get started on this road. When better starting information becomes available one will be in a position to do a more serious and qualitative extrapolation into the asymptotic region than is now possible.

Given the approximations of Eqns.(25) and (26), which are reasonably good, and given the input structure functions, which are perhaps only illustrative, one can now work out the structure functions for all $q^2 > q_o^2$ on the basis of Eqns.(22) and (23). This has to be done numerically, and a number of technical comments are assembled in the Appendix. The qualitative behavior of the structure functions at large $q^2$ can be inferred rather directly from the properties of the exponent functions, as has already been discussed in the literature. Consider $F_2(x,q^2)$, for example, where for convenience we now work with the variable $x = \omega^{-1}$ in place of $\omega$. Since $a_o(2)=0$ it is obvious that $\int_0^1 F_2\, dx$, the area under the $F_2$ curve, must become independent of $q^2$ in the large $q^2$ region. However, the shape of the curve changes with changing $q^2$. The behavior near threshold,[15] i.e., near $x = 1$, is clearly governed by the large n properties of the exponent function. Since $a_n(2)$ grows, logarithmically, with n, it follows for increasing $q^2$ that $F_2$ should vanish increasingly rapidly as $x \to 1$. On the other hand, the behavior as $x \to 0$ is governed by the pole that $a_n(2)$ develops at n=-1. At large $q^2$, this leads to an unbounded growth[12,16] as $x \to 0$, proportional to $\exp\left\{2\left[a \log\lambda \log x^{-1}\right]^{1/2}\right\}$, where a is a constant and $\lambda$ is proportional to $\log q^2$. The rate of growth as $x \to 0$ increases with increasing $q^2$. It is obvious that these properties of $F_2$ are all shared also by the structure function $F_3$.