45%	2.42%	8.23%	17.93%	7.46%

Source of Raw Data: Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. Journal of Asian Economics, Elsevier, vol. 16(3), pages 464-488.

All the above data are from the GDP series constructed by Prof. Hooley for the US colonial period. Full intellectual debt to him is acknowledged.

References

- Álvarez, L. (2009). *El costo del imperio asiático: la formación colonial de las islas Filipinas bajo el dominio español, 1565-1800*. Universidade da Coruña.
- Brands, H. (1992). *Bound to Empire: The United States and the Philippines*. New York: Oxford University Press.
- Cabrero, L. (2000). *Historia General de Filipinas*. Madrid: Ediciones de Cultura Hispanica.
- Corpuz, O. (1997). *An Economic History of the Philippines*. Quezon City: University of the Philippines Press.
- Cushner, N. (1971). *Spain in the Philippines, from conquest to revolution*. Quezon City: Ateneo de Manila University Press.
- De Jesus, E. (1980). *The Tobacco Monopoly in the Philippines: Bureaucratic Enterprise and Social Change 1766-1830*. Manila: Ateneo de Manila University Press.
- Dolan, R. (1993). *Philippines: A Country Study*. Washington: Federal Research Division, Library of Congress.
- Dumol, P. and Camposano, C. (2018). *The Nation as Project: A New Reading of Rizal's Life and Works*. Vibal Group.
- Elizalde, M. (2003). *Las Relaciones Entre España y Filipinas, siglos XVI - XX*. Madrid: Consejo Superior de Investigaciones Científicas.
- Estanislao, J. (2018). *Governance in the Philippines: Spanish Colonial Rule, 1565-1898*. Manila: Institute for Solidarity in Asia.
- Estanislao, J. (2020). *Governance of the Philippines: The US Colonial Period, 1898-1946*. Manila: Institute for Solidarity in Asia.
- Fradera, J. (1999). *Filipinas, la colonia más peculiar: la hacienda pública en la definición de la política colonial, 1762-1868*. Madrid: Consejo Superior de Investifaciones Científicas.
- Fradera, J. (2005). *Colonias para despues de un Imperio*. Barcelona: Ediciones Bellaterra.

- Gleeck, L. (1984). *General History of the PH, Part V, Vol. 1. The American Half-Century (1898-1946)*. Manila: Historical Conservation Society.
- Golay, F. (1997). *Face of Empire: United States-Philippine Relations, 1898-1946*. Manila: Ateneo de Manila University Press.
- Hooley, R. (2005). *American economic policy in the Philippines, 1902-1940: Exploring a dark age in colonial statistics*. *Journal of Asian Economics*, Elsevier, vol. 16(3), pages 464-488.
- Inmaculada, A. (2000). *La Centuria Desconocida: el Siglo XVII*. Madrid: Ediciones de Cultura Hispanica.
- Karnow, S. (1989). *In Our Image: America's Empire in the Philippines*. New York.
- Phelan, J. (1959). *The Hispanization of the Philippines: Spanish Aims and Filipino Responses, 1565-1700*. Madison: University of Wisconsin Press.